

**INSTITUTIONAL ACCREDITATION
(FIRST CYCLE)
SELF STUDY REPORT**

Submitted To



**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
(NAAC)**

An Autonomous Institution of the University Grants Commission

**P.O. Box No. 1075, Nagarbhavi
Bangalore-560072**

By



MCKV INSTITUTE OF ENGINEERING

(Approved by AICTE, New Delhi and Affiliated to Moulana Abul Kalam Azad University of Technology)

243 G. T. Road (N), Liluah, Howrah 711204, West Bengal

Website: www.mckvie.edu.in • Phone No. : +91 33 26549315/ 17 • Fax No.: +91 33 26549318

CONTENTS

	Page No.
A. COVER LETTER	2
B. PREFACE	3
C. EXECUTIVE SUMMARY AND SWOC ANALYSIS	7
D. PROFILE OF THE INSTITUTION	17
E. CRITERIA-WISE INPUTS	
I. CURRICULAR ASPECTS	29
II. TEACHING- LEARNING & EVALUATION	42
III. RESEARCH, CONSULTANCY AND EXTENSION	81
IV. INFRASTRUCTURE AND LEARNING RESOURCES	124
V. STUDENT SUPPORT AND PROGRESSION	148
VI. GOVERNANCE, LEADERSHIP AND MANAGEMENT	172
VII. INNOVATION AND BEST PRACTICES	197
F. EVALUATIVE REPORT OF THE DEPARTMENTS	
I. AUTOMOBILE ENGINEERING	203
II. BASIC SCIENCE, HUMANITIES AND SOCIAL SCIENCES	235
III. COMPUTER SCIENCE AND ENGINEERING	253
IV. ELECTRONICS AND COMMUNICATION ENGINEERING	283
V. ELECTRICAL ENGINEERING	309
VI. INFORMATION TECHNOLOGY	337
VII. MECHANICAL ENGINEERING	354
VIII. MASTER OF COMPUTER APPLICATIONs (MCA)	384
G. DECLARATION BY THE HEAD OF THE INSTITUTION	399
H. CERTIFICATE OF COMPLIANCE	400
<i>ANNEXURE I (Certificate of Recognition u/s 2 (f))</i>	401
<i>ANNEXURE II (Recognition/ Approval Letters)</i>	402
<i>ANNEXURE III (Audit Reports)</i>	414

A. COVER LETTER FROM THE HEAD OF THE INSTITUTION



MCKV INSTITUTE OF ENGINEERING

(College Code 116-Engg.)

(A Co-ed PG Degree Engineering College)

Approved by AICTE & Affiliated to Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly West Bengal University of Technology)

243, G.T. ROAD (NORTH), LILUAH, HOWRAH - 711 204, WEST BENGAL, INDIA

Ph. - (033) 2654-9315/17 • Fax - 2654-9318 • Email - mckvie@vanl.net • Web - www.mckvie.edu.in



MCKVIE/2017/58

01st March, 2017

To -
The Director
National Assessment and Accreditation Council (NAAC)
P. O. Box No. 1075, Nagarbhavi
Bangalore -560072, Karnataka, India

Subject: Submission of Self Study Report for NAAC Accreditation (Cycle I)

Dear Sir

We are uploading the Self Study Report of the **MCKV Institute of Engineering**, 243 G.T. Road (N), Liluah, Howrah 711204, West Bengal, approved by All India Council of technical Education (AICTE) and affiliated to **Maulana Abdul Kalam Azad University of Technology (MAKAUT)** in our official website www.mckvie.edu.in for your kind perusal.

I shall be looking forward to hearing from you about your decision regarding peer team visit to our Institute.

Thanking you,

Yours faithfully,



Prof. Asok Kumar
Principal
MCKV Institute of Engineering

Principal
MCKV Inst. of Engg.
Liluah, Howrah-711 204



B. PREFACE

MCKV Institute of Engineering (MCKVIE) is one of the premier and the oldest (established in 1999) among self-financed Institutes aspiring to be an Autonomous Institute soon. It has excellent track record of imparting quality education for aspiring engineers over the last fourteen years. It is one of the 25 self-financing institutes in the country participating in the World Bank assisted Govt. of India sponsored **TEQIP-II project**.

MHRD has identified MCKVIE as one of 100 colleges in India to provide services under Quality Enhancement in Engineering Education (QEEE) programme which would take MCKVIE at par IIT standards within ten years time. MCKVIE is placed among the 18 best participating engineering colleges in India by MHRD in their survey conducted during 2016.

MCKVIE is one of the authorized international centre of TOEFL iBT and is certified by ETS, New Jersey.

The **vision** of the Institute is to be a sustainable center of academic excellence and advanced research at national level producing students recognized for their academic competence, attitudes and dedication.

The **mission** of MCKVIE includes:

- To create a vibrant learning environment in the Campus.
- To develop and enhance teaching- learning quality.
- To have highly qualified faculty.
- To support application oriented research and encourage entrepreneurship.

MCKVIE started with three departments initially: Electronics & Communication Engineering, Computer Science & Engineering and Information Technology with the affiliation of **Vidyasagar University**. In the year 2001 all the engineering institutions of **West Bengal were affiliated to West Bengal University of Technology (WBUT)** vide a Notification of Higher Education Department, Govt. of West Bengal. Automobile Engineering was established in the year 2003. It was again a pioneering endeavor not only in West Bengal but also in the entire Eastern Region. Adding more departments in haste was never in the agenda of the Institute. The Institute added two more UG programmes and five PG programmes subsequently. The details as on date are given below –

Sl. No.	Details of AICTE Approved Courses Offered	Intake	Year of Introduction
1	B.Tech. in Electronics and Communication Engineering	60	1999
2	B.Tech. in Computer Science and Engineering	60	1999

Sl. No.	Details of AICTE Approved Courses Offered	Intake	Year of Introduction
3	B.Tech. in Information Technology	60	1999
4	B.Tech. in Automobile Engineering	60	2003
5	B.Tech. in Mechanical Engineering	60	2008
6	B.Tech. in Electrical Engineering	60	2010

Sl. No.	Details of AICTE Approved Courses Offered	Intake	Year of Introduction
7	M.Tech. in ECE (Communication)	18	2008
8	M.Tech. in CSE	18	2011
9	M.Tech. in ECE (VLSI Design)	18	2012
10	M.Tech. in Automotive Technology	18	2012
11	Master of Computer Applications (MCA)	60	2008

All programmes are AICTE approved and affiliated to **Maulana Abdul Kalam Azad University of Technology (MAKAUT)**; earlier was known as West Bengal University of Technology (WBUT). MCKVIE is also recognized U/s 2(f) of the UGC Act. The Institute considered it incumbent upon us to ensure quality rather than quantity in engineering education. Institute obtained ISO 9001:2000 certifications in 2004 and then upgraded to ISO 9001:2008 in 2010. It also obtained accreditation from National Board of Accreditation (NBA) for two of UG programmes; namely; Electronics & Communication Engineering and Computer Science & Engineering for three years in the year 2009.

The Institute has set up Rotaract Club in 2010 and Vivekananda Centre for Positive Thinking (being First Centre in West Bengal with the support of Ramakrishna Mission Vivekananda University, Belur Math, Howrah) in 2012 to empower knowledge and mental & physical health to all the students and staff members. MCKVIE is offering awareness programme on basics of Automobile Mechanism and also on road safety with the objective of reducing the rate of motor collision for the personnel of Kolkata Police at regular intervals as a part of Corporate Social Responsibility.

The students are encouraged to participate in various technical competitions, international & national conferences and publish technical papers. They have excelled in different national level technical competitions and won prizes in regular manner in Microsoft Student project, the technical project competition organized by Birla Industrial and Technical Museum (BITM), All India Congregation of Information and Communication Technology (INFOCOM) exhibition, BAJA SAE India Off-Road Vehicle competition, FALCON racing car design competition, Tech Fests organized by various IITs viz. IIT Kanpur, IIT Kharagpur, IIT Guwahati etc. They are

actively interacting with the various experts in education & industry through MCKVIE student chapters of Professional Bodies. Presently MCKVIE is having six students chapter; namely IET (UK), SAE, CSI, IE (I), ISOC (I), ISHRAE.

The Institute setup an Innovation Cell with the guidance of CII, Kolkata for providing various facilities to the students to nurture their innovative ideas and convert them to usable products. Institute is a partner of NEN and a few teachers are trained to conduct regular grooming classes for the willing students. This will be giving opportunity to the students to know the path of being an Entrepreneur. The Institute also signed MOUs with NPTEL & IIT– Kharagpur for domain knowledge enhancement and Govt. College of Engineering & Textile Technology, Berhampore for academic collaborations, joint research and consultancy programme utilizing expertise and resources of each of the institute.

The performances students in MAKAUT (earlier WBUT) examinations have also been remarkable, as over the years they have received a number of medals for their performances. 100% students in final year obtained 1st Division and about 60% students scored DGPA8 (Distinction) in overall examinations. Many of the students obtained university Gold/ Silver/ Bronze medals due to their outstanding performance. Of late the Institute is recognized an emerging passion within MCKVIE students for higher studies. To assist them for preparing for GATE examination faculty members have taken initiative to coach them in campus for the same as ‘**Beyond Class Initiative**’.

The Institution is governed by a well structured management. At the top of it the Institute has a Trust Body consisting of the Chairman, the Managing Trustee and three other Members. The Trust is headed by the Chairman. The Managing Trustee looks after and controls the day to day administrative and financial matters of the Institute. Under them there are Institutional Authorities headed by the Principal, Director and the Registrar of the College. Under their control there are several officers who help the Principal and the Registrar in the day to day administrative and academic matters. For supervising the works and functions of the Management and the Authorities the Institution has a Governing Body comprising 18 Members in accordance with the AICTE specifications and also to meet the requirement of TEQIP-II.

MCKVIE follows an admission policy for its entire programmes governed by state government. The Institute is dedicated to quality education for students belonging to all strata of the society and the nation. Scholarship is given to the students based on their economical status. The Institute has excellent teaching and learning process and the faculty members possess necessary domain knowledge blended with adequate experience to improve teaching excellence by adoption of a pedagogy that is application oriented. Synergy has been reached by harnessing application oriented teaching along with strict discipline thereby grooming students into industry ready engineers and inclination to take higher studies.

MCKVIE emphasizes all-round development of its students. The institute aims not only at producing good professionals, but also good and worthy citizens of the country, aiding in its overall progress and development.

MCKVIE has tie up with both IT and Core sectors such as Ericsson India Pvt. Ltd., Dassult Systems, Volvo-Eicher, RABT Technology and Texas Instruments, etc.

MCKV Institute of Engineering has made significant contribution in the field of education and takes pride in the fact that the alumni of this institute have attained very eminent positions in education, research and industry in India and abroad.

The Institute believes that, growth—particularly in the field of engineering education— is a continuous process. It is a perennial journey into the future searching for the true ways and means of fulfilling the ideal mission of managing engineering education in this technological era. The institute has crossed just the first meaningful journey of one and a half decade.

MCKVIE is now poised to provide higher education and take it to a greater height and all the efforts have been put to raise the institute to the status of Autonomous Institution. The scopes, terms and other regulations are drafted for all the four Statutory Bodies as per UGC guidelines along with the other necessary Non-statutory committees and also service rules are updated.

C. EXECUTIVE SUMMARY AND SWOC ANALYSIS

EXECUTIVE SUMMARY

Criterion I: Curricular Aspects

Being an affiliated Institution to MAKAUT, the Institute follows syllabi prescribed by the University. Considering the expectations of students and the requirement of industries, teachers practice different techniques to achieve the set outcomes for each course and the overall attainment of the outcomes of each program. Faculties are encouraged to attend Faculty development programs organized by the various Universities and the Institutions to boost their knowledge and teaching efficacy. Value added courses are added by the teachers and delivered by them or academic/ industry experts for the students. Faculty, who are members of the Boards of Studies in the University utilize their experience and expertise in suggesting valuable modifications in the University syllabi, in the interests of the students and the prospective employers.

To develop the skills of the students to gain success in the present day competitive world, many compulsory skill development programmes such as Verbal Ability, Reasoning & Logic, Data Interpretation, Advanced English Communication, Soft Skills and Domain knowledge improvement are conducted by the Institute. There is an online student feedback system, teacher feedback, alumni feedback which is conducted centrally by the HR Department. Also an employer feedback system introduced recently. Feedbacks such as received utilized to improve the current practices with reference to the curriculum, performance of teachers, teaching learning process, and infrastructure of the college.

Criterion II: Teaching Learning and Evaluation

After the admission of 1st year B.Tech students is completed Diagnostic Tests in six basic subjects; namely Physics, Chemistry, Maths, English, Mechanics and Electrical/ Electronics conducted through an online process to identify the gap of knowledge of each individual student since they come from different Board examinations and from different region. Remedial classes are conducted thereon to bring them at par.

Various measures are taken to ensure a student centric learning, like teaching through power point presentations besides conventional teaching methods using chalk and board. Resources from the internet like video lectures efficiently enhance the teaching – learning mechanism.

MCKVIE is the partner of NPTEL (National Programme on Technology Enhanced Learning)– an initiative by seven IITs and IISc's and also partner of QEEE (Quality Enhancement

Engineering Education) an initiative of MHRD. Through these online teaching method students are having access to quality content of subjects which they are interested to learn more.

Also MCKVIE is a partner academic institute of CII (ER) through which regular interaction with industry experts are taken place in the campus and in their factory premises to learn and acquaint with industry practices and technology of today and coming in future.

Remedial classes are arranged for strengthening the knowledge and skill of weak students. The institute possesses a well equipped library which boasts of an excellent collection of textbooks and reference books and national & international journals of repute. The departments organize national and international seminars and workshops at regular intervals which increases the exposure of the students.

The academic activities of the Institute are regulated by Academic Calendar and are available to the students/ faculty members and all other concerned in electronic form in Institute website i.e. www.mckvie.edu.in. It shall be mandatory for students/ faculty/ staff of MCKVIE to strictly adhere to the Academic Calendar for completion of academic activities. Two class tests dates are provided in the academic calendar for conduction of assessment of students' learning in the class. In some cases faculty conducts additional class test for better understanding of knowledge gained by the students.

Criterion III: Research, Consultancy and Extension

To monitor and address issues related to research and consultancy activities, the Institute has established Research and Development Committee and Industry-Institute Partnership Cell (IIPC) to coordinate all research/ consultancy related activities. To facilitate the smooth implementation of research related matters, the Institute has adopted several mechanism which functions to:

- a) Encourage and support proposal submission in various subjects through Research and Development Committee.
- b) Simplification of procedures related to sanction / purchases to be made.
- c) Timely release of grants to the concerned PIs of the Research Projects.
- d) Timely auditing submission of Utilization Certificate to the funding authorities.

During the last five years the faculty of the Institute has published considerable number of papers in national and international journals. They have also been active in participating and presenting papers in various conferences. Some of the faculty members have also published books in their areas of specialization. Faculty has also been awarded Chairman's Reward (Cash Award with a Certificate) every year in presence of the students for authoring Books/ Text Books, publications in International/ National Journals and pays/ reimburse them registration fees T.A. & D.A. as per the institution rules.

It has attempted to build in a research culture by bringing in retired faculty from premier Institutes like the IIT and incubation centre (EKTA) of MAKAUT.

Students are encouraged to take up internship training at reputed R & D organizations/institutions like CDAC, Kolkata, Oracle, Bangalore, MN Dastur, Kolkata, etc to enrich them about industrial research. In fact last year eight of students' project funded by DST, Govt. of West Bengal to convert their innovative ideas to an application oriented product.

MCKVIE as a vision to motivate Staff for continuous academic and skill up-gradation & career enrichment encourages staff members for obtaining higher degrees while working and place them suitably as per their qualification. The institute has created a provision of paid leave for such academic/educational endeavour. They are inspired to submit projects to higher funding agencies for doing experiments and innovative works. Faculty members have been recognized in their areas of expertise to guide Ph.D., M.Tech. and B.Tech. research/ project work of other universities. Many of the Academic Members become the Editorial Board Members of different Journals. Staff members have received various awards owing to their academic contribution. Faculty members are also welcome to accept invitation of becoming Members of Editorial Board, Reviewer & Conference Committees.

Academic staff members are adequately qualified for imparting quality instructions to the students pursuing technical education. While all of them are at least Post Graduate Degree holders, a good number of them have Ph.D. degrees. All the employees are encouraged to pursue higher studies leading to post-master's degrees like M.Phil. & Ph.D. etc. and as a result quite a large number of faculty members are pursuing higher studies leading to Ph.D. Degrees in Universities and Higher Academic Institutes of repute.

Provision is made in the Institute budget and also in TEQIP budget for research, organizes seminar/conferences, workshops, purchase new software and library books. Besides meeting expenditure for participation of faculty members in National and International Conferences/Seminars in the form of registration fees, travel expenses, research paper publication is also made from the budget.

Financial provisions are also made in the Institute budget for supporting students for UG project work and research projects by providing registration fees, travel allowances per student for their paper publication in journal/ conferences. Faculties are encouraged to apply to AICTE, DST, UGC, other Government Departments, and other organizations for research funding.

To bring in community orientation and a spirit of service to the society the Institute through the Rotaract Club, Vivekananda Centre for Positive Thinking and NSS for Extension activities. The students, under the guidance of the concerned Professor-in-charge, undertake projects dealing with developmental activities such as blood donation, tree plantation, environmental awareness,

etc. The Institute has also constituted Entrepreneurship Development Cell (EDC) which has signed a MOU with National Entrepreneurship Network (NEN) and conducting regular classes with their guidance. Also this cell arranges lecture sessions of successful entrepreneurs.

Criterion IV: Infrastructure and Learning Resources

Since its establishment, the Institute has created considerable infrastructure for smooth running of academic and administrative activities. The Institute has adequate laboratories and class rooms for the existing programmes. Most of the laboratories are well maintained and furnished with the latest equipment and constantly upgraded learning material.

In this Institute has a sprawling library with a rich collection of books. As on date, the Institute has total no. of Titles is 8,128 and Volumes is 38,289. The Institute has taken various steps to make the Central Library a good e-library. The library has reading room facility for both the teachers and the students. So far as students are concerned, there is provision for sitting of about 200 students at a time. Students at this Institute also enjoy book bank facility. Multimedia Lab is located inside the Central Library to facilitate students to use-learning resources; like NPTEL, video lectures, etc.

The Central Library also has Institutional membership of IEEE-ASPP, J-GATE, Springer, IEL, for e-Journal section. In total the Institute has access for more than 3381 (International & National) Journals in the Library.

All the departmental Libraries are connected with the Central Library to obtain information of availability of books and send request for issuing books. Book searching Kiosks are also available in the central library for students and other users.

As for equipments, the Institute has all kinds of required major and minor equipments in the laboratories and workshops.

As far as the accommodation of staff members are concerned; the Institute has not been able so far to make any major headway in this area. However, in cases of unavoidable emergent need the institute have tried to make some provision in the Institute Guest House. The fact remains that most of the staff members prefer to commute from their residences in Kolkata and nearby district towns. The crisis of accommodation was never, therefore, felt at the Institute.

Being local chapter of NPTEL, MCKVIE is having entire course contents available with NPTEL at IIT, Kharagpur. They are available in the Central Library in the Multimedia Lab and can also be accessed online from anywhere. Mentors are provided for every subject's semester wise which is offered by the institute. Students register them to learn online, submit assignments on

line and then appear for the certification test to know their learning quotient. NPTEL provide certificates of different level on the basis of the marks obtained by the students.

QEEE infrastructures are set up in a Remote class room wherein live lectures of reputed academicians from Institutions like IITs and IISc are available on a particular schedule known to us at the beginning of the semester which is attended by the full class who are having that subject in the semester. Class routines are adjusted suitably to give this opportunity to the students to upgrade their domain knowledge. QEEE interactive live programmes would be among the foremost and an important step in this direction and will use technology for dissemination of knowledge.

The state-of-the-art Central Computing Facility (CCF) is also available in the Institute. The campus is having several facilities like – Gymnasium, Yoga Centre, Students’ Cafeteria, Staff Canteen, and Free Bus Service for the Staff members, etc. The Institute has counseling and guidance cell available round the clock to the students who need psychological, social, personal and career counseling. The Institute has two boys’ hostels and one girls’ hostel. There is a medical facility within the campus to cater the need of immediate attention of a sick person, an ambulance and an attending doctor. One of the notable features of the campus is that it is equipped with its own electrical sub-station and Gen sets. The campus is having fully Wi-Fi facility including the Girl’s hostel which is inside the campus.

Criterion V: Student Support and Progression

The Institute follows good student support system. Students are kept informed of the admission criteria, courses offered, examination schedules, availability of scholarships, fee structure etc. through Institute’s website/ notices/ prospectus. An Academic Calendar is prepared in the beginning of the year and the activities of the Institute are carried out in accordance with the given schedule.

Poor but meritorious students are provided with financial aid both for accommodation and fee waivers. Besides this, the Government as per the existing regulations offers scholarships and freeship to them. The Trust also extends financial help to the needy students.

The Institute has a **Corporate Relation and Talent Transformation Cell (CRTTC)** headed by Career Services & Development manager and other Placement officers. The cell provides the required guidance and assists the students in their industrial training and campus placement activities. Experts are invited from various fields to make students aware of the current employment / career opportunities.

The students are also provided guidance for appearing for GATE and other competitive examinations. A good number of students have qualified in these examinations. The Institute

provides opportunities to the students to undertake industrial visits, participate in workshops, seminars, etc. for skill development and to strengthen their understanding of the subject.

In view of providing better soft skills to the students, the Institute conducts training in Communication skills and Personality Development. These courses are likely to make their students more employable and acceptable in the job market. It is expected that these and other planned measures would go a long way in promoting effective support for better progression of the students.

The Institute provides facility for sports and indoor games like chess, carrom, weight-lifting, volleyball, badminton, table tennis, football, cricket, etc. The students of the Institute have demonstrated outstanding performance in various events several times in the recent past.

The college has a registered Alumni Association. All the outgoing students automatically become members of the association. Alumni meets are conducted, alumnus are invited to interact with the students, etc.

For increasing application orientation and developing applied interest in technology faculties are giving training in Campus to young Engineers from 2nd year onwards for building small electronic gadgets for their personal utility such as amplifier, head phones, etc, for which they are permitted to take them home for personal use and further work on it to use their creative mind. Finding a positive response and growing interest in such initiative the institute has initiated a student project during January 2012 where they are taught how to make a Robot and develop suitable software to customize it to requirement. In this project also the students work are rewarded by giving them their Self Created Robot. Students are also, encouraged to present technical papers in the national and international conferences and various workshops to nurture research orientation in them.

MCKVIE is having an Innovation Club. Students are encouraged to work here under the guidance of the faculty and technical staffs to convert their innovative ideas to an application oriented products. In fact during 2016, DST, Govt. of West Bengal provided required funds to eight students' projects.

The Institute makes their **journey of technological understanding joyful** by providing them with an in-house platform "**Technotica**"; an innovative project competition which is held in campus around December - January every year. Projects submitted by different groups (3 to 4 members each) are assessed by the external experts and rewarded suitably in the final round of the competition. The Project cost is also funded by the institute and assisted by the staff members of the institute. Selected Projects are sent to Birla Industrial Technological Museum (BITM)/ INFOCOM for participating in State/ International Level competition. The Institute also encourages the students to attend National level competitions such as BAJA SAE India Off-

road Vehicle completion held every year at Pithampur, Indore, falcon Racing Car Competition at Chennai and Efficycle Hybrid Cycle Racing competition held at Chandigarh are few competitions which are regularly attended by the students from all departments. All these projects are funded by the institute.

Entrepreneurship development is a new initiative in India which encourages a spirit of organizing business and managing business for betterment of self as well as the Nation. So it is felt that the culture of entrepreneurship needs to be imbibed to the graduate engineers, so that, they can set up business and run it efficiently.

MCKVIE signed a MOU with **National Entrepreneurship Network (NEN)** and under their guidance conducting regular classes for the willing students from 1st to 4th year B.Tech. as per the syllabus and teaching materials provided by NEN from time to time.

Criterion VI: Governance, Leadership and Management

The Institution is governed by a well structured management. At the top of it the Institute has a Trust Body consisting of the Chairman, the Managing Trustee and three other Members. The Trust is headed by the Chairman. The Managing Trustee looks after and controls the day to day administrative and financial matters of the Institute. Under them there are Institutional Authorities headed by the Principal, Director and the Registrar of the College. Under their control there are several officers who help the Principal, Director and the Registrar in the day to day administrative and academic matters. For supervising the works and functions of the Management and the Authorities the Institution has a Governing Body comprising 18 Members in accordance with the AICTE specifications and also to meet the requirement of TEQIP-II.

For taking due care of academic matters **two Academic Bodies have been given total authority**. The first is the **Departmental Academic Committee (DAC)** and the second is the **Academic Advisory Committee (AAC)**. All important decisions taken in these Committees are forwarded to the top Management for approval and ratification. The top management, wherever necessary, places matters before the Governing Body wherein decisions are taken for implementation. In all such institutional matters the views of the students are also taken into consideration with all seriousness and importance. Internal Quality Assurance Cell (IQAC) has been formed to look after and monitor various academic and administrative activities to facilitate effective teaching and learning.

Academic Advisory Committee (AAC) consists of all HODs and two more nominated members from every department in addition to the Director, Registrar & all other Professors and Deans of the Institute. Principal nominates a member as the convener of AAC. Every month a meeting is conducted to discuss and decide the academic matters of the institute.

Departmental Academic Committee (DAC) consists of all the faculty members of the department and is presided over by the HOD of the respective department. Every month a meeting is conducted to discuss departmental activities.

In this Institute nothing— academic or administrative— is imposed by the authority on any individual or unit. A bottom up approach is followed during execution of any policy implementation. A democratic, academic and administrative ambience is maintained ensuring active participation of everybody working at this Institute irrespective of their academic attainment or status of engagement. It is true that the Top Management frames major policy matters of the Institute but such policies are never imposed from the top.

In MCKVIE believes in effective governance. The issues are first discussed by those operating under the top management (HODs and sectional officers) and then they are sent up to the Principal, Director and Registrar for approval & clearance. The HODs and the sectional officers have been entrusted with due power to suggest and recommend measures for all developmental works. The Principal, Director and the Registrar review the decision taken by them and only then the matter is forwarded to the Top Management for approval.

The Institute has an **Internal Quality Assurance Cell (IQAC)** headed by the Principal and coordinate by a nominated senior faculty of the institute to look after the internal co-ordination and monitoring of all required data and information required for attaining the organizational objectives related to student support activities, projects, examinations, faculty development and staff development programmes, etc. The Institute gives importance to feedback data obtained from students, alumni, employees, employer, etc and other co-curricular, extracurricular, social & other activities of the institute and the students in particular.

The administrative section headed by the Registrar is well equipped with all the modern facilities and the staffs are appropriately trained in the use of these equipment. The Institute has its internal audit mechanism to check system performance related to budgetary targets and other financial issues. It has a Finance Manager, which is responsible for these matters.

Criterion VII: Innovations and Best Practices

Many innovative methods are being practiced by the College during the last few years in both academic and administrative functioning of the College. Some of the practices in academic activity include introduction of ICT enabled teaching learning methodologies, stress on continuous internal assessment both in theory and laboratory courses, major amendment in course curricula to make it contemporary and socially relevant and promotion of research culture among faculty members and students. The other practices include CCTV surveillance of the campus, participatory management in office administration, etc.

The best practices of the College are:

- i) Diagnostic Tests conducted on newly admitted students to identify the gap of knowledge.
- ii) ICT enabled teaching and learning methodologies are practiced.
- iii) Enhancement of technical skills of students.

The institute encourages the teachers to participate in Conferences, Seminars and Workshops and is also encourages to organize the same at institutional level. The Institute organizes expert lectures in some specialized areas of study and established linkages with reputed National Institutions.

The Institute has also put up Suggestion / Complaint Boxes at different places on the campus. The students and staff are expected to utilize the same for their grievance redressal. The various Committees of the institute ensure the involvement of students in organizing events and participation in various activities.

The Institution helps all round personality development of the students by organizing co-curricular activities such as seminars, G.K./ Quiz programmes, Workshops on Communication Skills, Group Discussions, Debates, Courses in Computers and Information Technology, etc.

The MCKVIE, since its inception, has given strong emphasis on eco-friendly systems on the campus. Energy saving measures, water saving resources and extensive green plantation has been used.

Strict Energy conservation and management procedures such as use of mostly LED lights in place of sodium vapour lamps or tube lights are adopted to save energy consumption thereby keeping the campus as far as carbon neutral. Following measures are taken for energy conservation:

- Regular switching on & off of lighting/ air-conditioners are done keeping in tune with class schedule. Plans are afoot to use smart sensors.
- Strict energy use monitoring is done at ladies hostel.
- Computer screens have been updated with LCD monitors.
- The UPS batteries are regularly monitored and kept in good conditions.
- The large no. of electrical and electronic equipments is maintained properly to monitor usage of electricity.
- DPR is being prepared for rooftop solar panels for off-grid and grid connected supply. PV modules will be used.
- Extensive computers and electronic components are used in the campus. But when rejected, they are not allowed to accumulate in the Campus. Authentic scrap vendors are called and they are disposed regularly.

SWOC ANALYSIS OF THE INSTITUTE

Strengths:

1. 2 UG, CSE & ECE programmes are presently accredited. Other UG Programmes are under process of Accreditation.
2. The Institute possesses an effective and efficient mix of young, dynamic, versatile experienced faculty members with outstanding records of teaching and research acumen.
3. 25% of faculty members having Ph.D degree while others are M.Tech.
4. Constant encouragement provided to the faculty for Research work leading to Ph. D.
5. Well maintained state-of-the-art infrastructure and laboratory.
6. Eco-friendly and amicable working atmosphere.
7. Diagnostic Test conducted to identify the gap of knowledge among the first year students.
8. To enhance domain knowledge ICT enabled Teaching learning methodology practiced through NPTEL, QEEE, etc.
9. Encouragement provided to the students for nurturing their innovative ideas and converts it to usable products through Innovation Cell.
10. Skill development training is provided to the students to flourish their latent Entrepreneurship qualities.
11. Conduct students' interaction with Industry through CII by in-house programmes and visit to Industry.

Weakness:

1. Faculty with industry experience are lacking
2. Newly admitted students from various vernacular and ethnic backgrounds carrying the heterogeneous students groups, which creates problem to bring them at par.
3. Collaborative R & D and Consultancy work in adequate.

Opportunities:

1. CII (ER) linkages to conduct more interaction programmes with the Industry.
2. Motivate faculty members to submit more R& D proposals to various funding agencies to increase external revenue.
3. Prepare students for GATE and other competitive examination for obtaining more Govt. jobs and avail opportunity for higher studies.
4. Authorized TOEFL centre in campus provides easy access to the students to assess their competency in English.

Challenges:

1. Continuous up gradation of programme delivery content to keep pace with the fast changing Industry is a strong challenge.
2. Upgrading Faculty competence to match rapid growth and technology advances.
3. Overall recession in the national/international market bleaks the placement scenario.
4. To motivate students in Entrepreneurship development.

D. PROFILE OF THE INSTITUTION

1. Name and Address of the College:

Name :	MCKV INSTITUTE OF ENGINEERING		
Address :	243, G.T. ROAD (N), LILUAH, HOWRAH		
City : Howrah	Pin : 711204	State : WEST BENGAL	
Website :	www.mckvie.edu.in		

2. For Communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Prof. (Dr.) Asok Kumar	O: 033-26549315	9433307635	033-26549318	principal@mckvie.edu.in, asok_km650@rediffmail.com
Director	Prof.(Dr.) Parasar Bandyopadhyay	O: 033-26549315	9830478905	033-26549318	parasar.bandyopadhyay@gmail.com
IQAC Co-ordinator	Dr. Ranjib Biswas	O: 033-26549315	9830086991	033-26549318	ranjib.biswas@gmail.com

3. Status of the Institution:

Affiliated College:	<input checked="" type="checkbox"/>
Constituent College:	<input type="checkbox"/>
Any other (specify):	<input type="checkbox"/>

4. Type of Institution:

a. By Gender	
i. For Men:	<input type="checkbox"/>
ii. For Women:	<input type="checkbox"/>
iii. Co-education:	<input checked="" type="checkbox"/>

b. By Shift

i. Regular:

ii. Day:

iii. Evening:

5. It is a recognized minority institution?

Yes:

No:

If yes specify the minority status (Religious/ linguistic/ any other) and provide documentary evidence.

6. Sources of funding:

Government:

Grant-in-aid:

Self- financing:

Any other

7. a. Date of establishment of the college:03 /09/ 1999

b. University to which the college is affiliated/ or which governs the college (If it is a constituent college)

Maulana Abul Kalam Azad University of Technology (MAKAUT)

c. Details of UGC recognition:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks(If any)
i. 2 (f)	21/03/2013	-
ii. 12 (B)	Not Applicable	-

(Enclose the Certificate of recognition u/s 2 (f) [ANNEXURE I] and 12 (B) of the UGC Act)

d. Details of recognition/ approval by statutory/ regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/ clause	Recognition/ Approval details Institution/ Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
i.	AICTE Approval for the Institute	05/04/2016	Academic Year 2016-2017	-
ii.	MAKAUT Affiliation for UG Courses	30/05/2016	Academic Year 2016-2017	-
iii.	MAKAUT Affiliation for PG Courses	30/05/2016	Academic Year 2016-2017	-
iv.	MAKAUT Affiliation for MCA Course	30/05/2016	Academic Year 2016-2017	-

(✓ Enclose the recognition/ approval letter) [ANNEXURE II]

8. Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

Yes No

If yes, has the College applied for availing the autonomous status?

Yes No

9. Is the college recognized?

a. by UGC as a College with Potential for Excellence (CPE)?

Yes No

If yes, date of recognition: (dd/mm/yyyy)

b. for its performance by any other governmental agency?

Yes No

If yes, Name of the agency QEEE under MHRD and

Date of recognition: 05/12/2013

10. Location of the campus and area in sq.mts:

Location *	Urban
Campus area in sq. mts.	10120 Sq.m.
Built up area in sq. mts.	22375 Sq.m.

(* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

- Auditorium/ seminar complex with infrastructural facilities: Yes
- Sports facilities:
 - play ground: Yes
 - swimming pool: No
 - Gymnasium: Yes
- Hostel
 - Boys' hostel
 - ❖ Number of hostels 02
 - ❖ Number of inmates 100
 - ❖ Facilities (mention available facilities)

Furnished Room along with common facilities like TV, Net connection, Water Purifier, Kitchen.
 - Girls' hostel
 - ❖ Number of hostels 01
 - ❖ Number of inmates 80

					Furnished Room along with common facilities like Wifi, Internet, TV, Water Purifier, Puja Room, Kitchen.
❖ Facilities (mention available facilities)					
➤ Working women's hostel					No
❖ Number of inmates					
❖ Facilities (mention available facilities)					
• Residential facilities for teaching and non-teaching staff (give numbers available- cadre wise)					No
• Cafeteria					01
• Health centre					01
• Principal's Quarter					01
• Admin Staff					01
• Caretaker					02
• Hostel Matron					03
• Peon					02
• Health Centre					Yes
• First aid, Inpatient, Outpatient, Emergency care facility, Ambulance					Yes
• Health centre staff					
➤ Qualified doctor	Full Time	<input checked="" type="checkbox"/>	Part Time	<input type="checkbox"/>	
➤ Qualified Nurse	Full Time	<input checked="" type="checkbox"/>	Part Time	<input type="checkbox"/>	
• Facilities like banking, post office, book shops					No
• Transport facilities to cater to the needs of students and staff					Only for Staff
• Animal house					No
• Biological waste disposal					No
• Generator or other facility for management/ regulation of electricity and voltage					Yes
• Solid waste management facility					Managed by Local Corporation
• Water harvesting					No

12. Details of programmes offered by the college (Give data for current academic year)

Sl. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned / approved Student strength	No. of students admitted
1.	Under-Graduate	B.Tech. in Automobile Engineering	04 years	+12	English	60 (+ 3 of TFW)/ Programme	45
		B.Tech. in Computer Science and Engineering					61
		B.Tech. in Electronics & Communication Engineering					62
		B.Tech. in Electrical Engineering					62
		B.Tech. in Information Technology					61
		B.Tech. in Mechanical Engineering					63
2.	Post-Graduate	M.Tech. in Automotive Technology	02 years	B.Tech.	English	18/ Programme	4
		M.Tech. in Computer Science & Engineering					2
		M.Tech. in Electronics & Communications Engineering with specialization in Communication					7

Sl. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned / approved Student strength	No. of students admitted
		M.Tech. in Electronics & Communications Engineering with specialization in VLSI Design					3
		Master of Computer Applications (MCA)	03 years	B.A./ B.Sc./ B.Com./ BCA	English	60	19
3.	Integrated Programmes PG	Nil	Nil	Nil	Nil	Nil	Nil
4.	Ph.D.	Nil	Nil	Nil	Nil	Nil	Nil
5.	M.Phil.	Nil	Nil	Nil	Nil	Nil	Nil
6.	Certificate Courses	Nil	Nil	Nil	Nil	Nil	Nil
7.	UG Diploma	Nil	Nil	Nil	Nil	Nil	Nil
8.	PG Diploma	Nil	Nil	Nil	Nil	Nil	Nil
9.	Any Other (specify and provide details)	Nil	Nil	Nil	Nil	Nil	Nil

13. Does the college offer self-financed Programmes?

Yes

No

If yes, how many?

11

14. New programmes introduced in the college during the last five years if any?

Yes No Number

15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

Not Applicable

Faculty	Departments (eg. Physics, Botany, History)	UG	PG	Research
Science				
Arts				
Commerce				
Any Other (Specify)				

16. Number of Programmes offered under (Programme means a degree course like BA, B.Sc, MA, M.Com...)

a. annual system	Not Applicable
b. semester system	11(6 B.Tech., 4 M.Tech. & MCA)
c. trimester system	Not Applicable

17. Number of Programmes with

a. Choice Based Credit System	Nil
b. Inter/ Multidisciplinary Approach	All courses have some areas of interdisciplinary approach
c. Any other (specify and provide details)	Nil

18. Does the college offer UG and/ or PG programmes in Teacher Education?

Yes No

If yes,

a. Year of Introduction of the programme(s)..... (dd/mm/yyyy) and number of batches that completed the programme

b. NCTE recognition details (if applicable): Not Applicable

Notification No.:

Date: (dd/mm/yyyy)

Validity:.....

c. Is the institution opting for assessment and accreditation of Teacher Education Programme separately

Yes

No

20. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non-teaching		Technical staff	
	Professor		Associate Professor		Assistant Professor		*M	*F	*M	*F
	*M	*F	*M	*F	*M	*F	*M	*F	*M	*F
Sanctioned by the UGC / University / State Govt.	Not Applicable									
Recruited	Not Applicable									
Yet to recruit	Not Applicable									
Sanctioned by the Management/ society or other authorized bodies	14		27		79		No specific approval is there, depends on recruitment			
Recruited	8	1	10	1	63	26	38	11	43	13
Yet to recruit	5		16		10 (Excess)		Not Applicable			

*M-Male *F-Female

Note: Separate Male/ Female sanctioned posts are not provided as it is not applicable.

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./ D.Litt.	0	0	0	0	0	0	0
Ph.D.	8	1	8	1	7	2	27
M.Phil.	0	0	0	0	0	1	1
PG	0	0	2	0	54	23	79
Temporary teachers							
Ph.D.	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0
Part-time teachers							
Ph.D.	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	2	0	2

22. Number of Visiting Faculty/ Guest Faculty engaged with the College.

1

23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	2016		2015		2014		2013	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	11	2	8	3	8	0	8	6
ST	3	0	0	0	1	0	0	0
OBC	22	2	40	7	45	11	41	8
General	283	78	281	91	229	89	312	91
Others	44	8	13	6	22	4	28	6

24. Details on students enrollment in the college during the current academic year:

Current academic year: 2016-17

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	355	34	NA	NA	NA
Students from other states of India	63	1	NA	NA	NA
NRI students	0	0	NA	NA	NA
Foreign students	0	0	NA	NA	NA
Total	418	35	NA	NA	NA

25. Dropout rate in UG and PG (average of the last two batches)

UG PG

26. Unit Cost of Education

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a) including the salary component	Rs. 93183.81
(b) excluding the salary component	Rs. 31880.61

27. Does the college offer any programme/s in distance education mode (DEP)?

Yes No

If yes,

a) is it a registered centre for offering distance education programmes of another University

Yes No

b) Name of the University which has granted such registration.

c) Number of programmes offered

d) Programmes carry the recognition of the Distance Education Council.

Yes No

28. Provide Teacher-student ratio for each of the programme/ course offered

Sl. No.	Name of the Programme	Teacher-student ratio
1	B.Tech. in Electronics and Communication Engineering	18:1
2	B.Tech. in Computer Science and Engineering	18: 1
3	B.Tech. in Information Technology	21.6:1
4	B.Tech. in Automobile Engineering	21.6:1
5	B.Tech. in Mechanical Engineering	15.4:1
6	B.Tech. in Electrical Engineering	18:1
7	M.Tech. in ECE (Communication)	18:1
8	M.Tech. in CSE	18:1
9	M.Tech. in ECE (VLSI Design)	18:1
10	M.Tech. in Automotive Technology	18:1
11	Master of Computer Applications (MCA)	16:1

29. Is the college applying for

Accreditation: Cycle 1 Cycle 2 Cycle 3
 Cycle 4 Re-assessment

(Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re-accreditation)

30. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)

Not Applicable

Cycle 1: (dd/mm/yyyy) Accreditation Outcome/ Result.....

Cycle 2: (dd/mm/yyyy) Accreditation Outcome/ Result.....

Cycle 3: (dd/mm/yyyy) Accreditation Outcome/ Result.....

* Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure.

31. Number of working days during the last academic year.

222 (AY:2015-16)

32. Number of teaching days during the last academic year (Teaching days means days on which lectures were engaged excluding the examination days)

177 (AY:2015-16)

33. Date of establishment of Internal Quality Assurance Cell (IQAC) IQAC: 28/09/2016**34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC**

Not Applicable

AQAR (i) (dd/mm/yyyy)

AQAR (ii) (dd/mm/yyyy)

AQAR (iii) (dd/mm/yyyy)

AQAR (iv) (dd/mm/yyyy)

35. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/ descriptive information)

E. CRITERIA - WISE INPUTS

CRITERION I: CURRICULAR ASPECTS

1.1 Curriculum Planning and Implementation

1.1.1 State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stakeholders.

Vision:

To be a sustainable centre of academic excellence and advanced research at national level producing students recognized for their academic competence, attitudes and dedication.

Mission

- To create a vibrant learning environment in the campus
- To develop and enhance teaching-learning quality
- To have highly qualified faculty
- To support application oriented research and encourage entrepreneurship.

Quality Policy

- The Institute is committed to provide Research oriented quality education for producing knowledge-rich, qualified & successful students to suit to top class demand of the market.
- The Institute is committed to provide quality infrastructure, resources including human resources to satisfy the present as well as the future requirements of the customer & stakeholders.
- The Institute is committed to continually improve the effectiveness of the Quality Management System.

Mission and Vision of the Institute are communicated to all concerned through the following ways:

- The vision and mission statements of the Institute are available in the website, published in Newsletter and displayed in the Notice Boards.
- The vision and mission statements of the Institute are communicated to the stake holders by distributing the prospectus brochures both in hard copies and CDs in different Seminars, Workshops, Conferences, HR Meets etc. The same is circulated to various industrial houses during visits.
- The vision and mission statements of the Institute are distributed to all prospective students and their parents at the time of admission.

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

The institute develops and deploys action plans for effective implementation of the curriculum through the active functioning of various administrative and academic committees and cells (like Academic Advisory Committee (AAC), Departmental Academic Committee (DAC), Examination Cell, Library Committee, Internal Quality Assurance Cell (IQAC), Finishing School, Assessment Committee).

Initially, a meeting is held by the Academic Advisory Committee of the Institute with the Departmental Heads of various Departments for developing plans to implement the curriculum effectively in every semester. Departmental meetings are held at regular intervals in which these plans are conveyed to the faculty members. The faculty members are also encouraged to conduct projects, workshops, seminars, conferences, industrial visits, presentations and assignments to realize the prescribed goals for effective implementation of the curriculum. However, IQAC is made fully functional from 28th September, 2016 wherein feedback from Finishing School and Assessment Committee are discussed and acts accordingly.

An academic calendar is circulated among the faculty members in view of which a lesson plan of each subject is prepared by the concerned faculty members according to the prescribed syllabus of the affiliating university. The entire curriculum has to be completed by the faculty members as per the lesson plan submitted to the department. A report on course coverage is also prepared by each faculty after the completion of the syllabus as per the lesson plan. Tutorial classes on each subject are conducted and assignments are given in every department. The academic calendar issued by the affiliating University (Maulana Abul Kalam Azad University of Technology) is strictly followed by each Department.

All faculty members maintain a course file subject-wise, which contains

- Lesson Plan
- Teaching materials
- Questions, Sample answer scripts & results of the class tests
- Question bank and solutions of the numerical questions
- Result analysis of the class tests
- Report on Course coverage

Internal assessments through students like Class Test-1 and Class Test -2 are conducted in each semester according to the academic calendar. Remedial classes are conducted for the weaker category of students based on the performance of these class tests.

Industrial Visits are arranged for each department to bridge the gap between theoretical knowledge and industry practices.

Special lectures are conducted by distinguished personalities invited from different eminent Universities/ Institutes and Industries.

A mentoring program is conducted for the first year students of each department in which several faculty members are entrusted with responsibility of mentoring and counselling. Each member has the task of mentoring 10 students. For the 2nd, 3rd and 4th year students, student co-ordinators are selected from the teaching faculty who are responsible for addressing various issues related to academic and extra-curricular activities of the students.

1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and/or institution) for effectively translating the curriculum and improving teaching practices?

- Availability of LCD projectors in the classrooms for delivering lectures.
- Availability of Digital libraries, E-learning facilities to all the faculty members of the institution, which help them in teaching and delivering good lectures.
- Encouragement for participation in various faculty development programs, workshops, seminars, conferences to enrich the knowledge of the faculty members.
- Both faculty members and students are exposed to online teaching materials delivered by distinguished professors of IITs through NPTEL and QEEE programmes administered by MHRD.
- Facilities of Wi-Fi and Internet in the institution for better teaching and learning process.
- Faculty members are encouraged to perform research activities and bring in projects by allowing them to participate in seminars, conferences.

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other Statutory agency.

Effective curriculum delivery is ensured by the following initiatives taken by the institute:

- Preparation of Objective Driven Lesson Plan for all courses at the beginning of each semester.
- Continuous upgradation of teaching/ technical staff by encouraging the faculty members to participate in Short-term courses, Pedagogy programs, workshops, seminars, conferences and faculty-development programmes.
- Encouraging faculty members to evaluate their own learning and teaching practice.
- Continuous motivation of the students and the teachers in bringing innovation in teaching-learning methodologies
- Availability of E-Resources and High Speed Internet Connectivity through Broadband and Wi-Fi connectivity

- Project work is an integral part of the curriculum
- Students are sent to various companies for Industrial Training
- Students are motivated for doing research work and publication of papers in different seminars, conferences and journals
- Establishment of an Innovation Cell the purpose of which is to encourage students for conducting innovative project work
- Students are encouraged to participate in various technical events/ competitions conducted within and outside campuses

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalisation of the curriculum?

- The Institute has signed a MoU with Confederation of Indian Industry (CII), RABT Technologies Pvt. Ltd., Dassault Systemes, Volvo Eicher, Sigma Search Light and IBM Rational SEED, IIT Kharagpur, Jadavpur University etc. to support various curricular components. For further details please refer **Point No. 3.7.5 of this SSR.**
- Distinguished personalities from various reputed academic institutes and industries are invited to the Institute for delivering lectures and interaction with the students.
- Industrial training is compulsory for the students as per the curriculum to bridge their gap of theoretical knowledge with practical implementation.
- Different R&D projects (funded by various Govt. and Non-Govt. organization) are conducted in the Institute.
- The institution has collaborated with Government College of Engineering and Textile Technology, Berhampore for visits to educational institutions, mutual exchange of students for training, exchange of faculties, seminars, conferences and other relevant programmes including co-operation of research and consultancy.
- There has been agreement with IIT Madras for dissemination of various courses through QEEE platform administered by MHRD.
- Soft skill programs are conducted to enhance the employability of the students.
- The institute also organizes industry visits for the students.

1.1.6 What are the contributions of the institution and/ or its staff members to the development of the curriculum by the University? (number of staff members/ departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.

The Institute has the following faculty members as representatives in the Board of Studies (BOS) of the affiliating university (MAKAUT):

1. Prof. (Dr.) Samir Kumar Saha (Mechanical & Automobile Engineering)
2. Prof. (Dr.) Debopriyo De (Chemistry)
3. Prof.(Dr.) Arun Jalan (Mathematics)
4. Prof. (Dr.) Bitasta Chanda (Physics)
5. Prof. (Dr.) Amitosh De (Automobile Engineering)

A draft syllabus is prepared by these members on the basis of subject requirement of the industry and academics. A workshop is conducted by the university wherein the feedback from the stakeholders of the institute is collected after which the syllabus is finalised and published in the website.

PG courses are upgraded in a different BOS where the opinion from the experts of the institute is taken and the syllabi are modified accordingly.

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university)by it? If ‘yes’, give details on the process (‘Needs Assessment’, design, development and planning) and the courses for which the curriculum has been developed.

Not applicable. Being an affiliated Institute, it follows the University curriculum.

1.1.8 How does institution analyze/ ensure that the stated objectives of curriculum are achieved in the course of implementation?

Methods of analysis to ensure that the stated objectives of curriculum are achieved in the course of implementation are as follows:

- Successful completion of the syllabus is ensured as the faculty members of the Institution follow the lesson plan thoroughly and submit a report on course coverage at the end of every semester.
- The assessment of course outcome and programme outcome is measured through direct and indirect tools which includes class-tests, short quizzes, assignments, surveys etc.
- Laboratory facilities are available and practical classes are conducted for the students according to the curriculum of the affiliating Maulana Abul Kalam Azad University of Technology, West Bengal.
- Evaluation of teaching learning process is conducted by implementing semester-wise Feedback System in the institute.

1.2 Academic Flexibility

1.2.1 Specifying the goals and objectives give details of the certificate/ diploma/ skill development courses etc., offered by the institution.

- Faculty development programmes are regularly conducted in the institute in which faculty members from other institutes participate as well.
- Online examinations are conducted for the students to enhance their aptitude skill needed for qualifying in the campus recruitment tests. Additionally, diagnostic tests are conducted every year by the institute for the 1st year students to test their fundamental concepts of science and engineering.
- Technical workshops are conducted frequently to encourage the staff members' students in performing various projects and enhance their skills.
- Besides, various Industry personnel are invited in the institute to deliver lectures for the students to provide technical and HR support to enable them prepared for campus drives.
- Offers certificate courses on various topics like AutoCAD, Automotive Technology etc. for technical students.
- Offers special coaching for GATE aspirants.

1.2.2 Does the institution offer programmes that facilitate twinning /dual degree? If 'yes', give details.

Not applicable as per norms of the affiliating University.

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:

- **Range of Core/ Elective options offered by the University and those opted by the college**
- **Choice Based Credit System and range of subject options**
- **Courses offered in modular form**
- **Credit transfer and accumulation facility**
- **Lateral and vertical mobility within and across programmes and courses**
- **Enrichment courses**

a. Core/ Elective options

Common and core subjects are given from Semester I to IV Semester. Elective options are there, as per University curriculum and well executed by the Institute.

b. Enrichment Courses

Relevant short term courses, seminars and workshops are conducted for enrichment of the courses. Invited lectures from distinguished visiting professors and industrialists are held in the institute. Advanced and enriched courses are offered as Electives during the final year UG and PG Degree Programmes.

c. Courses offered in modular form

Almost all the courses in the syllabi are in modular form.

d. Choice Based Credit System and Credit transfer /accumulation facility

As per affiliating University norms, no provisions are there.

e. Lateral and vertical mobility within and across programmes and courses

Lateral mobility is facilitated only in the 2nd year across the programmes and this is applicable only for those students who acquire at least 8.5 YGPA in his/her department in the semester examination.

1.2.4 Does the institution offer self-financed programmes? If 'yes', list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

Yes. All the B. Tech., M. Tech. and MCA programmes are self-financed.

1.2.5 Does the college provide additional skill oriented programmes, relevant to regional and global employment markets? If 'yes' provide details of such programme and the beneficiaries.

Yes, the following skill-oriented programmes are organized by the institute to cater to the need of regional and global employment markets:

- Soft Skill programmes
- Technical Skill Development programmes
- Regular Industry visit - once in a semester
- Vocational Training - during summer and winter recess
- Seminar, workshop, conference.
- Presentation contest.
- Inhouse innovative project competition, Technotica, conducted every year
- Participation in external seminar/ conference
- Participation in external Tech fest/ Tech quiz
- Organization of Seminar/ Conference/Workshop
- Participation in short term courses
- Entrepreneurship programmes

1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice” If ‘yes’, how does the institution take advantage of such provision for the benefit of students?

The Institute does not conduct any course under distance mode.

1.3 Curriculum Enrichment

1.3.1 Describe the efforts made by the institution to supplement the University’s Curriculum to ensure that the academic programmes and Institution’s goals and objectives are integrated?

Following efforts are made by the Institute to supplement the University’s Curriculum and ensure that the academic programmes and Institution’s goals and objectives are integrated.

- The curriculum is thoroughly followed in the institute as per the curriculum prescribed by the Maulana Abul Kalam Azad University of Technology, West Bengal.
- Besides this, QEEE programs are conducted in the institute in which the students can interact, communicate and listen to the valuable lectures of faculty members of IIT.
- Students can also access various online lectures provided by NPTEL on their respective subjects within the institute.
- Eminent academicians and corporate professionals are invited for sharing experts knowledge on specific domains.
- Enrichment of knowledge and expertise of both the students and teachers by motivating them to attend refresher course, seminars, summer schools, winter schools etc.
- Students are sent to Industrial training programmes.
- Seminars, Conferences and Workshops are frequently organized in different areas of technology.

1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

Being an affiliated institution under MAKAUT, the institute has very limited control on enriching the curriculum. The Institute provides feedback on needs of dynamic employment market to the university through BOS members.

Also, the institute provides the following facilities for further enrichment of the curriculum:

- Soft skill classes and Pre-Placement Practice Programs are arranged for the students of the Institution for their personal development and enhancement of employability skills.

- Information of the recent market trends are obtained from the companies through regular communications held by the training and placement department of the institute.
- Alumni feedback is taken periodically to understand the basic requirements of the companies from the graduate engineers.

1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?

As the Institute follows University prescribed curriculum, there is very little scope to add or modify contents into it. However to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., the Institute does the followings:

- Awareness workshops, seminars, invited lectures etc. are conducted to address the issues related to Human Rights, climate change and gender equivalence etc.
- Staff members of the Institute participate in various programmes on Climate Change, Environmental Education, Human Rights, ICT etc.
- Girls and boys participate in various extra and co-curricular activities such as paper presentations, organization of paper contests, group discussions, technical quiz programmes, cultural festival etc. Both boys and girls are made members of various academic, co-curricular and extracurricular activities.
- Women cell is established in the college to look into the problems of girl students and lady staff members.
- Institute offers reduced admission fees for the girl students.
- Subjects on Environmental Studies and Morals & Ethics are taught as per the curriculum to create awareness on environmental issues and build up moral and ethical values among the students.

1.3.4 What are the various value-added courses/ enrichment programmes offered to ensure holistic development of students?

- § **moral and ethical values**
- § **employable and life skills**
- § **better career options**
- § **community orientation**

MCKVIE offers different value added enrichment programmes which prepare students for promising future prospects. In this respect, a Vivekananda Society of positive thinking has been established in the institute where the students and faculty can become members. A library is maintained in this society which contains valuable books of Swami Vivekananda, Sarada Ma, Shri Ramkrishna and other books of philosophical gurus.

Moral and ethical values:

- Regular classes on Values and Ethics in Profession are conducted as part of the Curriculum.
- The College is committed to produce technically educated, hard-working and responsible citizens with high moral and ethical values:
 - a) By arranging personality development / grooming classes for all students
 - b) By observing various National days in the institute
 - c) By celebration of religious and traditional days
 - d) Establishment of Vivekananda Society of positive thinking in the institute.

Employable and life skills:

- Enrichment of communication skills for better career options through personality, Grooming, soft skill and counseling programmes.
- Compulsory industrial Training for the students as per the curriculum.
- Frequent arrangement of industry visits.
- Students are given responsibilities as volunteers in organizing various events and activities such as cultural programmes, different competitions, seminars, workshops, etc. to improve team-work and organizational skills.
- Students are encouraged to become members in the Rotoract Club of the institute where they get the exposure of participating in various social development programs.

Better career options:

- Organizing campus recruitment drives through Corporate Relations & Talent Transformation Cell (CRTTC).
- Grooming classes for GATE

Community orientation

a. NSS – National Service Scheme

The institute is associated with Rotoract Club in which many students are active members and the following NSS (National Service Scheme) activities are undertaken by the club.

- Poster campaigning on social issues
- Plantation of trees
- Blood donation camp
- Swatch Bharat campaign

b. Services to community

The Swami Vivekananda Centre for Positive Thinking conducts many programs oriented for social development. The NSS unit in association with Rotoract Club of MCKVIE takes part in various activities related to services to the community. For details please refer to Point No. 3.6.9 of this SSR.

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

Alumni Feedback: An Alumni meet is organised every year in the institute during which relevant feedback is also collected to improve the institute's performance in academic and professional domain.

Students Feedback: The students' feedback is collected in every semester which helps in continuous monitoring and improvement of teaching-learning process.

Employers Feedback: The Institute collects feedback from employers of students in order to develop students' employability. On the basis of feedback, grooming class, aptitude class, English communication class, mock interview and group discussion sessions are organized to enhance employability of the students.

Board of Governors (BOG) Feedback: Advises and suggestions are collected from the BOG meetings held in the institute and corrective measures are adopted accordingly.

Faculty Feedback: The Institute has the privilege of obtaining valuable feedbacks from the faculty members on different issues including curriculum and co-curricular activities.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

The Institute monitors and evaluates the quality of its enrichment programs through the following Committees:

- Institute's Quality Assurance Cell (IQAC)
- Academic Advisory Committee (AAC)
- Departmental Academic Committee (DAC)
- Feedback mechanism at various levels
- Examination Cell
- Library Committee
- Students' Counselor

Institute's Quality Assurance Cell (IQAC): IQAC has been formed in the institute with the objective of monitoring the quality of functioning of various processes and formation of necessary guidelines to carry out such activities in the best manner possible.

Academic Advisory Committee: Smooth functioning of the institute's activities are ensured by the academic advisory committee-

- Framing of Academic Calendar
- Result analysis

- Monitoring of Academic progress
- Analysis of students' feedbacks
- Requirements of academic infrastructures

Departmental Academic Committee (DAC): A meeting of the DAC is held at regular intervals in every department of the institute. In this meeting, the HOD discusses various issues related with the functioning and development of the department with the faculty and technical staff members. Resolutions are taken accordingly, noted by the DAC Convener and circulated to all the members in the department. These resolutions are thoroughly followed by every member of the department

Feedback Mechanism: The Institute collects feedback from various stakeholders, and scrutinizes them to incorporate the appropriate suggestions.

Examination Cell: The Cell is responsible for conducting the Internal Examinations, and an additional committee is formed for making the necessary arrangements in conducting the Semester Examinations. It also maintains a complete database of students' examination results.

Library Committee: This committee is responsible for regular monitoring and smooth functioning of the central library of the institute. Enlistment of books, journals, magazines, followed by their upgradation and verification, are done by application of the Library Management Software – LIBSYS. The students and the teachers can avail the facilities of the library even beyond the normal working hours. Facilities of Digital Library, internal services, Journal subscription and different technical magazines are also available in the library.

Students' Counselling: A student counsellor is dedicated for this purpose who takes care of the overall progress of the students in academic and extra-curricular activities. She regularly communicates and consults with the students and their parents to keep track of the students' performance in the concerned areas.

1.4 Feedback System

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

The Institute being affiliated to MAKAUT, the curriculum is designed and developed by the University. The University invites the representatives from the colleges in the respective Board of Studies to put forward their views on behalf of the Institutes during the formation/ reformation/ modification of the curriculum.

- The faculty members of the Institute are included among the members of Board of Studies and they actively participate in workshop and seminar organized on curriculum development and modification.
- In all curriculum upgradations, feedbacks obtained from various stakeholders are analyzed and discussed in the in-house departmental meetings.

- The concerned HODs convey the proposed upgradation to Board of Studies of University through representative members.
- The upgraded syllabus is routinely discussed in Board of Studies meeting for any further modification.

1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If ‘yes’, how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

Yes.

- Curriculum development is under the domain of the affiliating University. However, representatives from the institute are sent to the university on being invited during the formation/ reformation/ modification of the curriculum.
- Online system is prevalent in the institute to collect the feedback from the students in every semester.
- Parent-teacher interactions are organised at regular intervals to obtain the feedback.
- Suggestions from various Industrialists and Academicians are also taken and discussed in departmental meetings on the basis of which relevant modifications are forwarded to the University during meeting of the Board of Studies.
- An alumni meeting is organised regularly and relevant information and feedback are collected. Also there is a provision of Alumni feedback through which department collects their opinion for enrichment of the curriculum.
- Thus feedback taken from all stakeholders help the institute to identify the curricular gap and several workshops, seminars, invited lectures etc. are conducted to bridge the gap and further enrichment of the curriculum.

1.4.3 How many new programmes/ courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/ programmes?)

Two new programmes/ courses were introduced by the institution during last four years. The programmes are as follows:

- M.Tech. in Automotive Technology
- M.Tech in Electronics & Communications Engineering with specialization in VLSI Design

Any other relevant information regarding curricular aspects which the college would like to include.

None.

CRITERION II: TEACHING - LEARNING AND EVALUATION

2.1 Student Enrollment and Profile

2.1.1 How does the college ensure publicity and transparency in the admission process?

Publicity:

1. The Institute follows the guidelines given by Maulana Abul Kalam Azad University of Technology (MAKAUT) and AICTE. 90% (80% from WBJEE & 10% from AIEEE, Presently JEE-MAIN) admissions are done through counseling of West Bengal Joint Entrance Examination Board. The Management quota is filled directly on the basis of the applications received.
2. The students are admitted to the UG programmes through the single window online counselling by Central Selection Committee and affiliating University. The University conducts separate examination followed by counseling for admission in PG programmes.
3. Admission in MCA programme is done through Joint Entrance Examination, JECA. There is a provision of up to 10% of seats to be filled up through Management Quota.

In order to ensure publicity and to acquire information about the institute and its academic activities, following steps are taken:

1. The Institute maintains a website with detailed information.
2. The Institute publishes News Letter, Prospectus, Leaflets etc. for circulation.
3. The Institute participates in Education Fairs/ Career Fairs.

Transparency:

The Institution follows the guidelines for admission process provided by the Higher Education Department, Government of West Bengal and the affiliating university, MAKAUT.

2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.

The entire process of admission is controlled by the Higher Education Department, Government of West Bengal and the affiliating University MAKAUT, formerly known as WBUT.

Admission Procedure & Other Formalities

Eligibility for Admission:

A. Bachelor of Technology (B. Tech) (4-years duration)

- I. H.S. (10+2) examination with Physics, Chemistry and Mathematics.

- II. Qualified in Joint Entrance Examination conducted by West Bengal Joint Entrance Examinations Board/ Central Board of Secondary Education and recommended by the WBJEE Board
- III. 80% seats to be filled up by WBJEE candidates, 10% by JEE (Main) candidates and 10% under Management Quota (amongst WBJEE or JEE (Main) rank holders).
- IV. Diploma holder students should qualify JELET for getting admission in the 2nd year (lateral entry) with an additional intake of 20% of the approved intake.

B. Master of Technology (M.Tech.) (2-years duration)

- I. Admissions are made from candidates allotted by MAKAUT as per eligibility criteria prescribed by them (which is a relevant AICTE recognized Bachelor's Degree in Engineering / Technology or equivalent).
- II. All applicants for admission to M.Tech. Program except those having valid GATE score should sit for a written test (PGET) conducted by MAKAUT.
- III. However, those having GATE score have to fill in the application form and submit the same to MAKAUT along with prescribed fee.

C. Master of Computer Application (MCA) (3-years duration)

- I. Candidates have to pass Bachelor's Degree in any discipline under (10+2+3) system with Mathematics and having at least 50% marks in the graduation level.
- II. Candidates should qualify the Joint Entrance Examination (JECA). There is a provision of up to 10% of seats to be filled up through Management Quota.

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/ district.

The admission process is totally under the control of WBJEEB and the affiliating University MAKAUT as per the guideline framed by State Government. Institute follows rules, regulations and guidelines laid down by the state government. The performance of the students in the entrance examination conducted by WBJEE is indicated as ranks which are published as merit list. However for PG programmes, university conducts a separate examination PGET, through which students are admitted. The opening and closing ranks for both UG and PG (last five years) of the aspiring students admitted in the Institute are given below.

UG						
YEAR	2016					
Examination	WBJEE Rank		JELET Rank (Lateral Entry)		JEE - MAIN Rank	
Department	Opening	Closing	Opening	Closing	Opening	Closing
AUE	8661	95477	89	9922	267706	948138
CSE	6152	96437	29	8640	134503	827091
ECE	1927	98927	241	8739	116190	480345
EE	8828	87420	4610	10097	329395	369053
IT	9639	97430	3214	3214	111809	734777
ME	1645	97037	1083	8765	266224	792949
YEAR	2015					
AUE	9461	74739	1658	6723	132564	831170
CSE	10684	27236	286	8273	101465	160498
ECE	7956	38662	5543	9593	136372	210855
EE	10372	43286	1376	9024	139595	246035
IT	8531	49956	79	79	244828	671267
ME	8932	38384	500	3398	100759	440646
YEAR	2014					
AUE	13055	73484	47	6897	221261	561904
CSE	7621	37780	1383	4917	104705	142196
ECE	10972	48491	1427	3914	91827	1053077
EE	9452	49335	872	3402	238849	277515
IT	14895	73486	5165	5165	298153	335728
ME	4993	37847	312	1781	122628	168404
YEAR	2013					
AUE	10111	88726	877	2986	116423	499519
CSE	7854	86241	24	7497	99316	484813
ECE	4947	32772	182	2437	82581	794892
EE	7534	84279	516	2048	126530	148172
IT	14368	73083	7551	7551	211536	630035
ME	5143	74183	535	3980	59954	126632
YEAR	2012					
AUE	9003	33420	198	5273	92995	133794
CSE	8436	27019	869	4762	33951	67828
ECE	5821	22518	601	2421	46116	87530
EE	5046	22582	1211	2393	67995	82304
IT	13059	27172	5483	5483	100494	135208
ME	4071	15132	351	1222	53142	70235

PG										
YEAR	2016		2015		2014		2013		2012	
Examination	PGET									
Department	Opening	Closing								
M.Tech. in Automotive Technology	169	169	171	738	830	1230	866	1882	1543	1543
M.Tech. in CSE	318	318	311	1041	667	11235	774	13018	67	1450
M.Tech. in ECE	396	887	393	1090	63	721	966	1995	1108	2149
M.Tech. in ECE (VLSI Design)	28	28	372	1043	112	956	446	1821	2	2048
	JECA		JECA		JECA		JECA		JECA	
MCA	76	1512	52	1497	361	2236	755	2015	443	3602

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If ‘yes’ what is the outcome of such an effort and how has it contributed to the improvement of the process?

As the admission process is fully centralized, the Institute has no control on it. However, Institute conducts a diagnostic test just after students join the UG programmes. The test is taken on six basic subjects; namely Physics, Chemistry, Mathematics, English, Mechanics and Electrical/ Electronics conducted through an online process to identify the gap of knowledge of each individual student since they come from different Board examinations and from different region. Remedial classes are conducted thereon to bring them at par thus to improve their profiles.

2.1.5 Reflecting on the strategies adopted to increase/ improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion

- * SC/ ST
- * OBC
- * Women
- * Differently abled
- * Economically weaker sections
- * Minority community
- * Any other

SC/ ST:

The institute does not have provision for admission of SC and ST candidates.

Women:

The institution does not discriminate on the basis of gender and encourages gender equality. Further to encourage the girl students, certain portion of admission fee is waived for them.

Differently Aabled:

Though, the Institution does not have reservations for physically challenged and differently-abled students, but they are treated affectionately and sympathetically.

Economically weaker sections:

The Tuition Fee Waiver (TFW) Scheme of AICTE has been implemented by the Higher Education Department, Government of West Bengal for economically backward meritorious students of West Bengal from the academic session of 2011-12. This Institution offers the admissions under said TFW Scheme.

The selection of candidates for the Tuition Fee Waiver Scheme shall be decided on the basis of merit and preference of eligible students in the WBJEEM. Students must be domiciled in West Bengal and the total annual Family Income of the student from all sources must be less than Rs. 2.50 lakhs (Rupees two lakhs and fifty thousand) only.

Apart from this, there is a provision of giving full freeship and half freeship in tuition fees to the meritorious and economically weaker students.

The management of the Institute also waves some of the fees for students under special humanitarian ground.

Minority community:

The Institution guides and facilitates the students from minority community for Merit-Cum-Means Scholarship (MCM) from WBMDFC, a Statutory Corporation of Govt of West Bengal. Meritorious (minimum 50% marks at 10+2 level) and needy students belonging to minority communities and domicile of West Bengal with age not more than 32 years are also encouraged to avail the interest free Education Loan up to Rs 50,000 per year from WBMDFC.

Any other:

- a) Student's Welfare Committee (SWC) of the Affiliating MAKAUT extends the fee waiving relief to the students facing hardship during the studentship in the case of the causalities viz. i) Death of Parent/ Guardian/ Earning Member of the family and ii) Accident faced during their studentship.
- b) The students can get Indian Railway train-fare concession from this Institution when travelling to and from their home or for purpose of educational tours.

The details of the Institutional data related to different schemes of tuition fees waiver is given below:

TFW Student List

Sl. No	Academic Year	Intake	Department					
			AUE	IT	CSE	ECE	ME	EE
1	2016-17	62	11	12	9	8	11	11
2	2015-16	61	11	11	10	7	11	11
3	2014-15	60	11	10	9	9	11	10
4	2013-14	45	8	7	8	6	9	7
5	2012-13	30	5	4	5	5	6	5
Total		258	46	44	41	35	48	44

WBFS (Full & Half Free) Student List

Sl.No.	Academic Year	Total	Department											
			AUE		CSE		ECE		EE		IT		ME	
			Half	Full	Half	Full	Half	Full	Half	Full	Half	Full	Half	Full
1	2016-17	207	24	6	29	9	28	6	31	7	26	6	27	8
2	2015-16	176	20	6	23	9	25	6	25	7	20	6	21	8
3	2014-15	183	22	8	19	13	19	9	21	11	18	9	21	13
4	2013-14	184	22	11	13	17	15	14	19	14	15	11	17	16
5	2012-13	182	18	17	8	17	11	23	12	12	15	10	19	20
6	2011-12	156	16	21	7	18	5	24	6	10	11	9	13	16
7	Total	1088	122	69	99	83	103	82	114	61	105	51	118	81

Teaching Assistantship:

Sl. No.	Academic Year	Total	Department			
			AUE	CSE	ECE Communication	ECE VLSI
1	2015-16	19	5	2	6	6
2	2014-15	35	5	10	13	7
3	2013-14	25	3	12	6	4
4	2012-13	24	2	7	12	3
Total		103	15	31	37	20

B-TECH (4YEARS)/ MCA (3YEARS) MTECH (2YEARS) 2013 TO 2016 AS ON 31ST 2017

All	Admitted	ALL		SC		ST		OBC		OBC Muslim		Muslim		Minori ty		GEN		B.TECH. TFW	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2013-2016	1644	1282	362	33	8	4	0	121	25	30	3	71	16	8	6	957	299	56	7
		1644		41		4		146		33		87		14		1256		63	

2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase / decrease and actions initiated for improvement.

Academic year	Programmes	Number of Applications/ Sectioned In take	Number of students admitted	Demand Ratio(%)
UG				
2016-2020	AUE	63	45	71.43
2015-2019		63	47	74.6
2014-2018		63	50	79.37
2013-2017		63	59	93.65
2012-2016		63	62	98.41
2016-2020	CSE	63	62	98.41
2015-2019		63	63	100
2014-2018		63	61	96.83
2013-2017		63	62	98.41
2012-2016		63	63	100
2016-2020	ECE	63	62	98.41
2015-2019		63	61	96.83
2014-2018		63	63	100
2013-2017		63	61	96.83
2012-2016		63	63	100
2016-2020	EE	63	63	100
2015-2019		63	61	96.83
2014-2018		63	63	100
2013-2017		63	60	95.24
2012-2016		63	62	98.41
2016-2020	IT	63	62	98.41
2015-2019		63	58	92.06
2014-2018		63	58	92.06
2013-2017		63	63	100
2012-2016		63	62	98.41
2016-2020	ME	63	63	100
2015-2019		63	61	96.83
2014-2018		63	63	100
2013-2017		63	63	100
2012-2016		63	63	100

Academic year	Number of Applications/Sectioned In take	Number of students admitted	Demand Ratio(%)
PG			
2016	72	16	22.22
2015	72	19	26.38
2014	72	07	9.72
2013	72	25	34.72
MCA			
2016	60	19	31.67
2015	60	13	21.67
2014	60	21	35
2013	60	51	85

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

The Institute is concerned about the Government policies regarding the need of differently-abled students and they are treated affectionately and sympathetically.

The facilities present for them are:

- Physically disabled students can utilize elevator facility in the main entry of the administrative block of the Institute to reach class rooms.
- Institute also arranges for the writer during the university examinations as per university norms and regulations if required.
- Students can also appear in examinations in a separate room at ground floor if medically unfit or under special circumstances.
- Wheel Chair is available to support them carefully.
- A full time Counsellor has been deployed to provide mental support.
- Ramp is provided for smoothly running of the wheel chair.

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

Institute conducts a diagnostic test just after students join the UG programmes. The test is taken on six basic subjects; namely Physics, Chemistry, Mathematics, English, Mechanics and Electrical/ Electronics conducted through an online process to identify the gap of knowledge and skills of each individual student since they come from different Board examinations and from different region. Remedial classes are then planned, designed and conducted to bring them at par thus to improve their knowledge and skills.

2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/ Remedial/ Add-on/ Enrichment Courses, etc.) to enable them to cope with the programme of their choice?

Yes,

The Institute offers following Bridge/ Remedial/ Add-on/ Enrichment Courses, etc. to enable them to cope with the programme of their choice:

- Remedial classes, or special classes, are conducted for slow learners.
- As the lateral entry students join late with the regular students, such courses are also conducted for lateral entry students.
- Intensive soft skill and technical / aptitude training is conducted prior to start of campus recruitment season.
- Students in the first and second year are given grooming sessions and group discussion training.
- The Humanities Department conducts soft skill and communication classroom programmes in line with WBUT curriculum.
- Students are also connected to TCS Campus Commune and with COCUBE through which they continue to get guidance and training inputs from these organizations.
- Summer training for students of pre-final year which is in line with MAKAUT requirement is also specially arranged through reputed organizations on specified technical and skill programmes to improve their employability prospects.
- Programmes are also organized for employability enhancement of students in technical and soft skill areas, especially tailored to the need of employer.
- Special training (pre placement practice programme) is arranged to unplaced students to aid their selection by recruiters.
- Conducted employability evaluation tests through CBT to identify the areas of individual weakness and address them suitably while conducting training programme.
- The ‘Technotica’ and ‘Tech-Fest’ were organized to encourage the activities pertaining to robotics and technical competition for MCKVIE students for both within and outside the campus.
- The Institute has a Photography Club.
- To fulfill societal commitment; Rotaract Club of the Institute under the parent body Rotary Club of Mahanagar has been established, in addition to this an active cell of NSS is also present here.
- To encourage entrepreneurship activities of the students an ‘Innovation Cell’ under CII and ‘Institutional Entrepreneurship Development (IED) Cell’ has been formed under National Entrepreneurship Network (NEN).

2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

- The institution has a regular scheme of helping economically weaker students in form of full and half free studentship as partial monetary help
- During continuation of such benefits to the economically disadvantaged students, a continuous vigil is made and a survey is conducted about the sustained academic growth of these students.
- For slow learners, unable to keep pace with the rest of the students, evidenced by results of poor class test are offered additional remedial classes in the specific subjects.
- Male and female staff members in our institution are treated in an equal manner.
- The staff members and students are treated equally in religious aspects.
- Women cell and Grievances Redressal cell function separately for the benefit of the women employees and girl students.
- The institution never discriminates on gender and religious issues.
- All kinds of academic help are provided for the benefit of the economically and socially weaker section students.
- NSS camps are organized for the students every year. Social issues and plantation of trees are given importance during the camps.
- Blood donation camp is organized by ROTARACT CLUB frequently. The students come forward and donate blood for the benefit of the public.
- Our campus is smoke-free.

2.2.5 How does the institution identify and respond to special educational/ learning needs of advanced learners?

Performance of the students in class tests and semester examination in the first half of the academic year helps in identifying the advanced learners.

1. The Institute allows the best students to change their branch as per their choice after first year examination as articulated by affiliating University.
2. The advanced learners are greatly appreciated, encouraged to participate in seminars, workshops, conferences etc. taking sponsorship from the Institute to achieve awareness of modern advancement in technology, industry and research.

2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?

The following measures are implemented to prevent possibility of any drop-out.

1. Physically challenged:

Lift is available for sick or injured students. Also provision for use of wheel chair is there to reach class rooms and laboratories.

2. Economically weaker:

Free / Half free student ship, installment payment facilities are arranged for such students.

3. Slow Learners :

- a. Tutorial class.
- b. Remedial coaching class

2.3 Teaching-Learning Process

2.3.1 How does the college plan and organise the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)

The institute plans and organizes teaching, learning and evaluation schedule for effective implementation of the curriculum through various administrative and academic committees and cells (like Academic Advisory Committee (AAC), Departmental Academic Committee (DAC), Examination Cell, Library Committee, Internal Quality Assurance Cell (IQAC), Finishing School, Assessment Committee).

A meeting is held by the Academic Advisory Committee of the Institute with the Departmental Heads of various departments for developing plans to implement the curriculum effectively in every semester. Departmental meetings are held at regular intervals in which these plans are conveyed to the faculty members. The faculty members are also encouraged to conduct projects, workshops, seminars, conferences, industrial visits, presentations and assignments to realize the prescribed goals for effective implementation of the curriculum. However, IQAC is made fully functional from 28th September, 2016 wherein feedback from Finishing School and Assessment Committee are discussed and acts accordingly.

An academic calendar is circulated among the faculty members in view of which a lesson plan of each course is prepared by the concerned faculty members according to the prescribed syllabus of the affiliating university. The entire curriculum has to be completed by the faculty members as per the lesson plan submitted to the department. A report on course coverage is also prepared by each faculty after the completion of the syllabus as per the lesson plan. Tutorial classes on each subject are conducted and assignments are given in every department. The academic calendar issued by the affiliating University (Maulana Abul Kalam Azad University of Technology) is strictly followed by each Department.

All faculty members maintain a course file subject-wise, which contains

- Lesson Plan
- Teaching materials
- Questions, Sample answer scripts & results of the class tests

- Question bank and solutions of the numerical questions
- Result analysis of the class tests
- Report on Course coverage

Internal assessments through students like Class Test-1 and Class Test -2 are conducted in each semester according to the academic calendar. Remedial classes are conducted for the weaker category of students based on the performance of these class tests.

Industrial Visits are arranged for each department to bridge the gap between theoretical knowledge and industry practices.

Special lectures are conducted by distinguished personalities invited from different eminent Universities/ Institutes and Industries.

A mentoring program is conducted for the first year students of each department in which several faculty members are entrusted with responsibility of mentoring and counselling. Each member has the task of mentoring 10 students. For the 2nd, 3rd and 4th year students, student coordinators are selected from the teaching faculty who are responsible for addressing various issues related to academic and extra-curricular activities of the students.

2.3.2 How does IQAC contribute to improve the teaching– learning process?

The Institute has constituted the Internal Quality Assurance Cell (IQAC), taking internal and external members as per the composition prescribed by the NAAC to achieve the following goals:

1. To develop and maintain a quality system to improve the academic and administrative performance of the Institute.
2. To plan and execute institutional functioning towards overall quality enhancement of the Institute.

IQAC has been formed to look after following functions of the Institute to improve the teaching learning process.

1. The various tools of teaching learning process such as academic calendar, lesson plan, course coverage report, mode of delivery of teaching etc. are to be monitored and controlled by the IQAC as per the guidelines of Governing Body and Academic Advisory committee of the Institute.
2. IQAC is responsible to plan, design, implement and post implement analysis of feedback of all stakeholders of the Institute.
3. The cell is to organize and encourage for participation in inter and intra institutional workshops, seminars, conferences, visit to industries etc. to improve the domain knowledge of the students as well as make them familiar with latest technologies prevailing in the industry.
4. The IQAC is accountable to take the lead role in preparing and assessing various documents related to NBA accreditation, ISO surveillance audit, NAAC evaluation etc. leading to overall quality improvement of the Institute.

5. The cell looks after the process of dissemination and distribution of information on the various quality parameters in form of mission, vision, quality policy, Programme Educational Objectives etc. among various stake holders.

2.3.3 How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?

The Institute adopts following practices to increase students' participation in teaching learning process

Interactive Learning:

1. Availability of classrooms with ICT facilities in all the departments.
2. The Institute has state of the art seminar halls, modern language laboratory where students participate in group discussions, debates and seminars etc.
3. The institute encourages students to listen and interact with IIT faculty members through online NPTEL and QEEE programmes.

Collaborative Learning:

1. All faculty members have been trained with modern pedagogical tool such as designing and assessment of course outcome, programme outcome, learning outcome, effective content delivery in the class room etc.
2. Faculty members organize and participate in various national/ international workshop/ seminar/ conference, FDPs etc. for enhancement of their knowledge/ skill in related areas.
3. The department organizes invited lectures by inviting speakers from various industries/ academic institutions to bridge the knowledge gap between industry and academia.

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

- Application of Modern Analytical Techniques, which are not covered in the course curriculum are also carried out in the 4th year project work in order to generate research aptitude of the student and to produce instinct in depth interest to the mind of the students to go for higher studies.
- Students who are interested in Research and Development work are continuously motivated and encouraged to present their Project/ Research work in different National/International Seminar/ Conference/ Workshop, publish their work in National/ International Journal and Seminar/ Conference Proceedings.
- Students are motivated for formation of Students Chapters.
- Students are rewarded for their outstanding performance in project, research and other relevant fields.

- Faculty members are engaged with their research work in association with potential students and they always try to share their innovative concepts with the students.
- The faculty members always try to engage themselves to train the students in different areas of Multidisciplinary Engineering & Technological fields.
- The Institute has collaborated with various professional bodies like CII (ER), NEN etc. to nurture critical thinking, creativity and scientific temper among the students.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? Eg: Virtual laboratories- learning- resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME- ICT), open educational resources, mobile education, etc.

Apart from conventional classroom teaching practices, that includes chalk and board, power point presentation etc., following modern technologies and facilities are available and used by the faculty members to improve effective teaching:

1. QEEE programme under MHRD.
2. E-Library (E-Books and Online Journals)
3. Modern Language laboratory
4. Institute has established a local chapter of NPTEL in collaboration with IIT Kharagpur.

2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?

The students and faculty members of the Institute are exposed to the advanced level of knowledge and skills in the following ways:

Blended learning:

- Vocational Training for the students in association with industries, as per course curriculum.
- Laboratory works, Workshop practice are routinely carried out as per the curriculum.
- Short term courses are imparted in winter and summer recess by the relevant industries.
- Regular industry visits are organized by the training and placement cell of the college.

Expert lectures:

- Industry personnel and Eminent Faculties of different premier institutes are often invited to share their knowledge with students.

Seminar/ Workshop:

- Faculty members and students are encouraged to participate in various National, International Seminars, Refresher courses, Workshop, Conferences etc.
- Institute organizes National, International Seminars, Conferences and Workshops to motivate the faculty members.

2.3.7 Detail (process and the number of students\ benefitted) on the academic, personal and psycho-social support and guidance services (professional counseling/ mentoring/ academic advise) provided to students?

The Institute provides academic, personal and psycho-social support and guidance to the students in the following ways:

Academic:

- Slow learners are identified and are given special care, through regular counseling / academic advice by the subject teacher and mentor, and especially by the Students counselors appointed by the Institute.
- Advanced learners are encouraged to prepare for State and National level competitive exams.

Personal:

- Some of the rural students having lack confidence, and may suffer from inferiority complex. These cases are dealt with on an individual basis to gradually infuse confidence in them. They are made to walk along with the rest of the students to build up the zeal.

Psycho-social:

- Students with poor communication skill are advised to work in the Language Lab after college hours.
- Brilliant students with desperate financial necessities are provided with Free Students' Fellowship by the Institute.
- Students having demotivated in studies and other extra-curricular/co-curricular activities due to personal reasons and for other reasons whatsoever, are provided counseling to revive themselves by the Counselors appointed by the Institute.

Guidance:

- **Professional counseling-** Counseling is done by qualified professional counselors appointed by the Institute. In addition senior faculty members and administrators in the Institute also help students to accomplish mental health, wellness, human growth and development, education, and career goals, social culture, give away abnormal human behavior, appraisal , research, making good lifestyle, and professional orientation for a rewarding career path.
- **Mentoring-** For individual faculty members, 10 students have been allotted, who are responsible for all activities carried out by the student. Meetings are conducted by the principal every semester to access the outcome.
- **Academic advice-** If students face any academic problems while studying, academic advice is provided to help students to find solutions by the member of Departmental Academic Committee referred by respective mentor.

2.3.8 Provide details of innovative teaching approaches/ methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

Innovative teaching approaches/ methods adopted by the faculty:

Faculty members are continuously trained to adopt innovative teaching methodologies. Few of which are:

- a. The teachers circulate tutorial problems, assignments, lecture notes and other relevant materials to the students.
- b. Formation of different groups among the students and encouraging peer learning, which help the students who are academically weaker.
- c. The students are given many tasks such as group assignment competition, problem solving and mini projects. These activities help the students to learn on their own.

Efforts made by the Institution:

The Institute continuously exerts many efforts to motivate and equip the faculty members with modern tools of effective teaching. Some of the efforts are mentioned in **Point No. 2.3.3** under collaborative learning. However, the Institute also works with industries to bring many innovative approaches in teaching process. Some of these are mentioned below.

- The Institute has collaboration with many leading industries and academic institutions, few of which include CII (ER), IIT Kgp, VE Commercial Vehicle, Sigma Search Light Pvt. Ltd, Jadavpur University etc. The joint activities have a great impact on students learning in terms understanding of fundamentals.
- HR Meet, in which HR professionals from different industries address the students to make them aware of industry requirements.

Impact of innovative practices on student learning:

- Enabling individuals to better develop and realize their personal potential.
- Exploited to allow the learner to not only enjoy learning, but acquire skills that empower him/ her to actively engage in the development of his personal skills and competences and improve their performance and achievement.

2.3.9 How are library resources used to augment the teaching learning process?

The library committee of the institute periodically reviews the requirement of learning resources in the central library as per the need of students and faculty members of all departments. Procurement is made accordingly to make the stock up to date. Besides, students and faculty members can access departmental library as and when required. Following are services provided to the students and faculty members to augment the teaching learning processes:

- Students and staff members can access Central Library of the Institute beyond working hours and also during the vacations.

- Reference: Reference services is provided to students and other communities to find out required reading materials/ journal articles as and when demanded and in anticipation
- Reprography: Xeroxing facility is available
- E-resources including e journals, downloading facility available in the library as well as other places connected with LAN through library management system (Libsys) software.
- Reading List/ Bibliographic compilation provided to faculty members on request.
- Library arranges orientation programs at the beginning of the 1st Semester by batches of 63 students to appraise overall library services, arrangement of books, journals, assistance to students, working hours, etc. Moreover, Library staff always helps the students and arrange further awareness drive once in a week by Power point presentation (.ppt) and direct interaction.
- Assistance provided in searching digital library, downloading the required materials. Detailed search strategies for getting required information from E-Books (Pearson, IEEE-Wiley and MGH) and E-journals (IEEE, Springer, J GATE) are available.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If ‘yes’, elaborate on the challenges encountered and the institutional approaches to overcome these.

The content delivery as per the university curriculum sometime faces challenges due to unexpected and unavoidable circumstances in terms of losses of class hours. However, the same is managed by making and implementing proper plans for taking additional classes.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

There are several bodies starting from DAC, AAC, IQAC exists in the Institute to monitor and evaluate the quality of teaching learning process. Programme Assessment Committee (PAC) of the department evaluates the performance of the students as well as teaching learning process in terms of attributes (POs) achieved by the students/ graduates. The assessment is conducted by different tools like Class Tests, Assignments, Co and Extra Curricular activities, feedback from students, faculty members, parents, employer, alumni etc. Also Institute identifies weaker students and takes proper corrective actions to improve their performance.

2.4 Teacher Quality

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum

Recruitment of faculty:

The Institute publishes advertises for the recruitment of the faculty in the state and national level newspapers mentioning qualification and eligibility criteria, compensation package etc. AICTE

and university norms and conducts interviews by forming selection committee in proper structure.

The following table summarizes faculty profile, and their qualifications at our Institute:

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./ D.Litt.	0	0	0	0	0	0	0
Ph.D.	8	1	8	1	7	2	27
M.Phil.	0	0	0	0	0	1	1
PG	0	0	2	0	54	23	79
Temporary teachers							
Ph.D.	1	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0
Part-time teachers							
Ph.D.	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0
PG	0	0	0	0	2	0	2

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

- Institute recruits highly qualified faculty members holding Ph.D. degree in all departments wherever possible.
- Senior & highly qualified faculty members from parent University/ Institution/ Research labs are invited to deliver guest lectures on some emerging topics and subjects.
- Institute organizes seminar/ workshop/ conference on current developments in emerging areas of science and technology.

2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

- Nomination to staff development programmes**

The following table summarizes the faculty and staff development programs that the Institute's employees have gone through for their enhanced skills and attainment of greater professional heights.

Programmes attended at other Institutes/ Universities:

Academic Staff Development Programmes	Number of faculty nominated							
	AUE	BSSH S	CSE	ECE	EE	IT	ME	MCA
Refresher courses	2	1	6	0	2	2	1	0
HRD programmes	6	0	4	2	0	9	1	0
Orientation programmes	18	2	1	0	0	2	1	0
Staff training conducted by the university	0	0	10	1	0	10	1	0
Staff training conducted by other institutions	25	13	35	35	16	26	3	11
Summer / winter schools, workshops, etc.	12	19	33	25	40	27	55	36

Besides, faculty development programmes (FDP) are arranged by the Institute regularly.

b) Faculty Training programmes organized by the Institution to empower and enable the use of various tools and technology for improved teaching-learning:

- Teaching learning methods/ approaches
- Handling new curriculum
- Content/ knowledge management
- Selection, development and use of enrichment materials
- Assessment
- Cross cutting issues
- Audio Visual Aids/ multimedia
- Teaching learning material development, selection and use

Following table shows the no. of different training programmes organized by the departments of the Institute to empower and enable the use of various tools and technology for improved teaching-learning.

Year	Name of the Department							
	AUE	BSSH S	CSE	ECE	EE	IT	ME	MCA
2016	10	0	4	14	3	2	2	0
2015	8	1	7	6	4	3	3	0
2014	6	0	0	2	0	0	4	2
2013	10	5	5	1	1	4	5	1

For details, please refer to **Point No.32 of Evaluative Report** of individual departments of SSR.

c) **Percentage of faculties –**

- **invited as resource persons in Workshops/ Seminars/ Conferences organized by external professional agencies.:**
- **participated in external Workshops/ Seminars/ Conferences recognized by national/ international professional bodies :**
- **presented papers in Workshops/ Seminars/ Conferences conducted or recognized by professional agencies :**

Percentage of Faculty:

Department	Academic Year	Percentage (%) of Faculty Members		
		invited as resource persons in Conferences organized by external professional agencies	participated in external Conferences recognized by national/ international professional bodies	presented papers in Workshops/ Seminars/ Conferences conducted or recognized by professional agencies
AUE	2016-17	0	60	0
	2015-16	0	45.5	9.1
	2014-15	0	69.3	7.7
	2013-14	0	53.9	15.4
	2012-13	0	20	13.4
BSHSS	2016-17	0	0	10
	2015-16	5.3	5.3	15.8
	2014-15	0	4.8	19.1
	2013-14	0	0	14.3
	2012-13	0	4.8	0
CSE	2016-17	7.2	64.3	21.5
	2015-16	0	69.3	7.7
	2014-15	0	85.8	7.2
	2013-14	0	57.2	21.5
	2012-13	0	20	13.4
ECE	2016-17	0	26.7	6.7
	2015-16	11.8	23.6	11.8
	2014-15	17.7	70.6	5.9
	2013-14	5.9	23.6	5.9
	2012-13	0	47.1	5.9

Department	Academic Year	Percentage (%) of Faculty Members		
		invited as resource persons in Conferences organized by external professional agencies	participated in external Conferences recognized by national/ international professional bodies	presented papers in Workshops/ Seminars/ Conferences conducted or recognized by professional agencies
EE	2016-17	0	0	60
	2015-16	0	100	70
	2014-15	0	100	40
	2013-14	0	100	50
	2012-13	20	70	80
IT	2016-17	10	0	10
	2015-16	10	70	10
	2014-15	10	90	20
	2013-14	0	66.7	0
	2012-13	8.4	75	8.4
ME	2016-17	18.2	36.4	9.1
	2015-16	0	50	8.4
	2014-15	0	21.5	7.2
	2013-14	0	58.4	16.7
	2012-13	0	9.1	9.1
MCA	2016-17	0	27.3	9.1
	2015-16	0	45.5	0
	2014-15	0	54.6	9.1
	2013-14	0	63.7	27.3
	2012-13	0	41.7	0

2.4.4 What policies/ systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)

The Institute offers following facilities/ systems to the faculty and staff members as part of its policies:

- Faculty members are provided study leave with financial support including TA/ DA/ Registration Fee for presenting papers in International/ National Seminar/ Conference.

- Faculty members are provided study leave for pursuing Ph.D. programme/ Post Doctoral Research programme.
- All physical and financial support are provided to the faculty members for obtaining research grants from various Govt./ Non-Government organization.
- Career Advancement Scheme (CAS) exists for all the employees followed by rules and regulations by the AICTE/ State Government.
- Faculty members are provided study leave for attending various short term course/ Winter course etc. for enhancement of their academic knowledge in related fields of specialization.

2.4.5 Give the number of faculty who received awards/ recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/ achievement of the faculty.

Following table shows the list of faculty members received awards/ recognition at the state, national and international level.

Sl No.	Name of faculty	Details
AUE Department		
1	Mr. Animesh Talapatra	Received 1 st prize for research paper presentation in Research Scholar Colloquium (RSC-2016) during August 23-24, 2016 at IEST , Shibpur, Howrah, India.
2	Dr. Manik Chandra Das	“The 2014 Best Reviewer Award” for International Journal of Management Science and Engineering Management published by Taylor & Francis Group.
3	Mr. Animesh Talapatra	Chaired a session “COMPOSITE” at the First World Conference on “FRACTURE-2014” HELD at Mahatma Gandhi University, Kottayam, Kerala, India during august, 9-11, 2014.
4		Received 3 rd Prize in poster presentation at the First World Conference on Fracture and Damage mechanics (FRACTURE-2014) held at Mahatma gandhi University, Kottayam, Kerala, 9-11 August, 2014
5	Mr Swagata Shannigrahi	Received best paper award for the category of best presentation/ best content at the IRF international conference held in Bengaluru, India, 22 nd June 2014.
ECE Department		
1.	Dr. Satadal Saha	Received Erasmus Mundus Mobility with Asia (EMMA) post-doctoral fellowship provided by European Union under P6 mobility program for the duration January to June 2015.

Sl No.	Name of faculty	Details
EE Department		
1.	Dr. Tamal Roy	Awarded the best paper in MFIIS-2013 in November, 2013.
2.	Mrs. Nabamita Banerjee (Roy)	Awarded the best paper in MFIIS-2013 in November, 2013.
3.	Mrs. Suchismita Ghosh	Awarded the best paper in MFIIS-2012 in November, 2012.
4.	Ms. Debopoma Kar Ray	Awarded the best paper in ACCET-2016 in September, 2016.
5.		Awarded the best paper in CIEC-2016 in January, 2016.
6.		Awarded for two best papers in MFIIS-2015 in September, 2015.
7.		Awarded the best paper in MFIIS-2013 in November, 2013.
8.		Awarded the best paper in MFIIS-2012 in November, 2012.
9.	Mr. Sudeep	Awarded the best paper in MFIIS-2015 in November, 2015.
10.	Samanta	Awarded the best paper in MFIIS-2013 in November, 2013.
IT Department		
1.	Dr. Indrajit De	Received Internet Society Kolkata Chapter funded fellowship to participate in IETF 94 meeting ,2015 held in Japan
2.	Dr Indrajit De	Department of Education, West Bengal Govt Scholarship holder for securing First Class Second rank throughout B.Tech from Calcutta University.
3.	Dr Indrajit De	Awarded with Indian Refractories Makers Association (IRMA) Excellence award in B.Tech for holding First Class Second rank in Calcutta University.
4.	Dr Amit Phadikar	Recognized as a PhD supervisor of Yuan Ze University, Tiwan and M Maulana Abul Kalam Azad University Of Technology, West Bengal.
1	Dr. Prasenjit Chatterjee	ELSEVIER and SCIENCE DIRECT awarded certificate for research paper titled “Selection of Materials using Compromise Ranking and Outranking Methods, <i>Materials & Design</i> , Volume 30, Issue 10, Pp. 4043-4053, featured in the SCIEDIRECT Top 25 List of Most Downloaded Articles.
2		Awarded University Gold Medal for securing 1 st rank in production engineering examinations of West Bengal University of Technology, 2007.
3		Most cited ‘Materials & Design’ articles since 2011 “Materials selection using complex proportional assessment and evaluation of mixed data methods”, Prasenjit Chatterjee, V.M Athawale, and Shankar Chakraborty, <i>Materials and Design</i> , 32 (2), pp. 851-860, 2011. ELSEVIER .

Sl No.	Name of faculty	Details
4		Most cited ‘Robotics and Computer-Integrated Manufacturing’ articles since 2009 to 2015, “Selection of industrial robots using compromise ranking and outranking methods”, Prasenjit Chatterjee, V.M Athawale, and Shankar Chakraborty, <i>Robotics and Computer Integrated Manufacturing</i> , 26(5), pp. 483-489, 2010. ELSEVIER.
5		Certificate of Recognition for participating as a reviewer during 2015-2016 in the peer review process for Journal of Civil Engineering and Management, Taylor and Francis.
6		Certificate of Recognition for participating as a reviewer during 2015-2016 in the peer review process for International Journal of Management Science and Engineering Management, Taylor and Francis.
7		Certificate of Appreciation from Asia Pacific Management Review journal in recognition of contribution to the Journal. Patron Member of World Academic - Industry Research Collaboration Organization (WAIRCO). Member Number- 04000912.
8		Member of Young Researchers Committee of the World Federation on Soft Computing (WFSC) , co-chaired by Prof. L. A. Zadeh and Prof. Mario Koppen .
9	Mr. Suvanjan Bhattacharyya	Master’s Thesis - “Heat transfer characteristics of laminar flow through a circular duct having integral transverse rib roughness and fitted with center-clear twisted tape “ Nominated as one of the best “Innovative Student Project Award” in the year of 2012 by Indian National Academy of Engineering (INAE), New Delhi.
10		Won Best Paper award at International Conference on Recent Innovations in Science, Engineering and Technology, Goa - 16 th March, 2014, on “Designing of an Aerofoil blades with 2-D geometry”.
11		Won Best Paper award and Golden Medal at International Conference on “Experimental investigation of drag and lift force on an airfoil shaped body at different angles” at Bangalore - 22 nd June, 2014, at International Conference on Mechanical and Production Engineering.
12		Won Best paper award and Medal at International Conference on “Convective heat transfer enhancement in low Reynolds number of a circular pipe with full length twisted tape inserts” at Pune - 29 th June, 2014, at International conference on Recent Innovations in Science, Engineering and Technology - ICRASET.

Sl No.	Name of faculty	Details
13		Won Best paper award and Memento at International Conference on “Design and Fabrication of a Solar power unmanned aerial vehicle” at Chennai - 28 th Sept, 2014, at International conference on Computer Science and Mechanical Engineering.
14		Won Best and 3 rd Best Poster award and Memento at International Workshop on “Frontier energy research with industry academia partnership” at IIT, Guwahati, 2015.
15		Won Best Paper award and Medal at International Conference on Computer Science and Mechanical Engineering, Goa - 5 th July, 2015, on “Heat Transfer Enhancement of Turbulent Flow of Air through a Circular Pipe and Fitted with Spring Tape”.
16		Won Best Poster award at International Conference on Advances in Chemical Engineering, NITK Surathkal, India - Dec 20 th -22 nd , 2015, On “Experimental Investigation of Laminar Flow Heat transfer through a Circular Ribbed Duct Having Centre-Cleared Twisted-Tape Inserts”.

2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

Yes.

Evaluation of teachers is done through feedback and surveys given by all stakeholders. After analysis of the same, if any discrepancies found, counseling of the teachers is done by the management of the Institute to incorporate necessary corrective actions. The faculty members are also sent to attend to faculty development programmes on the basis of the analysis of feedback. The Institute has provision of submitting self appraisal report by the faculty members indicating academic performances.

2.5 Evaluation Process and Reforms

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

At the beginning of the academic year, the Institute announces Academic Calendar indicating dates for the various examinations to be covered in the Semester. The Institute conducts examinations either in centralized mode or Departmental mode for each class test and Semester Examination.

A. Communication through Examination Cell of the Institute

- The regulations, curricula and syllabi of all the programmes offered by the Institute are available in the Institute and the affiliated University websites.
- The regulations contain the details of the evaluation process according to the affiliating University norms.
- The Officer-In-Charge of the Examination Cell of the Institute prepares Instruction Manual ahead of each Semester Examination as per the guidelines of the Controller of Examination of Maulana Abul Kalam Azad University of Technology (MAKAUT), Kolkata to conduct all the examinations.
- The time tables for the two class tests in each Semester are prepared by the Examination Controller Office of the Institute in consultation with the Principal, the Registrar and the HoDs. Students are also informed well in advance about the schedules.
- Examination schedules are also displayed on the Institute Notice Boards, Library, Hostel and Institute Website.
- The question paper formats including the marks distributions are communicated to faculty members through internal Circulars.
- Full marks of the examination, date, time, seating arrangements, and invigilation duties are notified to the students and faculty members one week before commencement of the Internal and Semester Examinations.
- The Examination Cell also distributes the answer scripts and question papers to the concerned invigilators immediately before commencement of the examination. After each examination, the papers are collected, and distributed to the concerned faculty members for evaluation.
- Students' marks are displayed on the Departmental Notice Boards within 10 days of the completion of the examination.
- The evaluation of Semester Examination papers is carried out by the MAKAUT at a Central Evaluation Facility.

B. Communication through Counsellors:

- Counselling classes are conducted by the full time Counsellors. Different types of activities and assignments related to their personality development, problem solving ability, group cooperation, innovative thinking, stress management etc.
- Counsellors, Departmental Mentors and HODs routinely meet with the parents in the Parent-Teacher Meetings in each Semester, and discuss their academic performances.

C. Communication through Department

- The syllabus is notified to the students one week before commencement of the Internal Examinations
- Students getting relatively poor marks are opted with a re-test on behalf of the Department to improve their performance.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?

- Internal Tests are conducted, and results, along with the answer scripts, are shown to students for their improvement in future examinations. Any doubt about test performance and evaluation is clarified to the students.
- Regular assignments, short-quizzes, mini projects are given, evaluated, and discussed in the class.

2.5.4 Provide details on the formative and summative assessment approaches adopted to measure student achievement. Cite a few examples which have positively impacted the system.

The Institute follows both summative and formative assessment approaches to measure performance of the students. The summative approach is followed for all theoretical and practical courses.

Each theoretical course is evaluated for a maximum of 100 marks in which internal assessment carrying 30 marks further subdivided to unit test (15marks), assignment (10 marks), and attendance (5 marks) and semester examination carries 70 marks.

Each practical course is evaluated for a maximum of 100 marks in which internal assessment carrying 40 marks further subdivided to conduction of laboratory experiment (15 marks), performance in laboratory classes (10 marks), viva voce (10 marks) and attendance (5 marks) and semester examination carries 60 marks.

Formative approach is followed for evaluation of sessional and project courses, in which assessment is done through rubrics. The components of rubrics considered for evaluation are level of thinking, ability to work in team, proficiency in communication skill, leadership quality etc.

2.5.5 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioral aspects, independent learning, communication skills etc.

The Institute follows the published policy of affiliating University for awarding internal marks to the students.

- All the students are familiarized about the transparency in internal assessment. Each subject is evaluated through internal and external examinations.
- Normally, two internal examinations are conducted in every semester. The best among the two is considered for calculation of internal marks. 5 marks are allotted for attendance and 10 marks are allotted for assignment/ quizzes.

- The internal marks is displayed on the college notice board as well as published in the college website.
- Theory examination of 70 marks is conducted by the University.
- Practical examinations are conducted as per the rules of the University. The question paper is set by the concerned department of the college authority and the performance is assessed internally by the faculties of the department.
- For sessional and project courses, formative assessment approach is followed giving proper weightages to behavioral aspects, independent learning, communication skills, leadership quality, team work etc.

2.5.6 What are the graduate attributes specified by the college/ affiliating university? How does the college ensure the attainment of these by the students?

The **Washington Accord**, an international accreditation agreement for professional engineering academic degrees prescribed a number of Graduate Attributes to be fulfilled by the students. The Institute adopted the same as Graduate Attributes (GA). GAs form a set of individually assessable outcomes that are the components indicative of the graduate potential to acquire competence to practice at the appropriate level. The GAs are examples of the attributes expected of a graduate from an institution, the graduate attributes are:

- Engineering knowledge
- Problem Analysis
- Design / Development
- Conduct investigation of complex problems
- Modern tool usage
- The engineer and society
- Environment and sustainability
- Ethics
- Individual and teamwork
- Communication
- Project management and finance
- Life-long learning

The programme outcomes (PO) are formed for each of programme in line with Gas. Attainment of Gas is achieved through POs for which specific direct and indirect assessment tools are formulated. Table shown below indicates the assessment tools for GAs via POs.

Assessment Tool	Mode	Frequency
Internal Examination	Direct	Twice in a semester
University Examination	Direct	Once in a semester

Assessment Tool	Mode	Frequency
Course End Survey	Indirect	Once in a semester
Programme Exit Survey	Indirect	Once in a year
Rubrics	Indirect	Once in a semester

2.5.7 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?

In the case of grievance with evaluation, the following two aspects are performed at the Institute.

Internal Assessment: All grievances regarding evaluation of internal assessment are addressed by the Examination Cell in cooperation with the corresponding Head of the Departments. If there is any clarification needed, the student can approach the concerned faculty to resolve.

Semester Examination: If the grievance is against the semester examination results, the Institution assists the students by helping them to apply for revaluation or re-checking to the office of the Controller of Examination of the affiliating University. After publication of the results, students can apply for re-evaluation within stipulated time period.

2.6. Student performance and Learning Outcomes

2.6.1 Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?

Yes.

Learning outcome are the specifications of what a student should learn and demonstrate on successful completion of the courses which are known as Course outcome (CO) as per NBA guidelines. Each and every department displays COs for all courses in departmental Notice Boards, Curricula books for awareness of students and staff members.

2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/ programme? Provide an analysis of the students results/ achievements (Programme/ course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/ courses offered.

Apart from the analysis of internal and semester examination results of the students, the Institute regularly analyzes the performance of the final year students. The pass percentage and degree grade point averages (DGPA) of outgoing students for all departments are shown in the following tables and graphs.

Undergraduate – B. Tech. Degree Programs:

Degree	Program	Year	Number of students appeared	Number of students passed	Pass Percentage (%)
UG	CSE	2013	65	65	100
	IT		59	59	100
	ECE		63	63	100
	AUE		64	64	100
	ME		64	64	100
	EE		--	--	--

Degree	Program	Year	Number of students appeared	Number of students passed	Pass Percentage (%)
PG	MCA		51	51	100
	CSE-M.TECH		15	15	100
	ECE-COM-M.TECH		13	12	92

Undergraduate – B. Tech. Degree Programs:

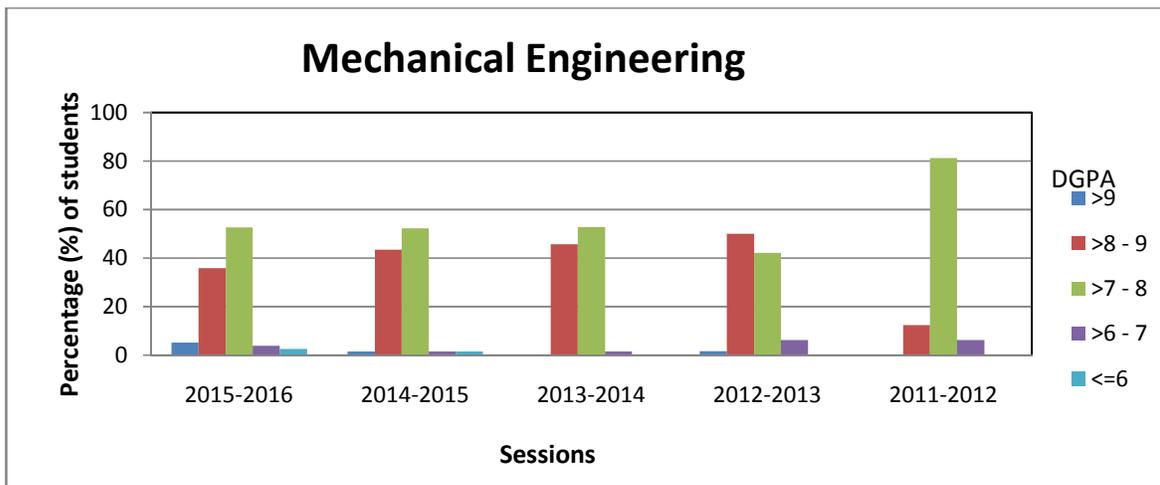
Degree	Program	Year	Number of students appeared	Number of students passed	Percentage (%)
UG	CSE	2014	68	68	100
	IT		59	59	100
	ECE		73	73	100
	AUE		67	67	100
	ME		70	70	100
	EE		65	65	100
PG	MCA	2014	45	45	100
	CSE-M.TECH		15	15	100
	ECE-COM-M.TECH		12	12	100
	ECE-VLSI- M.TECH		09	09	100
	AUE- M.TECH		02	02	100

Degree	Program	Year	Number of students appeared	Number of students passed	Percentage (%)
UG	CSE	2015	72	70	100
	IT		55	52	95
	ECE		79	78	99
	AUE		72	70	97
	ME		69	68	99
	EE		68	68	100
PG	MCA		52	50	96
	CSE-M.TECH		17	17	100
	ECE-COM-M.TECH		09	09	100
	ECE-VLSI- M.TECH		09	09	100
	AUE- M.TECH		05	03	60

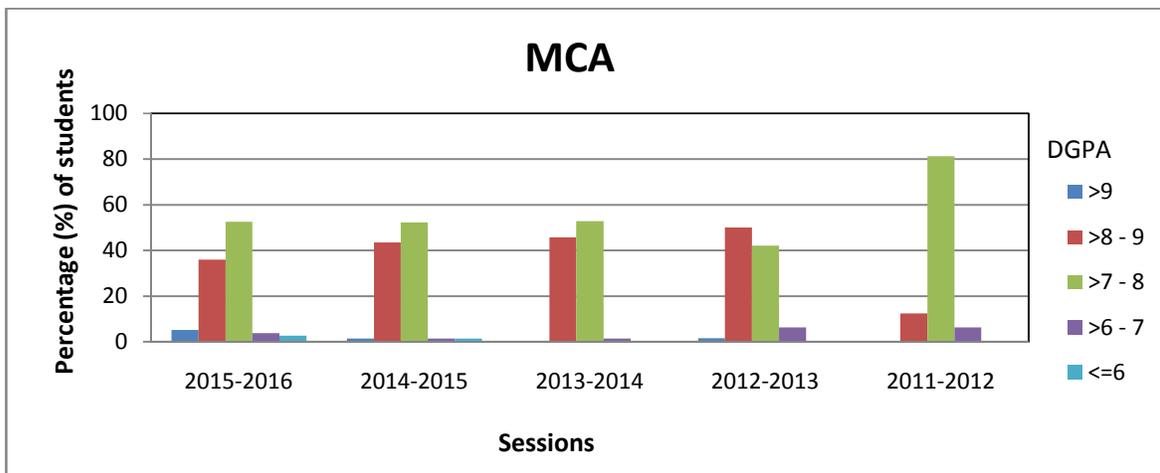
Degree	Program	Year	Number of students appeared	Number of students passed	Percentage (%)
UG	CSE	2016	69	68	99
	IT		58	54	93
	ECE		75	74	99
	AUE		69	55	80
	ME		78	76	97
	EE		66	60	91
PG	MCA		50	39	78
	CSE-M.TECH		--	--	--
	ECE-COM-M.TECH		02	02	100
	ECE-VLSI- M.TECH		03	03	100
	AUE- M.TECH		02	02	100

Mechanical Engineering

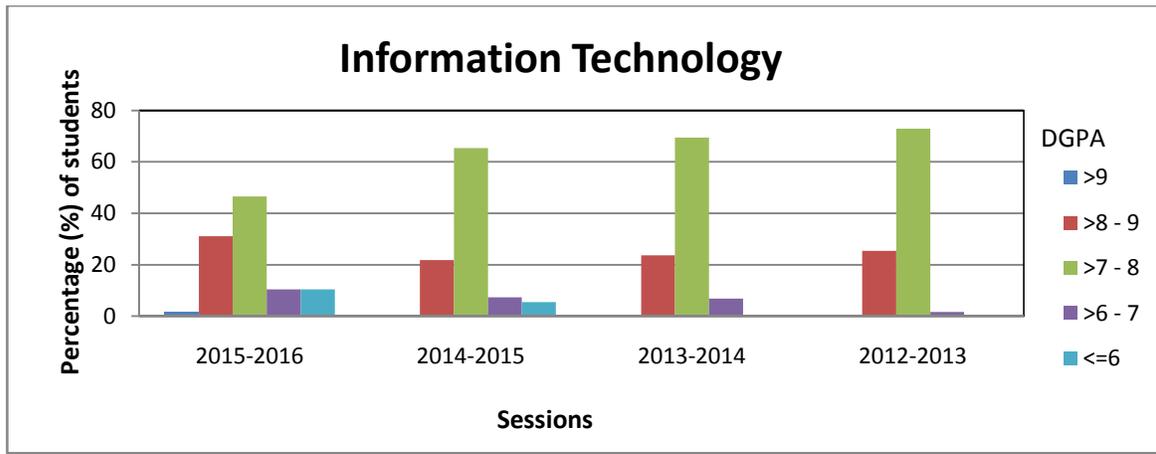
Academic Session	Program / Course	Percentage (%) of students receiving (DGPA)				
		> 9	>8-9	>7-8	>6-7	≤ 6
2015-2016	B. Tech. in Mechanical Engineering	5.13	35.90	52.57	3.85	2.57
2014-2015		1.45	43.48	52.18	1.45	1.45
2013-2014		0.00	45.72	52.86	1.43	0.00
2012-2013		1.57	50.00	42.19	6.25	0.00
2011-2012		0.00	12.50	81.25	6.25	0.00



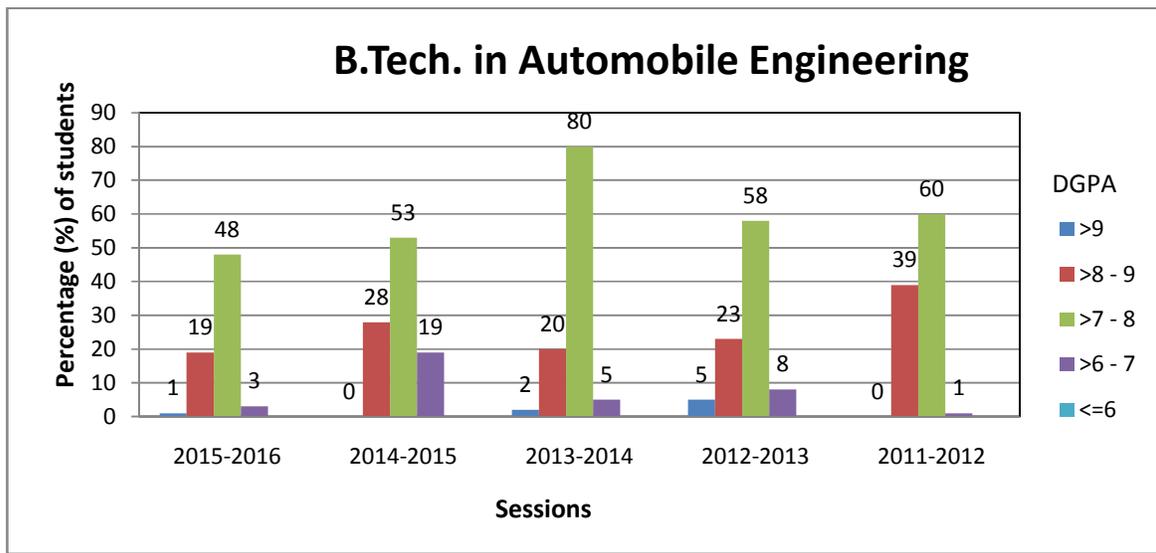
MCA		Percentage (%) of students receiving (DGPA)				
Academic Session	Program / Course	> 9	>8-9	>7-8	>6-7	≤ 6
2015-2016	MCA.	3%	45%	53%	0%	0%
2014-2015		4%	42%	42%	13%	0%
2013-2014		4%	40%	49%	7%	0%
2012-2013		0%	45%	53%	2%	0%
2011-2012		0%	52%	43%	5%	0%

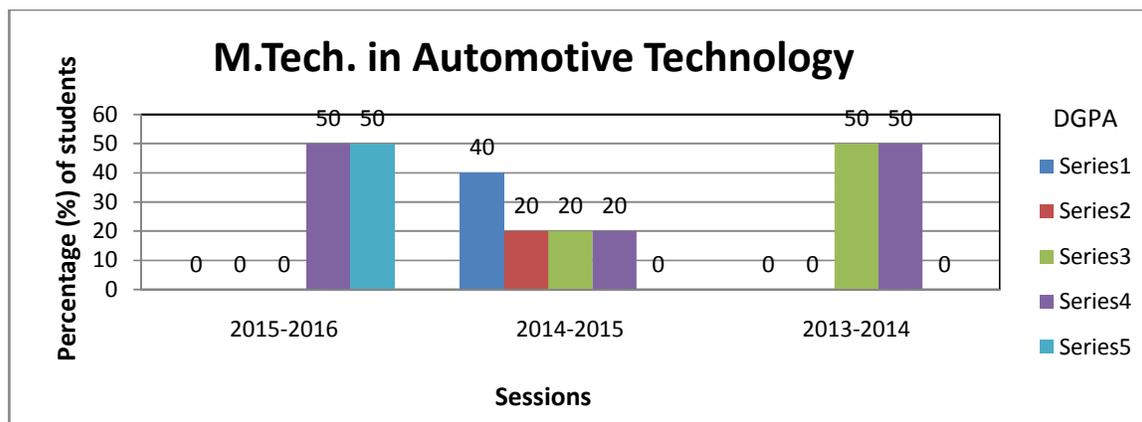


Information Technology		Percentage (%) of students receiving (DGPA)				
Academic Session	Program / Course	> 9	>8-9	>7-8	>6-7	≤ 6
2015-2016	B. Tech. in Information Technology	1.72	31.03	46.55	10.34	10.34
2014-2015		0.00	21.82	65.45	7.27	5.45
2013-2014		0.00	23.73	69.49	6.78	0.00
2012-2013		0.00	25.42	72.88	1.69	0.00

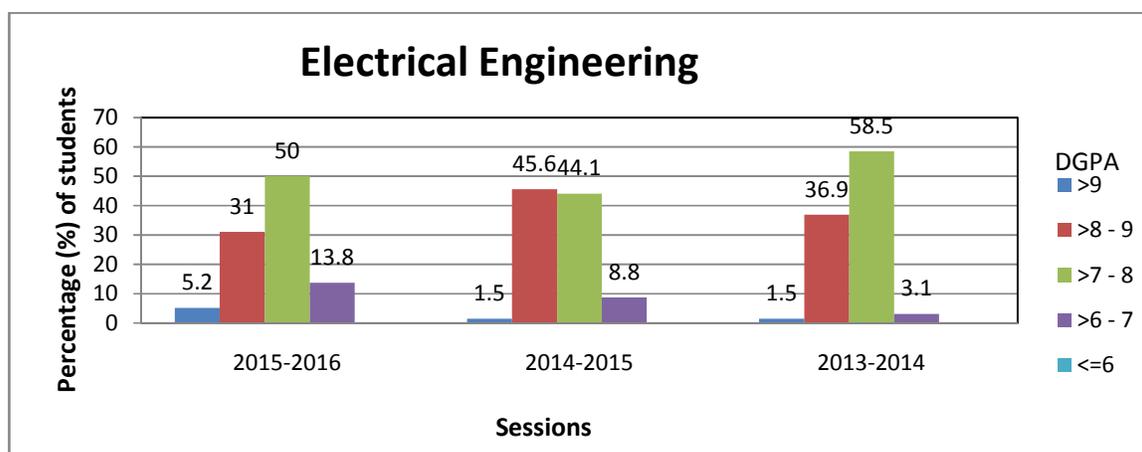


Automobile Engineering		Percentage (%) of students receiving (DGPA)				
Academic Session	Program / Course	> 9	>8-9	>7-8	>6-7	≤ 6
		2015-2016	1	19	48	3
2014-2015	B. Tech. in Automobile Engineering	0	28	53	19	0
2013-2014		2	20	80	5	0
2012-2013		5	23	58	8	0
2011-2012		0	39	60	1	0
2015-2016	M. Tech. in Automotive Technology	1	19	48	3	0
2014-2015		0	28	53	19	0
2013-2014		2	20	80	5	0



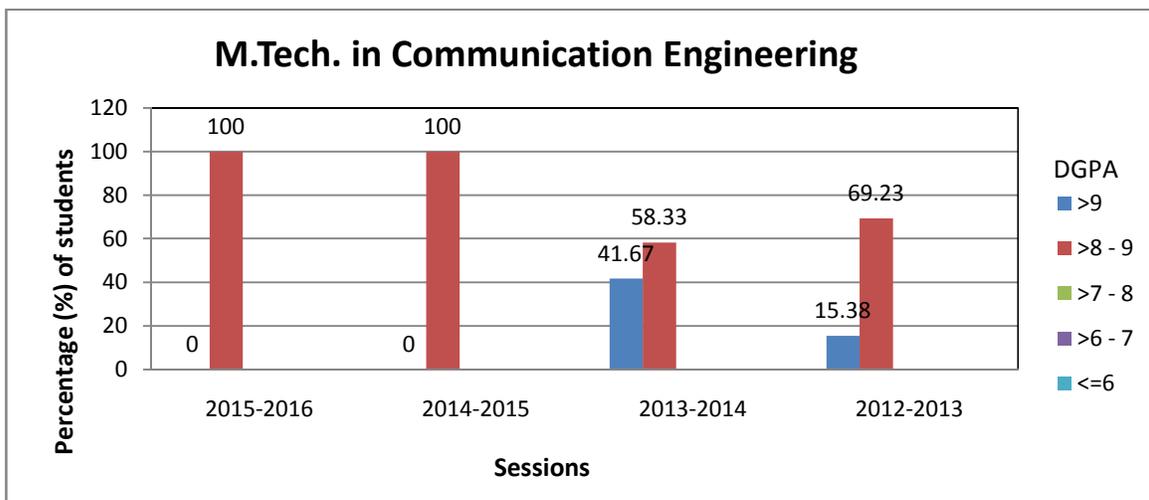
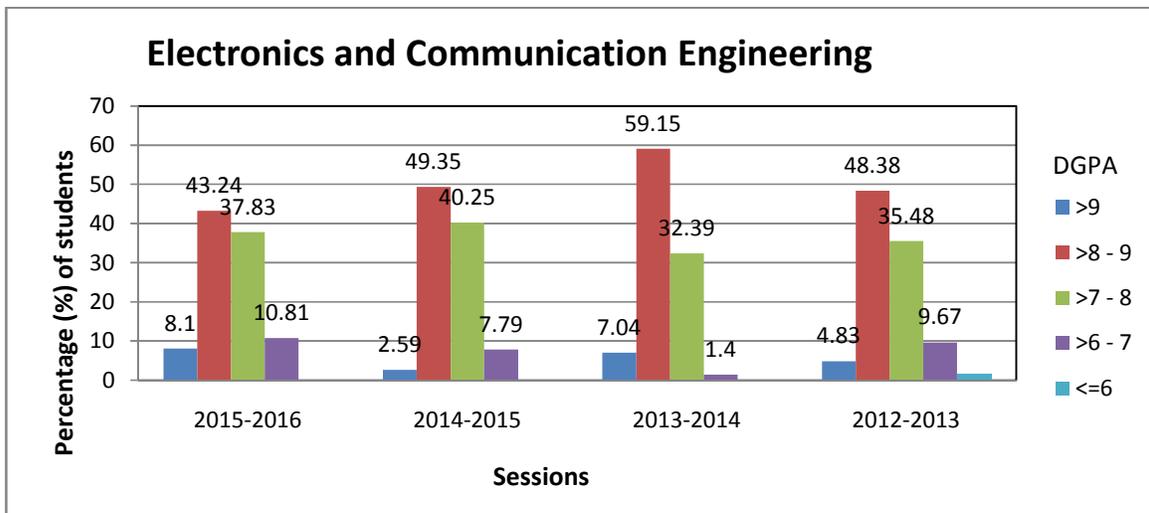


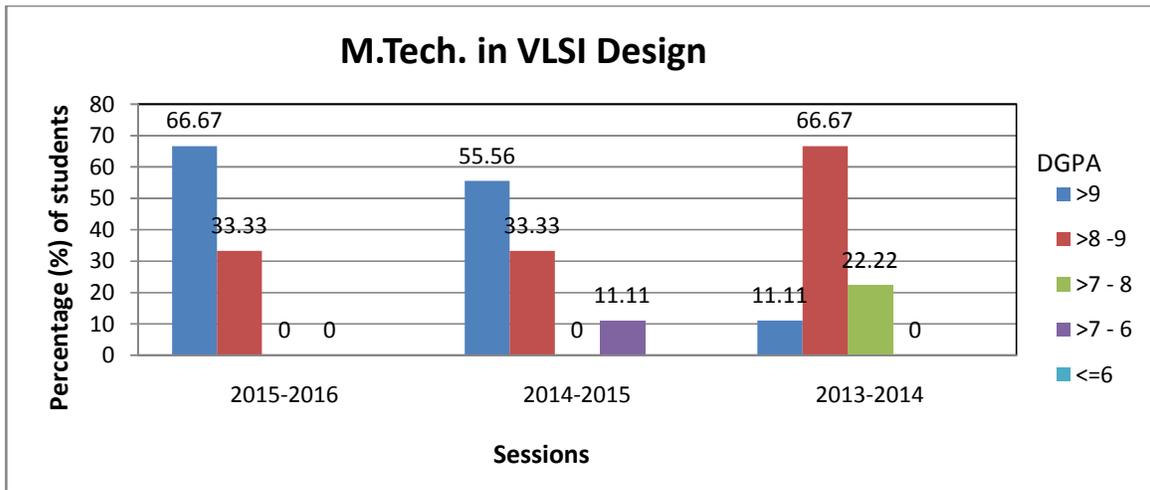
Electrical Engineering						
Academic Session	Program / Course	Percentage (%) of students receiving (DGPA)				
		> 9	>8-9	>7-8	>6-7	≤ 6
2015-2016	B. Tech. in Electrical Engineering.	5.2	31	50	13.8	0
2014-2015		1.5	45.6	44.1	8.8	0
2013-2014		1.5	36.9	58.5	3.1	0



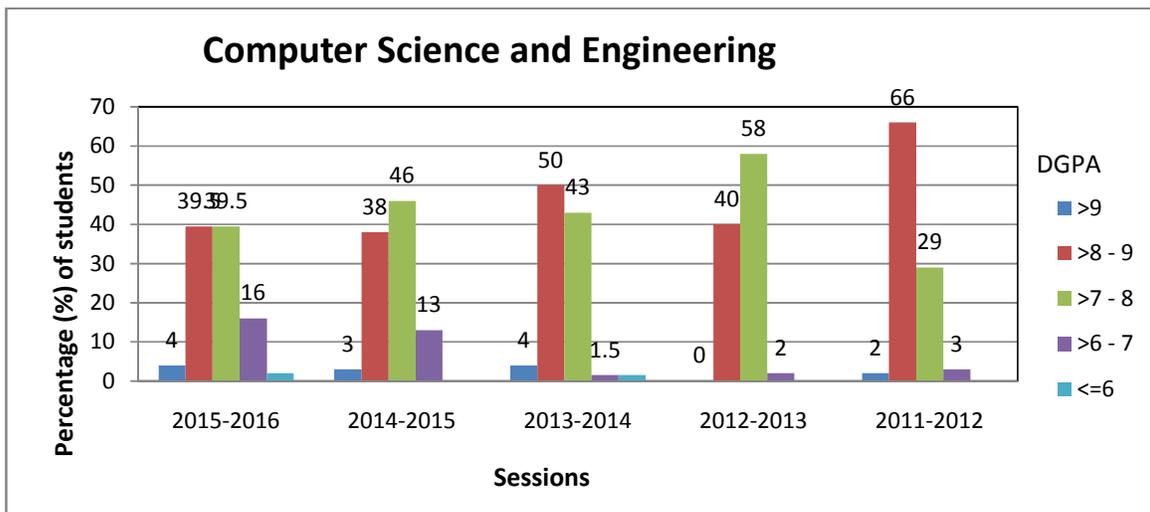
Electronics and Communication Engineering						
Academic Session	Program / Course	Percentage (%) of students receiving (DGPA)				
		> 9	>8-9	>7-8	>6-7	≤ 6
2015-2016	B.Tech.in Electronics and Communication Engineering.	8.10	43.24	37.83	10.81	0
2014-2015		2.59	49.35	40.25	7.79	0
2013-2014		7.04	59.15	32.39	1.40	0
2012-2013		4.83	48.38	35.48	9.67	1.61

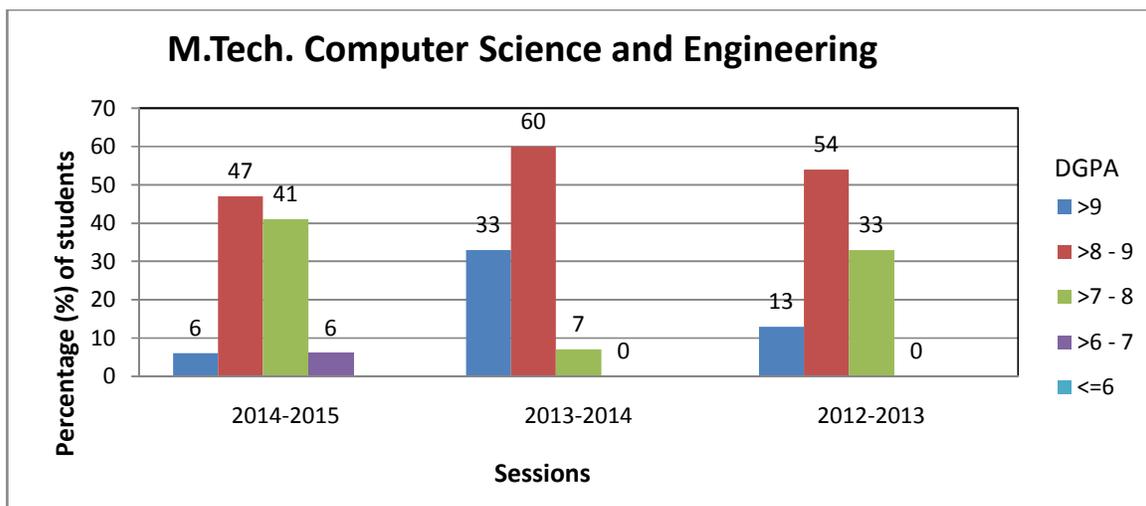
Electronics and Communication Engineering						
Academic Session	Program / Course	Percentage (%) of students receiving (DGPA)				
		> 9	>8-9	>7-8	>6-7	≤ 6
2015-2016	M. Tech. in Communication Engineering	0	100.00	0	0	0
2014-2015		0	100.00	0	0	0
2013-2014		41.67	58.33	0	0	0
2012-2013		15.38	69.23	0	0	0
2015-2016	M. Tech. in VLSI Design	66.67	33.33	0	0	0
2014-2015		55.56	33.33	0	11.11	0
2013-2014		11.11	66.67	22.22	0	0





Computer Science and Engineering						
Academic Session	Program / Course	Percentage (%) of students receiving (DGPA)				
		> 9	>8-9	>7-8	>6-7	≤ 6
2015-2016	B.Tech.in Computer Science and Engineering	4	39.5	39.5	16	2
2014-2015		3	38	46	13	0
2013-2014		4	50	43	1.5	1.5
2012-2013		0	40	58	2	0
2011-2012		2	66	29	3	0
2014-2015	M. Tech. in Computer Science and Engineering	6	47	41	6	0
2013-2014		33	60	7	0	0
2012-2013		13	54	33	0	0





2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

As mentioned earlier Learning Outcomes are achieved through COs which are measured in the following ways:

Assessment Tool	Mode	Frequency
Internal Examination	Direct	Twice in a semester
Assignment/ Quiz/ Others	Direct	Once in a semester
Course End Survey	Indirect	Once in a semester
Lab Internal Assessment (CO Based Lab Viva/Experiments/ Job/Sheets)	Direct	Once in a semester
Rubrics	Indirect	Once in a semester

2.6.4 What are the measures/ initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?

- The Institute has dedicated Training & Placement Cell to take care of the students in respect of in-plant training as well as to facilitate better placement opportunity.
- There is Industry institute interaction cell (IIC) functioning to enhance industry institute relationship.

- There are collaborations with NEN, CII (ER) etc. which works jointly with Innovation Cell of the Institute to showcase the innovative ideas of the students for becoming entrepreneurs.
- Institute encourages students to participate in technical project competitions in internal and external projects.
- The Institute has Research and Development Committee which provides awareness amongst the students to submit research proposals to funding agencies.
- Students are provided all possible support to attend various national/ international seminars/ workshops/ conference to upgrade their research knowledge and skill.

2.6.5 How does the institution collect and analyze data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?

All the departments of the Institute collect the data on learning outcomes which are achieved through COs from the stake holders by following the procedure:

- Marks of individual students in Internal Assessment and Semester Examination.
- Every year Programme Exit Surveys are conducted for outgoing students.
- The Course end survey is conducted for all students in each semester.
- Alumni Feedback is collected both in online and organizing meets.
- The data pertaining to the graduates seeking higher studies and involved in research is also collected.
- Feedback is collected from the employers.

All sorts of feedbacks and surveys collected are analyzed and in order to meet the desired learning outcomes through COs, the necessary modifications in the content delivery methods are adopted.

2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?

The information collected through different forms of surveys and feedback as mentioned in Point No. 2.6.5 are analyzed and evaluated to obtain attainment level of different attributes of the students. Also it is discussed in different bodies such as DAC, AAC, IQAC etc. to further modify, suggest, propose the suitable methodologies to ensure the achievement of learning outcomes through COs.

2.6.7 Does the institution and individual teachers use assessment/ evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning?

If 'yes' provide details on the process and cite a few examples.

Any other relevant information regarding Teaching-Learning and Evaluation which the college would like to include.

The ultimate goal of the Institute is to utilize assessment tools for overall improvements of the programmes. The tools used for achievement of learning outcomes through COs and GAs through POs is illustrated in Tables of **Point No. 2.5.6** and **Point No. 2.6.3**.

For each course, a separate Course End Survey form is designed based on COs. Students are asked to rate their ability and confidence achieved against each question on 1-3 rating. Where 1 is considered as weakness (W), 2 as moderate (M) and 3 as strength (S) in a particular CO. This constitutes indirect assessment.

Also the questions of internal examinations are prepared keeping in mind the COs. Answer scripts are evaluated and mapped with COs to find out percentage attainment of COs. This constitutes direct assessment. Both direct and indirect assessments are summed up to compute the overall attainment of COs by considering suitable weights to direct and indirect assessment tools.

CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

3.1 Promotion of Research:

The institution encourages for active research and research projects. To get acquainted with latest trends in research, the institute frequently invites eminent scientists and industry-expertise as well as educationalist from different universities and industries to interact with faculty members and students. Provision is made in the Institute budget and also in TEQIP budget for research, seminar, conferences, workshops, purchase of new software and books for library. Besides meeting expenditure for participation of faculty members in National and International Conferences/ Seminars in the form of registration fees, travel expenses etc. are also made from the budget. Financial provisions are also made for supporting students for UG project work and research projects by providing registration fees, travel allowances per student for their paper publication in journal/ conferences. There is a provision in the institution for providing seed money to the faculty for research. Faculties are encouraged to apply to AICTE, DST, UGC, other Government Departments, and other organizations for research funding.

3.1.1 Recognized Research Center/ s at the Institute:

Maulana Abul Kalam Azad University of Technology (MAKAUT) (formerly known as West Bengal University of Technology) approved MCKVIE as a center for research in Engineering and Technology for Ph.D. degrees in the academic year 2014-15. There are many research projects going on, aided by DST, Govt. of India and DST, Govt. of West Bengal and other funding agencies.

3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact:

Yes, the Institute has a Research & Development Monitoring Committee approved by BOG and its composition is as follows:

Sl. No.	Designation	Category
1	Chairman	Principal
2	Member	Dean (Research & Consultancy)
3	Member	All HODs
4	Member	Five Senior Faculty Nominated by the Principal
5	Member Secretary & Convener	One senior Faculty Nominated by the Principal

Some of the important recommendations of the R & D Monitoring Committee are:

- To prepare a booklet/ CD consisting of the details of different funding agencies along with their specialized area and scopes of funding opportunities and to circulate the same to all departments for motivating faculty and staff members in continuous basis.
- It should be made mandatory for all the faculty members to publish at least one research paper in an academic year in SCI (Thompson Reuter)/ SCOPUS indexed journals and one conference paper. And this must be included in the API score sheet as an important criterion.
- It should be made mandatory for all departments to submit at least two project proposals to professional funding agencies in an academic year.
- To initiate research work in applied engineering and sciences field, the institution should come forward with an initial funding opportunity beside the professional funding sources. The amount of intuitional funding would be based on the proposal of the project, submitted by the faculty and staff members and would be decided by the higher authorities. In this context, B. Tech and M. Tech research oriented student projects in application engineering will be given preference.

3.1.3 Measures taken by the institution to facilitate smooth progress and implementation of research schemes/ projects:**➤ Institute provides:**

- autonomy to the principal investigator: **Yes**
- timely availability or release of resources: **Yes**
- adequate infrastructure and human resources: **Available**
- time-off, reduced teaching load, special leave ,etc. to teachers: **Yes**
- support in terms of technology and information needs: **Yes**
- facilitate timely auditing and submission of utilization certificate to the funding authorities: **Yes**
- Any Other: The institute encourages students and faculty to involve in research activities. Institute provides full support to the Principal Investigator to complete the research in time. The Institute has updated the library facilities and subscribed the research journals. The Institute also provides Ph. D registration fees, contingencies support, and weekly one day on duty leave to the registered faculty members to pursue Ph.D. work. Besides there is a culture of giving award to the researchers for publishing papers in reputed journals, Books etc. Institute also provides registration fees, TA, DA etc. to participate in Conferences, Symposiums, Workshops, Seminars, FDPs in India and abroad.

3.1.4 Efforts made by the institution to develop scientific temper and research culture and aptitude among students:

The Institute organizes various technical events such as TECHNOTICA, TECH FEST (PRAGATI), VAHAN etc. to motivate and involve students in research activities. Also students are encouraged to participate in different intra and inter college tech-fest, Science fair, Technical paper competitions.

All the departments of the college also organize sponsored seminars, expert lecture by eminent academicians and Industry personnel to create curiosity among the students as well as to get a chance to meet the distinguished experts of the related area.

The students have published their papers in international and national journals. Some students have won prizes in various technical competitions at national level.

Institute encourages students to submit project proposals to different funding agencies.

Institute provides financial support to innovative projects of the students.

Institute also provides registration fees, TA, DA etc. to participate in Conferences, Symposiums, Workshops, Seminars..

3.1.5 Faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/ collaborative research activity, etc.:

The following faculty members of the institute are involved in individual/ collaborative research activities:

Sl. No.	Name of the Faculty	Designation	Research Area	Collaboration/ Sponsorship (if any)
Department: Automobile Engineering				
1	Dr. Sudipto Chaki	Associate Prof.	Laser material processing, Soft computing, Modeling and optimization, Welding	Jadavpur University, Kolkata, Centre for Laser Material Processing, International Advanced Research Center for Powder Metallurgy and New Materials, Hyderabad
2	Dr. Manik Chandra Das	Associate Prof.	Development and Application of Multiple Criteria Decision Making Tools	Jadavpur University, Kolkata
3	Mr. Kajal Kumar Ghosh	Asst. Prof.	Design and analysis of different auto components	-----

Sl. No.	Name of the Faculty	Designation	Research Area	Collaboration/ Sponsorship (if any)
Department: Automobile Engineering				
4	Mr. Animesh Talapatra	Asst. Prof.	Numerical Characterisation of Graphine reinforced nanocomposite	Department of Mechanical Engineering, IEST, Shibpur
5	Mr. Tapas Kumar Biswas	Asst. Prof.	Manufacturing(welding) , Alternate Fuel(bio diesel), MCDM methods	-----
6	Mr. Swarup Chandra Giri	Asst. Prof.	Design and analysis, Alternate fuels, biodiesels	Design Lab, Mechanical engineering Department, Jadavpur University, Kolkata
7	Mr. Swagata Shannigrahi	Asst. Prof.	Design and analysis of Automotive components, Biodiesel	Mechanical engineering Department, Jadavpur University, Kolkata
8	Mr. Sougata Bera	Asst. Prof.	Ceramic impact problem using ABACUS	Design lab, Department of Mechanical Engineering, IEST, Shibpur
9	Mr. Samiran Samanta	Asst. Prof.	Clean Coal Technology, Refrigeration, Renewable energy, Fuel Cell	Thermal Simulation Lab, Department of Mechanical Engineering, IEST, Shibpur
10	Mr. Subhadeep Dey	Asst. Prof.	Structural analysis using Finite element method, Automotive safety Amphibious vehicle	Applied Mechanics Lab, IEST, Shibpur
Department: Basic Science, Humanities & Social Science				
1	Dr. Debapriya De	Professor	Polymer Science & Engineering	Saha Institute of Nuclear Physics (SINP), Department of Polymer Science and Technology, Calcutta University, Science and Engineering Research Board (SERB), Department of Science and Technology (DST), Govt. of India.

Sl. No.	Name of the Faculty	Designation	Research Area	Collaboration/ Sponsorship (if any)
Department: Basic Science, Humanities & Social Science				
2	Dr.Bitasta Chanda	Professor	High Temperature Superconductivity	
3	Dr. Arun Kr. Jalan	Professor	Operations Research, Inventory Control System, Data analysis	Mathematics Department, Jadavpur University
4	Dr. Brojendranath Dey	Asst. Professor	Polymer Science and Synthesis of complex compound	IEST Shibpur, Howrah.
5	Mr. Mojammel Rahaman	Asst. Professor	Material Science	
6	Debanjali Chowdhury	Asst. Professor	Electronics	
7	Dr. Dipankar Ghosh	Asst. Professor	Fiber Optics	Indian Institute of Engineering Science and Technology, Ravenshaw University, C.V. Raman College of Engineering, Science and Engineering Research Board (SERB). Govt. of India
8	Utpal Sarkar	Asst. Professor	Inventory and Supply Chain Management	NIL
9	Dr. Tanmoy Roy Choudhury	Asst. Professor	Material Science	
10	Shib Sankar Giri	Asst. Professor	Nanofluid, Fluid Dynamics	
11.	Ms Lina Saha	Associate Professor	Nineteenth Century Women Literature	University of Burdwan
12.	Mr Firoze Basu	Assistant Professor	Comparative Study Between English Romantic Poetry and Modern Bengali Poetry	University of Calcutta
Department: Computer Science & Engineering				
1.	Dr. Premananda Jana	Professor	Image Processing, Soft Computing, Data Mining, Online Social Network	SINP, Kolkata Amity University, Kolkata Jalpaiguri Govt. Engineering College
2.	Mr. S. S. Thakur	Associate Professor	Data Mining, Artificial Intelligence, Soft Computing	Jadavpur University, Kolkata

Sl. No.	Name of the Faculty	Designation	Research Area	Collaboration/ Sponsorship (if any)
Department: Computer Science & Engineering				
3.	Mr. Avijit Bose	Assistant Professor	Network Security, Wireless Communication	Kalyani University
4.	Ms. Soma Bandyopadhyay	Assistant Professor	Data Mining, IoT	NIL
5.	Ms. Mahua Nandy (Pal)	Assistant Professor	Medical Image processing, Pattern Recognition and Analysis	RCCIIT, Kolkata
6.	Mr. Prasenjit Das	Assistant Professor	Optimization Techniques	NIL
7.	Ms. Rachita Ghoshhajra	Assistant Professor	Cryptography, Mobile Security, Cyber security	NII
8.	Mr. Surojit Bhattacharyya	Assistant Professor	Network, Web Mining, Data Mining, Machine Learning, Operating System, Algorithm	Indian Statistical Institute, Kolkata
9.	Mr. Sumit Majumdar	Assistant Professor	Pattern Recognition and Soft Computing	NIL
10	Ms. Moumita Sen	Assistant Professor	Internet of Things, Article Recommendation	NIL
11.	Ms. Sasmita S. Choudhury	Assistant Professor	Data Analytics, Soft Computing	NIL
12.	Mr. Abhisek Saha	Assistant Professor	Optimization using EA, Steganography	NIL
13.	Mr. Puspen Lahiri	Assistant Professor	Image Processing and Pattern Recognition	NIL
14.	Dr. Paramita De	Assistant Professor	Document Image Processing, Digital Geometry	IEST, Shibpur
Department: Electronics & Communication Engineering				
1.	Dr. Krishnendu Chattopadhyay	Lecturer (Selection Grade)	Microstrip Antenna, Power Conditioning Equipment, Microcontroller Based System	IEST Shibpur

Sl. No.	Name of the Faculty	Designation	Research Area	Collaboration/ Sponsorship (if any)
Department: Electronics & Communication Engineering				
2.	Dr. Satadal Saha	Associate Professor	Image processing and pattern recognition, FBG based sensors	Jadavpur University, Kolkata, University of Warsaw, Poland
3.	Dr. Pubali Mukherjee	Asst. Prof.	Optics and Optoelectronics	University of Calcutta
4.	Dr. Swarup Kr. Mitra	Associate Professor	Wireless Sensor Network and Reconfigurable Architecture	Jadavpur University, Kolkata
5.	Dr. Manabendra Maiti	Asst. Prof.	Microwave/millimeter wave propagation, satellite communication, Atmospheric remote sensing	Institute of Radiophysics & Electronics/C.U and INPE/Brazil
6.	Mr. Sudarshan Chakravorty	Associate Professor	Radar Signal Processing, MIMO Radar signal processing, application of information theory and coding in mobile communication, massive MIMO, 4G LTE, MIMO SAR/ISAR	SAMEER, Kolkata IEST, Shibpur, Howrah
7.	Mr. Joydeep Banerjee	Asst. Prof	Semiconductor Device, Mobile Communication	IEST Shibpur
8.	Mr. Atanu Banerjee	Asst. Prof	Microwave Devices	IEST, Shibpur
9.	Mr. Sagar Mukherjee	Asst. Prof.	VLSI Design, Microcontroller/FPGA Based System	Jadavpur University, Meghnad Saha Institute of Technology
10.	Mr. Kalyan Biswas	Asst. Prof	Semiconductor Device, MEMS Sensor, Optical Fibre Based Sensor, Solar Cell	Jadavpur University, Kalyanai Government Engineering College
11.	Mr. Soham Lodh	Asst. Prof.	Nano device fabrication and characterization, Atmospheric attenuation measurement	Calcutta University
12.	Mr. Rajarshi Sanyal	Asst. Prof	Microstrip antenna, Frequency Selective Surface	University of Kalyani

Sl. No.	Name of the Faculty	Designation	Research Area	Collaboration/ Sponsorship (if any)
Department: Electronics & Communication Engineering				
13.	Mr. Sekhar Rana	Asst. Prof.	Digital VLSI Circuit Design	NIL
14.	Mr. Subhasish Banerjee	Asst. Prof.	Photonics, Microcontroller Based System	Calcutta University
1.	Ms. Debasree Maity	Asst. Prof.	CDMA based mobile communication	NIL
Department: Electrical Engineering				
1.	Prof. (Dr.) Arghya Sarkar	Professor	Power system	UCSTA (C.U)
2.	Dr. Tamal Roy	Asst. Professor	Control system	Jadavpur University
3.	Mr. Sudeep Samanta	Asst. Professor	Power electronics	UCSTA (C.U)
4.	Mrs. Nabamita Banerjee Roy	Asst. Professor	Power system	Jadavpur University System Control and automation Pvt. Ltd.
5.	Mrs. Chandrani Sadhukhan	Asst. Professor	Control system	Jadavpur University orient relay Co
6.	Mrs. Debopoma Kar Ray	Asst. Professor	Power system	UCSTA (C.U)
7.	Mrs. Barnali Kundu Sarkar	Asst. Professor	Power system Power electronics	IEST
8.	Mrs. Suchismita Ghosh	Asst. Professor	Electrical Machine control system	UCSTA (C.U)
9.	Mrs. Tanushree Kumar	Asst. Professor	Power system	UCSTA (C.U)
10.	Mr. Suman Das	Asst. Professor	Instrumentation	System Advance Technology Pvt. Ltd.
Department: Master of Computer Applications				
1.	Mr. Nilay Kr Nag	Assistant Professor	Web Technologies, Data mining , IoT, LCMS	N/A
2.	Mrs. Nabamita Majumder	Assistant Professor	Android Technology, Web Technology (JAVA/ J2EE, PHP/MySQL), LCMS	N/A
3.	Ms. Nibedita Naskar	Assistant Professor	Web Technologies, Android applications, DBMS, LCMS.	N/A
4.	Mr. Partha Pratim Saha	Assistant Professor	Algorithm Design in VLSI, Web-Technology	IEST, Shibpur

Sl. No.	Name of the Faculty	Designation	Research Area	Collaboration/ Sponsorship (if any)
Department: Master of Computer Applications				
5.	Mrs. Antara Sengupta	Assistant Professor	Web Technology, Computational Genomics	Louis Braille Memorial School For The Sightless, Uttarpara, Hooghly
6.	Mrs. Sharmistha Banerjee	Assistant Professor	VB,ORACLE,asp.net,php, wordpress	N/A
7.	Mr. Arijit Bhattacharya	Assistant Professor	Web Technology(JAVA/J2EE), VB , Oracle	N/A
8.	Mr. Anjan Goswami	Assistant Professor	Web Technologies, LCMS	N/A
9.	Mr. Samir Malakar	Assistant Professor	Image Processing, Android Technology	Jadavpur University
10.	Mr. Subir Bhadra	Assistant Professor	Android applications, DBMS, VB, Application development in C.	NA
11.	Mr. Arindam Das	Assistant Professor	Big Data, Information Security, Web Technologies	NA
Department: Mechanical Engineering				
1.	Dr. Prasenjit Chatterjee	Associate Professor	Multi-criteria decision-making, operations research, Materials selection, advanced manufacturing technology, green supply chain management, multi-objective optimization, Grey system theory	Universidad Europea de Madrid, Spain; Research Institute of Smart Building Technologies, Vilnius Gediminas Technical University, Lithuania; Toulouse 1 Capitole University, Spain; Amirkabir University of Technology, Iran, Lithuanian Enery Institute, Lithuania; Jadavpur University, NIT Jamshedpur, LINDE INDIA LTD
2.	Dr. Ranjib Biswas	Associate Professor	Advanced Manufacturing Technology, Micromachining	Jadavpur University, VECC, Kolkata, CMERI, Durgapur, CGCRI, Kolkata

Sl. No.	Name of the Faculty	Designation	Research Area	Collaboration/ Sponsorship (if any)
Department: Mechanical Engineering				
3.	Mr. Chaitanya Nandi	Assistant Professor	Material Science & Engg , Design of pattern equipments & core boxes, Matl. handling equipments and machine tools.	N.A
4.	Dr. Goutam Paul	Assistant Professor	Advanced Manufacturing Technology, CAD/ CAM/ CAE, Optimization	Jadvapur University, CSIR-CMERI, CSIR-CGCRI, WBUT now MAKUT
5.	Mr. Rajat Subhra Bhowmik	Assistant Professor	Renewable energy, Production Management, Refrigeration & Air-Conditioning	N.A.
6.	Mr. Tuhin Patra	Assistant Professor	Machine Design, Applied Mechanics, AUTO-CAD, CATIA	Academe of Technology
7.	Mr. Biswajit Gayen	Assistant Professor	Fluid Power Control	Jadvapur University
8.	Mr. Soutrik Bose	Assistant Professor	Applied Mechanics, Machine Design, Manufacturing Technology	N.A.
9.	Mr. Suvanjan Bhattacharya	Assistant Professor	Heat transfer, CFD, Renewable Energy, Refrigeration & Air-Conditioning,	ISHRAE, Dusseldrof University of Applied Science, Anna University, SAM CASTING, Academy of Tech., Jadvapur University, Adamas Institute of Technology, Seacom Engg. College, CEM Kolaghat, DST, Govt. of WB
10.	Dr. Parasar Bandyopadhyay	Professor	Automotive Technology	
11.	Dr. Samir Kr. Saha	Professor	Renewable Energy, Nuclear Safety, Solar Energy, Refrigeration & Airconditioning	BRNS,DAE; CDAC,MNRE

Sl. No.	Name of the Faculty	Designation	Research Area	Collaboration/ Sponsorship (if any)
Department: Information Technology				
1.	Dr. Amit Phadikar	Associate Professor	Image and Signal processing, Data Hiding, Access Control, Error Control, CBIR, Behavioral Understanding, VHDL Implementation of Algorithm, DRM	IEST, Shibpur, Yuan Ze University, Tiwan, NSEC, Kolkata, MAKAUT, Kolkata,
2.	Dr. Indrajit De	Associate Professor	Soft Computing based image processing, Image quality assessment, Fuzzy systems, Recommender Systems, Cognitive Computing.	RABT Technologies Pvt Ltd-ISOC Kolkata Chapter, CDAC-Kolkata, Indian Institute of Engineering Science and Technology (IEST), Shibpur, IIT Kharagpur.
3.	Ms. Shampa Ghosh (Sengupta)	Assistant Professor	Data Mining and Pattern Recognition	IEST, Shibpur
4.	Ms. Jayanti Pathak (Rudra)	Assistant Professor	Wireless Sensor Network	NA
5.	Mr. Sachin Balo	Assistant Professor	Pattern Recognition and Data Mining	NA
6.	Ms. Jayanti Mahata	Assistant Professor	Image Processing, Pattern Recognition	NA
7.	Mr. Priyanath Mahanti	Assistant Professor	Image Processing and Cryptography	NA
8.	Mr. Sougata Dey	Assistant Professor	Image Processing, Pattern Recognition, Cryptography	NA
9.	Ms. Ipsita Dalui	Assistant Professor	Cloud Computing	University of Calcutta
10.	Mr. Arijit Sarkar	Assistant Professor	Pattern Recognition, Image Processing, Microfluidics Bio Chip	NA

3.1.6 Workshops/ training programmes/ sensitization programmes conducted/ organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.

The institute organizes inter disciplinary and department wise workshops, training programmes and seminars etc. focusing mainly on capacity building in terms of research and also to create research culture among staff and students.

No. of workshops/ training programmes/ sensitization programmes conducted /organized by the institution:

Department	2012-13	2013-14	2014-15	2015-16	2016-17
Automobile Engineering	12	7	11	2	4
Basic Science, Humanities and Social Sciences	1	0	0	1	1
Computer Science and Engineering	3	5	10	3	3
Electrical Engineering	4	3	3	2	1
Electronics & Communication Engineering	4	4	8	9	3
Information Technology	5	1	4	2	2
Mechanical Engineering	1	7	2	3	3
MCA	2	1	1	0	0
Institute	0	0	1	1	0

The details of such activities conducted during last four years are available in **Points 24 and 25 of Evaluative Report** of the individual Department.

3.1.7 Prioritized research areas and the expertise available with the institution:

Priority wise research activities of individual departments are listed below:

Department: Automobile Engineering		
Sl. No.	Name of the Faculty	Research Area & Expertise Available
1.	Dr. Sudipto Chaki	Laser material processing, Soft computing, Modeling and optimization, Welding
2.	Mr. Animesh Talapatra	Numerical Characterisation of Graphine reinforced

		nanocomposite
Department: Basic Science, Humanities and Social Sciences		
1.	Dr. Debapriya De	Polymer Science & Engineering
2.	Dr. Dipankar Ghosh	Fiber Optics
Department: Computer Science & Engineering		
1.	Dr. Premananda Jana	Image Processing, Soft Computing, Data Mining, Online Social Network
2.	Mr. S. S. Thakur	Data Mining, Artificial Intelligence, Soft Computing
Department: Electronics & Communication Engineering		
1.	Dr. Krishnendu Chattopadhyay	Microstrip Antenna, Power Conditioning Equipment, Microcontroller Based System
2.	Dr. Satadal Saha	Image processing and pattern recognition, FBG based sensors
Department: Electrical Engineering		
1.	Prof. (Dr.) Arghya Sarkar	Power system
2.	Dr. Tamal Roy	Control system
Department: Master of Computer Applications		
1.	Mr. Nilay Kr Nag	Web Technologies, Data mining , IoT, LCMS
2.	Mrs. Nabamita Majumder	Android Technology, Web Technology (JAVA/J2EE, PHP/MySQL), LCMS
Department: Mechanical Engineering		
1.	Dr. Prasenjit Chatterjee	Multi-criteria decision-making, operations research, Materials selection, advanced manufacturing technology, green supply chain management, multi-objective optimization, Grey system theory
2.	Mr. Suvanjan Bhattacharya	Heat transfer, CFD, Renewable Energy, Refrigeration & Air-Conditioning,
Department: Information Technology		
1.	Dr. Amit Phadikar	Image and Signal processing, Data Hiding, Access Control, Error Control, CBIR, Behavioral Understanding, VHDL Implementation of Algorithm, DRM
2.	Dr. Indrajit De	Soft Computing based image processing, Image quality assessment, Fuzzy systems, Recommender Systems, Cognitive Computing.

3.1.8 Efforts made by institution in attracting researchers of eminence to visit the campus and interact with teachers and students:

- The institute frequently invites the researchers of eminence for transfer of the information and idea regarding research resources and industry institute collaborative programmes to meet the industrial needs.
- The institute frequently organizes National Conferences, Seminars, Symposiums and Workshops as important tools of collaboration where experts from academia and industries are invited for delivering special lectures and interact with faculty members and students.
- Various short-term training programs/ faculty development programmes are organized, for which experts are invited to deliver special lectures and deliberations on important/current issues in the field of research & development.
- The faculty members are encouraged to collaborate with eminent professors of reputed institutions for their research activities.

The details of such activities are given in **Point 24 of Evaluative Report** of the individual Department.

10.1.9 Sabbatical Leave availed for research activities:

Although the Institute does not have any provision of sabbatical leave, the faculty members, who have enrolled their name and pursuing their Ph.D. work in different University/Institute, are entitled for On-day leave for Ph.D. registration, course work examination, thesis submission, defense viva-voce etc.

3.1.10 Initiatives taken up by the institution in creating awareness/ advocating/ transfer of relative findings of research of the institution and elsewhere to students and community (lab to land):

The Institute has set up Innovation Cell in the campus to nurture innovative mind set among the students. The students are encouraged to submit proposals dealing with product development to the funding agencies. Eight projects received funds from DST, Govt. of WB. Apart from this, the Institute has signed a MOU with National Entrepreneurship Network (NEN) to motivate, educate and help students to convert their ideas into business through product development. There exists a good number of MOUs with different Industries, Research Organizations and other bodies for the same.

3.2 Resource Mobilization for Research

3.2.1 Percentage of the total budget is earmarked for research? Details of major heads of expenditure, financial allocation and actual utilization.

Following table shows major heads of research expenses and % of total budget earmarked for research activities for the last four financial years. The table shows the Institutional contributions only. Apart from this TEQIP fund is also utilized to enhance research activities where ever possible.

PARTICULARS		Major Heads of Research (Rs.)					Total Research Expenses (Rs.)	TOTAL (Rs.)
		Library Books and Periodicals	Laboratory Equipment	Laboratory Consumables	Other R&D activities	Training and Travel		
FY 2015-16	Budgeted	500,000	500,000	200,000	300,000	2,000,000	3500000	170560000
	Actual	366,873	255,247	376,508	564,931	1231310	2163114	162525822
	% of Total Budget	0.22	0.15	0.22	0.33	0.72	1.27	95.29
FY 2014-15	Budgeted	100,000	500,000	200,000	300,000	1,600,000	2,700,000	147260000
	Actual	48,840	48,487	137,362	289,700	1,623,606	2,147,995	149892248
	% of Total Budget	0.03	0.03	0.09	0.20	1.10	1.46	101.79
PARTICULARS		Major Heads of Research (Rs.)					Total Research Expenses (Rs.)	TOTAL (Rs.)
		Library Books and Periodicals	Laboratory Equipment	Laboratory Consumables	Other R&D activities	Training and Travel		
FY 2013-14	Budgeted	150,000	2,000,000	150,000	300,000	1,600,000	4,200,000	152600000
	Actual	133,387	1,823,768	149,798	256,980	1,589,598	3,953,531	148146444
	% of Total Budget	0.09	1.20	0.10	0.17	1.04	2.59	97.08
FY 2012-13	Budgeted	400,000	1,400,000	1,000,000	300,000	1,600,000	4,700,000	134400000
	Actual	402,561	1,360,357	1,054,893	277,600	1,578,075	4,673,486	127405726
	% of Total Budget	0.30	1.01	0.78	0.21	1.17	3.48	94.80

3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

The institute makes payment towards Ph. D. registration fees, thesis-binding charges etc. The details of such expenditure is as follows:

Particular	FY 2015-16 (Rs.)	FY 2014-15 (Rs.)	FY 2013-14 (Rs.)	FY 2012-13 (Rs.)
Expenditure on Faculty enrolment for Ph.D.	29614	19100	32000	25000

3.2.3 Financial support availed for student research projects by students:

The Institute provides certain financial support to develop experimental set up needed for the students' projects. Besides supports are also given to the students to showcase their project work in various events like BAJA-SAE, SUPRA-SAE, GO CART, Efficycle, Infocom, BITM etc.

Sl. No.	Academic Year	Detail of projects	Financial Support provided (Rs.)
1	2016-17	Falcon Racing Car	102803.00
2	2015-16	E-Car with solar energy	1240.00
3		Multipurpose Crutch	2500.00
4		GO-KART	98200.00
5		Falcon Racing Car	88622.00
6		BAJA	129529.00
7	2014-15	GSM activated remote EVM	1470.00
8		Wireless controlled robotic hand	2500.00
9		The Massacue	2500.00
10		Remote- Controlled home appliances	212.00
11		SUPRA Student formula	25000.00
12		Falcon Racing Car	150030.00
13		GO-KART	131100.00
14		Efficycle	90000.00
15	2013-14	LDR & Thermister Based Alarm	1679.00
16		Wireless Heart Beat Monitoring System	2500.00
17		Massacre	2500.00
18		Truth Meter Project	1120.00
19		GO-KART	81500.00
20		BAJA	214156.00
21	2012-13	Intelligent Irrigation	2500.00
22		Intelligent Traffic Control System	2500.00
23		Algae Tube – SACing co ₂ (Stop and Convert)	1968.00
24		Anti-Petrol Theft Alarm	979.00
25		Frutta Relogio	376.00

Sl. No.	Academic Year	Detail of projects	Financial Support provided (Rs.)
26		Water Level Indicator	321.00
27		Automobile Lifeguards	4000.00
28		Falcon Racing Car	76743.00
29		BAJA	110481.00
30		Efficycle	34350.00

3.2.4 How does the various departments/ units/ staff of the institute interacting undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.

The institute has Innovation Cell which comprises of subject experts from various departments and students. Various departments/ faculty members of the Institute interact with the committee in undertaking inter-disciplinary research. The group of students comprising of various departments under the guidance of faculty and staff members develop innovative projects which are showcased in Annual Technical Festivals inside and outside the campus. Some of the successful inter-disciplinary research proposals which have been sent to DST, Govt. of WB and approved for funding are as follows:

Sl No.	Project Title	Faculty Coordinator	Student Member	Funding Agency	Grant Received (Rs.)
1.	Non Corruptible EVM	Ms. Soma Bandyopadhyay	Amritava Chakraborty (ME) Tuheli Bhattacharyya (CSE) Rahul Roy (CSE) Sumit Saha (CSE)	DST, Govt. of WB	17000
2.	Advance Voice Recognition System		Debojyoti De (CSE) Deepankar Sinha (CSE) Sk. Shahir Halim (CSE)		10000
3.	Solar Mobile Charger in Travelling Mode	Dr. Manabendra Maiti	Siladitya Ghosh (ECE) Hritwika Ghosh (ECE)		10000

SI No.	Project Title	Faculty Coordinator	Student Member	Funding Agency	Grant Received (Rs.)
4.	Smart Control and Security of Home Appliances		Hritwika Ghosh (ECE) AAbhinava Das Sharma (ECE) Sayan Biswas (ECE)		17000
5.	Advanced Motion Detector System		Sk. Nawab Arzoo (ECE) Abhishek Sarkar (ECE)		10000
6.	House Cleaning Robot		Debolina Sadhukhan (ECE) Amritava Chakraborty (ME) Sanjukta Bhattacharjee (ECE) Samiran Bhattacharyya (ME)		12000
7.	Charging of a Mobile by a Micro Turbine Fitted to a By Cycle	Dr. Tamal Roy	Gourab Sarkar (EE) Amritava Chakraborty (ME)		10500
8.	Self Defense Wrist Watch	Mr. Suvanjan Bhattacharyya	Anwasha Chakraborty (ECE) Sangeet Show (ME) Debkumar Maity (ME) Sauryadeep Chowdhury (ME)		8000

3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?

- The Institute library facilitates an extensive research environment by subscribing the necessary National and International journals every year, text books, reference books and other relevant research materials.
- With research/ project specific equipment/ instruments and software, the institute has developed some laboratories as research/ project laboratory. Using these facilities, the faculty members and students carry out research works leading to research paper publication and filing of patents.

3.2.6 Special grants or finances received by the institute from the industry or other beneficiary agency for developing research facility:

Yes, the institute has received special grants and finances, the details are as follows:

- Grants have been received from DST, Govt. of India of amount Rs. 5.5 Lacs and 56.7 Lacs approved in the year 2002 and 2014 respectively for development of research facility to conduct experiments in the field of polymer science.
- Rs.11332449.00 has been utilized from grants received from TEQIP II to procure books and software to facilitate research works.
- M/S VE Commercial Vehicle has donated instruments and equipments of approximately Rs. 1 Crore for development of state of the art automotive laboratory during 2010.
- M/S Hyundai has donated one i 10 vehicle of worth Rs. 6 lacs for doing experiments with latest automotive technology.
- Certain amount of grants has also been received from private funding agencies like SAM Casting, ISHRAE etc. to develop experimental set up for research work.
- Special grants of Rs. 7 lacs have been received from AICTE during 2013 for modernization of ECE laboratories.
- The Institute has received grants for 8 projects from DST Govt. of WB during academic year 2016-17.

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. [Records of last four years]

Nature of the Project	Name of the faculty with department	Duration Year From To	Title of the project	Name of the funding agency	Total Grant	
					Sanctioned	Received
Minor projects	Pr. Debapriya De, Basic Science, Humanities and Social Sciences Department	9 th April 2014 – 9 th April, 2017	Mechanochemical de-vulcanization of vulcanized rubber by dual function disulfide chemicals	Science & Engineering Research Board (SERB)	Rs. 56,694,00	Rs. 56,694,00
Major projects	Dr. Dipankar Ghosh (as Co-PI) Basic Science, Humanities and Social Sciences	August 2016- July 2018	Nonlinear Pulse Dynamics in Dispersion Managed Optical Fibers including Micro or Nano Dimensions	Science & Engineering Research Board (SERB)	Rs. 21,611,70	Rs. 21,611,70

Nature of the Project	Name of the faculty with department	Duration Year From To	Title of the project	Name of the funding agency	Total Grant	
					Sanctioned	Received
Industry sponsored projects	Mr. Suvanjan Bhattacharya	Ongoing 3 Years	Solar Power Unmanned Aerial Vehicle	Sam Castings Howah - 711101	Rs. 115000	Rs. 115000
Industry sponsored	Mr. Suvanjan Bhattacharya	Ongoing 3 Years	Thermo-hydraulics of forced Convection in Non-Circular Plain Tubes and Circular Tubes with Twisted Tapes	MCKV Institute of Engineering	Rs. 67700	Rs. 67700
Institute sponsored	Mr. Suvanjan Bhattacharya	January, 2016- January, 2017	Design and Experiment of a Geothermal Air-Conditioner	ISHRAE, Kolkata	Rs 740000	Rs 74000
Industry project	Dr. Indrajit Dey	09.01.2013-08.01.2014	Mobile Computing Project	Rabt Technologies Pvt Ltd and Internet Society Kolkata	Rs.13500	Rs.13500

3.3 Research Facilities

3.3.1 Research facilities available to the students and research scholars within the campus:

- Many faculty members have registered for Ph.D. as external research scholars of other Universities. Also a number of faculty members have enrolled under the parent University to carry out their research work and guide other research scholars in the Institute campus.
- Computer with internet facility is provided in the project laboratory of respective departments to facilitate research activities of faculty members and other research scholars.
- The Institute provides facilities like Library, Journals, e-books and incentives to students to encourage research works.

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

Institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers are:

- Encouraging faculty and students to attend conferences, symposiums, workshops, seminars conducted in the Institute and at other organizations. Institute provides registration fee, TA/ DA, on-duty leave.
- Encouraging faculty members to organize expert lectures, workshops, and seminars, conferences, with funding internally and from MHRD.
- The library committee of the Institute periodically reviews and recommends the requirement of books and various national and international journals. Online journals are also accessible to the researchers.
- Computer with internet facility is provided in the project laboratory of respective departments to the faculty and students for carrying research works.

3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities? If 'yes', what are the instruments/ facilities created during the last four years.

The institution received following special grants/ financial support from the industry/ other beneficiary agency for developing research facilities in last four years.

Sl. No.	Name of the funding agency/ industry/ beneficiary	Instruments/ facilities created
1	DST	1. Open Roll Mixing Mill: Rubber processing Instrument. 2. Internal Mixer: Rubber/ Plastic processing Instrument. 3. Elastograph 67.12: Measurement of viscoelastic behavior of rubber compound 4. Universal Testing Machine: Measurement of Tensile, Flexural and compression of rubber/ composite sample. 5. Hardness Tester (Shore A): Determination of hardness of rubber sample. 6. DIN Abrader: Determination of abrasion resistance of rubber sample. 7. De-Mattia Flex Tester: Determination of fatigue life of rubber sample. 8. Aging Oven (upto 300oC): Measurement of Isothermal Aging behavior of polymer sample.
2	Sam Casting	Solar power UAV

Sl. No.	Name of the funding agency/ industry/ beneficiary	Instruments/ facilities created
3	Volvo Eicher Commercial Vehicles Limited.	Develop set ups to study high capacity, high power vehicle technology.
4	Rabt Technologies Pvt Ltd and Internet Society Kolkata	Development of Mobile Software

3.3.4 What are the research facilities made available to the students and research scholars outside the campus/ other research laboratories?

Research laboratories of the following Institutes/ Organizations are made available to the students and research scholars outside the campus:

- VECC Kolkata
- Jadavpur University, Kolkata
- IEST, Shibpur
- CMERI, Durgapur
- Calcutta University etc.

3.3.5 Provide details on the library/ information resource center or any other facilities available specifically for the researchers?

The facilities provided by the college library are:

- A central library and departmental library for each department
- WI-FI network in campus
- E-Books and NPTEL Course materials are available.
- Reference books on various research topics and project
- E-Journal: 1. IEEE 2. Springer 3.JGATE 4. IEI
- A dedicated Internet facility for students and faculty members.
- Well-equipped Central Computing Facility with 100 computers.

3.3.6 What are the collaborative research facilities developed/ created by the research institutes in the college? For ex. Laboratories, library, instruments, computers, new technology etc.

No such facilities developed.

3.4 Research Publications and Awards

3.4.1 Major research achievements of the staff and students:

- **Patents obtained and filed (process and product):**

Sl. No.	Name of the Staff/ Students & Department	Description	Date of Filing/ receiving	Application No./Patent No.
1	Dr. Satadal Saha	Image binarization based on grey membership parameters of pixels	26/03/2013	US Patent 8,406,554
2		Image binarization based on grey membership parameter of pixels	03/06/2014	US Patent 8,744,208
3	Dr. Brojendranath Dey	Process of preparing Bio-diesel	16/09/2013	1067/KOL/2013
4		A process for production of Nano Silicon from Industrial waste material Rice Husk Ash	16/09/2013	1068/KOL/2013

- **Original research contributing to product improvement:**

The Institute organizes annual technical competition, known as TECHNOTICA to showcase the innovative ideas of students. An initial screening is done to shortlist good projects which are exhibited in the competition. With the help of external expert committee, exceptionally good projects are chosen and sent to SCIENCE and ENGINEERING FAIR at BITM. Few significant such projects are listed below:

Students projects related to product development presented at Science and Engineering Fair organized by Birla Industrial and Technological Museum

Sl. No.	Name of the Project	Name of the Participant/s	Stream	Awards
Year: 2016-17				
1	Hapiic Assited Locating of Obstacles (HALO)	Roshal Kummer, Adarsh Agarwal, Sandeep Kummer,	ECE	Special Prize
2	Hank Talk	Swata Paramanik, Adwitiya Das, Anuma Mitra,	CSE	
3	Smart Glass	Abhishek Sarkar, Ankita Bhuniya,	ECE & ME	Special Prize

Sl. No.	Name of the Project	Name of the Participant/s	Stream	Awards
		Deb Kummur Mity,		
4	Unmanned Aerial Vehicle	Sake Nawab Arzoo (T) Rhitam Kaity Pritam Kaity	ECE ECE ECE	
5	Smart Band	S Chowdhury Avik Kundu(T) Surbhi Agarwal Suchismita Banerjee	ECE ECE ECE ECE	
Year: 2015-16				
1	Virtual Dress Room	Debojyoti Dey (T) Deepankar Sinha Sk. Shahir Halim	CSE CSE CSE	First
2	A smart system for the physically challenged while chair on power	Debdeep Chatterjee Shramona Chakraborty Sumanta Laha(T)	ME CSE ME	Best Innovative Prize
3	Hospital Management System with Integrated GPS Technology	Saptarshi Dey Subham Saha Saptarshi Chakraborty	CSE CSE CSE	Third
4	Multipurpose Crutch	Saikat Pradhan Abhijit Saha Anik Poddar	ME	
5	Automatic pump for Irrigation of farmland, to minimize the wastage of Water	Tuheli Bhattacharya Sumit Saha Rahul Roy	CSE	
Year: 2014-15				
1	Design and experimental investigation of semi-solar powered UAV with computational analysis of its Air Foil.	Sumanta Laha, Debdeep chatterjee, Shramona chakraborty,	ME , CSE	Special Prize
2	Advance Voice Assistance	Debojyoti Dey , Deepankar sinha,	CSE	Second prize

Sl. No.	Name of the Project	Name of the Participant/s	Stream	Awards
	system	Sk. Sahir Halim,		
3	Wireless Train Communication & Collision Avoidance	Navneet Pandey, Shiladitya Ghish, Pranay Mukherjee ,	ECE	
4	Multi-purpose Touch Screen Switch Board	Soham Sengupta Kironmoy Adak Hritwika Ghosh	ECE ECE ECE	
5	Remote Controlled Home Appliances	Atanu Chowdhury Rajib Chatterjee Srimita Coomar Appliances	ECE ECE ECE	
YEAR: 2013-2014				
1	LDR & Thermister Based Alarm	Sayantonee Maitra(T) Ankita Paul Tania Sengupta	IT ECE ECE	Special Prize
2	Wireless Heart-Beat Monitoring	Ahammad Reza(T) Arundhati Chandra Ranit Ghosh	ECE ECE ECE	Best Prize
3	Truth Meter Project	Bishan Bhadra(T) Rivu Sengupta Arko Banerjee Suvankar Indra	ECE ECE ECE ECE	
4	Detection of Single Phasing & Prevention (Protection)	Sanjib Kumar Mandal Prashant Soni		
YEAR: 2012-2013				
1	Automobile Lifeguards	Md. Saddam Mr. Asish Pandey Ms. Ekta Goyal		Second
2	Effi Cycle-2012/13	Mr. Digbijay Kr. Singh Mr. Babai Nandan Mr. Akash Senquta		
3	Intelligent Traffic Control System	Mr. Amber Kr. Das Mr. Haritabh Gupta Mr. Rahul Kumar		First
4	Intelligent Irrigation	Mr. Dipra Dutta Mr. Soham Bhattacharyya Mr. Suman Kundu		Second

- **Research studies or surveys benefiting the community or improving the services:**
- **Research inputs contributing to new initiatives and social development:**

The staff members and students of all the departments contribute to research studies/ surveys, new initiatives and social development by publishing research papers in reputed journals and conference proceedings on regular basis. Following table summarizes the data for the same. For details please refer to **Point No. 19 of Evaluative Report** of individual departments.

Department	AUE	BSHSS	CSE	ECE	EE	IT	MCA	ME
No. of Research publication contributing to research studies/ surveys, new initiatives and social development	84	107	86	154	80	124	30	248

3.4.2 Does the Institute publish or partner in publication of research journal(s)? If ‘yes’, indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database? :

No

3.4.3 Details of publications by the faculty and students (Department Wise):

Department-wise details of publication are summarized below. For details please refer to **Point No. 19 of Evaluative Report** of individual departments.

Sl No.	Name of the Department	Total Publications	Number of papers published in peer reviewed journals (national and international)	Number of publications listed in international database	Mono graphs	Chapter in books	Books edited	Books with ISBN/ISSN numbers with details of publishers	Citations	SNIP (best SNIP achieved)	SJR (best SJR achieved)	Impact factor (Highest impact factor of the journal where the paper published)	h-index (highest)
1	AUE	84	39	24	0	0	0	0	167	2.143	1.763	4.064	5
2	BSHSS	107	53	31	0	4	0	3	1668	8.643	8.300	27.184	13
3	CSE	86	12	31	0	0	0	2	45	0.778	0.6	--	02
4	ECE	154	71	84	0	3	0	0	183	2.1	4.643	5.776	6
5	EE	80	18	28	1	1	0	1	32	0	0	4	9
6	IT	123	28	70	0	9	0	0	334	2.143	1.763	2.857	8
7	ME	247	77	48	0	1	1	7	955	3.997	2.526	1.916	10
8	MCA	30	13	21	0	0	0	0	82	0.593	0.189	--	4

3.4.4 Provide details (if any) of

- **Research awards received by the faculty**
- **Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally**
- **Incentives given to faculty for receiving state, national and international recognitions for research contributions.**

Faculty and staff members of all departments involve themselves in various research activities such as paper and book publication, review, chairing sessions in conferences, becoming editorial board members of journals, organizing seminar, workshop, conferences etc. For their outstanding performances in the respective field, they get awarded. Following table shows the summary of data for the same. For details, please refer to **Point No. 23 of Evaluative Report** of individual departments.

Department	AUE	CSE	ECE	EE	IT	ME
No. of awards obtained	5	2	1	9	5	15

3.5 Consultancy

3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

All the departments including CRTT Cell have regular interaction with relevant industries which helps in imparting students training during summer/ winter breaks and industry visit. Departments organize expert lectures inviting resource person from industries.

Industry Institute Interaction Cell (IIIC) of the Institute works for enhancing the relationship between the institute and industry. This cell has been established with the following objectives:

- To establish a two way lasting relationship with Industry.
- To explore various awareness of collaborative activities between Academia & Industry.

The IIIC maintains close interaction with industries to identify the curriculum gap and helps departments to bridge the by facilitating sponsored Research and Development projects, expert lecture, seminars, workshops and various other industrial training programmes etc. Some of the activities of the cell are as follows:

- To identify and facilitate Guest Lectures, Interactive workshops, conferences, seminars, Brain Storming Sessions, Technical Discussions etc. with Members of the Industry, outside Experts, eminent personalities at regular interval.
- To conduct Industrial Training, Orientation Courses, Industrial Visits etc for faculty and students at regular intervals.
- To facilitate joint research work, consultancy involving faculty and students.
- To conduct industrial exhibitions to highlight research facilities and expertise available with the institution.
- To seek and associate Experts from Industry in Curriculum Development and review.

- To identify Continuing Education opportunities, short-term programmes and training needs of the Industry, which the institution can provide.
- To promote revenue generating activities for the institution like Lab Testing, Calibration, consultancy and R&D etc.
- To assess periodically the scientific and technological scenario/ happenings in India and abroad in order to translate it into action for taking up future R&D work.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

The institute encourages Faculty and staff members to do consultancy work with outside agencies/ industries. The Institute has following policies to motivate Faculty and staff members for the job:

- Sharing revenue earned through it
- Arrangement of necessary facilities to take up consultancy work,
- Provision of on duty leave to visit the client Organization.

The skill and Expertise of the Institute are advocated and publicized through:

- Annual Report
- Institutional Website

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

The Institute encourages the faculty & staff members to do consultancy work in the following ways:

- Reduced academic load
- Special weightage in self appraisal.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

Sl. No.	Faculty/ Staff members	Department	Description of consultancy	Client organization	Amount Involved	Year of Completion
1	Prof. (Dr.) Debapriya De	Basic Science, Humanities and Social Sciences	Development, testing and analysis of rubber compound for Conveyor belt	Metalab Enterprise, Ahmedaba-382415, Gujarat.	6000.00	Ongoing

Sl. No.	Faculty/ Staff members	Department	Description of consultancy	Client organization	Amount Involved	Year of Completion
2	Dr. Arun K Jalan	Basic Science, Humanities and Social Sciences	Technical Support on Financial Marketing	Sinjan Overseas Pvt. Ltd.	4000.00	Completed
3	Dr. Indrajit De and Mr. Arijit Sarkar	Information Technology	Sustained Graded Value Education Project SGVEP Type B	Govt. of India, Ramakrishna Math & Ramakrishna Mission, Belur Math	566000.00	Completed
4	Dr. Indrajit De and Mr. Arijit Sarkar	Information Technology	Youth Counselling Programme	Ramakrishna Mission Vivekananda University	75000.00	Completed

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

As per approval of the Board of Governors of the Institute, income generated through consultancy is shared on 60:40 ratio between the concerned staff member and the Institute.

3.6 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does the institution promote institution-neighbourhood- community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

The Institute ensures extension activities by exposing students to the societal needs and their social responsibilities. Rotaract Club of MCKVIE and NSS activities play a vital role in involving the students in community work through the following activities:

- Organizing regular blood donation camps.
- Organizing training programme on basics of automobile engineering for officers of Kolkata Police to enable them to identify the causes of accidents for their decision making.

- Offers laboratory classes for staff members and students of neighbourhood diploma colleges.
- Offers certificate courses on various topics like AutoCAD, Automotive Technology etc. for technical students.
- Involvement of the faculty/ staff members, student for raising various charity activities and relief funds.
- Organizing programmes like cleaning and sanitizing around different public locations under NSS unit.
- Programs on road safety through NSS help them educate to become responsible citizenship.
- Participation of neighbourhood school students in various programmes like essay, debate competition etc. in the National/ International events organized by the Institute.
- Participation in a variety of sports activities inculcates sportsmanship and team work among students and contributes to holistic development of students.
- CRTT Cell of the Institute helps to create self confidence to the students through different training programmes.
- The institute has a full time Psychological Counsellor, who interacts frequently with students and clears the doubts related to academic and personal matters of the students.
- The Institute has established an Entrepreneur Development Cell in collaboration with National Entrepreneurship Network (NEN). The objectives of the cell to motivate, educate and help students to convert their ideas into business through product development.
- The Institute has a Swami Vivekananda Centre for Positive Thinking helps students to develop morale values and positive attitude.

3.6.2 What is the Institutional mechanism to track students' involvement in various social movements/ activities which promote citizenship roles?

The institute consistently encourages and motivates students to get them involved in various social activities through the following means.

- Organizes different programmes under NSS and Rotaract Club of MCKVIE. Few of which are Blood donation camp, distribution of clothes to old-age home, sweets and fire cracker to orphanage during puja, participation in Swach Bharat Abhiyan, awareness developing on road safety etc.
- The Institute conducts different sports and games activities for the college students.
- The Institute encourages students to take part in co-curricular and extracurricular activities.
- To Institute organizes seminars to develop leadership qualities among the students and unemployed youths.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

The Institute solicits and values opinions and viewpoints of all stake holders through feedback sessions and making them members of several committees of the Institute on the overall performance, quality and growth of the institution results in enhancement of eminence of the Institution. The major stakeholders are as follows:

Students:

There exists a web based students' feedback system. The Institute collects feedback from the students on academics and related services once in every semester. The management of the Institute analyzes the collected data and takes remedial actions meet the deficiencies if any.

Faculty:

Online Faculty feedback system is there in the Institute. Faculty members express their concern and other requirement through the system for overall improvement of the Institute.

Also, the ideas and opinions of the Faculty members are perceived through Departmental Academic Committee (DAC) meetings which are further discussed in Academic Advisory Committee (AAC) meetings, both conducted once in a month.

Parents:

The individual department conducts formal interactions with parents as and when required.

The informal meetings with the Faculty members, class coordinators and the Heads of departments serve as valuable sources of information and suggestions for augmenting the performance of the students.

Alumni:

The Institute has a registered Alumni Association.

The Institute collects feedback and suggestions from the alumni through Online Alumni Feedback system.

The departments as well as the Institute organize alumni meet on regular basis.

The individual department invites some of the alumni to deliver lecture for the students.

Employer:

The Institute takes into consideration and values employers' constructive criticisms and estimations are for the betterment of the institution

3.6.4 How does the institution plan and organize its extension and outreach programmes? Providing the budget and details for last four years, list the major extension and outreach programmes and the impact on the overall development of students.

MCKVIE has the plan to organize its extension and outreach programmes. The Institute is regularly organizes a number of extension and outreach activities which is directly connected with students' academic, social, cultural, community services.

Details of such programmes conducted and expenses incurred in last four years are as follows:

Academic Year	Major extension and outreach programmes	Expenses incurred (INR)	Impact on overall development
2015-16	Blood donation camp	3511.00	All these activities add diversity in academic curriculum, help to develop social awareness in the mind concerned students. Finally these programs help the students to be a good human being.
	May-Day Celebration	15000.00	
	Friendship Day Celebration	1420.00	
	Raksha Bandhan celebration	1300.00	
	Swachh Bharat abhiyan	700.00	
	Diwali celebration	7500.00	
	Holi celebration	1860.00	
2014-15	Treatment of Ms. Bandana Rau Dau	25000.00	
	Blood donation camp	840.00	
	May-Day Celebration	14151.00	
	Friendship Day Celebration	6040.00	
	Childrens' day and Christmas celebration	3229.00	
	Swachh Bharat abhiyan	12496.00	
	Diwali celebration	1970.00	
2013-14	Holi celebration	2222.00	
	Sports	6830.00	
	Blood donation camp	1800.00	
	May-Day Celebration	13970.00	
2012-13	Diwali celebration	4505.00	
	Health and Eye care camp	12125.00	
	Raksha Bandhan celebration	1200.00	
	May-Day Celebration	12436.00	
	Diwali celebration	5590.00	
	Cricket tournament	2990.00	
	Sports	24258.00	

3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/International agencies?

To promote the participation of the students in extension activities, regular classes are allotted in academic time table to groom and orient the students following the guideline of the University. Students under the guidance of the faculty members participate in various NSS activities outside the campus. Apart from this, the Institute performs various extension activities related to

community development services through Rotaract Club of MCKVIE, Swami Vivekananda Centre for Positive Thinking etc. During orientation programme for the new entrants, the coordinators of these units narrate benefits and scope of the extension activities to the students. The information about the proposed activities is disseminated on the college notice board, circulars, web notifications, and also by oral interaction by the in-charge of the units.

3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under-privileged and vulnerable sections of society?

- The trustee board the Institute runs elementary education programme in the evening to educate and empower the children from under-privileged and vulnerable sections of society.
- The Institute donates computers and other teaching learning materials to the orphans for their education.
- The Institute offers full and half freeship to the students belonging to economically weaker section of the society.

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

Objective:

The **Washington Accord**, an international accreditation agreement for professional engineering academic degrees prescribed a number of Graduate Attributes to be fulfilled by the students. These attributes enhances knowledge, skill and attitude of the students. The institute encourages extension activities keeping in mind the attributes like the engineer and society, environment and sustainability, ethics, individual and team work etc. These attributes address societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice, impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development, need of ethical principles in profession, how to work as a member or leader in diverse teams, and in multidisciplinary settings.

Outcome:

To meet the objective, a good number of courses have been incorporated in curriculum. Also the Institute encourages both students and staff members to organize different extension activities under NSS, Rotaract Club of MCKVIE, Swami Vivekananda Centre for Positive Thinking etc. to learn and serve society, environment, ethical behavior etc.

Sl. No.	Activities	Impact
1.	Orientation Programme for new entrants on NSS, Rotaract Club of MCKVIE, Positive Thinking	Development of awareness and mindset.
2.	Courses on Values and ethics in profession	Deep understanding of importance of value and ethics in life.
3.	Training programme on soft skill, communication skill etc.	Development and enhancement of said qualities among students
4.	Organization of blood donation camp, participation in swach bharat abhiyan, distribution of clothes to the oldage home etc.	Development of feeling for mankind and society.

3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?

Wherever possible, the Institute puts its effort to ensure the involvement of the community in its outreach activities and contribute to the community development. Some of which includes:

- Organizing training programme on basics of automobile engineering for officers of Kolkata Police to enable them to identify the causes of accidents for their decision making.
- Offers laboratory facilities for staff members and students of neighbourhood diploma colleges.
- Participation of neighbourhood school students in various programmes like essay, debate competition etc. in the National/ International events organized by the Institute.

3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

NSS unit of the Institute in association with Rotaract Club of MCKVIE participate in many philanthropic outreach and extension activities with other institutions of the locality. A glimpse of such activities is presented in the table below:

Sl. No.	Event	Local Institutions
1	Friendship Day Celebration with underprivileged children of night school DISHA	MCKV Vidyapith

Sl. No.	Event	Local Institutions
2	Rakshabandhan celebration with orphan kids	Lal Baba Ashram, Howrah
3	Independence day Celebration specially abled people	Bharatendu Andh Ashram, Howrah
4	Mega Blood Donation Camp	Akhil Bharatiya Terapanth Yuvak Parishad
5	Swacchh Bharat Abhiyaan	Howrah Railway Authority & Howrah Municipality
6	First aid kit donation to Shishu Shikshalya, Lal Baba Ashram , Shri Chaubey School	Shri Chaubey School, Howrah
7	Industrial Visit	Mother Diary, Dankuni
8	Independence Day Celebration	Khalna Balika Vidyapeeth, Rotary Club of Belur and Interact Club of MCKV Boys' School
9	Rakshabandhan Celebration at Lal Baba Ashram and police officers of Belur P.S.	Baba Ashram and Police Officers of Belur Police Station
10	Clothes' Distribution to Poors	Dakshineshwar Kali Temple Authority
11	Swacchh Bharat Abhiyaan at Liluah Station	Eastern Railway, Liluah
12	Friendship Day Celebration	Belur Police Station, Rotaract Club of Navi Mumbai Hillside and Rotaract Club of Singapore, RC Central Calcutta
13	"Bandhanam"- Rakshabandhan Celebration	Lal Baba Ashram, Howrah
14	"Kishalaya" –Professional Development program for kids of	Chaubey School, Lal Baba School, Shishu Shikshalaya, RC Calcutta
15	"Pranaantika"-free blood group detection for slum dwellers	R.I.D 3291 Zone 4
16	Clothes' Distribution at Dakshineshwar	Dakshineshwar Kali Temple Authority
17	Diwali Celebration at Lal Baba Ashram	Lal Baba Ashram
18	"BraveArt" fund-raising project- sit and draw event for kids at the Thakurpukur Cancer Hospital	Saroj Gupta Cancer Centre and Research Institute

3.6.10 Give details of awards received by the institution for extension activities and/ contributions to the social/ community development during the last four years.

Some of the significant awards received for extension activities are as follows:

Sl. No.	Year	Award Received
1	2016-17	Best community service projects award 2016 in Rotaract district 3291
2		Best club in zone 4 in Rotaract district 3291 till now
3	2015-16	10th best club in Rotaract district 3291
4	2014-15	Best join project award Rotaract district 3291
5		Third best secretary award Rotaract district 3291

3.7 Collaboration

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives-collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

MCKVIE has collaboration with many reputed academic institution and industries to fulfill the following objectives.

- The collaboration with academic institutions like IITs, Jadavpur University, IEST etc. aims at publishing research papers, pursuing Ph.D. programmes, sharing research laboratories etc.
- The collaboration with industries and other institutions like VE Commercial Vehicle, Dassault Systems, CII, NEN etc. aims at providing summer internship to the students, Plant visit, project works etc.

3.7.2 Provide details on the MOUs/ collaborative arrangements (if any) with institutions of national Importance/ other universities/ industries/ Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.

Sl. No.	MOUs/ Collaborative Arrangements made with	Type of Contribution/ Development	Date of Agreement
1	Volvo Eicher Commercial Vehicles Limited.	This collaborative work familiarizes young students and faculties in latest Automobile Technologies and also practically demonstrate to them the most scientific way of repair, maintenance and overhaul of commercial vehicles through “Eicher Technical Training Programme (ETTP)”	6 th May, 2011
2	DS/ IIIM LTD.	DS/IIIM LTD. And MCKVIE worked together to create the “Dassault Systems PLM Center of Excellence” at MCKVIE.	8 th July, 2010
3	Sigma Search Light	Conveying ideas of the students to useful products of sustainable use through Research & Development and also provide Training for manufacturing and creative marketing skills among students.	25 th March, 2015
4	RABT technology	MOU signed with M/S. RABT Technologies pvt. ltd. towards the motivation among the students for developing technical projects namely on mobile & cloud computing. (IT dept., continuing)	On 20 TH June, 2013
5	Govt. College of Engineering and Textile Technology, Berhampore, W.B., India.	Academic collaborations to utilizing expertise and resources of each parties by the other including programmes for visit to educational institutions, mutual exchange of students for training, exchange of faculties, seminars, conferences and other relevant programs including co-operation of research and consultancy.	5 th August, 2016

Sl. No.	MOUs/ Collaborative Arrangements made with	Type of Contribution/ Development	Date of Agreement
6	IIT Kharagpur	Technical Education (KITE) Centre at IIT, Kharagpur provide overall guidelines to develop curriculum through conducting training programmes under TEQIP-II. for improvement in quality technical education for a period of 5 years.	15 th September, 2014
7	Ericsson India Pvt. Ltd.	A MOU signed between Ericsson India Pvt. Ltd. for certification programme.	On 14 TH October'09 and Continued Till 2013
8	Texas Instruments	MOU signed between Texas Instruments towards establishing teaching lab facility in C2000 platform. (ECE & EE, continuing)	On 4 TH Dcember, 2013
9	IBM India Private Limited	MOU signed between IBM India Private Limited towards establishing high quality faculty repository in software technologies. (CSE, continuing)	On 9 TH December 2013
10	Volvo Eicher	MCKVIE has become the training partner of VOLVO EICHER in the automotive skill development programme (continuing)	On 12TH February, 2014.
11	Ed GATE Technologies Pvt. Ltd.	MOU Signed between M/S. Ed GATE Technologies Pvt. Ltd. towards establishing teaching lab facility in the area of embedded systems/ microcontrollers or analog sytem design. (ECE & EE, continuing)	On 13 TH May, 2014
12	CII (ER) for Industry – Institute Interaction	MOU Signed With CII (ER) for Industry – Institute Interaction	Continuing

Sl. No.	MOUs/ Collaborative Arrangements made with	Type of Contribution/ Development	Date of Agreement
13	IC Design and Fabrication Centre, Dept. Electronics & Telecommunication Engg., JU	MOU signed with MCKVIE and IC Design and Fabrication Centre, Department of Electronics & Telecommunication Engineering, Jadavpur university	Under Process
14	National Entrepreneurship Network (NEN)	MOU signed with MCKVIE to motivate, educate, mentor and to provide technical and financial support to the students for startup ventures	On 1 st April, 2016
15	IIT Kharagpur (NPTEL)	MOU signed with IIT Kharagpur to establish a local chapter of NPTEL at the Institute	On 5 th May, 2016

3.7.3 Give details (if any) on the industry-institution- community interactions that have contributed to the establishment/ creation/ up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories/ library/ new technology/ placement services etc.

There are 15 MOUs with various Industries, Academic Institutions, R & D Organizations etc. prevailing at the Institute to contribute to the establishment/ creation/ up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories/ library/ new technology/ placement services etc. For details, please refer to the Table shown in **Point No. 3.7.2.**

3.7.4 Highlighting the names of eminent scientists/ participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.

There are many national and international events organized by the Institute/ departments where eminent scientists and other recourse persons were invited to deliver lecture, participation in panel discussion, become session chair etc. For details, please refer to **Point No. 25 of Evaluative Report** of Individual departments.

3.7.5 How many of the linkages/ collaborations have actually resulted in formal MOUs and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/ or facilitated

Sl. No.	MOUs/ collaborative arrangements made with	Type of contribution/ development	Outcome
1	Volvo Eicher Commercial Vehicles Limited.	This collaborative work familiarizes young students and faculties in latest Automobile Technologies and also practically demonstrate to them the most scientific way of repair, maintenance and overhaul of commercial vehicles through “Eicher Technical Training Programme (ETTP)”	Internship/On-the-job training, Summer placement, Twinning programmes
2	DS/ IIM LTD.	DS/IIM LTD. And MCKVIE worked together to create the “Dassault Systems PLM Center of Excellence” at MCKVIE.	Curriculum development/ enrichment, Research, Consultancy
3	Sigma Search Light	Conveying ideas of the students to useful products of sustainable use through Research & Development and also provide Training for manufacturing and creative marketing skills among students.	Internship/ On-the-job training, Summer placement, Faculty exchange and professional development, Research, Extension
4	RABT technology	MOU signed with M/S. RABT Technologies pvt. ltd. towards the motivation among the students for developing technical projects namely on mobile & cloud computing. (IT dept., continuing)	Internship/ On-the-job training, Summer placement

Sl. No.	MOUs/ collaborative arrangements made with	Type of contribution/ development	Outcome
5	Govt. College of Engineering and Textile Technology, Berhampore, W.B., India.	Academic collaborations to utilizing expertise and resources of each parties by the other including programmes for visit to educational institutions, mutual exchange of students for training, exchange of faculties, seminars, conferences and other relevant programs including co-operation of research and consultancy.	Faculty exchange and professional development, Research, Publication
6	IIT Kharagpur	Technical Education (KITE) Centre at IIT, Kharagpur provide overall guidelines to develop curriculum through conducting training programmes under TEQIP-II. For improvement in quality technical education for a period of 5 years.	Curriculum development/ enrichment, Faculty exchange and professional development
7	Ericsson India Pvt. Ltd.	A MOU signed between Ericsson India Pvt. Ltd. for certification programme.	Internship/On-the-job training, Summer placement
8	Texas Instruments	MOU signed between Texas Instruments towards establishing teaching lab facility in C2000 platform. (ECE & EE, continuing)	Curriculum development/ enrichment
9	IBM India Private Limited	MOU signed between IBM India Private Limited towards establishing high quality faculty repository in software technologies. (CSE, continuing)	Curriculum development/ enrichment, Faculty exchange and professional development
10	Volvo Eicher	MCKVIE has become the training partner of VOLVO EICHER in the automotive skill development programme (continuing)	Internship/On-the-job training, Twinning programmes

Sl. No.	MOUs/ collaborative arrangements made with	Type of contribution/ development	Outcome
11	Ed GATE Technologies Pvt. Ltd.	MOU Signed between M/S. Ed GATE Technologies Pvt. Ltd. towards establishing teaching lab facility in the area of embedded systems/ microcontrollers or analog system design. (ECE & EE, continuing)	Curriculum development/ enrichment
12	CII (ER) for Industry – Institute Interaction	MOU Signed With CII (ER) for Industry – Institute Interaction	Curriculum development/ enrichment, Internship/ On-the- job training, Summer placement, Faculty exchange and professional development, Consultancy, Student Placement
13	IC Design and Fabrication Centre, Dept. Electronics & Telecommunicatio n Engg., JU	MOU signed with MCKVIE and IC Design and Fabrication Centre, Department of Electronics & Telecommunication Engineering, Jadavpur university	Internship/On-the-job training, Summer placement
14	National Entrepreneurship Network (NEN)	MOU signed with MCKVIE to motivate, educate, mentor and to provide technical and financial support to the students for startup ventures	Entrepreneurship Skill Development of students
15	IIT Kharagpur (NPTEL)	MOU signed with IIT Kharagpur to establish a local chapter of NPTEL at the Institute	Curriculum development/ enrichment, Internship/On-the-job training, Summer placement, Faculty exchange and professional development

3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/ collaborations.

The Institute is continuously putting efforts to organize various events for mutual benefit of all the stake holders. Besides, the Industry Institute Interaction Cell (IIC) of the Institute is working to make new collaborations with other institutions to move the college ahead.

CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

The Institute has well defined policies for the creation and enhancement of infrastructure to facilitate effective teaching and learning. It covers the requirements of any change in the curriculum, student admission and introduction of any additional courses. The proposal for this requirement is prepared in the meeting of Departmental Academic Committee (DAC) and submitted to the Academic Advisory Committee (AAC) which is the highest academic body in the Institute. The members of the AAC meet once in a month to discuss the academic growth and teaching learning requirements. The Principal, based on recommendations of AAC gives the final approval. Once it is approved, the same is implemented with the help of professionals in the concern area. Internal Quality Assurance Cell (IQAC) has been formed very recently to look after and monitor various academic and administrative activities to facilitate effective teaching and learning.

4.1.2 Detail the facilities available for a) Curricular and co-curricular activities—classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc. b) Extra– curricular activities– sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.

With regular curricula, the Institute gives major emphasis on co-curricular and extra-curricular activities.

a) Curricular and Co-curricular Activities: Institute have well furnished facilities which are mentioned below.

Technology enabled learning spaces:

Class Rooms: 33

Computer Center with internet browsing-02

Engineering Drawing Room- 03

Workshop – 07

Reading Room: Central library, Digital Library & Department libraries in all departments

Seminar Hall: 07

Tutorial Rooms: 18

Well facilitated laboratories: 47

State of the art Language Lab: 01

Auditorium: 01

Wi-Fi Connectivity across campus through (16+8+4+2) Mbps Internet connection

Specialized facilities and equipment for teaching, learning and research:

Major equipments are available in the departmental laboratories.



Class Room



Software Laboratory



Communication Laboratory



Power Electronics Laboratory



ETPM Laboratory



Electrical Laboratory

b) Extra-Curricular activities:

Besides academic programmes, the students are encouraged to join Extra-curricular activities like cultural programmes, national services schemes, blood donation camp, free medical camp, cleanliness drive and other social awareness campaigns.

The students of Automobile and Mechanical Engineering departments participate in design challenge competitions for which they design and manufacture proto type of off road vehicle, racing cars and hybrid cycle etc. on regular basis.

Sports:

Institute is having its own Basketball Court and one outdoor Badminton Court. Ground is protected by boundary wall and surrounded with trees and flowers.

Facility: All equipments and accessories required for students to take part in cricket, football, basketball etc. are provided at the time of tournament. The Institute has qualified & experienced sports instructors such as cricket coach, basketball trainer and gym instructor.

Events: Annual Sports and Games is conducted every year and students regularly participates in every discipline of sports conducted by Maulana Abul Kalam Azad University of Technology (formerly known as West Bengal University of Technology) as well as other inter college sports tournaments.

Institute is having its own Cricket team and regularly practice in the ground of Bally Cricket Clinic under a reputed Cricket Coach Mr. Kalyan Ghoshal, former Cricket coach of Mohan Bagan Athletic Club. Also the institute organizes Annual Sports & Games (Indoor & Outdoor) every year.

The Basket Ball team practices regularly in the Institute court under the supervision of a National level coach, Mr. Biplab Ghosh. They participate in various intra - College tournaments.

The Institute Football team usually practices in Railway Ground just adjacent to the Institute Campus.

The students receive prizes from various competitions every year.

Outdoor & Indoor games:

Following facilities for outdoor & indoor games such as Foot Ball, Cricket, Volleyball and Badminton tournaments, Table Tennis, Chess and Carom, Badminton (Indoor and Outdoor court) along with room for Table Tennis are available.

Gymnasium:

The Institute is having its own Multi GYM Facilities inside the campus for both Boys and Girls students and also for the staff members. Mr. Mihir Bhattacharjee, renowned National level Coach, is working as an Instructor for the Multi Gym and Yoga practices.

Auditorium:

A fully air conditioned auditorium with 350 seating capacity is available. It has its own audio visual and lighting facilities.



Rotaract Club of MCKVIE:

In order to instill essence of service to the society the Rotaract Club of MCKVIE started in the year 2010, where the students get enough opportunity to serve the under-privileged sections off society during leisure time. These give an opportunity to work with people n a creative and constructive way there why resulting in personality development.

The club is organizing blood donation camp regularly and takes various initiatives for the underprivileged children. They also conduct several awareness programmes like “Mobile phones should not be used while Driving”, “Adult Education and Literacy”, “Human Trafficking” “Swachh Bharat Abhiyaan” etc.

Blood Donation Camp:

Rotaract Club organizes blood donation camp regularly at college campus. Normally this camp is held during Annual Fest-UTOPIA where 40-70 students donate blood for the noble cause.

Teachers’ Day:

The birth day of Dr. Sarvepalli Radhakrishnan is celebrated as Teacher’s Day with the active participation of B.Tech. first year students of college campus on 5th September every year.

Independence Day:

Every year on 15th August Independence Day is celebrated at the campus by Rotaract Club. Quiz Competition and Treasure Hunt is organized for the first year students. Food packets are distributed to all the students. The students also visit the Bally slum area and celebrated Independence Day with them. Food packets were distributed to all the children.

Vigilance Awareness Week:

On recommendation of AICTE, Vigilance Awareness Week was observed on 30th and 31st October, 2015 at the Institute. A Quiz Competition and Extempore Speech were arranged on the topic “Preventive Vigilance as a tool of Good Governance” and the students were encouraged by providing prizes.

Fire Safety Awareness Camp:

The Institute organizes Fire Fighting Mock Training twice in a year in presence of security staff, students, teaching and non teaching staff of the college.

Campus Cleaning:

Awareness regarding the “Swachata” is created among students by the activity of campus cleaning. It develops a habit of hygiene among students. A long-term project “Parishkaar”– a beautification drive in and around the MCKVIE Campus under the Swacchh Bharat Abhiyaan – was inaugurated and a presentation on the project idea along with an idea on rotaracting was delivered to the first year students of MCKVIE by the club President on 29th September, 2016. Bleaching powder was sprinkled inside and outside the campus by the prospective Rotaract members of first year as a part of their NSS activity.

Durgapuja Parikrama & Awards:

The Durgapuja Parikrama & Awards namely Sharood Swikriti is conducted every year. Around 185 Rotaractors participates in the event. Some of the best Pujas are judged and awarded.

NSS:

Enrollment in NSS is compulsory for first year students and voluntary for others. Started in the year 2009, the NSS unit is one of the best in this Institute. Among several co-curricular and extra-curricular activities that find place in higher educational institutions in recent times, NSS occupies the first and foremost place since it has so much to do with the community as such. Participation in NSS activities makes the students to understand the problems of society very well and this helps them to put one's knowledge and energy in mitigating at least some of the social problems. This gives an opportunity to students to work with people in a creative and constructive way thereby resulting in personality development also. It also conducts several awareness programs for staff and students. The NSS activities are mainly organized through Rotract Club of MCKVIE. It also includes social welfare, visit to old age home, plantation of

trees, providing basic education to the poor local children, donation of old cloths to the slum areas every year.

Cultural activities:

Students of the institute regularly organize Freshers' Welcome Function "Balaka", Annual Cultural Fest "Utopia", Tech Fest, Farewell Function "Ascent", Debate Competition, Independence Day Celebration, Wall Magazine, Re-union programmes. The Institute also organizes Viswakarma & Saraswati Puja every year.

Public speaking:

Activities under this include Training in leadership skills, Intra Group Quiz and Debate, departmental / institutional seminar/conference/workshop.

Communication skills development:

The students are provided training on soft skill development by internal and external (National / International) experts.

Yoga:

Yoga facility available for students, faculty and other staffs. International Yoga Day is celebrated every year.

Health and hygiene

Campus is cleaned regularly. Purified drinking water is available throughout the Institute.

Swami Vivekananda Centre for Positive Thinking:

The Institute has initiated Swami Vivekananda Centre for Positive Thinking, to enhance the moral values among the young generation with the active support & advice of Ramakrishna Mission Vivekananda University, Belur Math started journey to inculcate higher human values & to orient the students to think positively about rebuilding India through building up individual characters based on Swami Vivekananda's educational vision & life giving thoughts. The Centre is among the first five in India and already organized various seminars, lecture meets, youth programmes at regular intervals. The Centre is dedicated to orient the students, faculty & staff members of the college through teachings, life giving thoughts and philosophy of Swami Vivekananda. Regular meditation & value education classes, sprawling library of 1800 books especially on value education & spirituality as emphasized by Ramakrishna, Vivekananda & Saradadevi have added some add on values. The centre is always graced by Vice Chancellors, Educationists, Men of standing, Social workers, Senior Journalists, Doctors, and people from all professions, cultures and religions. The weekly Value Education classes are regularly conducted on Wednesdays & Saturdays at the Centre.

The centre has also received a Project on Sustained Graded Value Education Programme (Govt. of India funded Project) for Type B Value Education Programme implemented through Rama Krishna Mission Belur Math of worth Rs.4.56 lakhs for the year 2012-2014.

c) Co-curricular Activities:

Students receive accolades & awards in regular interval from various National Level Project Design Competitions viz. SAE BAJA Off-Road Vehicle Design competition, SAE Supra Racing competition, Science & Engineering Fair organized by Birla Industrial & Technological Museum (BITM), INFOCOM organized by ABP Group, Analog Circuit Design competition by Texas Instrument, Innovative Project competition by Intel and various Tech Fests organized by IIT Kanpur, IIT Kharagpur, IIT Guwahati etc.

Students also present Research Papers in International & National Conferences at regularly. Students of B.Tech are publishing research papers in International Journals also.

A numerous Students' Chapters viz. IET UK Students' Chapter, SAE Students' Chapters, CSI Students' Chapter, IE (I), ISHRAE, Students' Chapter, Internet Society etc. are running successfully. It gives an opportunity to the students to develop mindset about work environment of industry and establish networking with the industry personnel.

A numerous innovative projects by students which have sky-scraping social impact viz., Wireless Heart-Beat Monitoring System, Truth Detector, Unmanned Aerial Vehicle (UAV) made out of Composite Material, Low Cost Hearing Aid, Automatic Railway crossing system for unmanned railway crossing, Embedded Helmet, Home Automation using SMS, Smart Irrigation System, Smart Glasses, Self Defense Wrist Watch Power wheel chair etc.

Institute organizes regularly annual Innovative Project Design Competition "Technotica" and Annual Robotics Competition "VAHAAN".

4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/ augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution/ campus and indicate the existing physical infrastructure and the future planned expansions if any).

The available infrastructure is utilized optimally in the following respect

- The classrooms are utilized for the conduct of classes during working hours as well as for tutorial classes and remedial classes.
- The central library remain open up to 6.30 p.m. and the departmental libraries remain open upto 5 p.m. Questions, Sample answer scripts & results of the class tests are available.

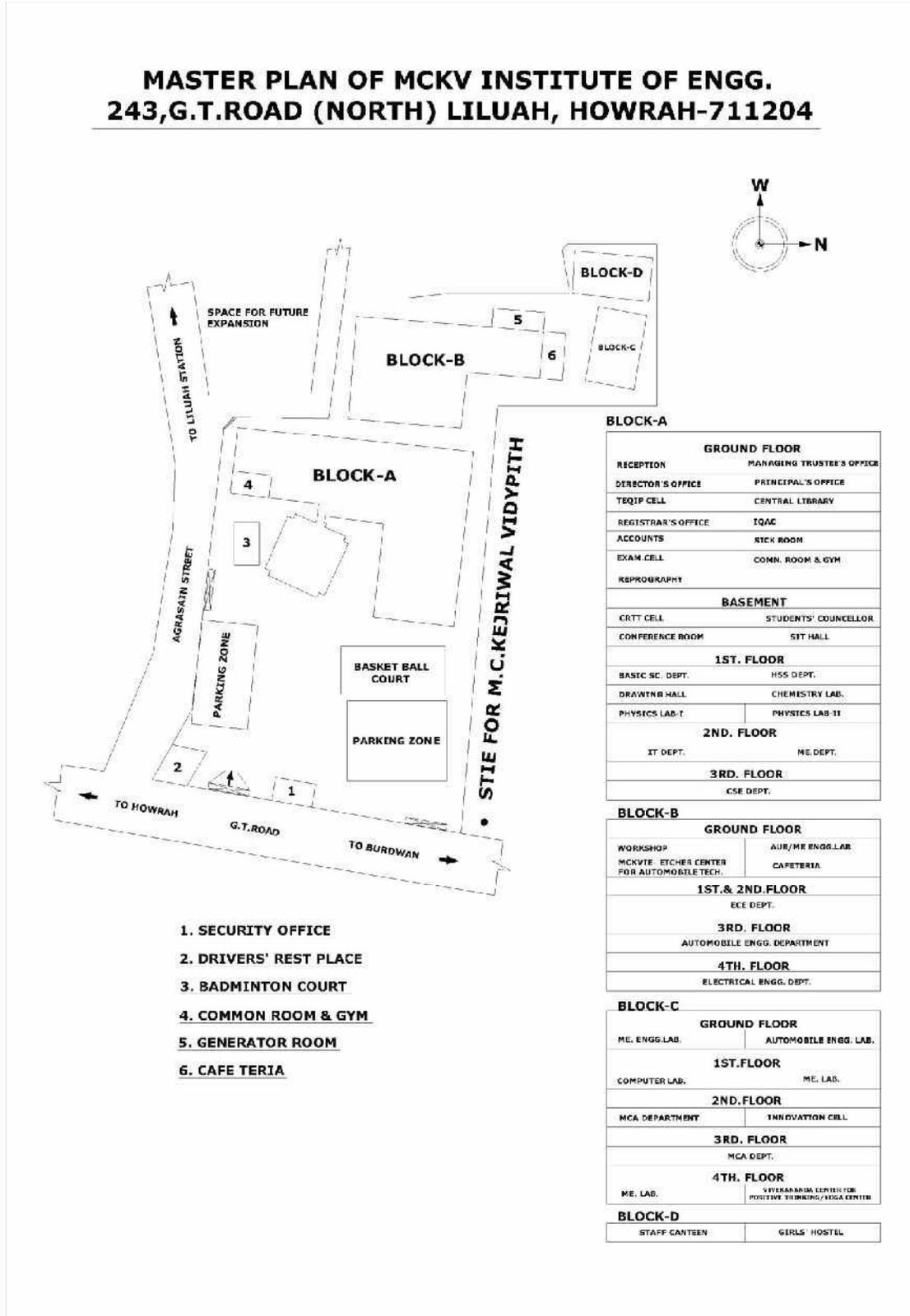
- The laboratories are utilized for conducting practical classes and also provide facilities to the students for technical projects.
- Each department is equipped with a separate HOD room, Staff rooms, Departmental library, laboratories and meeting room for efficient functioning.
- The seminar halls and auditorium are used for conducting guest Lectures, Conferences, Workshop, technical Symposiums, etc.
- Playgrounds are regularly used by students for playing cricket, basket ball, badminton, etc.
- Examination cell, Canteen, Admission Cell, Accounts section, Administrative block, training and placement cell, are available
- Parking facilities, cheap stores, drinking water etc., are available in the campus.
- Separate hostels for both boys and girls are available. Girls Hostel is inside the campus and the Boys hostels are outside the campus.
- Separate workshops, engineering-drawing halls are available.

The facilities and infrastructure of the Institute are planned and modified on the basis of feedback received from students and faculty members to meet the growing requirements of academia and industry. A state of the art laboratory has been developed in collaboration with M/S Volvo Eicher Commercial Vehicle to study the all detail of heavy vehicle. A CAD laboratory has been developed in collaboration with M/S Dassult Systems for designing of automotive components.

Following table shows the expenses for maintenance and creation of infrastructure for last four years.

Heads	2015-16 (Rs.)	2014-15 (Rs.)	2013-14 (Rs.)	2012-13 (Rs.)
Building	0	245173	0	2564456
Furniture	1896745	1349840	2720762	2671748
Equipment	833032	2113551	2192413	1809018
Computers	1256327	2465506	2463692	1270265
Vehicles	0	1573402	603750	698853
Any Other				
Electrical fittings	238935	284551	278580	79312
Library books	366873	48840	133387	402561

MASTER PLAN OF MCKV INSTITUTE OF ENGG. 243,G.T.ROAD (NORTH) LILUAH, HOWRAH-711204



1. SECURITY OFFICE
2. DRIVERS' REST PLACE
3. BADMINTON COURT
4. COMMON ROOM & GYM
5. GENERATOR ROOM
6. CAFE TERIA

BLOCK-A	
GROUND FLOOR	
RECEPTION	MANAGING TRUSTEE'S OFFICE
DIRECTOR'S OFFICE	PRINCIPAL'S OFFICE
TEQIP CELL	CENTRAL LIBRARY
REGISTRAR'S OFFICE	IQAC
ACCOUNTS	STCK ROOM
EXAM.CELL	CONN. ROOM & GYM
REPROGRAPHY	
BASEMENT	
CRTT CELL	STUDENTS' COUNCELLOR
CONFERENCE ROOM	SIT HALL
1ST. FLOOR	
BASIC SC. DEPT.	HSS DEPT.
DRAWING HALL	CHEMISTRY LAB.
PHYSICS LAB-I	PHYSICS LAB-II
2ND. FLOOR	
IT DEPT.	ME DEPT.
3RD. FLOOR	
CSE DEPT.	
BLOCK-B	
GROUND FLOOR	
WORKSHOP	AIR/ME ENGG.LAB.
MCKVITE ETCHER CENTER FOR AUTOMOBILE TECH.	CAFETERIA
1ST.& 2ND.FLOOR	
ECE DEPT.	
3RD. FLOOR	
AUTOMOBILE ENGG. DEPARTMENT	
4TH. FLOOR	
ELECTRICAL ENGG. DEPT.	
BLOCK-C	
GROUND FLOOR	
ME. ENGG.LAB.	AUTOMOBILE ENGG. LAB.
1ST.FLOOR	
COMPUTER LAB.	ME. LAB.
2ND.FLOOR	
MCA DEPARTMENT	INNOVATION CELL
3RD. FLOOR	
MCA DEPT.	
4TH. FLOOR	
ME. LAB.	VETERAN ARMY CENTER FOR POSITIVE TRAINING / VEGA CENTER
BLOCK-D	
STAFF CANTEN	GIRLS' HOSTEL

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

The Institute is concerned about Government policies regarding the need of differently abled students. However students with physical disability can avail ramp, wheel chair, elevator facilities of the Institute to reach their class rooms and laboratories.

4.1.5 Give details on the residential facility and various provisions available within them:

- Hostel Facility– Accommodation available inside the campus for girls and outside the campus for boys. Presently, 160 numbers and boys and girls student are residing the Institute's hostel.
- Recreational facilities, gymnasium, yoga center, etc.: Recreation facilities, Gymnasium/ Yoga Centre are existed inside the Campus, available to the students and faculty members round the clock.
- Computer facility including access to internet in hostel: Campus wide Wi-fi networking 24x7 through 20 MBPS BSNL Gipon line are available in the Girls hostels. Furnished Room along with common facilities like TV, Water Purifier, Puja Room, Mess are available. In the Boys hostel the rooms are furnished with common facilities like TV, Net connection, Water Purifier, Mess.
- Facilities for medical emergencies. : Supporting Medical staff alongwith one number of Ambulance services are available round-the-clock for students and faculty members.
- Library facility in the hostels: The Institute has the separate Central Library (having the area of 700 sq. mtrs and accessible to all concerned through digitized process.
- Internet and Wi-Fi facility: Wi-fi connectivity is available round the clock through 24 Mbps Internet connections. Recreational facility-common room is available in each hostel.
- The Institute has its own water treatment plant through which drinking water is circulated.
- Hotels are equipped with water filters and coolers.
- Security: Security Personnel are engaged inside and outside the campus hostels to protect the campus from any unwanted activities.

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

On Campus Medical Facility:

The Institute is having its own Medical Unit namely MCKV Health & Medicare Pvt. Ltd. where Doctor and Medical Staffs are available. There are around 22 different Medical Practitioners available in the Medical centre and two qualified and permanent Nursing staff available in the Medical centre along with one qualified Nursing staff available in arena of the Institute premises. Inside the Institution it posses one separate Sick Room provided with a sick bed and

other Medical apparatus which includes Oxygen cylinder in case of emergency and Medical equipments and First aid items.

The Institute is having one Ambulance within the campus. The Ambulance has been provided with Oxygen cylinder and first aid facility. Regarding the own Ambulance service it is immediate or on the basis of the availability and if in case it is not available then arrangement can be made from other sources within 10 minutes.

Off Campus Medical facility:

Other medical facilities within the close proximity are listed below:-

- TL Jaiswal Hospital
- Alfa Nursing Home
- Hare Krishna Nursing Home
- Sramajibi Hospital
- Astha Nursing Home

4.1.7 Give details of the Common Facilities available on the campus –spaces for special units like IQAC, Grievance Redressal unit, Women’s Cell, Counseling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

Details of common facilities available on the campus

- IQAC: Available at A Block, Room No.: A003. Allotted space: 120Sqft.
- Grievance Redressal unit and Women’s Cell: A218, Allotted space: 40sqft.
Counseling and Career Guidance: Available at Basement of A Block, Allotted space: 430 Sq.ft.
The Institute is having a Counsellor since 2008. Presently, a full time Counsellor is providing services to the college students and the staff members, if necessary. The cases handled are of various natures and dealt with confidentiality.
- Placement Unit: Available at Basement of A Block. Allotted space : 860 Sqft.
- Health Centre: Allotted space : 2420 Sq.ft.
- Canteen: Total 02 nos. canteen spaces, one for staff and one for students are available.
- Besides all hostels are having own canteen space and 1 no. dedicated recreational spaces. The College Cafeteria cum Canteen is designed to cater to all students of UG and PG courses. It is spread over 4680 sq ft. The Student Canteen is a place where students congregate not only to eat but also exchange views. At a time, 100 persons can have their meals including different kinds of snacks at subsidized rate. Free hygienic vegetarian lunch is provided at the Staff Canteen which accommodates 40 persons at a time. The Staff Canteen has a modern kitchen area. There are separate places for the washing of dishes, utensils etc. The Canteens are regularly cleansed, properly lighted, ventilated and provided with sufficient fans. Water coolers fitted with water purifiers are also provided in the Cafeteria and the Staff Canteen.

- Recreational spaces for staff members: Available at B Block, Room No.: B315. Allotted space: 325 Sqft.
- Recreational spaces for students: Available at Ground floor of A Block, Allotted space: 650Sqft.
- Safe drinking water facility: Adequate water purifier is installed in all hostels and in each academic block. Potable drinking water is being provided throughout the Institute from submersible pumps and through corporation supply. Apart from this, two Iron-filtration plants in the specification of (1050mm dia X 1510mm ht) have been installed at the roof of the Institute. For pure drinking water apart from water treatment plant (Iron removal) 21 Aqua Guard machines are fixed at the different location of the Institute. 12 Water coolers are provided through out the Institute premises for cold water. Proper checking of leakage from the roof is carried out through water proofing treatment.
- Power Backup: Institute has a DG Set of 125 KVA installed at the Institute campus to provide 24 hours power back up during the time of load shedding. In addition to that Hostel No.1 (Shelter) and Hostel No. 2 have been provided with 30 KVA and 2.5 KVA DG Set respectively as 24 hours power back up.
- Telecom facility: The Institute has 04 BSNL (P&T lines) in individual capacity and a dedicated BSNL (P&T) line for Facsimile service. Apart from that an EPBAX system having a facility of 96 intercom telephone connection.
- Security: Unique Security Organization provides us security to Institute. 18 security guards and 2 security supervisors are deployed at the Institute campus round the clocks.
- Transport Facility: The Institute offers free transport facilities to staff members only who commute from different parts of the city.
- Auditorium: One auditorium with 350 seating capacity is available.

4.2 Library as Learning Resources

4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the student/ user friendly?

Yes, The Institute has constituted the Library Committee, comprising of the following members:-

Composition of Library Committee:

Chairman- A senior faculty member

The Director- Member

The Principal- Member

One member from each of 9 departments

One Hardware Engineer

Librarian- Member Secretary & Convener

The significant initiatives: Library automation including issue/ return, LIBSYS facility, revised delay fine structure, Digital Library, e-books, e-journals and its access through LAN, security and surveillance with CCTV and NPTEL full courses, Multimedia laboratory with 20 PCs are available.

4.2.2 Provide the details of the following:

* **Total area of the library (in Sq. Mts.): 700 Sq M**

* **Total seating capacity: 200**

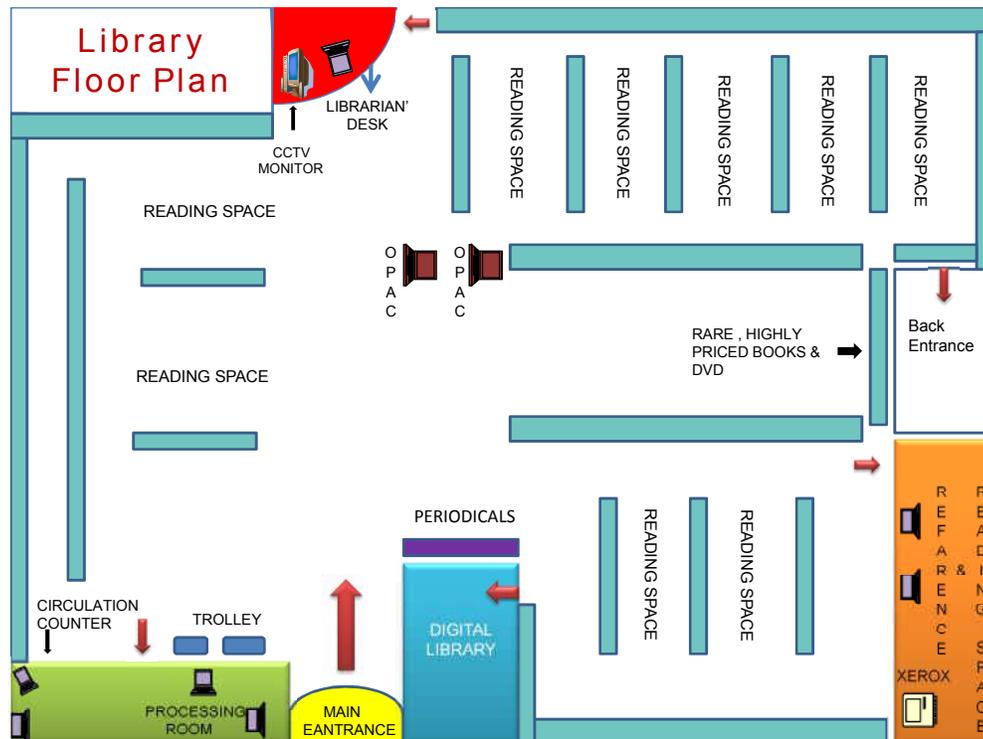
* **Working Hours (on working days, before examination days, during examination days, during vacation)**

MONDAY – FRIDAY: 9:00am – 6:30pm

VACATION: 9:30am – 5:00pm Except Institute's Holidays.

* **Layout of the library (individual reading carrels, lounge area, IT zone for accessing e-resources)**

Ground Floor Layout





4.2.3 How does the library ensure purchase and use of current title, printed and e-journal and other reading materials? Specify the amount spent on procuring new books, journals, and e-resources during last four years.

Once approved the purchase by Library committee, librarian is always in touch with Purchase section to follow up the process of releasing the purchase order and vendors to supply the items so that students could utilize the materials within their semester period and teachers to have regular access to e-journals without any discontinuity.

JOURNALS (Print Media):

Academic year	National Journal	International Journal	Total	Total Expenditure (Rs.)
2012-2013	87	8	95	1,83,507
2013-2014	89	7	96	58,973
2014-2015	104	7	111	62,858
2015-2016	85	Nil	85	52,324

E-Journals:

Academic year	E-Journal	Total Journal	Total Expenditure (Rs.)
2012-2013	IEEE	145	4,33,113
	ASME	25	
2013-2014	J.Gate (Engineering and Technology)	3000	5,54,828
	Science Direct (Engineering + Computer Sc.)	275	
2014-2015	J.Gate (Engineering and Technology)	3000	Nil
	Science Direct (Engineering + Computer Sc.)	275	

Academic year	E-Journal	Total Journal	Total Expenditure (Rs.)
2015-2016	J.Gate (Engineering and Technology)	3000	6,83,420
	Springer (Electrical, Electronics, Computer Sc. & Mechanical Engineering)	198	
	Springer (Electrical, Electronics, Computer Sc. & Mechanical Engineering)	198	
	IEEE (ASPP)	169	
	IEI	14	

Books Purchased:

Academic year	Title	Copies	Total Expenditure (Rs.)
2012-2013	150	2206	4,02,566
2013-2014	144	840	13,33,388
2014-2015	280	2166	6,71,898
2015-2016	182	1019	3,65,629

E-Books :

Academic year	E-Books	Total	Total Expenditure (Rs.)
2012-2013	Nil	Nil	Nil
2013-2014	Pearson, IEEE-Wiley & MGH	1070	18,76,767
2014-2015	Nil	Nil	Nil
2015-2016	Nil	Nil	Nil

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?

Details of ICT and other tools deployed:

- OPAC: Online Public Access Catalogue is available (192.168.100.100.7001 0 op and 192.168.100.100:8080/ jopacv11) is normally allowed without a user having to enter a login and password. The OPAC is on tablets with a self service option is allowed to members of the library to view their loan accounts and other searching.
- Electronic Resource Management package for e-books: Pearson – Computer Science and Information Technology, Electronics and Electrical, Mechanical and Automobile

- Engineering; e-journals: Springer (Electrical, Electronics, Computer Science and Mechanical Engineering), IEEE (ASPP), JGATE (Engineering and Technology).
- Federated searching tools to search articles in multiple databases : Online access facilities for Author, Titles, Subjects, Boolean Search strategy etc. are available through Electronic Resource Management package for e-books : Pearson – Computer Science and Information Technology, Electronics and Electrical, Mechanical and Automobile Engineering; e-journals : Springer (Electrical, Electronics, Computer Science and Mechanical Engineering), IEEE (ASPP), JGATE (Engineering and Technology).
 - Library: Link: 192.168.100.100.7001 0 op 192.168.100.100:8080/jopacv11/ OPAC and webopac enable through Institute's LAN
 - In-house/remote access to e-publications: Accesible inside Campus only.
 - Library automation: LIBSYS (Version 6.0) and Digital Library.
 - Total number of computers for public access: 12 Nos.
 - Internet band width/ speed 12mbps (8+4) (Reliance ILL), 16 mbps (Vodafone ILL), 10 mbps (BSNL Gipon), 20 mbps (BSNL Gipon), Wi-fi connectivity through LAN.
 - Content management system for e-learning: NPTEL online courses are available.

4.2.5 Provide details on the following items:

- **Average number of walk-ins:** 500 members per day
- **Average number of books issued:** 230 per day
- **Average number of books returns:** 220 per day
- **Ratio of library books to students enrolled:** 23 books per student
- **Average no of books added during last three years:** 2386 copies
- **Average no of login to OPAC:** At present there is no provision but vendor is contacted for incorporating a hit option
- **Average no of e-resources downloaded/ printed:** 3020 page/ month
- **Number of information literacy training organized:**

It combines with Orientation and awareness program- OPAC, e resources and internet. Information literacy drive is one of the most useful means to communicate with the students for getting his/her required information without wastage of time. Librarian provides best possible search strategies either through use of OPAC, E-resources and even suggesting web link so that students can themselves retrieve the required information of the topic. Technological innovation makes it easy for everyone to update their skill and librarian extends all possible helps to fulfill their needs by creating an open learning environment in the library.

- **Details of “weeding out” of books and other materials:**

Central library became operational in 1999 and over the year its collection grew steadily. Weeding out is not felt urgently because most of the titles somehow are required barring some titles in computer and management areas occupying space in the library racks and are under

scanner for weeding out. Books which are torn and disqualified for re-use are kept separately to be placed before the library committee for appropriate action in future.

4.2.6 Give details of specialized services provided by the Library

- **Manuscript:** Not Available (B. Tech., M. Tech.) project reports are kept in the Departmental library
- **Reference:** Reference services is provided to students and other communities to find out required reading materials/ journal articles as and when demanded and in anticipation
- **Reprography:** Xeroxing facility is available
- **Information deployment and notification:** Through e-mail and Library notification on Display board/physical display (new addition)
- **Download:** E-resources including e journals, downloading facility available in the library as well as other places connected with LAN
- **Reading List/ Bibliographic compilation:** Provided on request/and in anticipation.
- **In-house/ remote access to e-resources:** E- resources are available in-house and through LAN.
- **User- orientation and awareness:** Library arranges orientation programs at the beginning of the 1st Semester by batches of 63 students to appraise overall library services, arrangement of books, journals, assistance to students, working hours, etc. Moreover, Library staff always helps the students and arrange further awareness drive once in a week by Power point presentation (.ppt) and direct interaction.
- **Assistance in searching:** Assistance provided in searching digital library, downloading the required materials. Detailed search strategies for getting required information from E-Books (Pearson, IEEE-Wiley and MGH) and E-journals (IEEE, Springer, J GATE) are available.

4.2.7 Enumerate on the support provided by the library staff to the students and teachers of the college.

Library is a learning center so as to support learning/ teaching by acquisition of books, journals, and other materials. Library tries to create new tailor made services, better library ambience for prolonged stay of students in the library.

4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.

At present Library does not have any special facility to visually/ physically challenged persons.

4.2.9 Does the get the feedback from the users? If, yes, how is it analyzed and used for improving the library services. (What the strategies are deployed by the library to collect the feedback from users? How feedback is analyzed and used for further improvement of the library services?)

Library maintains the “Feedback Register”; students are requested to give their valuable suggestion / opinion in the Feedback Register with his/her identity to Librarian. Librarian then analyzes and the findings are sent to Principal and normally to place before the library committee for further actions for improving the services.

4.3 IT INFRASTRUCTURE

4.3.1 Give details on the computing facility available (hardware and software) at the institution.

Total number of computers with Configuration Systems (provide actual number with exact configuration of each available system) - Total 693Nos.

Item no.	Specification and Details	Quantity
01	LENOVO THINKCENTER, CORE to DUO 2.2 GHZ, 160 GB HDD, 2GB RAM	50
02	ACER CORE to DUO 2.66 GHZ, 160 GB HDD, 2GB RAM	50
03	ASSEMBLED CORE to DUO 3 GHZ, 250 GB HDD, 1GB RAM	150
04	ASSEMBLED DUAL CORE 3 GHZ, 250 GB HDD, 2GB RAM	400
05	ASSEMBLED i3 3 GHZ, 500 GB HDD, 8GB RAM	10
06	HP SERVER ML10 737650-375 : INTEL XEON 3.10 GHZ CPU/16 GB RAM/DVD ROM/ 1 TB HDD/18.5” TFT MONITOR/KEYBOARD/MOUSE	02
07	IBM SERVER	01
08	LAPTOP	19
09	NOTE BOOK	11
10	PRINTER	61
11	WI-FI ACCESS POINT	27

Computer-student ratio: 1:1

Standalone facility: YES

LAN facility: Yes all the systems

WiFi facility: Yes, including every student/ faculty, hostel with 58 mbps.

Central Computing Facility Laboratory: Available

The Institute has Licensed Softwares of following Operating Systems:

MICROSOFT CAMPUS AGREEMENT

- 1) WINDOWS 8 PROFESISONAL UPG OLP NLAE
- 2) WINDOWS 2003 SERVER STANDARD 32 BIT
- 3) WINDOWS SERVER 2003 ENTERPRISE 64 BIT
- 4) LINUX
- 5) RED HAT LINUX ENTERPRISE VERSION 5

There are also a wide variety of software tools/ packages. The details are given below:

Sl. No.	Name of the Software
1	Abaqus 6.14 Software
2	Adobe Acrobat 5 Version 5
3	Adobe Master Collection
4	Adobe Photoshop 7.0
5	Adobe Premier 6.0
6	Altera Quarters II (4.0)
7	Ansoft Academic Teaching HF
8	ANSYS
9	Aurthorware 6
10	Autocad 2000
11	Autodesk Inventor Cad 2000
12	CATIA
13	Creo Software
14	Delmia (Manufacturing Simulation Software)
15	Director 8.5
16	Dream Weaver 10 LS
17	Dream Weaver 4
18	Dream Weaver 8
19	Embercadero RAD studio XE - AE
20	EMTP-RV
21	Enterprise Linux 3.1
22	ERP SOFTWARES
23	ETAP Software
24	Fireworks 4
25	Flash MX
26	Freehand 10
27	IBM Rational Sed Program

Sl. No.	Name of the Software
28	LABVIEW
29	Linux Mandrake
30	Lisp Work SAE
31	Lispworks
32	Macfee Version
33	MATLAB 6.1 (3 single user License with Hardware Lock)
34	MATLAB 6.1 with SIMULINK, DSP block set and Signal Processing Tool Box (Single User License with Hardware Lock)
35	Matlab 7
36	MCAFEES (Anti-virus)
37	Mentor Graphics Design, Verification & Test Bundle Tools
38	Microsoft Campus Agreement for One year
39	Microsoft Office 2000 Professional (AE)
40	MiPower
41	NetSim Academic Version
42	Oracle
43	Oracle 11g
44	Oracle 8i
45	Origin
46	Qualnet
47	Quick Heal X Gen
48	Redhat Linux (6.1)
49	Softek Cobol
50	Softek Pascal
51	Sound Forge 9 ..
52	Statistica 10 BGA Software
53	Tanner Software
54	T-Spice
55	Turbo Analyst version 3 withI Hardware Lock
56	Turbo C++ (4.5)
57	Video Streaming Software for College LAN
58	Visual Pro 7
59	Visual Studio 6.0 (Professional Edition)
60	Visual Studio Dot Net
61	VLSI Software (Altera)
62	WEB OPAC
63	Windows 2000 Server - NT Technology 5 client access Licenses (AE)
64	Windows 98 Second Edition

Sl. No.	Name of the Software
65	Xiling
66	Xilinx Software
67	i)TDS Software (Reylon Softech Ltd.)
	ii)Fortuna
	iii)Farvision
	iv)Libsys
	v) Pragati (Sliced Mango Design Studio Pvt. Ltd.)

All departments have Windows and MS Office latest version through Microsoft Campus Connect (user all staffs and students).

Number of nodes/ computers/ Mobile with Internet facility: 1500

4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?

Computing facility is available in all departments. Apart from these the college has Central Computing Facility and WiFi connectivity for students and faculty members.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

Followings are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities.

- Upgradation of Lab with installation of New Generation PCs (70 nos.).
- Computer Centre upgradation with WiFi.
- Band-width upgradation at least 100 MBPS (1:1).
- 4G WiFi upgradation in the campus.

4.3.4 Provide details on the provision made in the annual budget for procurement, upgradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)

Up-gradation and Maintenance Expenditure (Rs.):

Academic Year	2015 - 2016	2014 - 2015	2013 - 2014	2012 - 2013
For computers	1256327	2465506	2463692	1270265
Total Maintenance Expenditure	5503004	4043540	5264121	3206403

4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?

Wi-fi internet connectivity is available although the Campus, i.e., classroom, library, students hostels, etc. by which the students and faculty members can access library facilities round the clock.

4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching- learning resources, independent learning, ICT enabled classrooms/ learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.

Learning activities and technologies deployed to the following extent.

- Each room can accommodate 70+ students.
- Central Computing Centre with WiFi facility.
- Equipped with latest hardware and software tools 4G WiFi upgradation in the campus.
- Connected to internet
- Access to on-line teaching
- Access to learning resources
- Access to independent learning
- ICT enabled class room
- Peer learning groups are encouraged
- Mini projects are given to students to make them understand the concepts of theory in an effective manner.

4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?

Yes,

NPTEL

MHRD's National Skill Development Programme

Online programme of various IITs

4.4 Maintenance of Campus Facilities

4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?

Budget Allocation (in Rs.)

	2015-16		2014-15		2013-14		2012-13	
	Allocation	Utilization	Allocation	Utilization	Allocation	Utilization	Allocation	Utilization
Building	0	0	500000	245173	0	0	3000000	2564456
Furniture	2000000	1896745	1500000	1349840	3000000	2720762	2500000	2671748
Equipment	800000	833032	2000000	2113551	2200000	2192413	2000000	1809018
Computers	1000000	1256327	2000000	2465506	2500000	2463692	1500000	1270265
Vehicles	0	0	1500000	1573402	600000	603750	700000	698853
Any other								
Electrical fittings	250000	238935	300000	284551	300000	278580	100000	79312
Library books	400000	366873	100000	48840	200000	133387	400000	402561

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?

The Institute has centralized maintenance Departments for the entire campus with full time salaried employees. All complaints and recommendations registered are being checked and processed by the Office of the Asst Registrar with the approval of the Principal/ Director to ensure proper functioning and improvement of the equipment and other facilities under annual maintenance. The maintenance and improvement of the campus is carried out according to the decisions taken by the college administration. The Principal/Director, on the basis of the perspective development plan, proposes the infrastructural augmentation needs to the concerned authorities. The highest authority of the Institute sanctions funds based on the requirements, student strength, and the nature of the academic programs offered by the institution. The Departmental Heads make the requisition/ note sheets according to the requirement of equipments, computers, furniture, maintenance and repair of basic needs. Those requisitions are submitted it to the Principal/ Registrar. The management approves and allocates funds. An effective monitoring system through various committees ensures the optimal utilization of budget allocation.

4.4.3 How and with what frequency does the Institute take up calibration and other precision measures for the equipment/ instruments?

Digital Instruments in different lab-based departments are calibrated at the onset of the Practical Session by Faculty Members themselves, after which they are calibrated on a regular basis by the students before each and every experiment.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)? Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.

Sensitive equipments are maintained with the proper safety provisions in all the laboratories and offices by the respective in-charges. The power is distributed with proper earthing to all the labs, class rooms, offices etc from Main Control Board via Sub control Board which is having advanced circuit breakers to ensure safe and secure power supply. The college electrician and the supporting staff are taking care of electrical equipments and their maintenance. The water source is provided by submersible pumps ensuring the constant supply of water to college and hostel in campus.

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1 Student Mentoring and Support

5.1.1 Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

Yes.

The college updates its prospectus annually which provides the latest information of the courses conducted, vision & mission of institute as well as program, quality policy, different student achievements, extracurricular and co-curricular activities, student amenities, infrastructure facilities, placement, alumni information and campus information regarding anti ragging measures of the institute etc.

Most of the important information is also available in the institute website www.mckvie.edu.in such as the rules and regulations related to admission, library, examination etc., academic calendar, hostel discipline, students discipline, campus information regarding anti ragging measures, fee structure, scholarship availability, of various avenues for co-curricular and extracurricular activities, current news, notices and events, alumnus, 360 degree virtual reality tours of the institute etc. The institute website also provides information about different programs and curriculums, service rules, Books and Journals etc. The institute website is the best way of communication regarding plans, programs and success of the institute.

Institute also publishes a news letter, "MCKVIE TIMES" on quarterly basis which contains campus news, faculty and student achievements, publications, professional bodies activities of the institute etc.

The institution ensures its commitment and accountability by providing all information in a transparent way by reviewing and updating its prospectus annually through a Committee headed by the Principal or Director.

5.1.2 Specify the type, number and amount of institutional scholarships/ freeships given to the students during the last four years and whether the financial aid was available and disbursed on time?

Sl. No.	Type of institutional scholarships/ freeships given	Academic Year							
		2016-2017		2015-2016		2014-2015		2013-2014	
		No. of Students	Total Amount in Rs. (Appx.)	No. of Students	Total Amount in Rs. (Appx.)	No. of Students	Total Amount in Rs. (Appx.)	No. of Students	Total Amount in Rs. (Appx.)
1	FULL FREESHIP	13	10,40,000	42	31,50,000	63	47,25,000	83	61,42,000
2	HALF FREESHIP	135	54,00,000	134	50,25,000	120	45,00,000	101	37,37,000
3	Teaching Assistantship from TEQIP II	24	2,97,600	19	1,52,000	35	2,80,000	25	2,00,000
4	GATE Scholarship from UGC	2	93,827	1	1,07,948	3	2,88,000	3	2,61,600

5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?

No. of students received financial assistance from state government are as follows:

Scheme	2016-2017	2015-2016	2014-2015	2013-2014
Tuition Fees Waiver Scheme	62	61	60	45

5.1.4 What are the specific support services/ facilities available for

- **Students from SC/ ST, OBC and economically weaker sections**

There is no reservation quota in the institution. The SC/ST, OBC students are getting full support from the institution to avail the scholarship from the respective state government they belong to.

Institute allows free ship to the economically weaker but meritorious students. But as a part of its policy, the institute has fixed the admission and annual fees, including the tuition fees at a very affordable level and moreover, there is no admission fee for girls' students.

There is also a provision of state govt. scholarship like WBFS and TFW for the economically weaker students.

- **Students with physical disabilities**

The institution provides support services to differently-abled students admitted in the institute to continue their studies and gives special attention in this regard. A lift and one wheel chair facilities are available for differently-abled students.

- **Overseas students**

The institute does not have any overseas students and therefore there is no provision of such support services.

- **Students to participate in various competitions/ National and International**

- ✓ The institute encouraged students to participate in all kinds of competitions in sports and games, technology fair, music, literature etc. at National and International level.
- ✓ Students who wish to participate in various competitions at National/International level are provided with
 - a. Required administrative support in terms of permission to participate in the competition.
 - b. Special guidance by faculties and external experts as and when necessary.
 - c. Academic supports like exemption in attendance reschedule the practical classes and rescheduling of internal examinations.
 - d. The institute arranges for financial support to the participating students by providing for travel and other related needs.
 - e. When the expenditure is high, the institute acts as a facilitator for obtaining sponsorship for the student.

- **Medical assistance to students: health centre, health insurance etc.**

A doctor is available during college hours in the campus to attend the sick students. 24 hours ambulance facility is there to carry the emergency patients to the hospital. There is an annex building of MCKV Health & Medicare center, under MCKV Group, to provide Pathology, Radiology and Physiotherapy services and Medical Consultant.

MCKV Institute of Engineering has a personal accident insurance named “Student Safety Package Insurance” of The New India Assurance Co. Ltd. The insurance covered Rs. 1 Lakh per student.

- **Organizing coaching classes for competitive exams**

The teaching learning methods (e.g.: quizzes, online aptitude test, discussions, presentations, assignments and tutorial classes) adopted by faculties are sufficient to prepare the base for the students for different competitive exams. Beside this students are free to ask their query to any teacher of concern any time in the institute. The institute also arranges special training to crack the competitive exam with the help of external professional consultants. The faculty members always motivate the students to appear in the national level competitive exams and a large number of students appear in national level examinations.

- **Skill development (Spoken English, Computer Literacy, etc.,)**

The institute has a well equipped English communication lab with audio-video facility. Students with poor English communication ability are being benefited using the lab. The institute also arranges special soft skill training to improve the communication ability with the help of external professional consultant. The institution has well equipped computer labs with qualified lab instructors. Students who have no prior knowledge to computers may be benefited by using these labs regularly.

- **Support for “slow learners”**

Every faculty members act as the personal guides and motivators of the students. Students are free to clear their difficulties by consulting faculty members any time in the college, beyond the class hours too. Faculty members also identify the slow learners as well as weaker students and arrange remedial classes with special attention to bridge the gap so that they may keep pace with the regular students.

- **Exposures of students to other institution of higher learning/ corporate/business house etc.**

Students are encouraged to apply to various institutes for seminar, conferences, and workshops, summer training, expert lecture and internship. Also the institute arranges industrial visit in different organization time to time.

- **Publication of student magazines**

There is a practice of publishing Departments wall magazine periodically. Besides, there is an institute magazine published yearly named MCKVIAN'S DIGEST.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

The Institute is taking many initiatives in the area of entrepreneurship skill development among students. There has been an agreement with National Entrepreneurship Network (NEN) and MCKV Institute of Engineering to promote and organize several events, programs, courses etc. on entrepreneurship development. The Institute has an entrepreneurship cell (E-Cell) to enhance students' awareness and encouragement for entrepreneurship. As part of E-Cell activities, regular classes are being conducted for interested students by the trained faculty members.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, Quiz competitions, debate and discussions, cultural activities etc.

The institute organizes sports, cultural events, Technical Fest, Fresher's Welcome, Farewell etc. in every year and encourages students to actively participate.

- **additional academic support, flexibility in examinations**

Special arrangements are made for such students to appear in their internal examinations if they fail to appear in the scheduled time table of the examinations.

- **special dietary requirements, sports uniform and materials**

Sports materials for football, cricket, badminton, volley ball, basketball, chess, carom, table tennis, etc. are provided by the institute as per requirement. Beside this the institute has Gym instructor, Cricket & Basket Ball trainer. Food packets are generally provided to the participants (students) on the day of Annual Sports as well as in the Technical Fest.

- **any other**

The institute provides initial grant and all the necessary supports to students to take part in Technotica, the Technical Competitive Events, in every year. Institute has an Innovation and Entrepreneur Development Cell to develop entrepreneurship skill among students. Institute organizes Quiz Competitions under the supervision of different student chapters.

5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET,GATE/ CAT / GRE / TOFEL / GMAT / Central /State services, Defense, Civil Services, etc.

Some departments of institute provide special coaching classes to the students for preparation of GATE. The classes are conducted beyond the normal college hours. The institute also provides

training to the students which help to participate for other competitive exam like CAT, GRE, TOEFL, GMAT, etc. the number of students qualified in last four year in different competitive exams are as follows:

Year of Pass Out	Number of students qualified
2016	21
2015	44
2014	34
2013	29

5.1.8 What type of counseling services are made available to the students (academic, personal, career, psycho-social etc.)

- Academic counseling is provided through class room teachings, practical classes, library services, seminars, tutorials, project works, field studies, teacher parent meet, student feedback etc. under the supervision of Dean of Academics.
- Any other counseling is done at the personal level with direct interactions with the Principal, Dean of Student Affairs and the Faculties.
- Psycho-social Counseling is provided regularly in the institute through a professional counselor.
- Career counseling is provided through the Corporate Relations & Talent Transformation Cell (CRTTC) by lectures of experts and alumni etc.
- Institute has Innovation Cell to foster innovation & entrepreneurship among the students.
- Sports and Games counseling is provided under the supervision of the Instructors and Trainers of the Institute.

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).

Preparing for campus recruitment is a strategic approach. The Institute encourages students to hone up their communication skills in order to clear the aptitude tests of recruiting companies. In this regard, the Institute engages professional and renowned companies/individuals, to help students crack the aptitude and logical reasoning tests of recruiting companies. Additionally, the same modus operandi is adopted in cracking the Group Discussions & Technical Interview Rounds by the students, and in initiating for students a Personality Development Programme.

Institute also encourages students to take professional counseling from Student's Counsellor, in case where a particular student is in need of professional help and intervention. Many times, college undertakes Industrial visits for students to provide students an insight regarding internal working of companies, with an opportunity to learn practically through interaction, working methods and employment practices. It gives them exposure to current work practices in addition to theoretical knowledge being taught at Institute.

Placement Details for Last Four Years

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student
2013	AUE	CHEERS INTERACTIVE	1	65	52	1.54	1.92
		HINDUSTAN MOTORS LTD.	5			7.69	9.62
		INDIAN ARMY	1			1.54	1.92
		L&T INTREGRATED ENGINEERING	1			1.54	1.92
		MAHINDRA & MAHINDRA LTD.	2			3.08	3.85
		MEGHALAYA CEMENT	2			3.08	3.85
		NEELKANTHA ELECTROMECH	4			6.15	7.69
		SONI AUTO INDUSTRIES LTD.	5			7.69	9.62
		TATA CONSULTANCY SERVICES LTD.	2			3.08	3.85
		TECHSAVVY	2			3.08	3.85
		TOPLINK TOYOTA	5			7.69	9.62
		VE DEALERS	5			7.69	9.62
	CSE	ARRAY CONSULTANCY SERVICES	1	65	63	1.54	1.59
		CELIA INFOTECH SOFTWARE	1			1.54	1.59
		CHEERS	2			3.08	3.17

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student
		INTERACTIVE					
		CONFIG SYSTEMS	4			6.15	6.35
		HIKE TECHNOLOGIES PVT.LTD.	1			1.54	1.59
		I4 INFOTECH	2			3.08	3.17
		IBM (GBS)	4			6.15	6.35
		TATA CONSULTANCY SERVICES LTD.	24			36.92	38.10
		TERADATA	1			1.54	1.59
		UST GLOBAL	1			1.54	1.59
		ZYCUS	2			3.08	3.17
		ZENOOVA TECHNOLOGIES	5			7.69	7.94
	ECE	TATA CONSULTANCY SERVICES LTD.	20	64	57	31.25	35.09
		EXL INFOTEL	3			4.69	5.26
		FRONTLINE CONSULTING SERVICES	1			1.56	1.75
		CHEERS INTERACTIVE	2			3.13	3.51
		PM DIMENSION	3			4.69	5.26
		CONFIG SYSTEMS	4			6.25	7.02
		NEELKANTHA ELECTROMECH	7			10.94	12.28
		HIKE TECHNOLOGIES PVT.LTD.	2			3.13	3.51
		RAMKRISHNA FORGING	3			4.69	5.26
		CELIA INFOTECH SOFTWARE	4			6.25	7.02
GLOBAL I	1	1.56	1.75				

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student
		TECHNOLOGIES					
		IBM (GBS)	1			1.56	1.75
		HUAWEI TECHNOLOGIES CO.	1			1.56	1.75
	IT	TATA CONSULTANCY SERVICES LTD.	12	59	55	20.34	21.82
		EXL INFOTEL	5			8.47	9.09
		CHEERS INTERACTIVE	1			1.69	1.82
		CONFIG SYSTEMS	6			10.17	10.91
		ZENOOVA TECHNOLOGIES	1			1.69	1.82
		HIKE TECHNOLOGIES PVT.LTD.	1			1.69	1.82
		CELIA INFOTECH SOFTWARE	3			5.08	5.45
		GLOBALSOFT SERVICES	1			1.69	1.82
		NUCLEUS SOFTWARE	1			1.69	1.82
		TERADATA	1			1.69	1.82
		IBM INDIA LTD.- GPS	1			1.69	1.82
		UST GLOBAL	2			3.39	3.64
	ME	TATA CONSULTANCY SERVICES LTD.	3	56	52	5.36	5.77
		CUMMINS INDIA LTD.	1			1.79	1.92
		PM DIMENSION	7			12.50	13.46
		HINDUSTAN MOTORS LTD.	2			3.57	3.85
		TECHSAVVY	3			5.36	5.77
NEELKANTHA ELECTROMECH		3	5.36			5.77	

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student
		MEGHALAYA CEMENT	4			7.14	7.69
		TEGA INDUSTRIES	1			1.79	1.92
		JYOTI FIRE SERVICES	2			3.57	3.85
		GURUKRIPA	2			3.57	3.85
		RAMKRISHNA FORGING	3			5.36	5.77
		WASTE HOUSE SAXBY FARMING	3			5.36	5.77
		L&T INTREGRATED ENGINEERING	1			1.79	1.92
		Reflex Communication Pvt. Ltd.	4			7.14	7.69
		FIBRO PLASTICHEM I Ltd.	1			1.79	1.92
	MCA	TATA CONSULTANCY SERVICES LTD.	3	51	31	5.88	9.68
		CONFIG SYSTEMS	3			5.88	9.68
		ZENOOVA TECHNOLOGIES	2			3.92	6.45
		EXL INFOTEL	1			1.96	3.23
		CELIA INFOTECH SOFTWARE	4			7.84	12.90
		HIKE TECHNOLOGIES PVT. LTD.	2			3.92	6.45
		ARRAY CONSULTANCY SERVICES	1			1.96	3.23
		GLOBALSOFT SERVICES	1			1.96	3.23
		ONE PLANET RESEARCH	2			3.92	6.45
		FIRST AMERICAN (India) PVT. LTD.	1			1.96	3.23

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student
		INDIAN STATISCAL INSTITUTE	1			1.96	3.23
		MARA ISON CONNECTIVA SERVICES	1			1.96	3.23
2014	AUE	Hero Auto Palace	1	70	66	1.43	1.52
		TATA AIG	1			1.43	1.52
		AMAZON	1			1.43	1.52
		Badrinath Motors Malda(VECV dealer)	1			1.43	1.52
		Bosch Ltd	1			1.43	1.52
		Hero Auto Palace	2			2.86	3.03
		Mahindra & Mahindra Ltd.	2			2.86	3.03
		TATA AIG	1			1.43	1.52
		Topsel Toyota	5			7.14	7.58
		USG Automobiles	7			10.00	10.61
	CSE	Ericsson India Global Services	4	68	66	5.88	6.06
		IBM India Ltd.- GBS	3			4.41	4.55
		Infoway Solutions	2			2.94	3.03
		L & T Infotech	3			4.41	4.55
		Odessa Technologies Ltd.	1			1.47	1.52
		Open Text	2			2.94	3.03
		Redington India Ltd.	1			1.47	1.52
		Softway Solutions Pvt. Ltd.	1			1.47	1.52
		TCS Ltd.	7			10.29	10.61
		Tech Mahindra Ltd	8			11.76	12.12
	UST Global	3	4.41	4.55			
	ECE	CMC	1	73	71	1.37	1.41
		Ericsson India Global Services	9			12.33	12.68
IBM India Ltd.- GBS		4	5.48			5.63	
Infoway Solutions		1	1.37			1.41	

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student
		L & T Infotech	9			12.33	12.68
		Redington India Ltd.	9			12.33	12.68
		TCS Ltd.	10			13.70	14.08
		Tech Mahindra Ltd	4			5.48	5.63
		IBM India Ltd.- GPS	1			1.37	1.41
	EE	Amaraja Batteries	1	65	50	1.54	2.00
		Electrosteel Casting Ltd	2			3.08	4.00
		IBM India Ltd.- GBS	2			3.08	4.00
		REDINGTON INDIA LTD.	2			3.08	4.00
		Tech Mahindra Ltd	3			4.62	6.00
		Toshiba Transmission	1			1.54	2.00
	IT	ADP data Processing	1	59	55	1.69	1.82
		AMAZON	1			1.69	1.82
		Ericsson India Global Services	7			11.86	12.73
		IBM India Ltd.	1			1.69	1.82
		L & T Infotech	3			5.08	5.45
		TCS Ltd.	7			11.86	12.73
		Tech Mahindra Ltd	3			5.08	5.45
		UST Global	1			1.69	1.82
		VoiceTree	2			3.39	3.64
	ME	Tractors India Ltd.	4	70	58	5.71	6.90
		Amaraja Batteries	1			1.43	1.72
		AMAZON	1			1.43	1.72
		Capgemini	1			1.43	1.72
		Chemtex Speciality Ltd.	2			2.86	3.45
		Fibro Plasticchem India Pvt Ltd.	1			1.43	1.72
		GTZ Ltd.	2			2.86	3.45
Jiwanram Sheoduttrai Group		1	1.43			1.72	
Mahindra & Mahindra Ltd.		1	1.43			1.72	
Reflex Communication Pvt. Ltd		1	1.43			1.72	

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student	
		Sanmar Engg	1			1.43	1.72	
		TCS Ltd.	3			4.29	5.17	
		Tech Mahindra Ltd	2			2.86	3.45	
	MCA	Four Loops Solutions Pvt. Ltd.	2	45	28	4.44	7.14	
		Infoway Solutions	6			13.33	21.43	
		Keeves Technologies	1			2.22	3.57	
		Management & Computer Consultant	1			2.22	3.57	
		Tech Mahindra Ltd.	1			2.22	3.57	
	2015	AUE	Advik Hitech Pvt. Ltd.	2	69	53	2.90	3.77
			Amazon Development Centre	2			2.90	3.77
FED EX			1	1.45			1.89	
JAINSONS ENGINEERING PVT LTD			2	2.90			3.77	
Mahindra & Mahindra Ltd.			4	5.80			7.55	
Mahindra First Choice			2	2.90			3.77	
Tata AIG Ltd.			4	5.80			7.55	
Tech Mahindra Ltd.			2	2.90			3.77	
CSE		Absas Solutions	3	71	60	4.23	5.00	
		Broadsoft Technologies	1			1.41	1.67	
		CMC Ltd.	2			2.82	3.33	
		IBM India Pvt. Ltd.	1			1.41	1.67	
		Innofide	1			1.41	1.67	
		ITC Infotech Ltd.	2			2.82	3.33	
		Johnson Controls	1			1.41	1.67	
		Konylabs IT Solutions	1			1.41	1.67	
		Kovair Software	1			1.41	1.67	
		Mphasis	4			5.63	6.67	
		Tata Consultancy Services Ltd.	14			19.72	23.33	
Tech Mahindra Ltd.	2	2.82	3.33					
Teknowledge Software	2	2.82	3.33					

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student
		Wipro Ltd	2			2.82	3.33
	ECE	Ericsson India Global Services Pvt Ltd.	6	77	68	7.79	8.82
		IBM India Pvt. Ltd.	4			5.19	5.88
		Robert Bosch India Pvt Ltd	5			6.49	7.35
		Tata Consultancy Services Ltd.	21			27.27	30.88
	EE	Capgemini	1	68	59	1.47	1.69
		Effia Soft Pvt. Ltd.	1			1.47	1.69
		GTZ India Pvt. Ltd.	1			1.47	1.69
		Mphasis	2			2.94	3.39
		PCM Rubber Chemicals India	1			1.47	1.69
		Polycab	1			1.47	1.69
		Tata Consultancy Services Ltd.	5			7.35	8.47
		Tech Mahindra Ltd.	1			1.47	1.69
		UST Global	1			1.47	1.69
	IT	Absas Solutions	1	53	47	1.89	2.13
		Aptean India Pvt. Ltd.	1			1.89	2.13
		Capgemini	3			5.66	6.38
		CMC Ltd.	1			1.89	2.13
		Effia Soft Pvt. Ltd.	2			3.77	4.26
		IBM India Pvt. Ltd.	2			3.77	4.26
		ITC Infotech Ltd.	1			1.89	2.13
		Mphasis	3			5.66	6.38
		Tata Consultancy Services Ltd.	11			20.75	23.40
		Tech Mahindra Ltd.	3			5.66	6.38
		VELOCES	1			1.89	2.13
	ME	Aakash Institute	1	69	50	1.45	2.00
		Ceratizit	1			1.45	2.00
		Chemtex Speciality Ltd.	1			1.45	2.00
		Fibro Plasticchem India Pvt.	2			2.90	4.00

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student	
		Fives Stein India projects Pvt. Ltd	2			2.90	4.00	
		GTZ India Pvt. Ltd.	1			1.45	2.00	
		Industrial Associates	2			2.90	4.00	
		Jiwanram Sheoduttrai Group	2			2.90	4.00	
		Sanmar Engineering	1			1.45	2.00	
		Tata Consultancy Services Ltd.	7			10.14	14.00	
		Tech Mahindra Ltd.	1			1.45	2.00	
		TIL Ltd.	1			1.45	2.00	
	MCA	Absas Solutions	2	51	26	3.92	7.69	
		Four Loops Solutions Pvt Ltd	3			5.88	11.54	
		IBM India Pvt. Ltd.	1			1.96	3.85	
		TCS Ltd.	3			5.88	11.54	
		Wipro Ltd.	12			23.53	46.15	
	2016	AUE	M & M Ltd	4	68	43	5.88	9.30
			Maven Infotech	1			1.47	2.33
Shriram Transport Finance Company Ltd.			3	4.41			6.98	
Tata AIG Ltd.			2	2.94			4.65	
Tata Consultancy Services Ltd.			7	10.29			16.28	
TechMahindra Ltd.			5	7.35			11.63	
CSE		Broadsoft	1	72	53	1.39	1.89	
		CTS Ltd (Cognizant)	1			1.39	1.89	
		Ericsson India Global Services Pvt. Ltd	5			6.94	9.43	
		IBM	2			2.78	3.77	
		Johnson Control	2			2.78	3.77	
		Manthan Software Services Pvt. Ltd.	1			1.39	1.89	
		Max Mobility	1			1.39	1.89	
		Mphasis	2			2.78	3.77	
		NIST Technology and	1			1.39	1.89	

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student
		Consulting Services					
		Sedin Technologies Pvt. Ltd.	1			1.39	1.89
		Tata Consultancy Services Ltd.	24			33.33	45.28
		TechMahindra Ltd.	4			5.56	7.55
		Tekmobiles	1			1.39	1.89
		Yoodlee India Ltd.	2			2.78	3.77
	ECE	Amazon Development Center India Pvt. Ltd.	1	76	64	1.32	1.56
		BOSCH LTD	3			3.95	4.69
		CTS Ltd (Cognizant)	1			1.32	1.56
		Ericsson India Global Services Pvt. Ltd	7			9.21	10.94
		HCL	1			1.32	1.56
		Info Soft Global Pvt. LTD (FUSION CHART)	1			1.32	1.56
		Mphasis	2			2.63	3.13
		Tata Consultancy Services Ltd.	18			23.68	28.13
		TechMahindra Ltd.	5			6.58	7.81
		ValueLabs India Pvt.Ltd.	2			2.63	3.13
		EE	BOSCH LTD			1	67
	Electrosteel		1	1.49	1.89		
	Rajdeep Info Techno Pvt. Ltd.		2	2.99	3.77		
	Siti Cable Pvt. Ltd.		5	7.46	9.43		
	Tata Consultancy Services Ltd.		10	14.93	18.87		
	TechMahindra Ltd.		3	4.48	5.66		
	ValueLabs India Pvt.Ltd.		4	5.97	7.55		
	Wipro GE Healthcare Technologies Pvt.Ltd.		1	1.49	1.89		
	IT	CTS Ltd (Cognizant)	1	57	44	1.75	2.27
		Ericsson India Global	5			8.77	11.36

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student
		Services Pvt. Ltd		78	58		
		Hadwise Technologies Pvt. Ltd.	1			1.75	2.27
		HCL Technologies Ltd	2			3.51	4.55
		IBM	1			1.75	2.27
		Info Soft Global Pvt. LTD (FUSION CHART)	1			1.75	2.27
		Tata Consultancy Services Ltd.	17			29.82	38.64
		TechMahindra Ltd.	5			8.77	11.36
		Tekmobiles	1			1.75	2.27
		ValueLabs India Pvt.Ltd.	2			3.51	4.55
		ME	Airovient Fan			1	1.28
	Amara Raja Batteries		1	1.28	1.72		
	Daikin Aircondition india privet Ltd.		1	1.28	1.72		
	Embee Software		1	1.28	1.72		
	Fibro Plasticchem(India) Pvt. Ltd.		2	2.56	3.45		
	Hindustan Unilever Ltd.		1	1.28	1.72		
	Jiwanram		1	1.28	1.72		
	Kyocera CTC Precision Tools P Ltd.		1	1.28	1.72		
	M & M Ltd.		2	2.56	3.45		
	Mithila Pumps		3	3.85	5.17		
	Pinnacle Infotech		2	2.56	3.45		
	Polycab Wires Pvt. Ltd.		1	1.28	1.72		
	SAK Abrasives Ltd.		1	1.28	1.72		
	Tata Consultancy Services Ltd.		13	16.67	22.41		
	TechMahindra Ltd.	2	2.56	3.45			
	MCA	Chakra Web Consultant	1	50	25	2.00	4.00
		GoldenLion	1			2.00	4.00
		Info Soft Global Pvt. LTD (FUSION	1			2.00	4.00

Year of Pass Out	Name of Program	Name of Employer	Student Placed	Total no. of Student	Total no. of Eligible Student	% Based on Total Student	% Based on Eligible Student
		CHART)					
		Som Imaging Informatics Pvt. Ltd.	1			2.00	4.00
		Tata Consultancy Services Ltd.	2			4.00	8.00
		Tekmobiles	1			2.00	4.00
		Wipro Technologies Ltd.	15			30.00	60.00

5.1.10 Does the institution have a student grievance redressal cell? If ‘yes’, list (if any) the grievances reported and redressed during the last four years.

The institute has a Students’ Grievance Redressal Cell.

There are several drop-boxes in the institute through which the students may submit their grievances. The submitted grievances are carefully reviewed and addressed by the cell and prompt actions have been taken to resolve the complaints. MCKVIE always encourages its students to express their difficulties, problems and grievances directly to the appropriate authorities and these would be looked immediately.

Year	Grievances Reported and Redressed
2016-2017	• Wifi problem at Central Library
	• Internet Connection Problem at the Girls’ Hostel of the Institute
2015-2016	• Requesting other books in place of prescribed Book-Bank books from Library
	• Television set problem at the Boys’ Hostel of the Institute
2014-2015	• Furniture problem at Institute’s Boys’ Hostel
	• Unable to borrow the Book-Bank books from Library in time
2013-2014	• Poor Internet service at Institute’s Girls’ Hostel
2012-2013	• Demand of jersey for cricket tournament
	• Missing of ornaments from Institute’s Girls’ Hostel

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

The institute has a committee against sexual harassment to look after the various sexual harassment cases, if happen. The atmosphere of the Institute helps to prevail over gender equality within the campus. Few sexual harassment cases have been reported till date and proper action have been taken in time.

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

The institute has an anti-ragging committee. The committee consists of Professors, Admin Wings, Non-Teaching staffs, Students' Mentor, Students' representative, Parent representative of the institute and also Civil Administration representative such as SDO (sadar) Howrah, IC of Belur Police Station, Local Media personnel and it is headed by the Principal as the chairperson of this committee. A proper notice regarding anti-ragging is displayed on the college website as well as in the entire college and hostel premises. A meeting of this committee is conducted in the beginning of each new academic session to prevent any Ragging and an Anti-Ragging committee is formed to make sure this spirit. The college takes pride to mention that no issue has been reported so far related to ragging.

5.1.13 Enumerate the welfare schemes made available to students by the institution.

The following welfare schemes are available to the students in this institution:

- Half/ Full free-ship to the poor but meritorious students
- Ambulance facilities round the clock
- Railway concession is available through the Institute
- Student Counseling services
- Clubs such as Rotaract Club
- Recreational and Cultural Activities such as Annual Cultural Meet- UTOPIA, Tech Fest - PRAGATI etc.
- Adequate Sports activities at the Institute as well as in Hostels
- Educational Tour/Industrial Visit
- Personal Accident Insurance Scheme.
- Well equipped library facility.
- Multi-gym facility.
- Language Laboratory
- A virtual class room connected to <http://nptel.ac.in> (NPTEL)
- Remote Class Room to interact with the renowned academics through QEEE program.
- High speed Wi-Fi internet connection through the campus.
- Career Counseling and Placement Cell

5.1.14 Does the institution have a registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?

The Institute has a registered Alumni Association.

The mission of this association is to inform, engage and inspire alumni to stay connected to their alma mater, support its vision and play a part of its success. The function of this association is to create an effective platform of interaction with and contribution to the alumni, students, teachers and to the Institute as a whole.

Objectives

- To emerge as a center of extra academic activities to promote companionship among its members who, in turn, will promote liaison between the alumni and the Institute.
- To encourage the alumni to take an active and abiding interest in the development works and progress of the Institute so as to contribute towards the enhancement of their Alma Matter providing effective service to the society.
- To organize and establish scholarship funds to help needy and deserving students.
- To institute prizes and awards for outstanding project work, research papers or other professional activities by the students of the Institute and also to suitably recognize outstanding social and community service by the alumni and the students individually or group-wise.
- To undertake activities of a civic or charitable nature as also to increase public awareness of the role of technology in value addition to the cultural, economic and social development of the nation.
- To arrange meaningful social gatherings, conferences, seminars, debates, sports, excursions and other recreational activities.

5.2 Student Progression

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.

Student Progression		%			
		Year of passing 2016	Year of passing 2015	Year of passing 2014	Year of passing 2013
UG to PG		3.59	6.17	8.11	5.99
PG to M.Phil.		0	0	0	0
PG to Ph.D.		0	0	1.37	0
Employed	Campus Selection	41.86	37.80	37.83	41.81
	Other than Campus Recruitment	5.52	17.42	13.93	10.17

5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/ batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.

Departments	Pass Percentage of UG Courses			
	2016	2015	2014	2013
AUE	77.46	94.59	94.37	96.97
CSE	94.44	97.22	100.00	98.48
ECE	100.00	100.00	100.00	95.45
EE	86.96	97.14	95.59	NA
IT	85.71	83.87	96.72	92.19
ME	100.00	97.14	98.59	96.97

Departments	Pass Percentage of PG Courses			
	2016	2015	2014	2013
AUE	100.00	50.00	100.00	NA
CSE	0.00	94.44	100.00	93.75
ECE-COMM	40.00	100.00	92.31	85.71
ECE-VLSI	75.00	90.00	100.00	NA
MCA	76.48	92.59	91.84	92.73

5.2.3 How does the institution facilitate student progression to higher level of education and/ or towards employment?

Apart from regular classes and interactions faculties provide specific guidance to students in tutorial classes, extra classes or through personal interaction for their success to higher level of education or towards employment.

The Institution also adopted different ways to facilitate student progression to higher level of education and/ or towards employment:

- Orienting students with the vision and mission of the institute by the Principal/ Director in the Orientation Program.
- Faculties oriented the students with the broad prospects of the subject with different opportunities.
- Motivate the students to participate in co-curricular activities.
- Departments encourage their students to take up project works, beyond the curriculum, in collaboration with other department(s). This makes them to understand the practical applicability of their subjects and thus helps them to progress in their future study.

- Students interact with eminent personalities/ academicians/ industry experts/ alumni in the seminar/ workshop/ alumni meet arranged by the departments/ institute.
- Library services provided to the students.
- The placement cell of the institute facilitates students' job placements through campus interviews and other such efforts.
- Various activities carried out by the Entrepreneurship Development Cell.
- Orient them on the working atmosphere & industry through industry visit and interaction with the industry experts through in-house programs.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

The Institute follows various techniques to assist so called weaker students who are at risk of failure and drop out.

- Arranging extra classes or remedial classes and tutorial classes for above said students.
- Tracking Student Performance and Attendance in regular basis and try to diagnose them.
- Departmental Mentoring plays a role in guiding the student, putting the student in touch with the appropriate assistance.
- Arranging additional class like 'group discussion', 'personality development', 'seminar' and 'grooming classes' to enhance English and Communication and Presentation Skills of weaker students.
- Increasing Student Participation in the Classroom by motivating them.
- The Active Student Advisers or Counselor takes special attention to the weaker students who are in problem.

5.3 Student Participation and Activities

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

Every year the Institute organizes Annual Games for students. Students also participate to various Institutes in national level for different games and other activities. Following Intra College events are held in the Institute throughout the year:

- Foot Ball
- Cricket Tournament
- Basket Ball Tournament
- Table Tennis Tournament
- Badminton Tournament
- Chess Tournament
- Carrom Tournament

Beside these the Institute also organizes different cultural and other extra activities regularly.

- Cultural Fest [UTOPIA]
- Inter Institute Technical Fest [PRAGATI]
- Intra Institute Technical Fest [TECHNOTICA]

5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University/ State/ Zonal/ National/ International, etc. for the previous four years.

Institute faculty members always encourage the students to participate in different co-curricular, extracurricular and cultural activities at different levels. Details of student achievements are enlisted in the **Point No. 23** of “**Evaluative Report of the Departments**”.

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

The Institute has a centralized online feedback collection system. The Institute collects feedback from its alumni, students, faculties and employers. The reports of the different feedbacks are forwarded through the different committees to the governing body of the institute and the instruction thereof, are implemented by the principal.

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.

The institute publishes its annual magazine “MCKVIAN’S DIGEST”. Faculty members and students are involved in its editorial board. In spite of this various departments bring out their wall magazines.

Department	Wall Magazine
AUE	SPARK GEN
CSE	COMPUTERRAX
ECE	WALL-E
EE	SPECTRUM
IT	INFOLEAF
MCA	ECHHA
ME	MECHAZINE

The institute always promotes its students for publication & presentation technical paper in various journals as well as conferences.

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

No

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

Institute has following three committees where the students' representatives take part :

- Anti Ragging Committee
- Students' Canteen Committee (CAFETERIA)
- College Magazine Committee (MCKVIAN'S DIGEST)

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution.

The Institute interacts with the alumni through the alumni association and also departmental faculty members. The institution has a close network with the alumni through alumni meet organize in every year. Alumni are also invited by the respective department to deliver special lectures on their area of expertise.

Institute has a good relationship with former faculty members and calls them as an external examiner in the University Examination. A good number of former faculty members are invited as guest/ expert to the department/ institutional activities like seminar/ workshop/ conference etc. Institution's former faculties are also associated as research guides of the present teacher.

Any other relevant information regarding Student Support and Progression which the college would like to include.

None

CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1 State the Vision and Mission of the College:

Vision of the Institute:

To be a sustainable center of academic excellence and advanced research at national level producing students recognized for their academic competence, attitudes and dedication.

Mission of the Institute:

- To create a vibrant learning environment in the campus
- To develop and enhance teaching-learning quality
- To have highly qualified faculty
- To support application oriented research and encourage entrepreneurship.

Does the mission statement define the College's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, College's traditions and value orientations, vision for the future, etc.?

The mission of the institute has been broadly designed with exclusive characteristic in terms of preparing students with strong foundation in their disciplines and other areas of learning. The mission of the Institute set forth the four significant characteristics that the student would acquire by pursuing the teaching-learning process as adopted by our Institute. It nurtures students' entrepreneurial and professional skills with resilient focus on research and progressive activities and also facilitates an environment for innovative and lateral thinking. Last but not the least; it also inculcates students' leadership qualities and values for serving the society at large.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

In MCKVIE quality policy and plans are designed and formulated through bottom up approach in which students, faculty, non-faculty all are taking part. Principal, being the head of the Institute, with the assistance of HODs play important role in strengthening the same and place it before the top management body of the Institute i.e. Governing Body for finalization. Once the Quality Policy and plan are formulated, its implementation is regularly monitored through well structured mechanism by the Principal, Head of the Departments (HODs), Registrar/ Assistant Registrar, Departmental Academic Committee (DAC), Academic Advisory Committee (AAC), IQAC and different other committees in which faculty and non – faculty, as the case may be, are the members.

6.1.3 What is the involvement of the leadership in ensuring:

- the policy statements and action plans for fulfillment of the stated mission
 - formulation of action plans for all operations and incorporation of the same into the institutional strategic plan
 - Interaction with stakeholders
 - Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders
 - Reinforcing the culture of excellence
 - Champion organizational change
-
- The policy statements and action plans for fulfillment of the stated mission

All programs on teaching and learning have an emphasis that is conducive to the all round development of aspiring youth of present era. New facilities are provided consistently and the existing ones are constantly renewed and upgraded in order to cater to the needs of the diverse and changing student population. The Management ensures that the institution forges ahead with all the planning, to consolidate and become one of the premier institutions in the state/ country, providing excellence in technical education.

- Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan

Stream line the admission: Seats are filled by regular admission procedure through web counseling conducted by WBJEE Board and affiliating University (UG and PG level). All these admissions are scrutinized by admission committee in the college thereafter.

Assessment procedure to find the need for staff recruitment: Depending on intake capacity approved by AICTE or incase of faculty resignations, every HOD prepares an estimate for the staff requirement for the department and submits it to the Principal. The staff recruitment process is conducted whenever necessary. Recruitment is done in a transparent manner purely on the basis of merit, after notifying the vacancies in the leading news papers.

Stream line the Academic Activities: Principal conducts the meeting to discuss the present needs of the industry, skill sets to be acquired by the student, designing the curriculum, effective teaching - learning processes etc. Principal holds meetings with HODs periodically and discusses all the academic matters like fixing the academic calendar, timings of examinations, declaration of results etc.

Budget: Budget is carefully planned in consultation with various departments. The individual departments propose their recurring and non-recurring expenditure.

- **Interaction with stakeholders**

The Institute has adopted a system to obtain the feedback from the parents (Teacher-parent interface) and this is analyzed by the Principal, Dean (Academics), Dean (Research & Consultancy), Dean (Student Affair), IQAC coordinator and HODs. After analysis a plan of action is prepared and forwarded to the Management for its approval.

There is also a system of obtaining regular feedback from students on all the faculty members at the end of each semester. The feedback is analyzed by the concerned authority and appropriate course of action namely counseling of teachers, organizing faculty development program etc. is planned.

- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**

- The Heads of the Departments review the departmental progress for continuous improvement in consultation with the Principal and Dean and IQAC. This is based on the stakeholders feedback about the students placed in the preceding years. Additional training is given in the areas requiring improvement as suggested by the business community.
- To improve the performance of the students, internal assessment through Class Tests and Assignments is conducted periodically and the results are reviewed/ displayed for the students.
- Weakness of the students is strengthened by conduction of additional tutorial classes.

- **Reinforcing culture of excellence**

The management and the higher authorities of the Institute realize and encourage the fact that the growth of the Institution in terms of transforming it into a Centre of Excellence depends on reinforcing research and innovation well planned teaching-learning process etc. In this context Director of the Institute plays pivotal role in Branding the institute as a Centre of Excellence & obtaining external funding for innovation and development.

The Principal in consultation with Dean(s), IQAC coordinator and the HODs prepares the action plan to facilitate the knowledge by conducting seminars, workshops, industry oriented courses for students and faculty members. Guest lecturers, leading academicians and industrialist frequently visit our Institute to develop their hands-on-training. The Principal, Dean(s), HODs and members of the faculty encourage the students to participate in workshops, Industry-Institute Interaction programme etc.

- **Champion organizational change**

Initiating

- Providing visionary leadership
- Being well informed about the issues, opportunities, and how to get the job done
- Involving key stakeholders and establishing commitment
- Developing a revolutionary mindset

Facilitating

- Team-spirit
- Participation in holistic development
- Networking and getting the suitable people for effective management

Implementing

- Planning and managing the change process
- Keeping people absorbed and motivated
- Improving feedback mechanisms to evaluate and monitor progress

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

Procedures of monitoring and evaluation of policies and plans are as follows:

Monitoring:

- Results & Learning outcomes w.r.t. development of plan and results.
- Key priorities such as teaching and learning process, risks identified in the planning stage
- Data collection through survey, feedback, and stakeholders' meeting.
- Estimation of resources required and committed for carrying out planned monitoring activities
- Staff members have to fill in annually the Academic Performance Appraisal (APA) forms designed by the Institute according to UGC guidelines. The Heads of the College provides well-thought out and constructive feedback regarding the same. Half yearly staff meetings are held to monitor the activities undertaken by the various Committees.

Policy Evaluation:

The key parameters considered at the time of policy evaluation are:

- Outcome evaluation of teaching and learning process
- Environmental and sustainable development, mobilizing finances, and crisis prevention and recovery.
- Evaluation of stakeholders
- Identification of any problem
- Whether any important aspects overlooked or unnoticed.
- Proper implementation of all rules and regulations.
- Anticipated effect of the policy is present or not.
- Any need for further modification/ change in the future.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

The higher management is always supportive towards academic activities of the Institute. The academic leadership is given to the faculty members by the top management for setting

academic priorities and exposing to wide gamut of knowledge, creating a culture of promoting research. It provides academic autonomy to faculty members to strengthen teaching and learning and thereby enriching students' quality. The staff is given the authority and responsibility to fulfill the desired academic task in the best possible manner within the stipulated time. The Management is very cautious about discipline, commitment and devotion towards the work assigned to the staff. This blend of governance with active participation of the staff is one of the distinguishing features of the Institute which has allowed the head to get the spontaneous support from the staff. This kind of leadership has generated not only a sense of belonging but also of dedication among the staff members. It has strengthened harmonious workplace that creates non-threatening atmosphere and retains qualified faculty members.

6.1.6 How does the college groom leadership at various levels?

All the staff members are involved in all allocated activities of the Institute. The experienced and efficient staff members are appointed as conveners of various committees which are directly involved in the efficient functioning of the college (like IQAC, AAC, DAC, PAC, Finishing School, Assessment Committee, Purchase Committee, Canteen Committee, Library Committee, Anti-ragging Committee etc.). Competent and efficient faculty members are identified and positioned as the Heads of the Departments with the idea of developing future leaders for the department/Institute. Institute also encourages senior faculty and staff members to attend management/ leadership training programmes conducted by reputed institutes like IIMs. Young faculty members are encouraged to take up research projects as principal investigator with the support of seniors. Further, budding leaders are sent to pursue different management courses aiming at developing leadership qualities.

6.1.7 How does the college delegate authority and provide operational autonomy to the departments/ units of the institution and work towards decentralized governance system?

The Management gives sufficient liberty to the Principal and the Director to fulfill the vision and mission of the institution. The college delegates authority and provides operational autonomy to the departments to work towards decentralized governance system. Academic responsibilities are fairly divided among all the staff members. Committees are appointed for the various academic and co-curricular activities to be conducted in the course of the academic year. This ensures transparency in policy execution. The responsibilities are communicated to the faculty members through regular staff meetings. The Principal of the college calls regular meetings with the teaching and non teaching staff. In meetings, various issues are raised up for discussion before arriving at a final decision. The Heads of Departments monitor the functioning of the various departments. The participative decision-making ensures total participation of all the people concerned. The office administration of the College is governed by the Registrar/ Assistant Registrar under whom there are In-charge Examination Cell, Accounts officer, Librarian and support staffs, Clerks, and other Group D Staffs.

6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

The Management is always ready to discuss various issues with the teaching and non-teaching staff who, in turn, offers suggestions to promote a culture of participative management. Not only the department meetings are conducted but also intra departmental meetings are arranged for common issues. The Principal with the Heads of the Departments discusses the needs, problems and suggestions to improve the educational quality and infrastructure. If necessary, suggestions are sent to the management for further implementation. The teaching and non-teaching staffs are represented in the college committees due to participatory management. The college involves and allows the faculty members to participate voluntarily with involvement in every work including the preparation of NBA/ NAAC report. There are various committees constituted to manage different institutional activities. The list of available committees is as follows:

- Academic Advisory Committee
- Internal Quality Assurance Cell
- Departmental Academic Committee
- Research & Development Committee
- Anti Ragging Committee
- Grievance Redressal Committee
- Examination Committee
- Disciplinary Committee
- Sports & Cultural Committee
- Library Committee
- Women's Welfare Committee
- College Magazine Committee
- Student Welfare Committee
- Routine Committee etc.

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

MCKV Institute of Engineering has a formally stated quality policy. Quality policy was originally stated by the Board of Governors. Subsequently, Quality policy is derived and aligned with respect to the vision and mission of the institution on the basis of bottom up approach.

Quality policy clearly states the objectives of the institution, their course of progress towards the achievement of objectives and its contribution to the society. All these strategies are monitored by the institutes Academic Advisory Committee that meets every month to decide on academic issues. The quality policy of the Institute is as follows:

- The Institute is committed to produce qualified, successful students, to suit to top class demand of the market.

- The Institute is committed to provide resources to cater to present as well as future requirements of the customer and stakeholders.
- It is reviewed for continuing suitability.

The Institute is also ISO 9001: 2008 certified

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

The Institute has a plan for sustainable development in the following areas:

Teaching and learning

- The Institute generally recruits well qualified, skilled and experienced faculty.
- Special lectures, seminars and workshops are arranged by inviting eminent personalities on current suitable topics for the students and faculty members.
- Encouraging faculty members to pursue further studies.
- The Institute encourages students' participation through project work, attending seminars and workshop on current topics and is encouraged to develop soft skills.
- The academic progress of the students is continuously monitored by the continuous internal assessments through, theory and practical tests and Surveys from the stake holders..

Research and development

- Facilitating to publish technical papers in conferences and journals and offering financial aid for registration and travel.
- Encouraging faculty members to submit research proposals to various funding Organizations.

Community engagement

- To fulfill social commitment, Rotaract Club of the Institute has been established, which is very active.
- The Rotaract Club and NSS unit of the Institute conduct programs like blood donation camps, tree plantation, relief and rehabilitation etc. to areas affected by disaster.
- The Institute has Swami Vivekananda Center for Positive Thinking to promote mental and physical health of the students & staff members.

Human resource planning and development

- The institution employs faculty members and administrative staff based on the guidelines provided by the university.
- The institution recruits qualified faculty members and staffs through open advertisement and interview by the experts committee.
- The recruited faculty members are encouraged and funded to attend faculty development program to enhance the teaching-learning process.

Industry interaction

- The institute facilitates the experts from industry to interact with students by arranging guest lecturers to enrich them with the latest updates and its technicalities.
- Involvement of industry experts in academic activities like course planning for autonomy.
- The Institute has signed MOU with CII (ER) to enhance the interaction with the industry.
- The Institute provides industry exposure to students through Industry visits.

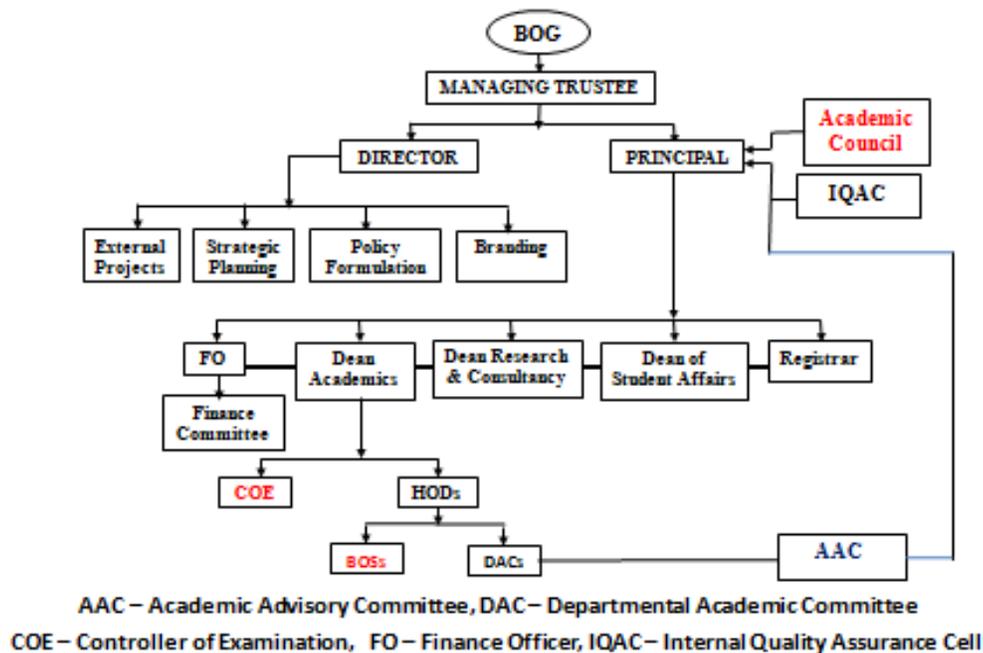
6.2.3 Describe the internal organizational structure and decision making processes

The Institution is governed by a well-structured management. At the top of it the Institute has a Trust Body consisting of the Chairman, the Managing Trustee and three other Members. The Trust is headed by the Chairman. The Managing Trustee looks after and controls the day to day administrative and financial matters of the Institute.

To strengthen the management activities, a Director Post is created during July, 2014 with the following responsibilities–

- He should be responsible to formulate Strategic Development Plan of the Institute for its improvement.
- He shall be responsible for all policy formulation for better performance of the institute.
- He shall advise on any financial matters that may be referred to him for opinion by any Authority/ Body/ Committee of the Institute.

ORGANIZATIONAL STRUCTURE



Three activities marked Red coloured in the above organization structure are identified and will be fully operational once the Institute obtain Autonomous Status from UGC. In fact Academic Council and BOS were constituted some time back with the nominations from the Affiliating University and first meetings were conducted when UGC formed the Expert committee for the visit of the Institution.

There are Institutional Authorities headed by the Principal, Director and the Registrar of the Institute. There are several officers who help the Principal and the Registrar in the day to day administrative and academic matters. For supervising the works and functions of the Management and the Authorities the Institution has a Governing Body comprising 18 Members in accordance with the AICTE specifications and also to meet the requirement of TEQIP-II.

For taking due care of academic matters three Academic Bodies have been given total authority. The first is the Departmental Academic Committee (DAC) and the second is the Academic Advisory Committee (AAC) and the third one is IQAC. All important decisions taken in these Committees are forwarded to the top Management for approval and ratification. In all such institutional matters the views of the students are also taken into consideration with all seriousness and importance. The top management, wherever necessary, places matters before the Governing Body for taking decisions which are then implemented.

Academic Advisory Committee (AAC) consists of all HODs and two more nominated members from every department in addition to the Director, Registrar & all other Professors and Deans of the Institute. Principal is the Chairman and he nominates a faculty member as the convener of AAC. Every month a meeting is conducted to discuss and decide the academic matters of the institute.

Departmental Academic Committee (DAC) consists of all the faculty members of the department and is presided over by the HOD of the respective department. Every month a meeting is conducted to discuss departmental activities.

The Management is always ready to discuss various issues with the teaching and non-teaching staff who, in turn, offers suggestions to promote a culture of participative management. Not only the department meetings are conducted but also intra departmental meetings are arranged for common issues. The Principal with the Heads of the Departments discusses the needs, problems and suggestions to improve the educational quality and infrastructure. If necessary, suggestions are sent to the management for further implementation. The teaching and non-teaching staffs are represented in the college committees due to participatory management. The college involves and allows the faculty members to participate voluntarily with involvement in every work including. There are various committees constituted to manage different institutional activities as indicated under section **6.1.8 of the SSR**. These committees meet often, discuss the related issues and take appropriate decision with respect to the requirement. The Principal of the college finally plays the most important role in the decision making process.

6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following

Teaching & Learning

Teaching plans are prepared for each semester. These get verified and checked at different stages in accordance with the syllabus and scheme of examination given by the University. The teaching – learning process is facilitated through qualified, trained and experienced faculty members. Apart from class-room teaching, students are encouraged to use library and internet facilities. The teaching staff members maintain record of daily instruction delivered, practical conducted and other such activities performed. Any short time responsibilities (Extra lecture, duties for seminar etc.) are properly recorded and informed to concerned authority. The teaching plan is drawn up by each department and it is strictly monitored by the Heads of Departments.

The effectiveness of teaching-learning process is reviewed on regular basis. The inputs for such review may be from:

- Feedback from the Stakeholders
- Results of internal tests
- Quality of assignment submitted
- Final results of Semesters

Research & Development

- Infrastructure facilities like well-equipped laboratory for students' learning as well as for faculty research are made available. The equipment and consumables are purchased as or when required to strengthen research activities.
- The library is also well equipped with required titles and volumes of text books, e-journals, computer hardware and software for conductive learning.
- Students and faculty members are sponsored for presentations in conferences hosted by other institutions.

Community engagement

To fulfill social commitment, Rotaract Club of the Institute has been established, which is very active throughout the semester.

Rotaract Club conducts programs like blood donation camps, tree plantation, relief and rehabilitation to areas affected by disaster etc. To develop positive thinking Swami Vivekananda Centre for Positive Thinking has been formed by our college. Swami Vivekananda Centre for Positive Thinking (being First Centre in West Bengal with the support of Ramakrishna Mission Vivekananda University, Belur Math, Howrah) are empowering knowledge and mental & physical health to all students and staff members. This center provides value education to students and also engages in various community services. The activities of the center are as follows:

Activities of Swami Vivekananda Center for Positive Thinking (SVCPT)				
Sl. No.	Programme	Date	Faculty member involved	Role
1	Teacher orientation workshop on “ value Education”	December, 2012	Mr. Tapas Kr Biswas	Member
2	Orphanage visit programme	February,2013		Convener
3	A programme on Endowment Lecture Meet	July,2013		Convener
4	Celebration of Birth Tithi Puja of Holy Mother Sri Sarada Devi	January, 2013		Convener
5	Student competitions and Science & Technology lecture	8 th and 9 th January, 2013		Convener
6	Educational Tour at Swamiji’s House and Indian Museum.	February, 2013		Convener
7	Seminar on “Value Education and Positive Thinking”	May, 2013		Convener
8	Lecture on ‘Balance beyond life’ Mr. SatinathMukhopadhyay will deliver his lecture and Dr. Purnendu Roy will deliver his lecture	19 th and 21 st December, 2013		Convener
9	Educational Tour to Vivekanandas Ancestral House and Birla Planetarium	January, 2014	Mr. Tapas Kr Biswas	Convener
10	Programme of Youth convention	January, 2014		Convener
11	Distributing Bed sheet/article and Chocolate to 92 Slum Children/ Orphan Children before Puja 2014.	September 2014.		Convener
12	Seminar on “Value Education and Positive Thinking’	June, 2015		Member
13	Late S K Mitra Endowment Lecture 2015. (The famous Bengali writer Sri SastipadaChattapadhyay Writer of PandabGoyenda, will be the Guest of Honour on that day).	July, 2015		Member
14	Conduction of Pre Puja Articles/ Clothes Distribution among Needy/ Orphan Children	Mahalaya, 12th October 2015		Member
15	Seminar on “Value Education and Positive Thinking”.	July,2016		Member

Rotaract Club of MCKVIE			
Sl No.	Events Organized	Date	Students involved
1	Friendship Day Celebration	3 rd August every year	Students of Automobile Engineering
2	RakshaBandhan Celebration	Organized every year	
3	Independence day Celebration	15 th August every year	
4	Installation Ceremony of Rotaract Club of MCKVIE	23 rd August every year	
5	Rotary Corporate Quiz in association with Telegraph	Organized every year	
6	Consumer Awareness Seminar in Association with Consumer Affairs Department, Govt. of West Bengal	22 nd Aug ,2014	
7	Mega Blood Donation Drive in association with Akhil Bharatiya Terapanth Yuvak Parishad	6 th September, 2014	

MCKVIE has organized training programme for the personnel of Kolkata Police at regular intervals as a part of Corporate Social Responsibility to conduct awareness on the basis of Automobile Mechanism and also on road safety with the objective of reducing the rate of motor collision. Apart from regular courses, seminars and workshops are conducted regularly in collaboration with prominent people in education and industry

Human resource management

The institute takes care of its human resources. Employees are given utmost importance and their needs are acknowledged well. All the teaching and non-teaching staffs are provided free lunch, free bus services from two distinct points in the route. Additionally, tuition fees of the male ward of the staff members studying in MCKV Kejriwal Vidyapith are waived. About 10%-15% staff members are benefitted by this scheme.

Pay slips are provided every month and the salary is credited to the salary account of the employees on the first week of every month. The service rules are made transparent and they are benefitted with PF, Gratuity etc. The faculty and staff are entitled with other benefits like CL, EL, ML, and in-house medical facility etc.

The institution frequently arranges in-house training programmes and also deputed to other organization for acquiring skills (technical skills, teaching skills, soft skills etc.) from all dimensions.

Every time equipment is purchased and installed, or software is purchased and installed, the department arranges for a demo session by the supplier.

The institute encourages quality improvement programmes and delegates faculty on leave for higher education. Their progress is monitored and based on their appraisal and achievements incentives are awarded and promotions are implemented.

The Institute has adopted a mandatory Self-Appraisal Method to evaluate the performance of the faculty in teaching, research and extension programmes. The form requires the teacher to give his/her self-evaluation of the academic, co-curricular and extra-curricular work performed during that year. It also requires the teacher to enumerate the papers presented in conferences, seminars, refresher courses and orientation programmes he/she has attended. The report to be filled in by each teacher is also evaluated and it analyses the duties performed with respect to lectures completed as per the teaching plan schedules. The evaluation of teaching faculty members by the student has been adopted in our college which helps in self-evaluation and development.

Industry interaction

The institution has an industry interaction cell named IIIC. In addition CRTT Cell headed by the Training and Placement officer provide industrial training & placement to the students. Students are sent for internship programmes for a maximum of eight weeks to industries and universities for promoting collaboration. The Training & Placement Department of MCKVIE is providing necessary Technical training programs or Campus Aptitude Preparation Program, Vocational/ Summer Training, Entrepreneurship Development Program before launching them into the broader world where cut-throat competition is the order of the day. This cell also provides support in partnering with various industries/companies and inviting reputed industries regularly to recruit our students.

We have signed a MOU with M/S Dassault System and established a centre of excellence in Computer Aided Design and Manufacturing. Another MOU was signed with M/S Volvo-Eicher Commercial Vehicles, and we have set up a State of the Art Automobile Knowledge Centre. We have also signed a MOU with M/S Ericsson India, where they are training our students of Electronic Communication and Engineering to prepare them as Industry ready.

MCKV Institute of Engineering is accredited by M/S Tata Consultancy Services (TCS) and M/S Cognizent Technology Solutions (CTS). Teachers' empowerment programmes such as Mission 10X by M/S WIPRO and the Campus Connect programme by M/S INFOSYS in the campus.

Apart from these, the institute has signed a MOU with CII (Confederation of Indian Industry) to facilitate industry interaction. The details are as follows:

CII ER Education Excellence Forum @ MCKVIE

The CONFEDERATION OF INDIAN INDUSTRY, Eastern Region (CII ER) Sub Committee on Education & Skill Development plays a key role contributing to the competitiveness of higher education sector working on the aspects of quality, relevance and access to education through focused activities that create natural synergies between Industry, Government & the Academia. Director of MCKVIE is an active member of both of these committees and interact with the members of industry in the committee throughout the year.

MCKV Institute of Engineering and CII (ER) has made a Memorandum of Understanding (MOU) on 15th April, 2016 with an objective to create a CII (ER) Education Excellence Forum, an Industry Academia Interaction Platform and provide comprehensive hold up, facilitate and arrange Institute-Industry interaction, student and faculty development programmes.

Programmes Conducted Under the Scheme:



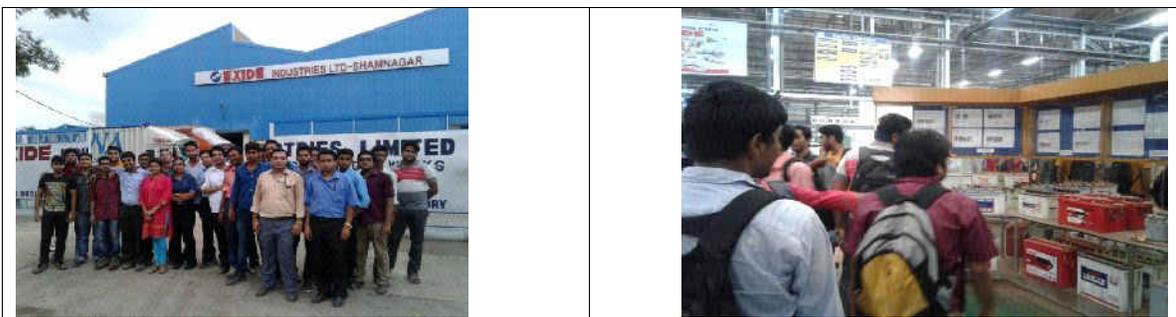
Guest Lecture on ***“Skills Expected from Future Engineers and How to be Future Leaders of Industry”***, by **Mr. Anil Vaswani**, CII West Bengal State Chairman and Managing Director, Wesman Engineering (28.04.2016).



Guest Lecture on ***“Futuristic opportunities as Data Analyst, Digital Marketers, Product Managers, Retail Planners”***, by **Mr. Arijit Chakraborti** Executive Director, Pricewaterhouse Coopers Private Limited (16.05.2016).



Workshop as a part of the CII's Industry Academia Interface Programme at MCKVIE on **"Prospects of Future Engineering"** (04.08.2016).



Industry Visit at EXIDE (Shyamnagar) Authpur, Shyamnagar, Kolkata, West Bengal 743128 (13.09.2016)

Our students also visited **Titagarh Wagons Limited** factory at Hindmotor (erstwhile Hindustan Motors) on 04.10.2016 and **Skipper India Ltd., Uluberia** factory on 24.10.2016. Apart from this, students and Faculty members have participated in a no. of workshops, seminars etc. **(Manufacturing Debate on "Is Manufacturing Really a Driver of National Growth" at Hall of Fame, CII Suresh Neotia Centre of Excellence, Kolkata, on 04.08.2016, ICT East at ITC Sonar, Kolkata on 04-05 August, 2016, Industry -Academia Innovation Platform, Building a Knowledge Society and Enabling Make in India at The Lalit Great Eastern: Kolkata on 22.08.2016, "Outreach Workshop for Prime Minister's Fellowship Scheme for Doctoral Research" on 28th May 2016, at The Park Hotel, Kolkata, Manufacturing Excellence: Intelligent Manufacturing the Game changer for Indian Industry on 17 December 2016 at The Gateway Hotel, Kolkata etc)** conducted by CII.

6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?

The Institute has a Website where all the information is provided to stakeholders. All the information regarding achievements, results, students and faculty publication, research and development activities and all other necessary details are placed before the Board of Governors (Top Management) for approval and implementation.

Besides, all the Institutional information is provided to Affiliating University, Department of Higher Education, Govt. of West Bengal as well as the AICTE (Approval Authority) through online access/ reporting, as and when asked for.

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

Every year after appraisal, with respect to the review of the faculty performance, increments are awarded. In some case additional incentives are also awarded for outstanding performance. Faculty members are given weightage for publication in national and international journals during increments.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

BOG meetings are normally held once in each quarter in which institutional achievements & shortfalls are discussed. BOG directions given in each such meetings during last one year are enumerated below:

Actions taken on the Recommendations of the Governing Body Meetings during last one year

BOG Meeting	Recommendation by BOG	Action Taken Report
53rd Meeting dtd. 30/07/16	(i) Finalize Placement Brochure and circulate to the prospective recruiters and summer training or internship training providers.	Placement Brochure printed and implemented.
	(ii) BOG recommended to conduct regular Entrepreneurship development classes	Entrepreneurship classes are regularly held and incorporated in the Routine.
	(iii) BOG recommended to apply for remaining UG courses and also for NAAC	Two UG courses are already NBA accredited. Planned to submit pre qualifier for two more UG courses. Also processes of NAAC application is on going and will be applied in March'17.
52nd Meeting dtd. 09/04/16	(i) Classes have to be made attractive by using (a) NPTEL Videos, and (b) making Question Banks in respective subjects & distribute it to students for solving.	Registering process for NPTEL certification course Done. Our students fared very well in the examination during last summer. This time also quite a few students registered for certified examinations.
	(ii) Employability grooming classes to be included in the Class Time Table and regular assessment to be made.	Employability grooming classes conducted regularly for third year students.
51st Meeting dtd. 12/12/15	Members who have undergone Management Capacity Building training in various IIMs to be engaged in various administrative activities of the Institute.	20 faculty members under gone Management capacity building training and are performing various administrative duties till date.

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If ‘yes’, what are the efforts made by the institution in obtaining autonomy?

In 2012 affiliating university WBUT presently named as MAKAUT forwarded our application to University Grants Commission with their consent for granting the autonomy. UGC has already constituted an Expert Committee to visit the Institute.

6.2.9 How does the Institution ensure that grievances/ complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?

The Institute has Grievance Redressal Committee headed by the senior faculty members of the Institute. As and when the committee receives complaints, they meet immediately, review and resolve the problems. They also ensure that necessary actions are taken. The complaint details are filed separately and kept confidential with the chairperson of the committee.

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

In last four years, there have been two court cases filed against the institute. They are as follows:

• **Security Deposit Refund Related Case:**

In this case a student named Mayank took admission in 2008-2012 batch and deposited Rs.7000/ as security money to the college. After the completion of the course the college refunded the said amount to the complainant through cheque on 14.12.2012 vide cheque no.412669 dated 22.09.12 amounting to Rs. 7000/ only which came to the complainant on 19.12.2012. The complainant deposited the cheque on 19.12.12 to IOB Branch at Patna but that was returned unpaid with the mark that the same was outdated. Although the Institute informed the complainant to collect the cheque in time but the complainant did not receive the cheque. Instead The complainant alleged that the intention of the college was to deceive and cheat but in reality it was totally a false allegation. Moreover, the complainant claimed to get Rs.110/, Rs.25000/, Rs. 6000/ and Rs. 25000/ for court fee, legal expenses and other expenses including mental agony.

After hearing both the parties, the court directed the Institute to pay Rs.7000/ only to the complainant within a period of two months. Other charges against the Institute were waived off and the college followed the order respectfully

• **Tuition Fees Refund Related Case:**

Subhankar Dinda, a student of AUE left his studies after attending classes for about a fortnight and claimed the refund of full fees, that he deposited during the admission. The college refunded a proportionate amount of Rs. 21,200/ only as per norms. The student filed a suit before the

consumer Redressal Disputes Forum, Howrah with a plea that the entire fees Rs.79,450/ plus compensation of Rs.10000/ along with the litigation cost of Rs. 2000/ should be paid to him.

The dispute was settled out of the court for an amount of Rs. 17000 which was transferred directly to their bank account of SBI, Chaohata Branch, Patna. Rs. 7000/ was paid towards security money and Rs. 10000/ was paid towards other miscellaneous expenses.

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort

Yes, the institution collects online feedback from the students on a continuous basis. Every semester students evaluate their subject teachers using the specified questionnaire. Students feedback are analyzed initially by the Principal. Identified short comings of any faculty are addressed by counseling & other administrative measure by the HOD. The institution has also a complaint redressal cell where the grievances from the students' end are received and considered seriously and addressed as or when required.

6.3 Faculty Empowerment Strategies

6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non teaching staff?

The faculty members and the non-teaching staff of the Institute are encouraged to participate in the Conference, Seminars, Workshops, orientation programmes, refresher courses regularly. Teachers are constantly encouraged to publish papers, research articles, writing books, and apply for major and minor projects of UGC, DST and State Govt. Financial assistance is provided for attending workshops, conference, symposiums and seminars. So far a number of faculty members have participated in numerous academic programmes, conferences etc. in national and international level. Necessary financial support is provided to the same.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

Faculty is also empowered through membership in various academic and professional bodies to enhance their professional development. In-house programmes and training for faculty are being organized in regular basis. Similarly training/ faculty development programmes for the employees are also organized to sharpen their skills and holistic development to enable them to perform their role appropriately.

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

The Performance Appraisal system exists and maintained annually. At the end of the each calendar year, the teaching and non-teaching staff submit the filled in appraisal sform/ annual confidential report to the administrative section of the Institute through concerned HODs/ Section Heads. All the reports are reviewed and documented by the concerned authority. The review results are well reflected at the time of career advancements.

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

The outcomes of the performance appraisal reflect in the annual increment, incentives and the promotion of the faculty. Short comings, if any detected is followed by Counseling, Pedagogy training & Domain knowledge upgradation, etc. They are communicated through annual increment and promotion orders. Appropriate measures are taken to develop faculty members further.

6.3.5 What are the welfare schemes available for teaching and non teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

All the teaching and non-teaching staffs are provided free lunch, free bus services from two distinct points in the route. Additionally, tuition fees of the male ward of the staff members studying in MCKV Kejriwal Vidyapith are waived. About 10% - 15% staff members are benefitted by this scheme.

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

In terms of academic reputation and provisions, MCKV Institute of Engineering is perceived as among the top five private engineering institutes under MAKAUT, with good infrastructure, state-of-the-art laboratories & workshops, well-qualified and experienced faculty, a rich & sprawling library and good academic ambience, students with higher merit prefer this institute. The Institute being a prominent place for both the students and the teaching community, the employment here is considered as recognition of their knowledge & and they feel it a great honor to be a part of this institute. Apart from the well-structured salary, the Institute provides all sorts of facilities for pursuing higher studies, participation in workshops, seminars and conferences within the country and abroad. All the above has made the Institute a place of attraction of well talented, dedicated and eminent faculty members.

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

- a. Preparation of institutional & departmental budget and quarterly review.
- b. Effective procurement system for various non-recurring & recurring expenditures

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance

The Institute has the system of Statutory Audit by outside CA Firm. However, half yearly Internal Audit is being conducted by the institute appointed CA.

The last audit done is on 30th August 2016. There are no major audit objections.

6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any

Students' fees are the principal source of funding. If there is any financial deficit, it is managed by the Trustee fund of the Institute.

For the development of the Institute the Management provides the necessary fund throughout the year. There is no selective method in the Management Policy when the question of Institutional Development is found necessary in terms of constructing new building for creating additional space, creating new laboratories. In fulfillment of the requirements of the changing University Syllabi and AICTE guidelines, upgrading the workshops, existing laboratories, Library or creating more staff welfare facilities are funded by the Trust. Proposals for all such developmental works are made after careful examinations of the requirements by the departments in consultation with the College Authorities. Such proposals go to the Management for consideration and approval. And after careful examination of them the Management approves the proposal and sanctions the amount for completing such works. In all such cases, of course, yearly financial resources are taken into consideration so that no project beyond physical limit and financial capacities is undertaken.

The audited report for last four financial years including Statement of Income and Expenditure and Balance Sheet provided in the **ANNEXURE III**.

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

The Institute mobilizes the financial support from various funding agencies, and from the Trust. The Institute is recognized under 2(f) of UGC Act,1956. As a result the college received financial assistance from TEQIP, DST, etc.

6.5.1 Internal Quality Assurance Cell (IQAC)

a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?

Internal Quality Assurance Cell (IQAC) has been formed only recently and it is in the process of first cycle.

To ensure quality policy of the Institute the following functions have been undertaken by the Institute:

- Development and application of quality in the various academic and administrative activities of the MCKVIE.
- Facilitating the creation of a learner-centric environment conducive for quality education and faculty development to adopt the required knowledge and technology for participatory teaching and learning process.
- Arrangement for feedback responses from students, parents and other stakeholders on quality-related institutional processes.
- Dissemination of information on the various quality parameters of higher education. Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles.

b. How many decisions of the IQAC have been approved by the management/ authorities for implementation and how many of them were actually implemented?

The following are the Issues discussed in the IQAC and implantation status.

Date	Issues	Implementation Status
28.09.2016	Goals, Functions and benefits of IQAC discussed	In process
	A separate Committee is formed to collect feedback from all stakeholders	Feedback Committee is meeting regularly and web based system is implemented.

Date	Issues	Implementation Status
28.09.2016	Nomination from IT dept. yet to be received	Mr. Sougata De is nominated by HOD of IT dept.
	Appointment of an External Expert Member from Industry to be done.	Mr. Kaushik Bhattacharya, Area Lead, IBM, Kolkata is appointed.
05.10.2016	Distribution of Responsibilities to prepare SSR of NAAC.	Work is follow up by coordinator IQAC satisfactorily.
	Workshops/Invited Lecturers to be conducted continuously on NBA/ NAAC and also faculty member to be sent outstation to attend similar programme	Faculty members from all the Departments attended outstation programmes and also few in-house programmes on NBA & NAAC .
04.11.16	Up gradation of Laboratories and providing a meeting room for EE Department to be done at the earliest.	Already implemented.
	Faculty appraisal received to be evaluated by the Pear Group and their findings/recommendation to be sent to IQAC by end January'17.	Peer review done and IQAC received the reports. Recommendation of IQAC is under finalization.
	The members of IQAC felt to include TSS/ LI in the cell.	Action to be taken.

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

There are two honorable external members in our committee. They are:

- Prof. B.B. Paira (Adviser of Higher Education, Heritage Group of Institutions)
- Prof. Kaushik Bhattacharya (Enterprise Application Practice, Area Lead, IBM Account, Kolkata)

The external members are consulted as or when required and their valuable advice is considered by the concerned authority.

d. How do students and alumni contribute to the effective functioning of the IQAC?

IQAC is in the first cycle, but in the process of incorporating students and alumni participation of the Institute.

e. How does the IQAC communicate and engage staff from different constituents of the institution?

The Governing Body of the Institute in its 53rd meeting held on 23/07/2016 directed to set up an Internal Quality Assurance Cell (IQAC) to monitor and enhance the quality of teaching learning process. IQAC has been formed and started functioning on 28/09/2016, with an objective to work together with Finishing School, Assessment Committee, AAC, DAC and other committees and cells for overall improvement of the quality of teaching learning process. IQAC is responsible to look after performance of the students/ graduates and to set and implement policies to enhance the same.

Following are the Chairman, Coordinator and other members:

Sl. No.	Particulars	Nomenclature	Name
1.	Chairman	Principal	Prof. (Dr.) Asok Kumar
2.	Internal Members	(a) Senior Faculty Members	Mr. Prasenjit Das (CSE) Ms. Nabamita Banerjee (Roy) (EE) Mr. Atanu Banerjee (ECE) Dr. Manik Chandra Das (AUE) Mr. Subhra Nath Maiti (HSS) Mr. Subir Bhadra (MCA) Mr. Mojammel Rahaman (Basic Sc.) Mr. Sougato Dey (IT)
		(b) Head of Administration	Mr. Indranil Sanyal
3.	External members	Senior Academician	Prof. B. B. Paira, Advisor – Higher Education, Heritage Group of Institutions
4.		Industrial members	To be nominated by Principal
5.	Co-ordinator	Nominated by Principal	Dr. Ranjib Biswas

6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If 'yes', give details on its operationalisation.

Yes, the necessary control is done through Academic Advisory Committee in consultation with IQAC to ensure quality of academic and administrative activities as per stipulations specified by the affiliating University.

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.

Yes. The Faculty and staff members are sent out for attending training programs conducted by Academic Staff College and other institute of repute to enhance their skills. While they contribute to the arrangement of in-house department-wise seminars and workshops, they also participate in national and international conferences and present their research papers there. Many research papers of our faculty members have already been published in international journals.

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

Regular academic audit is done at departmental level and following steps are normally followed by a committee assigned the audit responsibilities:

- (i) At the beginning of each semester, performs audit of course files i.e verify the contents of the course file, lesson plan, CO-PO mapping, assignments, extra material lecture notes, etc and provide feedback to the faculty member to include the recommended material.
- (ii) Randomly observe the lectures/laboratory to check delivery of course material as per the lesson plan, teaching aids used, communication skill and classroom management etc. and provide feedback to HOD and
- (iii) Motivates the faculty and students towards attending or organizing workshops, developing projects, working models, paper publications and research.

The institute undertakes academic audit which is controlled by online student feedback and cross checked with the details provided in their Academic Performance Index self-appraisal questionnaire. The Institute is in the process of deploying IQAC to look after the Academic Audit in future.

6.5.5 How is the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/ regulatory authorities?

The institute uses the evaluation methods along the lines of the suggestions of the accrediting agencies. The internal quality mechanisms are fully aligned with the requirement of AICTE/ NBA/ NAAC. In future it is also planned to align mechanism and measure in alignment to the requirement of other regulatory agencies

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

The institute has an academic calendar that is strictly followed by the Institute. Additionally every teacher is advised to keep track of teaching-learning using an academic lesson plan at the beginning of the semester. This is cross checked with the details available in their Academic Performance Index self- appraisal questionnaire. All HODs of the concerned departments also review and monitor the lesson plans to ensure the smooth functioning of the teaching learning process.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

The institute publishes newsletter periodically that is circulated to the students, departments and industry. Also uploaded in MCKVIE website. This newsletter provides the latest updates on the activities and accomplishments of the institute. Moreover the happenings related to academic matters are placed in the institute's website

Any other relevant information regarding Governance Leadership and Management which the college would like to include.

The Institute has two insurance Policies in the name of the college which are worth mentioning here. One is Fire Insurance Policy from ICICI Lombard and another is PA Policy of Staff and Students of our college from New India Assurance.

CRITERION VII: INNOVATIONS AND BEST PRACTICES

7.1 Environment consciousness

7.1.1 Does the Institute conduct a Green Audit of its Campus and facilities?

The MCKV Institute of Engineering, since its inception, has given strong emphasis on Ecofriendly systems on the campus. Energy saving measures, Water saving resources and extensive Green plantation in the campus.

A green audit has been contemplated and a team has been constituted for this purpose.

Plans are afoot.

7.1.2 What are the initiatives taken by the College to make the Campus eco-friendly?

- **Energy Conservation:**

Strict Energy conservation and management procedures are adopted to save energy consumption thereby keeping the campus as far as carbon neutral.

Following measures are taken for energy conservation:

- ❖ All CFL and other lamps are being changed to LED in a phased manner. This is a plan to reduce consumption by at least 1/3 (one third).
- ❖ Indoor Air quality monitoring is being done to keep the environmental AQI (Air Quality Index) as low as possible.
- ❖ Minimum waste is allowed to be generated in the Campus.
- ❖ Solid waste management is done regularly.
- ❖ Regular switching on & off of lighting/air-conditioners are done keeping in tune with class schedule. Plans are afoot to use smart sensors.
- ❖ Strict energy use monitoring is done at ladies hostel.
- ❖ Computer screens have been updated with LCD monitors.
- ❖ The UPS batteries are regularly monitored and kept in good conditions.
- ❖ The large no. of electrical and electronic equipments are maintained properly to monitor usage of electricity.
- ❖ Use of Renewable Energy.

- **Use of Renewable energy:**

- ❖ DPR is being prepared for rooftop solar panels for off-grid and grid connected supply. PV modules will be used.

- **Check Dam Construction:**

Not Applicable

- **Efforts for Carbon Neutrality:**
 - ❖ Inside the Campus, lights are slowly being converted to LEDs to effect Carbon emission reduction.

- **Plantation:**
 - ❖ Extensive plantations are used in the campus.
 - ❖ Saplings are planted on every auspicious occasion.
 - ❖ The campus has a green look which helps carbon reduction.

- **Hazardous Waste Management:**
 - ❖ No hazardous wastes or chemicals are generated in the campus.

- **E-Waste Management:**
 - ❖ Extensive computers and electronic components are used in the campus. But when rejected, they are not allowed to accumulate in the Campus. Authentic scrap vendors are called and they are disposed regularly.

7.2 Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

The Institute practices various innovations in its functioning both in academic and administrative matters during the last few years to ensure improved academic ambience and work culture, accountability and punctuality among the staff members and students. Few innovative practices are as follows.

- Diagnostic Tests conducted for newly admitted students to identify the gap of knowledge.
- ICT enabled teaching learning methodologies.
- The institute has Innovation Cell which comprises of subject experts from various departments and students. Various departments/ faculty members of the Institute interact with the committee in undertaking inter-disciplinary research.
- MCKVIE is a partner academic institute of CII (ER) through which regular interaction with industry experts are taken place in the campus and in their factory premises to learn and acquaint with industry practices and technology of today and coming in future.
- Institute has signed a MOU with National Entrepreneurship Network (NEN) to motivate, educate and help students to convert their ideas into business through product development.
- System of taking online feedback from all stakeholders.

- Full time Psychological Counsellor, who interacts frequently with students and clears the doubts related to academic and personal matters of the students.
- ERP system, used for automation of all processes, aims at improving the efficiency and productivity of teaching as well as administrative staff.
- Vivekananda Centre for Positive Thinking to help students to develop morale values and positive attitude.
- Remedial classes are arranged for strengthening the knowledge and skill of weak students.
- Bio-metric attendance system for all the staff members.
- Introduction of CCTV surveillance.

7.3 Best Practices

7.3.1 Elaborate on any two best practices in the given format, which have contributed to the achievement of the Institutional Objectives and/ or contributed to the Quality improvement of the core activities of the college.

Best Practice I

1. Title of the Practice

ICT based Teaching Learning Process.

2. Goal

To widen up the learning horizons of the students.

3. The Context

In university affiliated Institute teaching learning is normally bounded by prescribed syllabus which quite often fails to satisfy job market demands. It is therefore essential to equip the students with recent development in science and technology by advanced learning from eminent speakers from world renowned Institutes or Universities.

4. The Practice

ICT based teaching learning process is being practiced mainly in the following different ways:

- a. At least 2 class rooms on every dept. have been set equipped with Internet connection and audio visual facility
- b. 16 Mbps. Wi-Fi connections are provided in every wherein the campus.
- c. QEEE programmes initiated by MHRD GOI, and conducted by IIT Madras being implemented since July 2014.
- d. MCKVIE is a partner Institute of NPTEL with IIT Kharagpur since July 2016 and conducted certificate courses during summer break

- e. Library is equipped with e-books and e-journals and make it available in institute portal to ensure 24 hours availability

5. Evidence of Success

- a. Almost all students of all Departments are enthusiastically taking advantage of this ICT based learning facilities.
- b. QEEE authority recognized our institute as one of top 20 institutes all over India during 2015-16 on the basis of students attendance and performance.
- c. 25 students successfully passed examinations conducted by NPTEL.

6. Problems Encountered and Resources Required

- a. Problem encountered in implementing full ICT based teaching learning is relating to mindset of both Faculty & students. Quite a large number of students still prefer printed books than e-books available in Institutes portal. Even Faculty members prefer Black Board teaching
- b. A sizeable member of student could just copy information of Internet specifically in project work, as a result they would not learn seriously.
- c. All faculty & staff need to be trained to use ICT which is a different problem.
- d. Moreover, introduction of ICT based Teaching learning is very expensive . As a result resource crunch is major constraint.

7. Notes (Optional)

Any other information that may be relevant and important to the reader for adopting/ implementing the Best Practice in their institution (about 150 words).

8. Contact Details

Name of the Principal: Dr. Asok Kumar

Name of the Institution: MCKV Institute of Engineering

City: Howrah

Pin Code: 711204

Accredited Status: Application for Cycle I

Work Phone: +91 33 26549315/17

Fax: +91 33 26549318

Website: www.mckvie.edu.in

E-mail: principal@mckvie.edu.in

Mobile: +91 9433307635

Best Practice II

1. Title of the Practice

One of the best practices followed by the institute is titled as Diagnostic Test of Students at the entry point.

2. Goal

This practice is devised to supplement the knowledge of the marks obtained by the students at the entry level to identify areas and topics in which a particular student is weak and what additional inputs he/she would require to cope with the engineering syllabus.

3. The Context

The institute always envisages ensuring that all students perform well academically and achieving their post college goals, securing good jobs or entering post-graduate courses according to their choices. But in actuality it was found that a sizeable number of students had a 3rd class, had failed in a number of subjects and/ or lost a year. These students generally did not attend classes regularly or some had entered with low marks. The most important factors appeared to be lack of confidence in medium of instruction and/ or failure to comprehend what is being taught in the class due to lack of basic knowledge of the subjects.

In this backdrop it is envisaged to identify the particular areas or subjects in which a student is weak and requires additional coaching or remedial measures to equip him to cope with what is being taught.

4. The Practice

The Diagnostic Test is generally conducted within first month of semester start schedule of which is notified to the student at the time of admission.

The Test is conducted in Mathematics, Physics, Mechanics, English on the basis of class XII syllabus both in written and verbal communication. Those who score below 60% in a particular subject or in overall result are identified as Weak students.

To address the identified weaknesses arrangements are made for Remedial classes on relevant subjects regularly. Arrangement of special caring classes on specific subjects (both domain knowledge & soft skill) to clear doubt is also being arranged. Tests are conducted to monitor the results of remedial classes.

5. Evidence of Success

As a result of the Diagnostic Tests teachers are became aware from the beginning which are the weak areas in those students and accordingly formulate their class room teaching as well as areas to be emphasized in Remedial / and doubt clearing classes. The tendency to avoid classes is minimized. Student results have also improved.

6. Problems Encountered and Resources Required

University syllabus is already heavy and consumes the regular teaching time of the faculty members. To shoulder the additional responsibility of organizing separate Remedial Classes etc. by them after the normal working hours and / or during summer and winter recess is obviously not welcoming. Additional remuneration for such additional activities would have been encouraging. But this require mobilization of additional resources which is difficult isn the given condition.

7. Notes (Optional)

Any other information that may be relevant and important to the reader for adopting/ implementing the Best Practice in their institution (about 150 words).

8. Contact Details

Name of the Principal: Dr. Asok Kumar

Name of the Institution: MCKV Institute of Engineering

City: Howrah

Pin Code: 711204

Accredited Status: Application for Cycle I

Work Phone: +91 33 26549315/17

Fax: +91 33 26549318

Website: www.mckvie.edu.in

E-mail: principal@mckvie.edu.in

Mobile: +91 9433307635

F. EVALUATIVE REPORT OF THE DEPARTMENTS

Automobile Engineering Department

1. **Name of the department:** Automobile Engineering
2. **Year of establishment:** 2003
3. **Name of the programmes/ courses offered (UG, PG, M.Phil, PhD, Integrated Masters, Integrated PhD, etc.):**
 - a) B. Tech in Automobile Engineering
 - b) M. Tech in Automotive Technology
4. **Names of the interdisciplinary courses and the departments/ units involved:**

Sl No	Name of Courses	Departments involved
1	Values & Ethics in Profession (HU 301)	Basic Science, Humanities and Social Sciences Department (BSSHSS)
2	Physics-2 (PH 301)	BSSHSS
3	Basic Environmental Engineering & Elementary Biology (CH 301)	BSSHSS
4	Technical Report Writing & Language Lab Practice (HU 381)	BSSHSS
5	Physics Lab-2 (PH 391)	BSSHSS
6	Numerical Methods (M(CS)401)	BSSHSS
7	Mathematics-3 (M-402)	BSSHSS
8	Numerical Methods Lab (M(CS)491)	BSSHSS
9	Metrology & Measurement (AUE603)	Electronics & Communication Engineering Department
10	Production Management & Operation Research (AUE 606(HU))	Mechanical Engineering Department
11	Metrology & Measurement Lab (AUE 691)	Electronics & Communication Engineering Department
12	Automotive Electrical & Electronics System (AUE702)	Electrical Engineering Department and Electronics & Communication Engineering Department
13	Group Discussion (AUE783)	BSSHSS
14	Engineering Economy & Financial Management	BSSHSS

Sl No	Name of Courses	Departments involved
	(AUE801(HU))	
15	Automotive Elect. & Electronics Lab (AUE 891)	Electrical Engineering Department and Electronics & Communication Engineering Department
16	Advanced Engg. Maths (MAE 101)	BSSHSS
17	Advanced Automotive Electronics (MAE104)	Electronics & Communication Engineering Department
18	Auto Electronics (MAE191)	Electronics & Communication Engineering Department
19	Production Planning & Control (MAE301)	Mechanical Engineering Department

5. Annual/ semester/ choice based credit system (Program wise):

Sl. No	Name of the program	Credit system
1	B. Tech in Automobile Engineering	Semester based credit system
2	M. Tech in Automotive Technology	Semester based credit system

6. Participation of the department in the courses offered by other departments:

Sl No	Name of Courses	Departments served
1	Engg. Mechanics (ME101)	BSSHSS
2	Engineering Thermodynamics & Fluid Mechanics (ME201)	BSSHSS
3	Engg Drawing & Computer Graphics (ME191/292)	BSSHSS
4	Workshop Practice (ME192/291)	BSSHSS
5	Automobile Engineering (ME803D)	Mechanical Engineering Department
6	Thermal Power Engineering (ME(EE)411)	Electrical Engineering Department
7	Thermal power Engineering Lab (ME(EE)481)	Electrical Engineering Department

7. Courses in collaboration with other universities, industries, foreign institutions etc.:

Sl. No.	Name of the program	Courses offered	Year	Collaborating Institute
1	Quality Enhancement in Engineering Education	Basics of Design of Machine Elements	2015	IIT Madras

Sl. No.	Name of the program	Courses offered	Year	Collaborating Institute
2	Quality Enhancement in Engineering Education	Braking Systems- Automobile Engineering	2016	IIT Madras
3	Quality Enhancement in Engineering Education	Fundamental Concepts in Fluid Mechanics	2016	IIT Madras
4	Quality Enhancement in Engineering Education	Shear Force and Bending Moment Diagrams- Strength of Materials	2016	IIT Madras
5	Quality Enhancement in Engineering Education	Applications and Concepts of Thermodynamics	2016	IIT Madras
6	NPTEL	Fluid Machines	2016	IIT Bombay

8. Details of courses/ programmes discontinued(if any) with reasons:

NIL

9. Number of teaching posts:

Cadre Name	Sanctioned	Filled
Professors	2	0+1
Associate Professors	4	2
Assistant Professors	12	9

10. Faculty profile with name, designation, specialization, (D.Sc./ D. Litt./ Ph.D./ M.Phil. etc.):

Name of the Faculty	Qualification	Designation	Specialization	No of years of Experience		No of Ph. D students guided for last 4 years
				Teaching (Yrs)	Industry (Yrs)	
Dr. Sudipto Chaki	Ph. D.	Associate Professor & Head	Manufacturing Technology	13	0	0
Dr. Manik Chandra Das	Ph. D.	Associate Professor	Manufacturing Technology	13	3	0
Mr. Kajal Kumar Ghosh	M.E.	Assistant Professor	Material Engineering	11	1	0
Mr. Animesh Talapatra	M. Tech.	Assistant Professor	Materials Engineering	9.5	1	0

Name of the Faculty	Qualification	Designation	Specialization	No of years of Experience		No of Ph. D students guided for last 4 years
				Teaching (Yrs)	Industry (Yrs)	
Mr. Tapas Kumar Biswas	M. Tech.	Assistant Professor	Manufacturing Technology	6	1	0
Mr. Swarup Chandra Giri	M.E.	Assistant Professor	Automobile Engineering	6.5	0	0
Mr. Swagata Shannigrahi	M.E.	Assistant Professor	Automobile Engineering	5.5	0	0
Mr. Sougata Bera	M.E.	Assistant Professor	Machine Design	5	0	0
Mr. Samiran Samanta	M.E.	Assistant Professor	Heat Power	5	0	0
Mr. Subhadeep Dey	M.E.	Assistant Professor	Machine Design	4.5	0	0
Mr. Sankar Chakraborty	B.E.	Assistant Professor	Metallurgy	38	0	0

11. List of the senior visiting faculty:

Name of the Faculty	Qualification and year of graduation	Date of Joining the Institution	Previous designation
Prof. Amitosh De	Ph.D. 1966	01/07/2004	Professor, Department of Engineering & Mining Machinery and Mechanical Engineering, Indian School of Mines, Dhandbad. Retired on 2003

12. Percentage of lectures delivered and practical classes handled (program wise) by temporary faculty:

Name of Faculty	B.Tech.		M.Tech.	
	% of Lecture classes taken	% of Practical classes taken	% of Lecture classes taken	% of Practical classes taken
Prof. Amitosh De	5.6%	12.16%	4.2%	31%

13. Student- teacher ratio (programme wise):

Sl. No.	Name of the program	Sanctioned intake	Actual number of faculty members	Student-Teacher ratio
1	B. Tech in Automobile Engineering	216	9	21.6:1
2	M. Tech in Automotive Technology	36	2	18:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Sl. No.	Designation	Sanctioned	Filled
1	Support Staff	8	8
2	Workshop Assistant	6	6

15. Qualification of teaching faculty with D.Sc./ D. Litt/ Ph.D./ M.Phil./ PG.:

Sl. No.	Qualification of teaching faculty	Number of faculty
1	D.Sc.	0
2	D. Litt.	0
3	Ph.D.	2+1
4	M.Phil.	0
5	PG	8
6	UG	1

16. Number of faculty with ongoing projects from a) national b) International funding agencies and grants received:

NIL

17. Departmental projects funded by DST-FIST, UGC, DBT, ICSSR etc and total grants received:

NIL

18. Research center/ Facility recognized by university:

Not Applicable

19. Publications:

- a) Publication per faculty
- b) Number of papers published in peer reviewed journals (national/international) by faculty and students
- c) Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database-International Social Sciences Directory, EBSCO host, etc.)
- d) Monographs
- e) Chapter in Books
- f) Books Edited
- g) Books with ISBN/ISSN numbers with details of publishers
- h) Citation Index
- i) SNIP
- j) SJR
- k) Impact factor
- l) h-index

Following table shows the publication details of faculty members of the department.

Sl. No.	Name of Faculty	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k) (Highest)	(l)
1	Dr Manik Chandra Das	18	09	06	0	0	0	0	94	1.721	1.513	0.796	5
2	Dr. Sudipto Chaki	25	12	09	0	0	0	0	65	2.143	1.763	2.857	4
3	Mr. Samiran Samanta	15	06	06	0	0	0	0	4	1.447	1.6	4.064	2
4	Mr. Animesh Talapatra	21	12	03	0	0	0	0	4	0.578	0.19	0.479	1
5	Mr. Swarup Giri	02	-	-	-	-	-	-	-	-	-	-	-
6	Mr. Subhadeep Dey	01	-	-	-	-	-	-	-	-	-	-	-
7	Mr. Swagata Shannigrahi	02	-	-	-	-	-	-	-	-	-	-	-

20. Areas of consultancy and income generated:

NIL

21. Faculty as members in a) National committee b) International Committee c) editorial board etc.:

Sl. No.	Name of Faculty	Editorial Board	National Committee	International Committee
1	Dr. Sudipto Chaki	5	2	1
2	Dr. Manik Chandra Das	1	3+2 (member of selection committee)	1
3	Mr. Animesh Talapatra	2	2	4
4	Mr. Kajal Kumar Ghosh	0	2	0
5	Mr. Tapas Kumar Biswas	0	2	0
6	Mr. Swarup Chandra Giri	0	2	0
7	Mr. Swagata Shannigrahi	0	2	0
8	Mr. Sougata Bera	0	2	0
9	Mr. Samiran Samanta	0	2	1
10	Mr. Subhadeep Dey	0	2	0

22. Students projects:

Sl. No.	Year of Passing	Percentage of students who have done projects inside the institute including interdepartmental projects	Percentage of students placed for the project outside the institute i.e. research lab/industry/other agencies
UG			
1	2016	100%	0%
2	2015	100%	0%
3	2014	100%	0%
4	2013	100%	0%
5	2012	100%	0%
PG			
1	2016	100%	0%
2	2015	100%	0%
3	2014	100%	0%
4	2013	100%	0%
5	2012	100%	0%

23. Awards/ Recognitions received by faculty and students:

Awards/Recognitions received by faculty members

Sl. No.	Name of faculty	Details
1	Mr. Animesh Talapatra	Received 1 st prize for research paper presentation in Research Scholar Colloquium (RSC-2016) during August 23-24, 2016 at IEST, Shibpur, Howrah, India.
2	Dr. Manik Chandra Das	received "The 2014 Best Reviewer Award" for International Journal of Management Science and Engineering Management published by Taylor & Francis Group.
3	Mr. Animesh Talapatra	Chaired a session "COMPOSITE" at the First World Conference on "FRACTURE-2014" HELD at Mahatma Gandhi University, Kottayam, Kerala, India during August, 9-11, 2014.
4		Received 3 rd Prize in poster presentation at the First World Conference on Fracture and Damage mechanics (FRACTURE-2014) held at Mahatma Gandhi University, Kottayam, Kerala, 9-11 August, 2014
5	Mr Swagata Shannigrahi	Received best paper award for the category of best presentation/ best content at the IRF international conference held in Bengaluru, India, 22 nd June 2014.

Awards/Recognitions received by students

Sl. No.	Event Title	Held on	Organized by	Award	Number of students enrolled
1	Supra SAE India	4 th – 9 th July, 2016	SAE India	ranked 28 th out of 180	30
2	5 Km Marathon race	8 th February, 2015	TCS	3rd	Alok Kumar Gupta
3	Technical Quotient of Mahindra Igniters	17 th April, 2014	Mahindra and Mahindra	Winner	Archiman Dhar
4	TECH-BIZ Quiz of Dakshh 2014	2 nd -4 th April, 2014	Heritage Institute of Technology	1 st Prize	Kapish Malhotra
5	Present around the	5 th April 2014	Young	Participati	Rahul Saraf

Sl. No.	Event Title	Held on	Organized by	Award	Number of students enrolled
	world competition 2014		Professional section, IET(UK) Kolkata Local Network	on Certificate	
6	UDBHABANI 2014- A National Level Civil Technical Fest	30 th March 2014	Dept of Civil Engineering IEST, Shibpur	3 rd	Kapish Malhotra
7	EDGE 2014- The annual Techno Management Fest	March 2014	Techno India, Saltlake	3 rd	Kapish Malhotra
8	Participated in 3 days program on “Entrepreneurship Awareness Camp”	February 6-8, 2014	MCKVIE	Participation Certificate	Bhaskar Jain
9	“Almost there” event of innovation 2014, Annual Technical & Robotics Exhibition Program	17-18 January, 2014	Institute of Engineering and Management (IEM-Kolkata) and University of Engineering and Management (UEM-Jaipur)	1st	Kapish Malhotra
10	ISNEE National GO CART Championship	17 th -19 th October, 2013	Mohite’s Racing Academy, Kolhapur	8 th rank out of 89 participating teams in national level	20

Sl. No.	Event Title	Held on	Organized by	Award	Number of students enrolled
11	Quiz completion at PARIDHI 2013 (ANNUAL Tech Fest)	17 th -18 th March, 2013	Meghnad Saha Institute of Technology	1 st	Kapish Malhotra
12	Participate in 3 rd Bharatiya Chhatra Sansad	10 th – 12 th January, 2013	MAEER's MIT School of Government, Pune and Bharatiya Chhatra Sansad Foundation	Participation Certificate	Tarun Ranjan
13	BAJA SAE INDIA 2013	14 th -19 th February 2013	SAE INDIA Pithampur	Participation Certificate	Md. Saddam
14	Technotica 2013-13	5 th January 2013	MCKVIE and IET, Kolkata Local Network	2 nd	Babai Nandan
15	Present around the world competition 2013	2 nd April 2013	IET(UK) Kolkata Local Network	2 nd	Md. Saddam
14	ANVESHAN, Student Research Convention, 2012-13	28 th -30 th January, 2013	WBUT	Participation Certificate	Md. Saddam
15	Science and Engineering Fair 2013	8 th -12 th January, 2013	BITM	Special Prize	Md. Saddam
16	Science and Engineering Fair 2013	8 th -12 th January, 2013	BITM	Participation Certificate	Babai Nandan

Sl. No.	Event Title	Held on	Organized by	Award	Number of students enrolled
17	Present around the world competition 2012	2 nd August, 2012	IET at Dayananda Sagar College of Engineering, Bangalore	Participation Certificate	Md. Saddam
18	Science and Engineering Fair 2012	17 th -21 st January, 2012	Birla Industrial and Technological Museum	Ist prize	Md. Jahangeer
19	Present around the world competition 2012	27 th March, 2012	IET at BP Poddar Institute of Management and Technology	Ist prize	Md. Saddam
20	Rescue event of annual National level Techno-Management Fest, Aarohan, 2012	9 th -12 th February, 2012	NIT Durgapur	3 rd Prize	Babai Nandan samrat Shubhanjit Das Shubham Prakash
21	Lord of Rings event of Annual National Level Techno-Management Fest, Aarohan 2012		NIT Durgapur	First	Mainak Roy Choudhury Debarun Chatterjee Saurabh kumar
22	All India Interschool & senior Karate –Do Championship Federation Cup	18 th -20 th August, 2012	All India Karate – Do Federation and Karate	Gold Medal in above 50 kg KUMITE	Sidhartha Bera

Sl. No.	Event Title	Held on	Organized by	Award	Number of students enrolled
			-Do Association of Bengal	Category and Silver Medal in above 18 years KATA Category	
23	Howrah district Karate Do Championship, 2012	5 th February, 2012		Silver Medal	Sidhartha Bera
24	Supra SAE India	2012	SAE India	1. Design-5 th position 2. Best Looking car- 2 nd position 3. Cost-6 th position out of 120 participants	25 Students

24. List of eminent academicians and scientists/ visitors to the department:

Sl. No.	Name of Eminent Academician, Scientist Resource Person Visited	Designation	Event	Dates of Event
1	Mr. Sarit Bhattacharya	Director , En Com Consultancy	Guest Lecture Latest trends in Engine and Transmission technology	15/09/2016
2	Prof . Swarnendu Sen	Professor ME Dept , JU	Guest Lecture on Heat Transfer	01/09/2016

Sl. No.	Name of Eminent Academician, Scientist Resource Person Visited	Designation	Event	Dates of Event
3	Dr. Debasish Dutta	Professor ME Dept, IEST , Shibpur	Guest Lecture on Design of machine elements	19/08/2016
4	Dr. K. C. Vora	Dy Director -ARAI, Pune	Frontier Technologies in Power train & Emission	29/07/2016
5	Dr. P. P. Chattaraj	Addl. Director, NATRAX (Under NATRIP)	Hybrid vehicle	29/07/2016
6	Prof. Goutam Pohit	Professor, Mechanical Engineering Department, JU	Design of Vehicle Suspension Systems	29/07/2016
7	Prof. P. S. Mehta	Professor, IIT Madras	Latest developments in IC engines	30/07/2016
8	Mr. Gajanan Kale	DGM-R&D (Mechanical & Vehicle Integration), Mahindra Reva Electric Vehicles Limited	Lecture on Electric vehicle	30/07/2016
9	Dr. Shantanu Chakrabarti	Former Head-Research Applications, R&D Dept, Tata Steel	Lecture on Advanced Automotive Materials	30/07/2016
10	Prof. Debasis Datta	Professor, IEST , Shibpur	Conducting & Evaluating Practical /Project Classes	28/04/2015
11	Prof. Tapan Kumar Ghoshal-	Emeritus Professor (Honorary), Jadavpur University	Pedagogy & Knowledge Management	29/04/2015
12	Prof. Tapan Kumar Ghoshal-	Emeritus Professor (Honorary), Jadavpur University	Curriculum Design	29/04/2015
13	Dr. Habiba Hussain	Professor NITTTR, Kolkata	Effective Lesson Planning	30/4/2015
14	Dr. Habiba Hussain	Professor NITTTR, Kolkata	Class room Management	30/04/2015
15	Prof. Anupam Basu-	Professor IIT, Kharagpur	Role of ICT in Pedagogy	02/05/2015

Sl. No.	Name of Eminent Academician, Scientist Resource Person Visited	Designation	Event	Dates of Event
16	Dr. Parijat De	DTE & T, WB Govt	Making an impression and electrifying a classroom scenario	02/05/2015
17	Prof. Suman Chakraborty	Professor, Mechanical Engineering Department IIT Kharagpur	Expert lecture session on Introduction to Convection: Forced & Free and Flow through Microchannels.	03/09/2015
18	Prof. Asok Kumar Mallik	Honorary Distinguished Professor (Ex-Professor, IIT Kanpur) IEST, Shibpur, Howrah	Expert lecture session on Design of Planar Linkages- from Theory to Practice	17/03/2015
19	Mr. Afroz Alam	Regional Training Head, Technical Training (East) VE commercial Vehicle.	Expert lecture session on Presentation Skill	07/03/2015, 16/03/2015
20	Mr. Afroz Alam	Regional Training Head, Technical Training (East) VE commercial Vehicle.	An expert lecture session on Employability Enhancement	11/02/2016
21	Mr. Jyotirmoy Barman	VE Commercial Vehicle, Pithampore	Expert lecture session on Current & Future Emission Technology-Trends in Diesel Engine, Diesel Engine Development Process and OBD II Regulations	29/01/2015
22	Mr. Bhaskar Halder	Lead, Design & Development, Birla Tyre	Expert lecture session on Product Development Process Design & Simulation	12/09/2014
23	Prof souvik Bhattacharyya	Deputy Director and prof Mechanical Engg, IIT, KGP	Future paradigms in Engineering : Road maps for manufacturing and design, engine Thermo fluids and service sectors	19/07/2014

Sl. No.	Name of Eminent Academician, Scientist Resource Person Visited	Designation	Event	Dates of Event
24	Prof Subir Saha	Naren Gupta Chair professor , ME Dept , IIT , Delhi	Educational Robotics	19/07/2014
25	Prof Sarit Kr Das	Dean , IIT Madras	Use of Gold nano partical Targeted thermal ablation of tumor and drug delivery	19/07/2014
26	Prof Gautam Biswas	Director , IIT Guwahati	Future Trends in Fluid machines and machinery	19/07/2014
27	Sree Prateek Dutta Roy	Chief Engg Manager , Tarsen and Toubro	AC system Design strategies for enhancing energy performance	20/07/2014
28	Mr . Partha Chatterjee	Managing Director and CEO,Praxis Softek Solution PVT Ltd	Software Engg ; Looking Ahead	20/07/2014
29	Mr. Debapriya Dasgupta	Cognizant Technology Solution	Role of IT	20/07/2014
30	Prof Shyamal chatterjee	Prof ME Dept IEST , Shibpur	Dynamics of control of mechanical system : Past , present and Future	20/07/2014
31	Prof Siddhartha Ray	Professor and Head Mechanical Engg Dept, Heritage Inst of Tech	Expert lecture session on Inventory Management	05/03/2014
32	Prof Santanu Das	Professor and Head Mechanical Engg Dept., Kalyani Govt Engg College	Expert lecture session on Welding and other Metal Joining Process	28/02/2014
33	Dr. P. Abdul Salam	Professor, School of environment and Resource and Development, Asian Institute of Technology, Thailand	Low Carbon Development: Carbon Capture and Carbon Sequestration	12/02/2014
34	Dr. Sudip Ghosh	Associate Professor, Dept. of Mechanical Engg, BESU , Shibpur	Low Carbon Development: Carbon Capture and Carbon Sequestration	12/02/2014

Sl. No.	Name of Eminent Academician, Scientist Resource Person Visited	Designation	Event	Dates of Event
35	Prof. Amitava Dutta,	Professor, Dept of Power Engineering, Jadavpur University, Kolkata	Low Carbon Development: Carbon Capture and Carbon Sequestration	13/02/2014
36	Prof. Santanu Das	Prof & Former Head Mechanical Engineering Department, Kalyani Govt Engg College	Guest lecture on Manufacturing Methods	21/09/2013
37	Prof. Suman Chakraborty	Professor Mechanical Engineering Department, IIT Kgp.	Guest lecture on Fundamentals of Fluid Mechanics	19/09/2013
38	Prof. Debasish Datta	Professor and former Head, Mechanical Engineering Department, Bengal Engg and Science University, Shibpur	Guest lecture on Fundamentals of Machine Design	18/09/2013
39	Prof. A.B. Chattopadhyay	Former Prof. IIT Kgp. (Currently associated with Academy of Technology, Adisaptagram)	Guest lecture on fundamentals of metal cutting	12/09/2013
40	Dr. Jayanta Kr. Saha	Dy. General Manager (Tech) Institute for Steel Development and Growth, Kolkata	Guest lecture on application and characterization of steel	10/09/2013
41	Prof (Dr) Bijan Kumar Mandal	Professor, Mechanical Engineering Department, Bengal Engg and Science University, Shibpur	Guest lecture on Biodiesel as an alternate fuel	17/04/2013
42	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	A training program on Familiarization with Eicher Technology (2 nd Phase)	12/03/2013-14/03/2013

Sl. No.	Name of Eminent Academician, Scientist Resource Person Visited	Designation	Event	Dates of Event
43	Mr Srijib Bera	Sr. Executive Robert Bosch India Ltd.	guest lecture on Latest Engine Management Technology	19/02/2013
44	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	A training program on Familiarization with Eicher Technology (1 st Phase)	05/02/2013-09/02/2013
45	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	Workshop on Presentation Skill	21/11/2012
46	Mr. S. Santhanan	Zonal head, Customer care Mahindra & Mahindra Ltd	Recent market trend and Industry Expectations	31/10/2012
47	Mr. Ravi Gupta, Mr. Arnab Dey, Mr. Siddhartha Sarathi Pal	Honda Motor Cycles and Scooter India Pvt. Ltd.	Safety methods and Practical riding session.	25/09/2012
48	Mr. Krishanu Mallick	General Manager, Service, Hindustan Motors Ltd.	Automotive Service Department- practice and requirement	23/09/2012
49	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	Eicher Industry-Institution tie-up. (2 nd session)	28/08/2012
50	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	Eicher Industry-Institution tie-up. (2 nd session)	01/08/2012
51	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	VECV facility training for AUE and ME staffs	10/07/2012-18/07/2012
52	Dr. Jutu Simhachalam	Sr. Manager, Engine Div., M&M Ltd.	Advanced Engine Technology Concept to Reduce Engine out Emissions and CO2	27/03/2012

25. Seminars/ conferences/ workshops organized & source of funding:

Sl No.	Seminar/ Conference/ workshop	Source of funding	Duration	Resource Persons	Target Audience
1	International Workshop on “Low Carbon Development: Carbon Capture and Carbon Sequestration Technology Route”	TEQIP II	12-13 Feb, 2014	1) Dr. P. Abdul Salam, Professor, School of environment and Resource and Development, Asian Institute of Technology, Thailand 2) Dr. Sudip Ghosh, Associate Professor, Dept. of Mechanical Engg, BESU , Shibpur 3) Prof. Amitava Dutta, Professor, Dept of Power Engineering, Jadavpur University, Kolkata	
2	National Workshop on “Future Paradigms in Engineering: Road Maps for Manufacturing & Design, Engines, Thermo-Fluids and Service Sectors”	TEQIP II	19-20 July, 2014	1) Prof Souvik Bhattacharyya, Deputy Director and Prof Mechanical Engg, IIT, KGP 2) Prof Subir Saha, Naren Gupta Chair professor , ME Dept , IIT , Delhi 3) Prof Sarit Kr Das, Dean , IIT Madras 4) Prof Gautam Biswas, Director , IIT Guwahati 5) Mr. Prateek Dutta Roy, Chief Engg Manager , Tarsen and Toubro 6) Mr . Partha Chatterjee, Managing Director and CEO, Praxis Softek Solution PVT Ltd 7) Mr. Debapriya Dasgupta, Cognizant Technology	Faculty members and students of Engineering colleges across India

Sl No.	Seminar/ Conference/ workshop	Source of funding	Duration	Resource Persons	Target Audience
				Solution 8) Mr. Sital Kr Choudhury, Vice president , Maruti Suzuki India Ltd 9) Prof Shyamal Chatterjee, Prof, ME Dept , IEST , Shibpur	
3	One week Faculty Development Programme on “Basic Pedagogy”	TEQIP II	27 th April – 2 nd May, 2015	1) Dr. Parijat De- DTE & T, WB Govt. 2) Prof. Samir Kumar Saha- MCKVIE 3) Dr. Habiba Hussain- NITTTR, Kolkata 4) Mr. Animesh Talapatra- MCKVIE 5) Prof. Debasis Datta – IEST, Shibpur 6) Prof. Tapan Kumar Ghoshal- Emeritus Professor (Honorary), Jadavpur University 7) Prof. Anupam Basu- IIT, Kharagpur 8) Dr. Manik Chandra Das- MCKVIE	Teachers of different polytechnic colleges of West Bengal
4	National Workshop on “Frontier Technologies in Mobility”	TEQIP II	29-30 July, 2016	1) Dr. Kalyan Rudra, Chairman-West Bengal Pollution Control Board 2) Dr. K. C. Vora, Dy Director -ARAI, Pune 3) Dr. P. P. Chattaraj, Addl. Director, NATRAX (Under NATRIP) 4) Prof. Goutam Pohit, Professor, Mech. Engg. Dept, JU 5) Prof. P. S. Mehta, Professor, IIT Madras	Faculty members and students of Engineering colleges across India

Sl No.	Seminar/ Conference/ workshop	Source of funding	Duration	Resource Persons	Target Audience
				6) Gajanan Kale, DGM-R&D (Mechanical & Vehicle Integration), Mahindra Reva Electric Vehicles Limited 7) Dr. Shantanu Chakrabarti, Former Head-Research Applications, R&D Dept, Tata Steel	

26. Student profile programme/ course wise:

Not Applicable as students are admitted through JEE MAIN (AIEEE), WBJEE, JELET, PGET, GATE

Name of the course/ programme (refer to question no. 4)	Application received	Selected	Enrolled		Pass percentage
			*M	*F	

*M = Male *F = Female

27. Diversity of students :

Name of the course	Academic year	% of students from the same state	% of students from the other state	% of students from the abroad
B-Tech. in Automobile Engg.	2016-17	95.6%	4.4%	0
	2015-16	88.4%	11.6%	0
	2014-15	92.4%	7.6%	0
	2013-14	85.9%	14.1%	0
	2012-13	88.4%	11.6%	0
	2011-12	91%	9%	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, defense services etc.:

Year of passing	Name of competitive examinations		
	GATE	CAT	GRE
2016	1	0	0
2015	0	1	1
2014	2	0	1
2013	0	0	0
2012	0	0	0

29. Students progression:

Student progression	Against % enrolled				
	2016	2015	2014	2013	2012
UG to PG	1.38	4.35	4.10	0	0
PG to M.Phil.	0	0	0	0	0
PG to Ph.D.	0	0	0	0	0
Ph.D. to Post Doc.	0	0	0	0	0
Employed					
Campus Selection	29.17	19.45	34.73	29.17	50.00
Other than Campus recruitment	0	22.23	9.73	9.73	7.20
Entrepreneurship	1.38	0	4.17	1.38	0

30. Details of infrastructural facilities

a) Library:

No. of books in departmental Library	108 nos.
No. of journals in departmental library	0
No. of books in central library related to the department	UG- 5882 nos. PG- 365 nos.
No. of journals in central library related to the department	12 nos.
e-journal facility	Springer link- Mechanical Engineering

b) Internet facilities for staff and students:

The departmental floors are WIFI activated therefore all students and faculty members can access internet as well as online courses.

c) Class rooms with ICT facility:

Room no. B307, B 308, B317 are also connected with the ICT facilities of the institute through which, a group of students can access online courses like NPTEL etc.

d) Laboratories:

Sl. No.	Name of Laboratory
1	Work shop practice I
2	Engineering Graphics
3	Work shop practice II
4	Manufacturing Technology Lab
5	Fluid mechanics and hydraulics lab
6	Applied mechanics laboratory
7	Material Testing Laboratory
8	Engine Component Laboratory
9	Chassis Component Laboratory
10	Vehicle Maintenance Laboratory
11	Metrology and Measurement Lab
12	Applied Thermodynamics and Heat Transfer Laboratory
13	CAD & Catia Laboratory
14	Design Practice Lab
15	Engine Testing & Pollution Measurement Laboratory
16	Auto Scanning Laboratory

31. Number of students receiving financial assistance from college, university, government or other agencies:

Name of program	Academic Year	Type of financial assistance	Number of students
B-Tech in Automobile Engg.	2015-16	Tuition Fee Waiver Scheme	02
		Half/Full free ship Scheme	20/06
	2014-15	Tuition Fee Waiver Scheme	03
		Half/Full free ship scheme	22/08
	2013-14	Tuition Fee Waiver Scheme	03
		Half/Full free ship scheme	22/11
	2012-13	Tuition Fee Waiver Scheme	03
		Half/Full free ship scheme	18/17
	2011-12	Tuition Fee Waiver Scheme	03
		Half/Full free ship scheme	16/21

Name of program	Academic Year	Type of financial assistance	Number of students
M.Tech. in Automotive Technology	2015-16	Teaching Assistantship	03
	2014-15		02
	2013-14		02
	2012-13		02

32. Details on student enrichment programmes (special lectures/workshops/seminar) with external experts

Sl.No.	Name of External Experts	Designation	Event	Dates of Event	Source of Funding
1	Prof. Narasimhan Swaminathan	Assistant Professor, Mechanical Engg Dept, IIT Madras	QEEE program on “Basics of Design of Machine Elements”	05/08/15-19/08/15	QEEE
2	Prof. C.S. Shankar Ram	Associate professor, Department of Engineering Design, IIT Madras	QEEE program on “Braking Systems-Automobile Engineering”	14/03/16-28/03/16	QEEE
3	Prof. Suman Chakraborty	Professor, Mechanical Engg Dept, IIT Kgp	QEEE program on “Fundamental Concepts in Fluid Mechanics”	16/02/16-18/02/16	QEEE
4	Prof. Niraj Dhang	Professor, Civil Engg Dept, IIT Kgp	QEEE program on “Shear Force and Bending Moment Diagrams- Strength of Materials”	09/08/16-12/08/16	QEEE
5	Prof. S.R. Kale	Professor, Mechanical Engg Dept, IIT Delhi	QEEE program on “Applications and Concepts of Thermodynamics”	10/08/16-12/08/16	QEEE
6	Prof S.K.Som	Professor, Mechanical Engg Dept, IIT Kgp	Fluid Machines	July-Sep 2016	NPTEL
7	Mr. Sarit Bhattacharya	Director , En Com Consultancy	Guest Lecture Latest trends in Engine and Transmission technology	15/9/2016	TEQIP II

Sl.No.	Name of External Experts	Designation	Event	Dates of Event	Source of Fundin g
8	Prof . Swarnendu Sen	Professor ME Dept , JU	Guest Lecture on Heat Transfer	1/9/2016	TEQIP II
9	Dr. Debasish Dutta	Professor ME Dept, IEST , Shibpur	Guest Lecture on Design of machine elements	19/8/2016	TEQIP II
10	Dr. K. C. Vora	Dy Director -ARAI, Pune	Frontier Technologies in Powertrain & Emission	29/7/2016	TEQIP II
11	Dr. P. P. Chattaraj	Addl. Director, NATRAX (Under NATRIP)	Hybrid vehicle	29/7/2016	TEQIP II
12	Prof. Goutam Pohit	Professor, Mechanical Engineering Department, JU	Design of Vehicle Suspension Systems	29/7/2016	TEQIP II
13	Prof. P. S. Mehta	Professor, IIT Madras	Latest developments in IC engines	30/7/2016	TEQIP II
14	Mr. Gajanan Kale	DGM-R&D (Mechanical & Vehicle Integration), Mahindra Reva Electric Vehicles Limited	Lecture on Electric vehicle	30/7/2016	TEQIP II
15	Dr. Shantanu Chakrabarti	Former Head-Research Applications, R&D Dept, Tata Steel	Lecture on Advanced Automotive Materials	30/7/2016	TEQIP II
16	Prof. Debasis Datta	Professor, IEST , Shibpur	Conducting & Evaluating Practical /Project Classes	28/4/2015	TEQIP II
17	Prof. Tapan Kumar Ghoshal-	Emeritus Professor (Honorary), Jadavpur University	Pedagogy & Knowledge Management	29/4/2015	TEQIP II
18	Prof. Tapan Kumar Ghoshal-	Emeritus Professor (Honorary), Jadavpur University	Curriculum Design	29/4/2015	TEQIP II

Sl.No.	Name of External Experts	Designation	Event	Dates of Event	Source of Fundin g
19	Dr. Habiba Hussain	Professor NITTTR, Kolkata	Effective Lesson Planning	30/4/2015	TEQIP II
20	Dr. Habiba Hussain	Professor NITTTR, Kolkata	Class room Management	30/4/2015	TEQIP II
21	Prof. Anupam Basu-	Professor IIT, Kharagpur	Role of ICT in Pedagogy	2/5/2015	TEQIP II
22	Dr. Parijat De	DTE & T, WB Govt	Making an impression and electrifying a classroom scenario	2/5/2015	TEQIP II
23	Prof. Suman Chakraborty	Professor, Mechanical Engineering Department IIT Kharagpur	Expert lecture session on Introduction to Convection: Forced & Free and Flow through Microchannels.	3/09/2015	TEQIP II
24	Prof. Asok Kumar Mallik	Honorary Distinguished Professor (Ex-Professor, IIT Kanpur) IEST, Shibpur, Howrah	Expert lecture session on Design of Planar Linkages- from Theory to Practice	17/03/2015	TEQIP II
25	Mr. Afroz Alam	Regional Training Head, Technical Training (East) VE commercial Vehicle.	Expert lecture session on Presentation Skill	07/03/2015 , 16/03/2015	TEQIP II
26	Mr. Afroz Alam	Regional Training Head, Technical Training (East) VE commercial Vehicle.	An expert lecture session on Employability Enhancement	11/02/2016	TEQIP II

Sl.No.	Name of External Experts	Designation	Event	Dates of Event	Source of Fundin g
27	Mr. Jyotirmoy Barman	VE Commercial Vehicle, Pithampore	Expert lecture session on Current & Future Emission Technology-Trends in Diesel Engine, Diesel Engine Development Process and OBD II Regulations	29/01/2015	TEQIP II
28	Mr. Bhaskar Halder	Lead, Design & Development, Birla Tyre	Expert lecture session on Product Development Process Design & Simulation	12/09/2014	TEQIP II
29	Prof souvik Bhattacharyya	Deputy Director and prof Mechanical Engg, IIT, KGP	Future paradigms in Engineering : Road maps for manufacturing and design, engine Thermo fluids and service sectors	19/7/2014	TEQIP II
30	Prof Subir Saha	Naren Gupta Chair professor , ME Dept , IIT , Delhi	Educational Robotics	19/7/2014	TEQIP II
31	Prof Sarit Kr Das	Dean , IIT Madras	Use of Gold nano partical Targeted thermal ablation of tumor and drug delivery	19/7/2014	TEQIP II
32	Prof Gautam Biswas	Director , IIT Guwahati	Future Trends in Fluid machines and machinery	19/7/2014	TEQIP II
33	Sree Prateek Dutta Roy	Chief Engg Manager , Tarsen and Toubro	AC system Design strategies for enhancing energy performance	20/7/2014	TEQIP II

Sl.No.	Name of External Experts	Designation	Event	Dates of Event	Source of Funding
34	Mr . Partha Chatterjee	Managing Director and CEO,Praxis Softek Solution PVT Ltd	Software Engg ; Looking Ahead	20/7/2014	TEQIP II
35	Mr. Debapriya Dasgupta	Cognizant Technology Solution	Role of IT	20/7/14	TEQIP II
36	Prof Shyamal chatterjee	Prof ME Dept IEST , Shibpur	Dynamics of control of mechanical system : Past , present and Future	20/7/14	TEQIP II
37	Prof Siddhartha Ray	Professor and Head Mechanical Engg Dept, Heritage Inst of Tech	Expert lecture session on Inventory Management	05/03/2014	TEQIP II
38	Prof Santanu Das	Professor and Head Mechanical Engg Dept., Kalyani Govt Engg College	Expert lecture session on Welding and other Metal Joining Process	28/02/2014	TEQIP II
39	Dr. P. Abdul Salam	Professor, School of environment and Resource and Development, Asian Institute of Technology, Thailand	Low Carbon Development: Carbon Capture and Carbon Sequestration	12/2/2014	TEQIP II
40	Dr. Sudip Ghosh	Associate Professor, Dept. of Mechanical Engg, BESU , Shibpur	Low Carbon Development: Carbon Capture and Carbon Sequestration	12/2/2014	TEQIP II
41	Prof. Amitava Dutta,	Professor, Dept of Power Engineering, Jadavpur University, Kolkata	Low Carbon Development: Carbon Capture and Carbon Sequestration	13/2/2014	TEQIP II
42	Prof. Santanu Das	Prof & Former Head Mechanical Engineering Department, Kalyani Govt Engg College	Guest lecture on Manufacturing Methods	21/09/2013	TEQIP II

Sl.No.	Name of External Experts	Designation	Event	Dates of Event	Source of Funding
43	Prof. Suman Chakraborty	Professor Mechanical Engineering Department, IIT Kgp.	Guest lecture on Fundamentals of Fluid Mechanics	19/09/2013	TEQIP II
44	Prof. Debasish Datta	Professor and former Head, Mechanical Engineering Department, Bengal Engg and Science University, Shibpur	Guest lecture on Fundamentals of Machine Design	18/09/2013	TEQIP II
45	Prof. A.B. Chattopadhyay	Former Prof. IIT Kgp. (Currently associated with Academy of Technology, Adisaptagram)	Guest lecture on fundamentals of metal cutting	12/09/2013	TEQIP II
46	Dr. Jayanta Kr. Saha	Dy. General Manager (Tech) Institute for Steel Development and Growth, Kolkata	Guest lecture on application and characterization of steel	10/09/2013	TEQIP II
47	Prof (Dr) Bijan Kumar Mandal	Professor, Mechanical Engineering Department, Bengal Engg and Science University, Shibpur	Guest lecture on Biodiesel as an alternate fuel	17/04/2013	TEQIP II
48	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	A training program on Familiarization with Eicher Technology (2 nd Phase)	12/03/2013 - 14/03/2013	Eicher Motors
49	Mr Srijib Bera	Sr. Executive Robert Bosch India Ltd.	guest lecture on Latest Engine Management Technology	19/02/2013	TEQIP II
50	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	A training program on Familiarization with Eicher Technology (1 st Phase)	05/02/2013 - 09/02/2013	Eicher Motors

Sl.No.	Name of External Experts	Designation	Event	Dates of Event	Source of Funding
51	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	Workshop on Presentation Skill	21/11/2012	Eicher Motors
52	Mr. S. Santhanam	Zonal head, Customer care Mahindra & Mahindra Ltd	Recent market trend and Industry Expectations	31/10/2012	TEQIP II
53	Mr. Ravi Gupta, Mr. Arnab Dey, Mr. Siddhartha Sarathi Pal	Honda Motor Cycles and Scooter India Pvt. Ltd.	Safety methods and Practical riding session.	25/09/2012	Honda Motor Cycles
54	Mr. Krishanu Mallick	General Manager, Service, Hindustan Motors Ltd.	Automotive Service Department- practice and requirement	23/09/2012	TEQIP II
55	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	Eicher Industry- Institution tie-up. (2 nd session)	28/08/2012	Eicher Motors
56	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	Eicher Industry- Institution tie-up. (2 nd session)	01/08/2012	Eicher Motors
57	Mr. Afroz Alam	Regional training Head Eicher Trucks and Buses	VECV facility training for AUE and ME staffs	10/07/2012 - 18/07/2012	Eicher Motors
58	Dr. Jutu Simhachalam	Sr. Manager, Engine Div., M&M Ltd.	Advanced Engine Technology Concept to Reduce Engine out Emissions and CO ₂	27/03/2012	TEQIP II

33. Teaching methods adopted to improve student learning

- Lectures & tutorials
- Chalk & board
- Presentation
- Experimental Laboratory Work
- Assignments
- QEEE Program
- NPTEL

- Diagnostic test to identify slow and advance learners.
- Tutorials for needy students
- Soft Skill Classes for students as a preparatory course work for enhanced employability

34. Participation in institutional social responsibility (ISR) and extension activities

Activities of Swami Vivekananda Center for Positive Thinking (SVCPT)				
Sl. No.	Programme	Date	Faculty member involved	Role
1	Teacher orientation workshop on “value Education”	December, 2012	Mr. Tapas Kr Biswas	Member
2	Orphanage visit programme	February, 2013		Convener
3	A programme on Endowment Lecture Meet	July, 2013		Convener
4	Celebration of Birth Tithi Puja of Holy Mother Sri Sarada Devi	January, 2013		Convener
5	Student competitions and Science & Technology lecture	8 th and 9 th January, 2013		Convener
6	Educational Tour at Swamiji’s House and Indian Museum.	February, 2013		Convener
7	Seminar on “Value Education and Positive Thinking”	May, 2013		Convener
8	Lecture on ‘Balance beyond life’ Mr. Satinath Mukhopadhyay will deliver his lecture and Dr. Purnendu Roy will deliver his lecture	19 th and 21 st December, 2013		Convener
9	Educational Tour to Vivekanandas Ancestral House and Birla Planetarium	January, 2014		Convener
10	Programme of Youth convention	January, 2014		Convener
11	Distributing Bed sheet/article and Chocolate to 92 Slum Children/ Orphan Children before Puja 2014.	September 2014.		Convener
12	Seminar on “Value Education and Positive Thinking’	June, 2015		Member
13	Late S K Mitra Endowment Lecture 2015. (The famous Bengali writer Sri Sastipada Chattapadhyay Writer of Pandab Goyenda, will be the Guest of Honour on that day).	July, 2015		Member

Activities of Swami Vivekananda Center for Positive Thinking (SVCPT)				
Sl. No.	Programme	Date	Faculty member involved	Role
14	Conduction of Pre Puja Articles/ Clothes Distribution among Needy/ Orphan Children	Mahalaya, 12th October 2015		Member
15	Seminar on “Value Education and Positive Thinking”.	July,2016		Member
Rotaract Club of MCKVIE				
Sl. No.	Events organized	Date	Students involved	
1.	Friendship Day Celebration	3 rd August every year	Students of Automobile Engineering	
2.	Raksha Bandhan Celebration	Organized every year as per scheduled date		
3.	Independence day Celebration	15 th August every year		
4.	Installation Ceremony of Rotaract Club of MCKVIE	23 rd August every year		
5.	Rotary Corporate Quiz in association with Telegraph	Organized every year as per scheduled date		
6.	Consumer Awareness Seminar in Association with Consumer Affairs Department, Govt. of West Bengal	22 nd Aug ,2014		
7.	Mega Blood Donation Drive in association with Akhil Bharatiya Terapanth Yuvak Parishad	06 th September, 2014		

35. SWOC analysis of the department and future plans

Strength:

1. Department is provisionally accredited by NBA.
2. State of the art industry sponsored laboratories developed in collaboration with Eicher motors and Dassult systems.
3. Students are exposed to the latest cutting edge software like CATIA V6, CREO, ANSYS and AutoCAD.
4. Students are encouraged to take part in national level competitions like BAJA SAE India, Supra SAE India, Go-Kart etc.
5. Faculty retention is very high.

Weaknesses:

1. Numbers of PhD holder among faculty members are not sufficient.
2. Department lack in funded research project and industrial consultancy works.
3. Department also lack in patent filing or book publication.
4. Research papers are published by limited number of faculty members.
5. Number of students qualifying in competitive examinations like GATE/CAT/GRE/TOEFEL/ etc is inadequate.

Opportunities:

1. To provide coaching for competitive exams like GATE to motivate UG students for higher studies.
2. All faculty members should be encouraged to enroll for PhD.
3. To develop Automotive Testing facilities in the laboratories of the department.
4. To introduce certificate courses on Automobile Engineering in department.

Challenges:

1. To submit research project proposal to funding agencies and to approach industries for consultancy works.
2. To pursue for Collaborative research with other premier institutions.
3. To improve attendance of students in class.

Future plans:

1. To bring sponsored research projects
2. To give thrust in fund generation through industrial consultancy

Basic Science, Humanities and Social Sciences

1. **Name of the department:** Basic Science, Humanities and Social Sciences
2. **Year of Establishment:** 1999
3. **Names of Programme/ Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):** Not Applicable
4. **Names of Interdisciplinary courses and the departments/ units involved:**

Theory Courses

Sl.No.	Paper Code	Interdisciplinary Courses	Departments
1	ME101	Engineering Mechanics	ME& AUE
2	ES101	Basic Electrical & Electronic Engineering – 1	ECE & EE
3	HU101	English Language & Technical Communication	AUE, CSE, ECE, EE, IT, ME
4	CS201	Basic Computation & Principles of Computer Programming	CSE & IT
5	ES201	Basic Electrical & Electronic Engineering-II	ECE & EE
6	ME201	Engineering Thermodynamics & Fluid Mechanics	ME & AUE

Practical Courses

Sl. No.	Paper Code	Interdisciplinary Courses	Departments
1	ME191, ME192	Mechanical Workshop	ME/AUE
2	ES191	Basic Electrical & Electronic Engineering -1 Lab	EE & ECE
3	ME292	Engineering Drawing & Computer Graphics (Gr-B) / Workshop Practice (Gr-A)	ME & CSE, IT
4	CS291	Basic Computation & Principles of Computer Programming	CSE & IT
5	ES291	Basic Electrical & Electronic Engineering- II	ECE & EE
6	ME291, ME292	Workshop Practice (Gr-B) / Basic Eng. Drawing & Computer Graphics (Gr-A)	ME & AUE

5. **Annual/ semester/ choice based credit system (programme wise):**
Semester based credit system.

6. Participation of the department in the courses offered by other departments:

Theory Courses

Sl.No.	Paper Code	Name of the Courses	Departments
1	PH301	Physics-II	CSE, IT, ME & AUE
2	PH401	Physics-II	ECE
3	PH(EE)401	Physics-II	EE
4	M302, M402	Engineering Mathematics-III	EE & ECE and ME & AUE
5	M401	Engineering Mathematics-IV	CSE & IT
6	M(CS)301, M(CS)401	Numerical Methods	EE, ECE, ME, AUE, CSE & IT
7	CH301, CH401	Basic Environmental Engineering and Elementary Biology	EE, ECE, ME, AUE, CSE & IT
8	HU401	Basic Environment and Ecology	MCA
9	MM101	Discrete Mathematical Structure	MCA
10	HU 301	Values and Ethics in Profession	CSE, IT, AUE, ME
11	MBA 301	Business Management	MCA
12	MBA 302	Management Accounting	MCA
13	PGCSE301A	Project Management and Entrepreneurship	CSE
14	MCE 301	Project Development and Resource Management	ECE
15	MAE 301	Production Planning and Control	AUE
16	HU 401	Values and Ethics in Profession	ECE, EE
17	HU 501	Economics for Engineers	CSE, IT, EE, ECE
18	HU 511	Principles and Practices of Management	ME
19	HU 501	Values and Ethics in Profession	MCA
20	HU 601	Principles of Management	CSE, IT, EE and ECE
21	ME 801 HU	Economics for Engineers	ME
22	HU 801A	Organisational Behaviour	CSE, IT, EE, ECE
23	HU 101 MCA	English Language and Technical Communication	MCA
24	MVLSI381A	Project Management	ECE

Practical Courses:

Sl.No.	Paper Code	Name of the Courses	Departments
1	PH391	Physics-II Lab	CSE, IT, ME & AUE
2	PH491	Physics-II	ECE
3	PH(EE)491	Physics-II	EE
4	M(CS)391, M(CS)491	Numerical Methods Lab	EE, ECE, ME, AUE, CSE & IT
5	HU 781	Group Discussion	CSE, ECE, IT, AUE
6	ME 783	Group Discussion	ME
7	HU 481	Technical Report Writing and Language Lab	CSE, ECE, IT
8	HU 381	Technical Report Writing and Language Lab	AUE, ME, EE

7. Courses in collaboration with other universities, industries, foreign institutions:

The institute affiliated under Maulana Abul Kalam Azad University of Technology (MAKAUT). There is no provision for affiliated institutions to run such courses.

8. Details of courses/ programmes discontinued (if any) with reasons:

Not Applicable

9. Number of Teaching posts

Post	Sanctioned	Filled
Professors	3	3
Associate Professors	4	1
Asst. Professors	16	16

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. / Ph.D./ M. Phil. Etc.,)

Sl. No.	Name	Qualification	Designation	Specialization	No of years of Experience	No of Ph.D. students guided for last 4 years
1	Dr. Bitasta Chanda	Ph. D.	Professor & Head	Material Science	16	-
2	Dr. Debapriya De	Ph. D.	Professor	Polymer Science & Engineering	16	2
3	Dr. Arun Kr. Jalan	Ph. D.	Professor	Operation research	18	2
4	Dr. Brojendra Nath Dey	Ph. D.	Assistant Professor	Inorganic Chemistry	8	-
5	Mr. Mojammel Rahaman	M. Sc.	Asst. Professor	Nuclear Physics.	10	-
6	Ms. Debanjali Chowdhury	M. Sc.	Asst. Professor	Electronics	12	-
7	Ms. Arpita Ghosh	M. Phil.	Asst. Professor	Applied Mathematics	12	-
8	Dr. Dipankar Ghosh	Ph. D.	Asst. Professor	Fiber Optics	7	1
9	Ms. Aditi Basu	M. Sc.	Asst. Professor	Mathematical Biology	5	-
10	Mr. Utpal Sarkar	M. Sc.	Asst. Professor	Mathematical Physics	7	-
11	Dr. Tanmoy Roy Choudhury	Ph. D.	Asst. Professor	Material Science	8	-
12	Mr. Shib Sankar Giri	M. Sc.	Asst. Professor	Applied Mathematics	5	-
13	Mr. Swarnendu Bhaduri	M. Sc.	Asst. Professor	Chemistry	1	-
14	Dr. Lina Saha	Ph.D.	Associate Professor	19th Century Women Literature	19	0
15	Mr. Asish Kr Bose	M.A.	Assistant Professor	English Literature	9.5	0

Sl. No.	Name	Qualification	Designation	Specialization	No of years of Experience	No of Ph.D. students guided for last 4 years
16	Mr. Firoze Basu	M.A.	Assistant Professor	English Literature	15	0
17	Mr. Kalipada Senapati	B.E.E. and M.B.A.	Assistant Professor	Electrical Engineering and Marketing	31 (Industry and Academic)	0
18	Mr. Subhra Nath Maiti	M.A. (English) and M.A. (ELT)	Assistant Professor	English Language Teaching	11	0
19	Mr. Diptayan Bhattacheryya	M.B.A. and M. Com (Finance).	Assistant Professor	Finance & Marketing	8	0
20	Ms. Juin Ghosh Sarkar	M.B.A. and M.Com.	Assistant Professor	Finance	10.5 (Industry and Academic)	0

11. List of senior visiting faculty:

NIL

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Sl. No.	Academic Year	Course Name with paper code	Total Class Load	Name of the Faculty	Class load of temporary faculty	Classes handled by temporary faculty (%)
1	2011-12	PH191	138	Arindam Chakraborty	6	4.34
2	2012-13	PH191, PH101	138	Saptarshi Ghosh	15	10.87
				Atanu Ghosh		

13. Student -Teacher Ratio (programme wise):

Academic Year	No of students x	Total No of faculty TF	Student Teacher Ratio x / TF
2011-12	374	20	19
2012-13	375	20	19
2013-14	351	20	18
2014-15	358	20	18
2015-16	358	20	18
2016-17	357	20	18

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Post	Sanctioned	Filled
Laboratory Instructor	03	03

15. Qualifications of teaching faculty with D.Sc./ D.Litt/ Ph.D./ M.Phil./ PG.

Qualification	Number
Ph.D.	7
PG	12
M. Phil.	1

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

a) National Projects

Sl. No.	Name of Faculty	Ongoing Projects Details	
		Funding Agencies	Grants Received
1	Dr. Debapriya De	Science & Engineering Research Board (SERB)	Rs. 56,694,00/-
2	Dr. Dipankar Ghosh (as Co-PI)	Science & Engineering Research Board (SERB)	Rs. 21,611,70/-

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

Rs. 6,191,400/- [5,669,400 +522,000]

18. Research Centre/ Facility recognized by the University:

Not Applicable

19. Publications:

- a) Publication per faculty
- b) Number of papers published in peer reviewed journals (national/international) by faculty and students
- c) Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database- International Social Sciences Directory, EBSCO host, etc.)
- d) Monographs
- e) Chapter in Books
- f) Books Edited
- g) Books with ISBN/ ISSN numbers with details of publishers
- h) Citation Index
- i) SNIP
- j) SJR
- k) Impact factor
- l) h-index

Following table shows the publication details of faculty members of the department.

Sl. No.	Name of Faculty	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k) (Highest)	(l)
1	Dr. Debapriya De	36	24	3	-	-	-	1	1090	8.643	8.300	27.184	13
2	Dr. Bitasta Chanda	10	7	7	-	-	-		53	0.898	0.776	1.458	3
3	Dr. Arun Kr. Jalan	18	7	-	-	-	-	1	390	1.192	1.179	1.947	5
4	Dr. Brojendra Nath Dey	9	2	-	-	-	-		96	1.292	1.052	3.485	-
5	Dr. Dipankar Ghosh	25	11	20	-	-	-		37	-	2.01	2.567	3
6	Mr. Utpal Sarkar	-	-	-	-	-	-	1	-	-	-	-	-
7	Dr. Tanmoy Roy Choudhury	3	1	1	-	-	-		2	-	0.24	0.692	5
8	Dr. Lina Saha	6	1	0	0	4	-		0	4	0	1.21	0

*ISBN/ ISSN numbers with details of publishers

Sl. No.	Name of the Author	Title of the Book	Publisher with ISBN/ ISSN number
1	Dr. Arun Kr. Jalan	Numerical Methodes: A Programming based Approach	978-81-7371-958-5
2	Mr. Utpal Sarkar	Numerical Methodes: A Programming based Approach	978-81-7371-958-5

20. Areas of consultancy and income generated:

Sl. No.	Name of the Faculty/ Staff members	Department	Description of consultancy	Client organization	Amount Involved	Year of Completion
1	Prof. (Dr.) Debapriya De	Basic Science, Humanities and Social Sciences	Development, testing and analysis of rubber compound for Conveyor belt	Metalab Enterprise, Viratnagar Cross P.S.Ring Road, Odhav, Ahmedabad.- 382415, Gujarat.	6000.00	Ongoing
2	Dr. Arun K Jalan	Basic Science, Humanities and Social Sciences	Technical Support on Financial Marketing	Sinjan Overseas Pvt. Ltd.	4000.00	Completed

21. Faculty as members in a) National committee b) International Committee c) editorial board etc.

Sl. No.	Faculty	National committees	International Committees	Editorial Boards
1	Dr. Debapriya De	i) PSMPAF ii) FOSET	-	-
2	Dr. Arun Kr. Jalan	ISCA	-	-
2	Dr. Brojendra Nath Dey	i) PSMPAF ii) FOSET	-	-
4	Dr. Dipankar Ghosh	1. Optical Society of India (OSA) 2. Indian Physical Society 3. Indian Association of Physics Teachers (IAPT)	-	-
5	Mr. Diptayan Bhattacheryya	IBSA (International Business Studies Academia)	-	-
6	Dr. Lina Saha	Orissa Researcher's Association	-	-

22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/ programme:
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies:

Not Applicable

23. Awards/ Recognitions received by faculty and students:

NIL

24. List of eminent academicians and scientists / visitors to the department:

Sl. No.	Name of Eminent Academician, Scientist with Designation of Resource Person Visited	Event	Dates of Event
1	Prof. Ajoy Kumar Ghatak, Professor, IIT-Delhi	National WORKSHOP on "FABRIC OF TECHNOLOGY" organized by Basic Science Department	22 nd - 23 rd October, 2016
2	Mr. Krishnendu Chakrabartty, Mentor, NCSM		
3	Mr. Prantik Chakraborty, Scientist, ISRO, Ahmedabad		
4	Prof. Subhabrata Ray, Professor, IIT-KGP		
5	Mr. Arnab Chatterjee, Manager CAB Design (PVBU) at Tata Motors Pune		
6	Prof. Bichitra Kumar Guha, Professor, IEST, Shibpur		
7	Ms. Sunayana Kaushik, R & D at Mercedes Benz India Private limited, Bengaluru		
8	Prof. Sabyasachi Sen Gupta, Vice Chancellor, WBUT	National WORKSHOP on "RECENT TRENDS OF MATHEMATICS IN INTERDISCIPLINARY RESEARCH" organized by Basic Science Department, MCKVIE in collaboration with Central Glass & Ceramic Research Institute (CSIR),Kolkata	31st January, 2012
9	Prof. K. S. Chaudhuri, Emeritus Professor (UGC), Jadavpur University		
10	Dr. Pranab Karmakar, Professor, Institute of Radio Physics & Electronics, University of Calcutta		
11	Dr. T.K. Kar, Professor, BESU, Shibpur		
12	Prof. B.K. Guha, Professor, BESU, Shibpur		

25. Seminars/ Conferences/ Workshops organized & the source of funding
a) National

Sl. No.	Seminar/ Conference/ workshop	Source of funding	Duration	Resource Persons	Target Audience
1	National conference on “computing, electronic devices, materials, manufacturing & thermal engineering”,	TEQIP-II	26 th - 28 th October, 2016	1. Invited Talk 1: Dr. Dibyendu Sekhar Bag, Deputy Director, Composite Division, DMSRDE, Kanpur 2. Invited Talk 2: Dr. Amaresh Dalal, Associate Professor, Department, of Mechanical Engineering, IIT Guwahati 3. Dr. Sanatan Chattopadhyay, Professor, Department of Electronic Science, CU 4. Dr. A. K. Chattopadhyay, Professor, Department of Mechanical Engineering, IIT KGP 5. Dr. Madhusudan Roy, Associate Professor, Surface Physics and Material Science Division, SINP 6. Dr. Satyaban Bhunia, Associate Professor Surface Physics and Material Science Division, SINP 7. Dr. Dipankar Chattopadhyay, Professor, Department of Polymer Science & Technology, CU 8. Dr. Sankhyan Choudhury, Professor, Department of Computer Science and Engineering, CU 9. Dr. Atal Choudhury, Professor, Department of Computer Science & Engineering, JU	Researcher, faculties and students

Sl. No.	Seminar/ Conference/ workshop	Source of funding	Duration	Resource Persons	Target Audience
2	National WORKSHOP on “FABRIC OF TECHNOLOGY “	TEQIP-II	22 nd - 23 rd October, 2016	1. Prof. Ajoy Kumar Ghatak, Professor, IIT-Delhi 2. Mr. Krishnendu Chakrabarty, Mentor, NCSM 3. Mr. Prantik Chakraborty, Scientist, ISRO, Ahmedabad 4. Prof. Subhabrata Ray, Professor, IIT-KGP 5. Mr. Arnab Chatterjee, Manager CAB Design (PVBU) at Tata Motors Pune 6. Prof. Bichitra Kumar Guha, Professor, IEST, Shibpur 7. Ms. Sunayana Kaushik, R & D at Mercedes Benz India Private limited, Bengaluru	B.Tech. students
3	National WORKSHOP on “RECENT TRENDS OF MATHEMATICS IN INTERDISCIPLINARY RESEARCH”	CSIR	31st January, 2012	8. Prof. Sabyasachi SenGupta, Vice Chancellor, WBUT 9. Prof. K. S. Chaudhuri, Emeritus Professor (UGC), Jadavpur University 10. Dr. Pranab Karmakar, Professor, Institute of Radio Physics & Electronics, University of Calcutta 11. Dr. T.K. Kar, Professor, BESU, Shibpur 12. Prof. B.K. Guha, Professor, BESU, Shibpur	Researcher, faculties and students

b) International

NIL

26. Student profile programme/ course wise:

Not Applicable as students are admitted through JEE MAIN (AIEEE), WBJEE, JELET, PGET, GATE

Name of the course/ programme (refer to question no. 4)	Application received	Selected	Enrolled		Pass percentage
			*M	*F	

*M = Male *F = Female

27. Diversity of Students:

Academic Year	Total No. of Students	From West Bengal	From Other State	From Abroad
2014-2015	358	300	57	01
2015-2016	358	286	72	00
2016-2017	357	294	63	00

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?:

Not Applicable

29. Student progression:

Not Applicable

30. Details of Infrastructural facilities

a) Library:

No. of books in departmental Library	Nil
No. of journals in departmental library	Nil
No. of books in central library related to the department	UG: No of Title =664, No of Volume = 1596
No. of journals in central library related to the department	9
e-journal facility	NA

b) Internet facilities for staff and students:

The departmental floors are WIFI activated therefore all students and faculty members can access internet as well as online courses.

c) Classrooms with ICT facility:

Room No.: A108 is equipped with ICT facility and Room no. A104 is equipped with projector for Audio Visual Classes.

d) Laboratories:

Laboratory description in the curriculum	Exclusive/ shared	Space, number of students	Number of experiments & Setup
Room A-118: Physics-II Lab (PH391 & PH491)	Exclusive	500 sq ft, 40	08 & 10
Room A-120: Physics-I Lab (PH191 & PH291)	Exclusive	500 sq ft, 40	09 & 13
Room A-119: Chemistry Lab (CH191 & CH291)	Exclusive	500 sq ft, 40	09
Room A-103: Synthetic Polymer Research Lab	Exclusive	300 sq ft, 40	09
Room A-108: Language Laboratory	Exclusive	300 sq ft, 40	-

31. Number of students receiving financial assistance from college, university, government or other agencies:

WBFS (Full & Half Free Student) List is shown below from 2012-2017

Sl. No.	Academic Year	Department											
		AUE		CSE		ECE		EE		IT		ME	
		Half	Full	Half	Full	Half	Full	Half	Full	Half	Full	Half	Full
1	2016-17	4	0	6	0	3	0	6	0	6	0	6	0
2	2015-16	5	0	6	0	7	0	6	0	5	0	6	0
3	2014-15	6	0	6	0	6	0	6	0	5	0	6	0
4	2013-14	5	2	6	3	6	0	7	2	4	2	3	2
5	2012-13	4	4	5	6	6	6	6	5	6	4	6	6
Total		24	6	29	9	28	6	31	7	26	6	27	8

32. Details on student enrichment programs (special lectures/ workshops/ seminar) with external experts:

Sl. No.	Name of Eminent Academician, Scientist Resource Person Visited	Designation	Event	Dates of Event	Source of funding
1	Prof. Ajoy Kumar Ghatak	Professor, IIT-Delhi	National WORKSHOP on "FABRIC	22/10/2016	TEQIP-II
2	Mr. Krishnendu	Mentor, NCSM		22/10/2016	

Sl. No.	Name of Eminent Academician, Scientist Resource Person Visited	Designation	Event	Dates of Event	Source of funding
	Chakrabartty		OF		
3	Mr. Prantik Chakraborty	Scientist, ISRO, Ahmedabad	TECHNOLOGY “	22/10/2016	
4	Prof. Subhabrata Ray	Professor, IIT-KGP		23/10/2016	
5	Mr. Arnab Chatterjee	Manager CAB Design (PVBV) at Tata Motors Pune		23/10/2016	
6	Prof. Bichitra Kumar Guha	Professor, IEST, Shibpur		23/10/2016	
7	Ms. Sunayana Kaushik	R & D at Mercedes Benz India Private limited, Bengaluru		23/10/2016	
8	Prof. Sabyasachi Sen Gupta	Vice Chancellor, WBUT	National WORKSHOP on “RECENT TRENDS OF MATHEMATICS IN INTERDISCIPLINARY RESEARCH”	31/01/2012	CSIR
9	Prof. K. S. Chaudhuri	Emeritus Professor (UGC), Jadavpur University		31/01/2012	
10	Dr. Pranab Karmakar	Professor, University of Calcutta		31/01/2012	
11	Dr. Tapan Kumar Kar	Professor, BESU, Shibpur		31/01/2012	
12	Prof. Bichitra Kumar Guha	Professor, BESU, Shibpur		31/01/2012	
13	Prof. Arpita Banerjee	Consultant, British Council	Soft Skills Beyond the Classroom	March 2012	TEQIP
14	Md Riaz	STEP, IIT, Kharagpur	Effective Communication Skills	July 2012	MCKVIE
15	Jaideep Chatterjee	Associate Professor, DSMS, Durgapur	O.B. and Human Relations in the Workplace	April 2013	TEQIP
16	Ranajit Chakraborty	Professor, Jadavpur University	Statistical Analysis in Business	April 2013	TEQIP
17	Sourav Chakraborty	Freelancer, Soft Skill	Shifting	May 2015	TEQIP

Sl. No.	Name of Eminent Academician, Scientist Resource Person Visited	Designation	Event	Dates of Event	Source of funding
		Training	Dynamics in Effective Communication		
18	Sumanta Ghosh	Proprietor, IITM	Communication: Challenges and Barriers	May 2015	TEQIP
19	Jaideep Chatterjee	Associate Professor, DSMS, Durgapur	Utilization of H.R.M. in a Modern Organization	May 2015	TEQIP
20	Amitabh Mohan	Director, HLS	Shifting Dynamics in Effective Communication	May 2015	TEQIP
21	Prasanto Mukherjee	Associate Professor, Sanaka Educational Trust, Durgapur	Marketing Research and Consumer Expectation from a Firm	May 2015	TEQIP

33. Teaching methods adopted to improve student learning:

- Model class room
- Remedial class/ Tutorial class
- Invited talk from Industry personal
- Workshops
- PPTs, case studies, GDs, PIs, assistance beyond classroom contact

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Different Activities of Swami Vivekananda Centre for Positive Thinking (SVCPT) and NSS are shown below:

Sl. No.	Event/ Programme with Date	Faculty Member/Student Involved	Role
1	SVCPT : Seminar on “Value Education and Positive Thinking” in June(2012-2016)	Ms. Debanjali Chowdhury Ms. Aditi Basu.	Organized the event
2	SVCPT : Distribution of articles like clothes, bedsheet, food, among Needy/ Orphan Children before Puja, (2013-2016)	Ms. Debanjali Chowdhury Ms. Aditi Basu.	Organized the event
3	SVCPT : Celebration of Tithipuja of Sri Ramakrishna, Ma Sarada Devi, Swami Vivekananda,(2012-2016)	Ms. Debanjali Chowdhury Ms. Aditi Basu.	Organized the event
4	SVCPT : Late S. K. Mitra Endowment Lecture in, July(2012-2016)	Ms. Debanjali Chowdhury Ms. Aditi Basu.	Organized the event
5	NSS: including blood donation, charity - help poor students, tree plantation, encouraging talents, rural development activities in surrounding areas, throughout the year (2012-2016)	Prof. A.K. Jalan	Organized the events
6	SVCPT:Value Education classes(2012-14)	Mr.Subhra Nath Maiti	Conducted
7	SVCPT(2012-2016)	Mr.Subhra Nath Maiti and Mr.Diptayan Bhattacheryya	Participated
8	NSS:Examination,Tree Plantation,Charity(2015-16)	Mrs.Juin Ghosh Sarkar	Participant and Examiner

35. SWOC analysis of the department and Future plans:

Strength:

1. Basic Science Department is having aptitude towards teaching that recognizes the ability of students, be it visual, audio or kinesthetic.
2. Faculties of Basic Science Department believe that a good teacher is an eternal learner.
3. Basic Science Department practices continuous up-gradation of teaching methodology keeping in mind that students are rational as well as emotional
4. Teachers and Technical staff members have sound domain knowledge and are reasonably accessible to the students, which builds healthy student-teacher relationship.

5. Faculty members have years of teaching and research experiences with publication in referred international peer reviewed journals.
6. Organizes National/ international conferences, Workshops in order to nurture innovative minds of the students
7. Team spirit
8. Two faculty members are on the verge of completion of their researches, leading to the Ph.D. degree. Three faculty members have two Masters degrees each. One faculty member has registered for the second Masters degree. One faculty member has an M.Phil. and a B.Ed., along with her Masters degree.
9. All faculty members have been working for more than five years in this college. One member, particularly, has been teaching in the college from the beginning, for seventeen years. Therefore, retention in the department is very good.
10. Considering the total number of English and Management papers taught across all streams and batches, the department has adequate number of teachers- four teaching English, and three Management.
11. The department has a state of the art English language laboratory, which was set up with the assistance of S.T.E.P., I.I.T., Kharagpur.

Weakness:

1. Departmental library has to be made effective
2. Student centric teaching approach may be tried despite of lack of academic autonomy
3. Faculty Members are desired to be more proactive in Research
4. Lack of Departmental Computer laboratory forbids computer aided teaching, as and when required
5. Supporting Crèche might be an effective help for staff members
6. We also lack a dedicated Management Learning Centre, given how important Management as a subject has become.

Opportunity:

1. Collaboration with other Institutes/ Universities
2. Secure funding from external agencies
3. Organize faculty development program
4. Develop and introduce productive courses for students in tune with market demand
5. Frame special short term courses for students securing admission through JECA or equivalent examinations
6. Scope to percolate scientific awareness in the neighbourhood
7. The faculty members, with a little bit of training can help students with their preparation for examinations like C.A.T., M.A.T., T.O.E.F.L., etc, apart from regular classes or contact hours.
8. The faculty members can hold workshops for teachers of neighbouring schools, and even for faculty members of our college, and share their valuable insight on student psychology

and general trends of student behaviour, as they deal with students most, and help them with developing their personalities (soft skills).

9. Forming a permanent cultural club in the college

Challenge:

1. Orientation of the students towards academics as well as professionalism
2. Up gradation of knowledge is extremely important. However, the regular class load and responsibilities in college often do not allow faculty members to upgrade themselves, as they should, as there are just about adequate number of faculty members for handling the academic and other responsibilities of the college.

Future plans:

1. Evolution of research from science to engineering
2. Application of science in technology through collaboration among the science and engineering departments
3. Sensitize alumni in preparing productive courses for students in tune with market demand
4. Sensitize alumni to tune current students for professional fields, be it academic or industrial
5. Hosting more workshops and seminars related to both English and Management, to upgrade the knowledge of the faculty members, and to generate interest and awareness among students, besides enhancing their knowledge.
6. Attending more seminars and workshops outside college.
7. Encouraging more faculty members to engage in research and earn their Doctorate degrees.

Computer Science and Engineering

1. **Name of the department:** Computer Science and Engineering
2. **Year of Establishment:** 1999
3. **Names of Programmes/ Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):**

Level	Programme	Full Time/Part Time/Sandwich	Year of Starting	Sanctioned Intake
UG	B.Tech. in Computer Science and Engineering	Full Time	1999	60
PG	M.Tech. in Computer Science and Engineering	Full Time	2011	18

4. **Names of Interdisciplinary courses and the departments/ units involved:**

Departments involved in Interdisciplinary Courses for UG Course

Subject	Subject Code	Departments Involved
Values & Ethics in Profession	HU 301	Basic Science, Humanities & Social Sciences(BSHSS)
Physics-2	PH 301	Basic Science, Humanities & Social Sciences(BSHSS)
Basic Environmental Engineering & Elementary Biology	CH 301	Basic Science, Humanities & Social Sciences(BSHSS)
Physics-2	PH 391	Basic Science, Humanities & Social Sciences(BSHSS)
Analog & Digital Electronics Lab	CS 391	Basic Science, Humanities & Social Sciences(BSHSS)
Economics for Engineers	HU 501	Basic Science, Humanities & Social Sciences(BSHSS)
Mathematics-3	M 401	Basic Science, Humanities & Social Sciences(BSHSS)
Technical Report Writing & Language Lab	HU 481	Basic Science, Humanities & Social Sciences(BSHSS)

Subject	Subject Code	Departments Involved
Principles of Management	HU 601	Basic Science, Humanities & Social Sciences(BSHSS)
Operation Research (M)	CS 605A	Basic Science, Humanities & Social Sciences(BSHSS)
Group Discussion	HU 781	Basic Science, Humanities & Social Sciences(BSHSS)
Organisational Behaviour	HU 801A	Basic Science, Humanities & Social Sciences(BSHSS)

Departments involved in Interdisciplinary Courses for PG Course

Subject	Subject Code	Departments Involved
Project Management & Entrepreneurship	PGCSE 301A	Basic Science, Humanities & Social Sciences(BSHSS)

5. Annual/ semester/ choice based credit system (programme wise):

Semester based credit system.

6. Participation of the department in the courses offered by other departments:

Subject	Subject Code	Offering Department
Basic Computation and Principle of Computer Programming	CS 201	BSHSS (Electrical Engineering Department)
Basic Computation and Principle of Computer Programming	CS 201	BSHSS (Electronics and Communication Engineering Department)
Basic Computation and Principle of Computer Programming	CS 201	BSHSS(Mechanical Engineering Department)
Basic Computation and Principle of Computer Programming	CS 201	BSHSS (Automobile Engineering Department)
Basic Computation and Principle of Computer Programming	CS 291	BSHSS(Electrical Engineering Department)
Basic Computation and Principle of Computer Programming	CS 291	BSHSS (Electronics and Communication Engineering Department)

Subject	Subject Code	Offering Department
Basic Computation and Principle of Computer Programming	CS 291	BSSHSS (Mechanical Engineering Department)
Basic Computation and Principle of Computer Programming	CS 291	BSSHSS(Automobile Engineering Department)
Data Structure and C	EC 504B	Electronics and Communication Engineering Department
Data Structure & C Lab	EC 594B	Electronics and Communication Engineering Department
Software Engineering	EE 604A	Electrical Engineering Department
Software Engineering Lab	EE 694A	Electrical Engineering Department
Data Base Management System	EE 604B	Electrical Engineering Department
Data Base Management System	EE 694B	Electrical Engineering Department
Data Base Management System Theory	EC 705C	Electronics and Communication Engineering Department
DBMS Lab	EC 795C	Electronics and Communication Engineering Department
Computer Network Theory	EE 705A	Electrical Engineering Department
Computer Network Lab	EE 795A	Electrical Engineering Department
Computer Network Lab	EC 793C	Electronics and Communication Engineering Department

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

NIL

8. Details of courses/ programmes discontinued (if any) with reasons:

NIL

9. Number of Teaching posts

Designation	Sanctioned	Filled
Professors	2	01
Associate Professors	4	01
Asst. Professors	12	12

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt./ Ph.D./ M. Phil. etc.):

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
1.	Mr. S. S. Thakur	M.E, Ph. D. (Pursuing)	Associate Professor & Head	Computer Science and Engineering	19+ (Teaching 9+ years, R&D-10 years)	NIL
2.	Dr. Premananda Jana	Ph. D.	Professor	Soft Computing	Teaching 16+ years	01
3.	Mr. Avijit Bose	M. Tech.	Assistant Professor	Information Technology	16+ years (Teaching 15+ years, Industry-1 year)	NIL
4.	Ms. Soma Bandyopadhyay	M. E.	Assistant Professor	Computer Science and Engineering	10+ years (Teaching 8+ years, Industry 2.5 years)	NIL
5.	Ms. Mahua Nandy (Pal)	M. Tech.	Assistant Professor	Computer Science and Engineering	8+ years	NIL
6.	Mr. Prasenjit Das	M. Tech.	Assistant Professor	Computer Science and Engineering	8+ years	NIL
7.	Ms. Rachita Ghoshhajra	M. Tech.	Assistant Professor	Computer Technology	Teaching 13+ years	NIL
8.	Mr. Surojit Bhattacharyya	M. E.	Assistant Professor	Computer Science and Engineering	10+ years (Teaching 9 years, Industry 1+ year)	NIL

Sl. No.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
9.	Mr. Sumit Majumdar	M. E.	Assistant Professor	Computer Science and Engineering	6+ years	NIL
10.	Ms. Moumita Sen	M. Tech.	Assistant Professor	Computer Science and Engineering	6+ years (Teaching 5+ years, Industry 1.5 years)	NIL
11.	Ms. Sasmita S. Choudhury	M. Tech.	Assistant Professor	Computer Science and Engineering	16+ years (Teaching 10+ years, Industry 6 years)	NIL
12.	Mr. Abhisek Saha	M. Tech.	Assistant Professor	Computer Science and Engineering	8+ years (Teaching 8+ years, Industry 3 months)	NIL
13.	Mr. Puspen Lahiri	M. Tech.	Assistant Professor	Computer Technology	Teaching 10+ years	NIL
14.	Ms. Paramita De	Ph. D.	Assistant Professor	Document Image Processing	5+ years in Teaching	NIL

11. List of senior visiting faculty:

NIL

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

NIL

13. Student -Teacher Ratio (programme wise):

SI No.	Name of the program	Student-Teacher ratio
1	B.Tech. in Computer Science and Engineering	18 : 1
2	M.Tech. in Computer Science and Engineering	18 : 1

15. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Designation	Sanctioned	Filled
Technical Support Staff	07	07
Administrative Staff	00	00

15. Qualifications of teaching faculty with D.Sc./ D.Litt./ Ph.D./ M.Phil./ PG.:

Sl. No.	Qualification	No. of Faculty
1.	D.Sc.	0
2.	D.Litt.	0
3.	Ph.D.	2
4.	M.Phil.	0
5.	PG	12

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

NIL

17. Departmental projects funded by DST- FIST; UGC, DBT, ICSSR, etc. and total grants received:

NIL

18. Research Centre/ facility recognized by the University:

Not Applicable

19. Publications:

- Publication per faculty
- Number of papers published in peer reviewed journals (national/international) by faculty and students
- Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database-International Social Sciences Directory, EBSCO host, etc.)

- d) Monographs
- e) Chapter in Books
- f) Books Edited
- g) Books with ISBN/ ISSN numbers with details of publishers
- h) Citation Index
- i) SNIP
- j) SJR
- k) Impact factor
- l) h-index

Following table shows the publication details of last five years (2012-17) of faculty members of the department.

Sl. No.	Name of Faculty	(a)	(b)	(c)	(d)	(e)	(f)	(g)*	(h)	(i)	(j)	(k) (Highest)	(l)
1	Dr. Premananda Jana	8	01	04	-	-	-	2	6	0.778	0.600	-	02
2	Mr. S.S. Thakur	31	05	09	-	-	-	-	13	-	-	-	02
3	Mr. Avijit Bose	12	-	1	-	-	-	-	-	-	-	-	-
4	Mrs. Soma Bandyopadhyay	10	03	03	-	-	-	-	-	-	-	-	-
5	Mr. Prasenjit Das	2	-	1	-	-	-	-	-	-	-	-	-
6	Mrs. Mahua Nandy (Pal)	11	1	5	-	-	-	-	21	-	-	0.835	03
7	Ms. Rachita Ghoshhajra	1	-	-	-	-	-	-	-	-	-	-	-
8	Mr. Sumit Majumdar	2	-	1	-	-	-	-	-	-	-	-	-
9	Ms. Paramita De	9	2	7	-	-	-	-	5	-	-	0.885	1

* Books with ISBN/ ISSN numbers with details of publishers

Sl.No.	Name of Author	Title of Book	Publisher List with ISBN/ ISSN No.
1.	Dr. Premananda Jana	Engineering Mathematics, Vol. 1	Matrix Educare Pvt. Ltd., Kolkata, ISBN- 978-93-80221-05-2
2.	Dr. Premananda Jana	Engineering Mathematics, Vol. 2	Matrix Educare Pvt. Ltd., Kolkata, ISBN – 978-93-80221-20-5

19. Areas of consultancy and income generated:

NIL

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards....

Sl. No.	Faculty Name	National Committees	International Committees	Editorial Boards
1.	Dr. Premananda Jana	0	1	0
2.	Mr. S.S. Thakur	0	3	0
3.	Mr. Avijit Bose	0	3	0
4.	Mrs. Rachita Ghoshhajra	1	0	0

22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/ Programme
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies

B.Tech. Programme, Department of CSE		
Academic Year	Percentage of students done in-house project	Percentage of students done project outside of the Institution
2016-17	100%	0 %
2015-16	95.65%	4.35 %
2014-15	100%	0 %
2013-14	100%	0 %
2012-13	87.69%	12.31 %

M.Tech. Programme, Department of CSE		
Academic Year	Percentage of students done in-house project	Percentage of students done project outside of the Institution
2016-17	40 %	60 %
2015-16	0 %	0 %
2014-15	41.18 %	58.82 %
2013-14	40 %	60 %
2012-13	26.67 %	73.33 %

23. Awards/ Recognitions received by faculty and students

Awards/ Recognitions received by faculty

Sl. No.	Name	Achievement
1.	Prof. S. S. Thakur	Awarded for outstanding contribution and performance in reviewing to the quality of ICCIDM 2015's Proceedings, organized by Ronald Institute of Technology, Berhampur, Odisha.
2.	Ms. Mahua Nandy Pal	Awarded for outstanding contribution and performance in reviewing to the quality of ICCIDM 2015's Proceedings, organized by Ronald Institute of Technology, Berhampur, Odisha.
3.	Ms. Paramita De	Best Presentation Award for the paper entitled "Hierarchical Vectorisation of Elcetrical Drawings in Document Images by Super-Component Analysis" in Research Scholars' Day 2014 at BESU, Sibpur.

Awards/ Recognitions received by Students

Sl. No.	Students' Name	Details of Awards/ Recognitions
1.	Shramona Chakraborty	Awarded as winner in "Present Around The World" competition conducted by IET Kolkata and selected as finalist in PATW Global Final from South-Asia Region.
2.	Debojyoti Dey	Awarded with "Best Applied Technology Project", in Science and Engineering fair 2016, BITM .
3.	SuchismitaThakur, Sayan Mondal, Debolina Chatterjee,	Awarded with 8th rank in BRAINSTORM (Project Idea Contest) for the project "Upgrade Security System in ATM Transaction through Palm-Vein Technology", MyWbut.
4.	Shramona Chakraborty	Awarded with 'BEST PRIZE' in Science & Engineering Fair 2016 organized by BITM, Kolkata.
5.	Dipankar Sinha	Awarded with 'BEST Applied Technology' in Science & Engineering Fair 2016 organized by BITM, Kolkata.
6.	Debojyoti Dey	Awarded with 'BEST Applied Technology' in Science & Engineering Fair 2016 organized by BITM, Kolkata.
7.	Subham Saha	Received 3rd position in Model Presentation in 'TECHNOTICA 2015-16', MCKVIE
8.	Sumit Saha	Received 5th position in Model Presentation in 'TECHNOTICA 2015-16', MCKVIE
9.	Dipankar Sinha	Received 1st position in Model Presentation in

Sl. No.	Students' Name	Details of Awards/ Recognitions
		'TECHNOTICA 2015-16', MCKVIE
10.	Debojyoti Dey	Received 1st position in Model Presentation in 'TECHNOTICA 2015-16', MCKVIE
11.	Saptarshi Dey	Received 3rd position in Model Presentation in 'TECHNOTICA 2015-16', MCKVIE
12.	Shramona Chakraborty, Subham Saha, Debojyoti Dey and Abhishek Sarkar (ECE)	Awarded with 2nd Runners Up in "Engineering Design Innovation" in EngiNX-the TCS Engineering Design Innovation Contest Awarded, TCS Siruseri.
13.	Shramona Chakraborty and Ahiry Ghosal	Awarded with 'BEST POSTER' presentation on "Design and Experiment of a Solar Power Unmanned Aerial Vehicle (UAV) for various purposes" in the workshop "Frontier Research with industry academia partnership", Centre of Energy, IIT, Guawhati.
14.	Dipankar Sinha, Sk. Shahir Halim and Debojyoti Dey	Awarded with 2nd prize in "Science & Engineering Fair-2015", BITM, Kolkata.
15.	Shramona Chakraborty	Awarded with Special prize in Model Presentation on "Design & Experiment of a Prototype Solar System" in "Science and Engineering Fair 2015", BITM, Kolkata.
16.	Ahiry Ghosal, Shramona Chakraborty	Awarded with IRAJ Excellent Paper Award on "Experimental Investigation of Drag and Lift Force on an Airfoil Shaped Body at Different Angles", in ICMPE-Bengaluru.
17.	Shramona Chakraborty	Received 1st position in Technical Exhibition of TECHNOTICA 2014-2015', MCKVIE.
18.	Dipankar Sinha, Sk. Shahir Halim, Debojyoti Dey	Received 2nd position in Technical Exhibition of TECHNOTICA 2014-2015', MCKVIE.
19.	Mehwash Parveen	Received 1st position in ROBOFEAST-2015 National Quad copter Championship Workshop organized by Cognizance, IIT Roorkee and Revert Technology Pvt. Ltd.
20.	Debojyoti Dey	Received 3rd position in Tech Fest (Robo-War)-PRAGATI '14, MCKVIE.
21.	Devamalya Hazra, Kaustabh Datta Choudhury	Received 1st position in Tech Fest(C-Wizard) PRAGATI' 14, MCKVIE.
22.	Debojyoti Dey	Received 3rd position in paper presentation in PRAGATI '14, MCKVIE.

Sl. No.	Students' Name	Details of Awards/ Recognitions
23.	Santosh Sagar	Awarded with Certificate of Excellence in workshop on "SWARM Robotics, a workshop (an integral part of Indo-US Robo League 2013)", Technophilia Systems in association with Robotics & Computer Applications Institute of USA and MCKVIE.
24.	Devamalya Hazra, Supratik Pal	Received Best Project award in Continuing Technical Education Program on "Webpage Designing using PHP & MySQL", dept. of CSE, MCKVIE.
25.	Debasish Sarogi	Awarded with 2nd Prize on paper presentation on "Multi-Objective TSP with Ant Colony Optimization" in the 3rd Inter Engineering College Academic meet 2012, at FOSET and CIEM.
26.	Anu Gupta	Ranked 1st in WBUT Inter College Chess Meet 2011-12.

24. List of eminent academicians and scientists/ visitors to the department

Sl. No.	Academic Year	Name of the eminent academicians and scientists / visitors to the department	Date of Visit	Purpose of Visit
1.	2016 – 2017	Prof. Atal Chaudhuri, JU Prof. Nandini Mukherjee, JU Prof. J. K. Mandal, Kalyani University Prof. Indrajit Banerjee, IEST, Shibpur Prof. Sarbani Roy, JU Prof. Sunirmal Khatua, CU Prof. Madhurima Chattopadhyay, HIT, Kolkata Mr. Anand Raje, RABT Technology Ltd. Mr. Soumyasanta Roy, Cognizant Technology Solutions Ltd.	16-08-2016 to 20-08-2016	One Week Faculty Development Program on "Internet of Things-IoT"
2.		Mr. Tuhin Kumar Polley, WebTek Labs Pvt. Ltd. Mr. Prasenjit Kumar Paul, WebTek Labs Pvt. Ltd.	03.09.2016 to 05.09.2016	Continuing Education on "Android and its' Application"
3.		Dr. Anirban Mukhopadhyay Associate Professor, Department of CSE University of Kalyani	24-09-2016	One day workshop on "Document preparation using Latex"

Sl. No.	Academic Year	Name of the eminent academicians and scientists / visitors to the department	Date of Visit	Purpose of Visit
4.	2015 – 2016	Soumya Raha, Corporate Trainer, MicroPro	03/02/2016	Workshop on “REDHAT System Administration”
5.		Prof. C.A. Murthy ISI, Kolkata	25.06.2016	One day seminar on “Process of Identifying the Research Problem”
6.		Prof. J.K. Mandal, University of Kalyani Prof. Satyen Mandal, KGEC Dr. Ipsita Sengupta, GCELT, Kolkata	06.06.2015 to 10.06.2015	One Week Faculty Development Program on MATLAB
7.	2014 – 2015	Mr. Tathagata Bhattacharyya, Technical Consultant, IBM, Noida	24/9/2014	Seminar on “Emerging Trends in IT”
8.		Prof. (Dr.) Rajkumar Buyya, University of Melbourne, Australia Sri K. Raghavendra, Dept. of Space, India Sri Ravi Challa, Manjrasoft, Australia Dr. Niloy Ganguly, IITKGP Prof. Animesh Mukherjee, IITKGP Dr. Sankhayan Choudhury, CU Dr. Sayan Ranu, IIT Madras Dr. Soumya Sen, CU Dr. Sunirmal Khatua, CU Dr. Lipika Dey, TCS Lab, Delhi Dr. Sourav Saha, IBM, Kolkata	14/10/14- 18/10/14	FDP on “Cloud Computing & Social Networking”
9.		Mr. Shaunak Chakraborty, Research Scholar, IIT, Guwahati	10/03/15	Expert lecture on “Research Aspects on Computer Hardware”
10.		Mr. Soumya Raha, Corporate Trainer, Micropro, Kolkata	21/03/2015 and	Workshop on “Linux System

Sl. No.	Academic Year	Name of the eminent academicians and scientists / visitors to the department	Date of Visit	Purpose of Visit
			28/03/2015	Administration”
11.		Dr. Amlan Chakrabarti, Associate Professor, CU	24/03/2015	Expert lecture on “Quantum Computing”
12.		Mr. Snehal Doshi, Freelance Soft Skill and Aptitude Trainer, Globsyn	25/03/15 22/04/15 29/04/15	Employability Enhancement Program
13.		Mr. Chiranjib Bhattacharyya, Corporate Trainer, Ardent Computech Pvt. Ltd Mr. Rajmohan De Sarkar, Corporate Trainer, Ardent Computech Pvt. Ltd.	10/04/15 and 11/04/15	Workshop on Big Data Hadoop”
14.		Mr. Rathish Das, Software Engineer, DELL India (R&D Centre), Bangalore	23/04/2015	“Research & Carrier Aspects in IT” and “System Programming with C++, Java”
15.		Dr. Ipsita Sengupta, Assistant Professor, GCELT, Kolkata	24/04/2015	Expert Lecture on “Digital Signal Transmission & Coding”
16.		Major General Harsh Kakkar (Retd.), V. P. Operations, Excel, Kolkata	24/04/2015	Student Awareness program on “SSB/ PABT”
17.	2013 – 2014	Mr. Mahendra Datta, Senior Technical Consultant, Micropro Mr. Apratim Choudhury, Senior Technical Consultant, Micropro	03/09/13 to 07/09/13	Staff Development Program for Technical Support Staffs on “PHP & MySQL”
18.		Mr. Nitin Kaushik, Technical Consultant, IBM	14/02/14 to 17/02/14	Training on “IBM SEED”
19.		Prof. Avijit Kar, JU Prof. C.A.Murthy, ISI	07/03/14	One day workshop on

Sl. No.	Academic Year	Name of the eminent academicians and scientists / visitors to the department	Date of Visit	Purpose of Visit
		Mr. Asok Bandyopadhyay, CDAC		“Image Processing and Pattern Recognition”
20.		Dr. Amlan Chakrabarti, Associate Professor, CU	01/04/14	Expert Lecture on “Quantum Computing”
21.		Prof. Atal Chowdhury, JU	12/04/14	One Day Seminar on “Distributed Systems Principles”
22.		Prof Ratan Saha, Saha Institute of Nuclear Physics, Kolkata Mr. Hrisikesh Bhowmik, RCCIIT Dr. Tandra Pal, NIT, Durgapur	10/07/12 to 14/07/12	Workshop on “Optimization Technique using MATLAB”
23.	2012 – 2013	Prof.(Dr.)B.K. Guha, BESU, Prof.(Dr.)M.K. Sanyal, BESU, Prof.(Dr.) S.Alam, BESU Prof.(Dr.) Prasun Ghosal, BESU Prof.(Dr.) Bijan Sarkar, JU Prof.(Dr.) TapanGhosal, JU	17/07/12 to 21/07/12	Workshop on “Research Competency Development”
24.		Dr. Nandini Mukhopadhyay, JU Smt. Chandreyee Chowdhury, JU Dr. Sarbani Roy, JU	26/03/13	Seminar on “Wireless Sensor Networks”

25. Seminars/ Conferences/ Workshops organized & the source of funding

a) National

National Seminar Organized

Sl. No.	Module Description	Source of Funding	Duration	Resource Persons	Target Audience	Usage and citation etc.
1.	Recent Technological Trends in IT	TEQIP II	1 Day 20/08/2016	Dr. Devdatta Sinha, Prof., CU Dr. J. K. Mandal, Prof., KU	Faculties, Lab. Instructors, PG students of MCKVIE	Adaptation and development of relevant and useful technology

Sl. No.	Module Description	Source of Funding	Duration	Resource Persons	Target Audience	Usage and citation etc.
				Mr. Dewaipayan Bhattacharjee, Associate Director, CTS		
2.	One day Seminar – “Process of Identifying the Research problem”	TEQIP II	1 Day 24/06/2016	Dr. C. A. Murty, Prof, CSI	Faculties, Lab. Instructors of MCKVIE	To Identify the Research problem
3.	Expert Lecture on “Recent Trend in Project Development and Implementation”	MCKVIE	1 Day 20/05/2015	Prof. Atal Choudhury, JU	Students of CSE, MCKVIE	To improve the knowledge on Recent Trend in Project Development and Implementation
4.	Student awareness program on “SSB/PABT”	NIL	1 Day 24/04/2015	Major General Harsh Kakkar(Rtd.) V.P. Operations, Excel, Kolkata	Students of CSE, MCKVIE	To improve the knowledge on how to prepare for SSB/PABT
5.	Expert Lecture on “Digital Signal Transmission & Coding”	TEQIP II	1 Day 24/04/2015	Dr. Ipsita Sengupta, asst. Prof, GCELT	Students of CSE, MCKVIE	To improve the knowledge on digital signal transmission & coding

Sl. No.	Module Description	Source of Funding	Duration	Resource Persons	Target Audience	Usage and citation etc.
6.	“Research & Career Aspects in IT” and “System Programming with C++, Java”	NIL	1 Day 23/04/2015	Mr. Rathish Das Software Engineer (Staff) at Dell India (R & D Center), Bangalore	Students of CSE, MCKVIE	To improve the knowledge on system programming and research & career aspects
7.	Employability Enhancement Program (EEP)	TEQIP II	2 Days 25/03/2015 and 22/04/2015	Mr. Snehal Doshi (Freelance Software and Skill and Aptitude Trainer)	Students of CSE, MCKVIE	To enhance Employability of students
8.	Expert lecture on “Quantum Computing”	TEQIP II	1 Day 24/03/2015	Dr. Amlan Chakrabarti (Associate Professor, CU)	Students of CSE, MCKVIE	To improve the knowledge on quantum computing
9.	Expert lecture on “Research Aspects on Computer Hardware”	TEQIP II	1 Day 10/03/2015	Mr. Shaunak Chakraborty (Research Scholar, IIT Guwahati)	Students of CSE, MCKVIE	To be familiar with recent development and research work on computer architecture
10.	Seminar on “Emerging Trends in IT”	NIL	1 Day 24/09/2014	Mr. Tathagata Bhattacharyya (Technical Consultant, IBM, Noida)	Students of MCKVIE	To upgrade the knowledge of students on recent trends in IT
11.	Seminar on “Distributed Systems Principles”	TEQIP II	1 Day 12/04/2014	Prof. Atal Chowdhury, JU	Students of CSE, MCKVIE	To promote the concept on Distributed System

Sl. No.	Module Description	Source of Funding	Duration	Resource Persons	Target Audience	Usage and citation etc.
12.	Expert lecture on “Quantum Computing”	TEQIP II	1 Day 01/04/2014	Dr. Amlan Chakrabarti (Associate Professor, CU)	Students of CSE, MCKVIE	To improve the knowledge on quantum computing
13.	Seminar on “Wireless Sensor Networks”	CSI	1 Day 26/03/2013	Dr. Nandini Mukhopadhyay JU, Smt. Chandreyee Chowdhury JU, Dr. Sarbani Roy JU	Faculties, Laboratory Instructors and students of MCKVIE	To gain the knowledge of current trends and open research topic of WSN

National Workshop Organized

Sl. No.	Module Description	Source of Funding	Duration	Resource Persons	Target Audience	Usage and citation etc.
1.	FDP on “Internet of Things - IoT”	TEQIP II	1 Week 16/08/2016 to 20/08/2016	Dr. Nandini Mukherjee, Prof., JU Dr. Sarbani Roy, Asso. Prof., JU Dr. Atal Chowdhury, Prof., JU Dr. J. K. Mandal, Prof., KU Dr. Sunirmal Khatua, Asst. Prof., CU Dr. Indrajit Banerjee, Asst. Prof., IEST Dr. Madhurima Chattopadhyay, Prof., HIT Prof. S.S. Thakur,	Faculties, Lab. Instructors, PG students of Engineering and Polytechnic Colleges	Understanding the concept of Cloud Computing, Big Data Analysis, Mobile Sensor Networking, and applications of Internet of Things

Sl. No.	Module Description	Source of Funding	Duration	Resource Persons	Target Audience	Usage and citation etc.
				Asso. Prof., MCKVIE Mr. Anand Raje, Cofounder, RABT Tech. Mr. Soumya Santa Roy, Sr. Manager,CTS		
2.	Workshop on Document Preparation using Latex	TEQIP II	1 Day 24/09/2016	Dr. Anirban Mukhopadhyay, Asso. Prof., KU	Faculties, Lab. Instructors of CSE, MCKVIE	Familiarization with LATEX to prepare research documents
3.	Continuing Education program on Android Application	TEQIP II	3 Days 03/09/2016 to 05/09/2016	Mr. Tuhin Shubra Polley, Sr. Expert, WebTek Labs. Pvt. Ltd Mr. Prasenjit Kumar Paul, Expert, WebTek Labs. Pvt. Ltd	Students of CSE, MCA MCKVIE	Adapting with recent technology
4.	Workshop on “REDHAT System Administration”	TEQIP II	2 Days 03/02/2016 And 03/02/2016	Soumya Raha, Corporate Trainer, MicroPro	Students of CSE, MCKVIE	To improve the knowledge on REDHAT System
5.	FDP on “MATLAB”	TEQIP II	2 Days 06/07/2015 And 10/07/2015	Faculties from MCKVIE and Other Renowned Institute	Faculties of West Bengal Polytechnic Colleges	To improve the knowledge on MATLAB
6.	FDP on “Web Design”	TEQIP II	5 Days 06/04/2015	Mr. Sourav Saha, IBM, Hrishikesh	Faculties of West Bengal	To improve the knowledge on

Sl. No.	Module Description	Source of Funding	Duration	Resource Persons	Target Audience	Usage and citation etc.
			To 10/04/20 15	Bhaumik, RCCIT, Sampa Ghosh Sengupta, MCKVIE Jayanti Mahato, MCKVIE Nabamita Majumder, MCKVIE	Polytech nics Colleges	web design
7.	Workshop on “Big Data Hadoo p”	TEQIP II	2 Days 10/04/20 15 and 11/04/20 15	Mr. Chiranjib Bhattacharyya (Corporate Trainer, Ardent Computech Pvt. Ltd) Mr. Rajmohan De Sarkar, (Corporate Trainer, Ardent Computech Pvt. Ltd.)	Students of CSE , MCKVIE	To improve the knowledge on big data handling using Hadoop
8.	Workshop on “Linux System Administrati on”	TEQIP II	2 Days 21/03/20 15 and 28/03/20 15	Mr. Soumya Raha (Corporate Trainer, Micropro, Kolkata)	Students of CSE, MCKVIE	To gain the knowledge on Linux system administration
9.	Continuing Technical Education Program on “PC Assembling & OS Installation”	NIL	2 Days 06/09/20 14 and 13/09/20 14	Mr. Sumit Majumdar CSE, MCKVIE, Mr. Prasenjit Das CSE, MCKVIE, Mr. Rupesh Sahu (Hardware Engineer, MCKVIE) Mr. Amrit Kumar Ghosh (Hardware Engineer,	Students of MCKVIE	To upgrade the knowledge of computer hardware and PC assembling

Sl. No.	Module Description	Source of Funding	Duration	Resource Persons	Target Audience	Usage and citation etc.
				MCKVIE)		
10.	Workshop on “Image Processing and Pattern Recognition”	TEQIP II	1 Day 07/03/2014	Prof. Avijit Kar JU, Prof. C.A.Murthy ISI, Mr. Asok Bandyopadhyay, CDAC	Students of CSE & IT, MCKVIE	To advance the knowledge of Image Processing and Pattern Recognition
11.	Training on “IBM SEED”	TEQIP II	4 Days 14/02/2014 to 17/02/2014	Nitin Kaushik (Technical Consultant)	Faculty and Laboratory Instructors of MCKVIE	To upgrade the knowledge of Software Engineering
12.	Staff Development Program for Technical Support Staffs on “PHP & MySQL”	TEQIP II	5 Days 03/09/2013 to 07/09/2013	Mr. Mahendra Datta, Senior Technical Consultant, Micropro, Mr. Apratim Choudhury, Senior Technical Consultant, Micropro	Laboratory Instructors of MCKVIE.	To develop the knowledge of PHP & MySQL
13.	Continuing Technical Education on “Webpage Designing using PHP & MySQL”	NIL	40 Hrs. 05/08/2013 to 21/10/2013	Ms. Parama Bagchi, Mr. Prasenjit Das, Mr. Sumit Majumdar, Mr. Prabir Kr. Naskar, Ms. Rachita Ghoshhajra, Mr. Mangal Singh, Mr. Suprio Das, Ms. Roshni das, Mr. Sudip Bera, Mr. Kailash Ch.	Students of MCKVIE and other Institutes	To upgrade the knowledge and programming skills of students by training with recent technology

Sl. No.	Module Description	Source of Funding	Duration	Resource Persons	Target Audience	Usage and citation etc.
				Mahatab (CSE, MCKVIE)		
14.	Continuing Technical Education on “Advanced C Programming”	NIL	12 Days 03/01/2013 to 25/02/2013	Mr. S.S.Thakur, Mr. Avijit Bose, Mr. Prasenjit Das, Ms. Mahua Nandy(Pal), Mr. Surojit Bhattacharyya, Mr. Sumit Majumdar, Ms. Parama Bagchi, Mr. Prabir Kr. Naskar, Mr. Abhisek Saha, Mr. Puspun Lahiri, Mr. Suprio Das, Mr. Sudip Bera, Mr. Mangal Singh, Mr. Kailash Ch. Mahatab (CSE, MCKVIE)	Students of MCKVIE	To advance the knowledge in C programming language.
15.	Workshop on “Optimization Technique using MATLAB”	MCKVIE	1 Week 10/07/2012 to 14/07/2012	Prof Ratan Saha (SINP), Mr. Hrisikesh Bhowmik (RCCIIT) , Dr. Tandra Paul (NIT)	Faculties and Laboratory Instructors of MCKVIE	To enhance the knowledge of optimization techniques using MATLAB
16.	Workshop on “Research Competency Development”	MCKVIE	1 Week 17/07/2012 to 21/07/2012	Prof.(Dr.)B.K. Guha, BESU, Prof.(Dr.)M.K. Sanyal, BESU, Prof.(Dr.) S.Alam, BESU Prof.(Dr.) Prasun Ghosal, BESU Prof.(Dr.) Bijan Sarkar, JU Prof.(Dr.) Tapan Ghosal, JU	Faculties and Laboratory Instructors of MCKVIE	To gain the knowledge on Research Methodology and various open research fields

National Conference Organized

Sl. No.	Module Description	Source of Funding	Duration	Resource Persons	Target Audience	Usage and citation etc.
1.	CSI Regional Student Convention 2016	CSI	1 Day 20/08/2016	Dr. Devdatta Sinha, Prof., CU Dr. J. K. Mandal, Prof., KU Mr. Dewaipayan Bhattacharjee, Associate Director, CTS	Students of different engineering colleges under CSI Region II	Expose the students the concept of academic writing, research presentation, critical thinking etc.
2.	6th ALL INDIA INTER ENGINEERING COLLEGE ACADEMIC MEET – 2015	FOSET	1 Day 26/04/2015	Prof. Subimal Sen, Former Chairman, WB Higher Education Council, Prof. Jaya Sil, Dept. of Computer Science, IEST, Sibpur and other dignitaries	Students of engineering and science of any institute	To improve the research activity

b) International

International Workshop Organized						
Sl. No.	Module Description	Source of Funding	Duration	Resource Persons	Target Audience	Usage and citation etc.
1.	FDP on “Cloud Computing & Social Networking”	TEQIP II	1 Week 14/10/2014 to 18/10/2014	Prof. (Dr.) Rajkumar Buyya (University of Melbourne, Australia), Sri K. Raghavendra	Faculties and Laboratory Instructors of	To gain the knowledge on research scope of Cloud Computing

				(Dept. of Space, India), Dr. Niloy Ganguly (IIT KGP), Prof. Animesh Mukherjee (IIT KGP), Dr. Sankhayan Choudhury (CU), Dr. Sayan Ranu (IIT Madras), Dr. Soumya Sen (CU), Dr. Sunirmal Khatua (CU), Dr. Lipika Dey (TCS Lab, Delhi), Dr. Sourav Saha (IBM, Kolkata), Sri Ravi Challa (Manjrasoft, Australia)	AICTE approved Degree Engineering Colleges and Polytechnic colleges	and Social Networking
--	--	--	--	--	---	-----------------------

26. Student profile programme/ course wise:

Not Applicable as students are admitted through JEE MAIN (AIEEE), WBJEE, JELET, PGET, GATE

Name of the Course/programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	

*M = Male *F = Female

27. Diversity of Students

Name of the Course	Academic Year	% of students from the same state	% of students from other States	% of students from abroad
B.Tech in Computer Science and Engineering	2016 - 2017	83%	17%	0%
	2015 - 2016	86%	14%	0%
	2014 - 2015	87%	13%	0%
	2013 - 2014	85%	15%	0%
	2012 - 2013	86%	14%	0%
M.Tech in Computer Science and Engineering	2016 - 2017	100%	0%	0%
	2015 - 2016	100%	0%	0%
	2014 - 2015	89%	11%	0%
	2013 - 2014	91%	9%	0%
	2012 - 2013	88%	12%	0%

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Name of the Course	Year of Graduation	Number of students cleared national and state competitive examinations		
		GATE	NET	SLET
B.Tech in Computer Science and Engineering	2016	5	0	0
	2015	6	0	0
	2014	14	0	0
	2013	11	0	0
	2012	29	0	0
M.Tech in Computer Science and Engineering	2016	0	0	0
	2015	0	0	0
	2014	0	0	0
	2013	1	1	0

29. Student progression

Student progression	Percentage of student				
	2016 POB	2015 POB	2014 POB	2013 POB	2012 POB
UG to PG	5.79 %	5.79 %	5.88 %	9.23 %	4.61 %
PG to M.Phil.	0 %	0 %	0 %	0 %	0 %
PG to Ph.D.	0 %	0 %	5.5 %	0 %	0 %
Ph.D. to Post-Doctoral	0 %	0 %	0 %	0 %	0 %

Student progression		Percentage of student				
		2016 POB	2015 POB	2014 POB	2013 POB	2012 POB
Employed	Campus selection	68.11 %	55.07 %	50.00 %	64.61 %	67.69 %
	Other than campus recruitment	4.34 %	28.98 %	38.23 %	18.46%	15.38 %
Entrepreneurship/Self-employment		0 %	0 %	0 %	1.53 %	0 %

30. Details of Infrastructural Facilities

a) Library

- Central Library is accessed by students as well as staff members.
- Departmental Library facility is available for M-Tech students and staff members.

Central Library		Departmental Library	
Item	Quantity	Item	Quantity
No. of Book titles	1676	No. of Book titles	548
No. of CD	975	No. of CD	106
No. of Journals	11	No. of Journals	13
E- Journals	IEEE- 169 Springer- 149	E- Journals	0
E- Books	Pearson- 232 Titles IEEE- 640 Titles	E- Books	0

b) Internet facilities for Staff & Students:

Access points of Wi-Fi are available for providing internet facilities at all corners of the Department that can be accessed by staffs as well as students.

c) Class rooms with ICT facility

Most of the Rooms are equipped with LCD projector and internet facility with Wi-Fi enable campus.

d) Laboratories

SL. No.	Laboratory Name	Brief Description
1.	Project Lab I	Use for B.Tech Project purpose
2.	Project Lab II	Use for M.Tech Lab and Project.
3.	Graphics & Multimedia Lab	Use for C language, Data Structure, Design & Analysis of Algorithm and Computer

SL. No.	Laboratory Name	Brief Description
		Architecture Lab.
4.	DBMS & Web Technology Lab	Use for DBMS Lab, Software Tools, Software Engineering, Artificial Intelligence, OOPs & Internet Technology Lab.
5.	OS & Network Lab	Use for Operating System, Networking, Programming Practice using C++, Numerical Methods, Soft Computing & Design Lab.

NOTE: All the Labs are equipped with leased line Internet facilities.

31. Number of students receiving financial assistance from college, university, government or other agencies

B.Tech. Students receiving financial assistance from college, university, government agencies					
Sl. No.	BATCH	WBFS		TFW	Total
		HALF	FULL		
1	2016 – 2017	7	0	9	16
2	2015 - 2016	23	9	10	42
3	2014 - 2015	19	13	9	41
4	2013 - 2014	13	17	8	38
5	2012 - 2013	8	17	5	30

M.Tech. Students receiving financial assistance from college, university, government agencies				
Sl. No.	BATCH	Teaching Assistantship from TEQIP II	GATE Scholarship	Total
1	2016 – 2017*	1	1	2
2	2015 - 2016	2	1	3
3	2014 - 2015	10	0	10
4	2013 - 2014	12	1	13
5	2012 - 2013	8	1	9

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts

Sl. No.	Academic Year	Title	Targeted Students
1.	2016-17	QEEE program on Priority Queues and Trees	Students of 2 nd Year
2.		QEEE program on Microprocessor and Micro Controllers – Memory Mapping and Peripheral Interfacing	Students of 3 rd Year
3.		QEEE program on Input and Output Streams – Interfaces, packages Collections and Vectors, Files - OOPs	Students of 3 rd Year
4.		Recent Technological Trends in IT	All students
5.		Continuing Education program on Android & its application	All students
6.		CSI Regional Student Convention 2016	All students
7.	2015-16	Continuing Technical Education on “PHP & MySQL”	All students
8.		Workshop on “REDHAT System Administration”	All students
9.	2014-15	6th ALL INDIA INTER ENGINEERING COLLEGE ACADEMIC MEET – 2015	All students
10.		Student awareness program on “SSB/PABT”	All students
11.		Expert Lecture on “Digital Signal Transmission & Coding”	Students of 3 rd Year
12.		“Research & Career Aspects in IT” and “System Programming with C++, Java”	Students of 3 rd Year
13.		Workshop on “Big Data Hadoop”	Students of 3 rd Year
14.		QEEE program on Computer Network	Students of 3 rd Year
15.		Employability Enhancement Program (EEP)	Students of 3 rd Year
16.		Expert lecture on “Quantum Computing”	Students of 2 nd Year
17.		Workshop on “Linux System Administration”	Students of 3 rd Year
18.		Expert lecture on “Research Aspects on Computer Hardware”	All Students
19.		Seminar on “Emerging Trends in IT”	All Students
20.	Continuing Technical Education Program on “PC Assembling & OS Installation”	All Students	
21.	2013-14	Seminar on “Distributed Systems Principles”	All Students
22.		Expert lecture on “Quantum Computing”	Students of 3 rd Year
23.		Continuing Technical Education on “Webpage Designing using PHP & MySQL”	All Students

Sl. No.	Academic Year	Title	Targeted Students
24.	2012-13	Seminar on “Wireless Sensor Networks”	Students of 3 rd Year
25.		Continuing Technical Education on “Advanced C Programming”	All Students

33. Teaching methods adopted to improve student learning

The following teaching methods are adopted to improve student learning process during their stay of 4 years:

Teaching Aids

- Black Board used for Chalk Talk Presentations
- Multimedia Presentation used for Effective Communication
- Study materials like Notes or Handouts and E-Resources like NPTEL Video Lectures used as supplements of Book Chapters

Teaching Methods

Method's Name	Descriptions
Lectures	<ul style="list-style-type: none"> • To teach students about a particular subject, Lectures are used to convey background, critical information, theories and problem solving techniques. • Lectures are used to relate engineering practice with ethical issues. Lectures are also used to expose the students to contemporary issues and the need for life-long learning in the appropriate societal context.
Lecture with Discussion / Tutorials	<ul style="list-style-type: none"> • To teach a student, Lecture demonstration is not sufficient enough. Along with regular theory classes one tutorial class (as per curriculum) for each group is conducted. • Tutorial class mainly deals with problem solving, question answer discussion to clear the doubts. • Lecture with Discussion also provide a platform of interaction amongst the students and the faculties to solve some numerical problems as well as to discuss some unknown questions and their probable answers. • Asynchronous discussion.
Interactive Presentations	<ul style="list-style-type: none"> • Presentations are given to illustrate ideas and concepts in intricate graphics form. • Presentations give information with data relating to an issue. • Videos effectively communicate the working of actual engineering

Method's Name	Descriptions
	<p>solutions and their impact.</p> <ul style="list-style-type: none"> • Presentations are always followed by discussions.
Experimental Laboratory Works	<ul style="list-style-type: none"> • Laboratory work demonstrates how theory can be implemented by experiments. • Some experiments are done in groups so students learn to work in teams.
Projects	<ul style="list-style-type: none"> • Projects are taken in groups of 3-5 students. • Students are guided by faculty members or external resource persons. • Projects are taken on a large variety of problems and many a times of a multidisciplinary nature. • Project reports are written and presented in front of the experts.
Group Tasks	<ul style="list-style-type: none"> • A group task can be a valuable learning experience: • Students can learn a lot from each other. • Group tasks can produce broader and deeper learning outcomes for individual students. • Working in teams is an essential skill in many work contexts like Seminar Presentation, Project Preparation and Presentation etc.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

Sl. No.	Programme/ Event	Date	Faculty member involved	Role
1	Seminar on "Value Education and Positive Thinking" in June(2012-2016)	2012-2016	Ms. Rachita Ghoshhajra	Asst. Secretary
2	Distribution of articles like clothes, bedsheet, food, among Needy/ Orphan Children before Puja (2013-2016)		Ms. Soma Bandyopadhyay	Asst. Secretary
3	Celebration of Tithipuja of Sri Ramakrishna, Ma Sarada Devi, Swami Vivekananda (2012-2016)		Mr. S.S.Thakur, Ms. S.S.Choudhury	Member
4	Late S. K. Mitra Endowment Lecture in July(2012-2016)		Mr. Puspen Lahiri, Mr. Avishek Saha	Member
5.	Vivekananda Society , Simla, Kolkata	26 th Feb, 2014	Ms. Rachita Ghoshhajra	Panel discussion Speaker
6.	Ariadaha Kalachand High School, in	2 nd Oct	Ms. Rachita	Invited

Sl. No.	Programme/ Event	Date	Faculty member involved	Role
	an event jointly organized by SVCPT & Praktani, AKCHS	2015	Ghoshhajra	Speaker
7.	Entrepreneurship Awareness Camp	6-8 February 2014	Ms. Rachita Ghoshhajra Mr. S.S.Thakur, Ms. Soma Bandyopadhyay	Member
8.	Awareness Program on Data Protection & Security	28 th Jan 2016	Ms. Rachita Ghoshhajra	Compere

35. SWOC analysis of the department and Future plans

Strengths:

1. NBA Accredited Department.
2. Excellent Placement Record with satisfactory performance of students in various Competitive Examinations like GATE, CAT.
3. Continuous knowledge up-gradation through Seminars, Workshops, FDPs on regular intervals for Students, Faculty Members and Laboratory Instructors.
4. Excellent classrooms with modern teaching aids, well equipped laboratories with latest configured machines, modern and licensed software.

Weakness:

1. Less number of faculties with Ph.D. qualification.
2. Weak R&D Activities due to lack of senior faculty members.
3. Less number of publications.
4. Inadequate Industry-Department collaboration.

Opportunities:

1. Initiation of domain specific research activities.
2. Plan to apply for sponsored R&D projects.
3. Introducing professional development courses for students beyond college hours.
4. Enhancement of Industry- Department interaction by organizing Industry oriented hands on courses.

Challenges:

1. Retention of Faculty and Staff members.
2. Lack of understanding engineering concepts as many Students are first generation learners.
3. Less adaptability of lateral entry students with regular students due to academic gap and medium of understanding.

Future Plans:

1. Setting of R & D Lab in the department.
2. Increase of student's intake in the department.

Electronics & Communication Engineering

1. **Name of the department:** Electronics & Communication Engineering
2. **Year of Establishment:** 1999
3. **Names of Programmes/ Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.).**

Level	Programme	Full Time/ Part Time/ Sandwich	Year of Starting	Intake
				Sanctioned
UG	B.Tech in Electronics and Communication Engineering	Full Time	1999	60
PG	M.Tech in Electronics and Communication Engineering	Full Time	2008	18
PG	M.Tech in Electronics and Communication (VLSI Design)	Full Time	2012	18

4. **Names of Interdisciplinary courses and the departments/ units involved**

Course Code	Course Name	Department
M(CS)301	Numerical Methods	BSHSS
M 302	Mathematics III	BSHSS
M(CS)391	Numerical Method Lab	BSHSS
HU401	Values & Ethics in Profession	BSHSS
PH401	Physics-II	BSHSS
CH401	Basic Environmental Engineering & Elementary Biology	BSHSS
HU 481	Technical Report Writing & Language Lab Practice	BSHSS
PH491	Physics-II Lab	BSHSS
HU501	Economics for Engineers	BSHSS
EC 504B	Data structure & C	CSE
EC 594B	Data structure & C Lab	CSE
HU 601	Principles of Management	BSHSS
EC 605A	Object Oriented Programming	IT
EC695A	Object Oriented Programming Lab	IT
EC705D	Power Electronics	CSE
EC795D	Power Electronics Lab	CSE
HU781	Group Discussion	EE
HU801A	Organisational Behaviour	EE

5. Annual/ semester/ choice based credit system (programme wise):

Semester based Credit System

6. Participation of the department in the courses offered by other departments

Course Code	Course Name	Department
ES 101	Basic Electrical & Electronics Engg.- I	BSSHSS
ES 191	Basic Electrical & Electronics Engg Lab.- I	BSSHSS
ES 201	Basic Electrical & Electronics Engg.- II	BSSHSS
ES 291	Basic Electrical & Electronics Engg. Lab - II	BSSHSS
EC(EE)301	Analog Electronics	EE
EC(EE)302	Digital Electronics	EE
EE 705C	Digital Communication	EE
EE792C	Digital Communication Lab	EE
MCA 191	Microprogramming & Architecture Lab	MCA
AUE603	Metrology & Measurement	AUE
AUE691	Metrology & Measurement Lab	AUE
MAE104	Advanced Automotive Electronics	AUE
EC(EE)391	Analog and Digital Electronics Lab	EE
EE504C	Microprocessors & Microcontrollers	EE
EE594C	Microprocessors & Microcontrollers Lab	EE
MAE191	Auto Electronics Lab	AUE
AUE702	Automotive Electrical & Electronics System	AUE

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

Sl. No.	Name of the Program	Course Offered	Year	Collaborating Institute
1.	QEEE	Digital Communication Systems	2015	IIT, Madras
2.	QEEE	Solid State Device	2015	IIT, Madras
3.	QEEE	Convolution and Frequency Domain Analysis – Signals and Systems	2016	IIT, Madras
4.	QEEE	Digital Electronics	2016	IIT, Madras
5.	QEEE	8085 and 8086 Microprocessor: architecture, assembly language programming and system design	2016	IIT, Madras
6.	QEEE	Microprocessors and Microcontrollers – Memory Mapping and Peripheral Interfacing	2016	IIT, Madras

8. Details of courses/ programmes discontinued (if any) with reasons:

NIL

9. Number of Teaching posts:

Cadre Type	Sanctioned	Filled
Professors	3	1
Associate Professors	5	3
Asst. Professors	13	12

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt./ Ph.D./ M. Phil. etc.)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Satadal Saha	B.Sc., B.Tech., M.Tech., Ph.D.(Engg.)	Associate Professor	Optics & Optoelectronics	1+16	0
Dr. Asok Kumar	Ph.D.(Engg.)	Professor	Communication & Networking	17.5	3
Mr. Sudarshan Chakravorty	B.E., M.Tech.	Associate Professor	Power Electronics & IMPATT Diode	18+14	0
Dr. Krishnendu Chattopadhyay	AMIETE, M.E., Ph.D.(Engg.)	Lecturer (Selection Grade)	Planner Antenna	2+16	0
Mr. Subhasish Banerjee	B.Sc., B.Tech., M.Tech.	Assistant Professor	Optics & Optoelectronics	11.5	0
Mr. Atanu Banerjee	B.E.,M.E.	Assistant Professor	Digital System Instrumentation	15	0
Dr. Pubali Mukhrejee	B.Sc., B. Tech., M.Tech., Ph.D(Tech.)	Assistant Professor	Optics & Optoelectronics	3+9	0

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Swarup Kr. Mitra	B.Tech., M.Tech., Ph.D.(Engg.)	Associate Professor	VLSI	5.5+8.5	0
Ms. Debasree Maity	B.Tech., M.Tech.	Assistant Professor	Radio Physics & Electronics	9.5	0
Mr. Joydeep Banerjee	B.Tech., M.Tech.	Assistant Professor	Microwave	8	0
Mr. Kalyan Biswas	B.Sc., B.Tech., M.Tech.	Assistant Professor	Optics & Optoelectronics	9+8	0
Mr. Soham Lodh	B,Sc., B.Tech., M.Tech.	Assistant Professor	Radio Physics & Electronics	7	0
Mr. Rajarshi Sanyal	B.Sc., AMIETE, M.Tech.	Assistant Professor	Communication	1.2+15	0
Mr. Sekhar Rana	B.Tech., M.Tech.	Assistant Professor	VLSI	7	0
Mr. Sagar Mukherjee	B.Tech., M.Tech.	Assistant Professor	VLSI	5.5	0
Dr. Manabendra Maiti	B.Sc., M.Sc., M.Tech, Ph.D.(Tech.)	Assistant Professor	Microwave & wireless communication	6	0

11. List of senior visiting faculty:

NIL

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Not Applicable

13. Student -Teacher Ratio (Program wise)

$x=2^{\text{nd}}$ Year, $y=3^{\text{rd}}$ Year, $z=4^{\text{th}}$ Year, $N=\text{No. of Faculty}$

Year	Program	x	y	z	x+y+z	N	STR (x+y+z/N)
2016-17	UG	72	72	72	216	12	18:1

$a=1^{\text{st}}$ Year, $b=2^{\text{nd}}$ Year, $N=\text{No. of Faculty}$

Year	Program	a	b	a+b	N	STR (a+b)/N
2016-17	PG	36	36	72	4	18:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

Designation	Sanctioned	Filled
Technical Staffs	14	14
Administrative staff	1	1

15. Qualifications of teaching faculty with D.Sc./ D.Litt./ Ph.D./ M.Phil. / PG.

Sl. No	Degree	No. of Faculty
1	D.Sc.	0
2	D.Litt	0
3.	Ph.D.	6
4.	M.Phil.	0
5	PG	10

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received

NIL

17. Departmental projects funded by DST- FIST; UGC, DBT, ICSSR, etc. and total grants received:

ECE department has received MODROB project in the year 2012 with approved amount of Rs. 7 lakh.

18. Research Centre/ facility recognized by the University:

Not Applicable

19. Publications:

- a) Publication per faculty
- b) Number of papers published in peer reviewed journals (national/international) by faculty and students
- c) Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- d) Monographs
- e) Chapter in Books
- f) Books Edited
- g) Books with ISBN/ ISSN numbers with details of publishers
- h) Citation Index (Maximum value cited)
- i) SNIP (Maximum value cited)
- j) SJR (Maximum value cited)
- k) Impact factor (Maximum value cited)
- l) h-index

Following table shows the publication details of faculty members of the department.

Sl. No.	Name of the Faculty	(a)	(b)	(c)	(d)	(e)	(f)	(g)*	(h)	(i)	(j)	(k) (Highest)	(l)
1	Dr. Asok Kumar	46	11	-	-	-	-	1	-	-	-	2.798	-
2	Dr. Satadal Saha	21	14	8	-	3	-	-	49	1.943	4.643	5.776	6
3	Dr. Swarup Kr. Mitra	21	6	16	-	-	-	-	25	-	-	0.8	4
4	Mr. Sudarshan Chakravaty	11	11	-	-	-	-	-	8	2.1	0.92	-	5
5	Dr. Krishnendu Chattopadhyay	8	6	3	-	-	-	-	-	1.252	0.159	1.315	1
6	Dr. Pubali Mukherjee	13	4	4	-	-	-	-	-	-	-	1.8	-
7	Dr. Manabendra Maiti	17	9	17	-	-	-	-	4	1.071	0.606	1.409	-
8	Mr. Rajarshi Sanyal	10	10	10	-	-	-	-	6	-	0.372	3.8	2
9	Mr. Kalyan Biswas	25	5	12	-	-	-	-	86	0.980	0.597	2.117	4
10	Mr. Atanu Banerjee	1	-	-	-	-	-	-	-	-	-	-	-

Sl. No.	Name of the Faculty	(a)	(b)	(c)	(d)	(e)	(f)	(g)*	(h)	(i)	(j)	(k) (Highest)	(l)
11	Mr. Subhasish Banerjee	5	0	1	-	-	-	-	-	-	-	-	-
12	Mr. Joydeep Banerjee	5	1	3	-	-	-	-	3	-	-	-	-
13	Mrs. DebasreeMaity	1	-	-	-	-	-	-	-	-	-	-	-
14	Mr. SekharRana	5	-	3	-	-	-	-	-	-	-	-	-
15	Mr. Soham Lodh	1	-	-	-	-	-	-	-	-	-	-	-
16	Mr. Sagar Mukherjee	7	5	7	-	-	-	-	2	1.061	0.675	2.117	2

* Books with ISBN/ ISSN numbers with details of publishers: 2

Sl. No.	Book Title/ Author	Publisher Name	ISBN/ISSN NO
1	Computer Networks/ Dr. Asok Kumar	J.B. Books and Learning	ISBN: 978-81-910235-9-6

20. Areas of consultancy and income generated:

NIL

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards...

Dr. Asok Kumar is a member of IACSIT, IEEE, CSI, ISTE (International Bodies) and IE(I).

Mr. Kalyan Biswas and Mr. Sagar Mukherjee are Executive Committee member of IEEE SSCS Kolkata Chapter for 2016.

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/ programme:

100%

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/ Industry/ other agencies:

0%

23. Awards/ Recognitions received by faculty and students

Dr. Satadal Saha received Erasmus Mundus Mobility with Asia (EMMA) post-doctoral fellowship provided by European Union under P6 mobility program for the duration January to June 2015.

24. List of eminent academicians and scientists/ visitors to the department

Purpose of Visit	Date of visit	Resource persons
Invited Talk on Multi-Functional Antenna and it's Applications	24/09/2016	Mr. Satyajit Chakrabarti, Scientist,SAMEER, Kolkata
Two-Days National Seminar on Recent Advancements in Lightwave Technology	23/09/2016 and 24/09/2016	i. Prof. Partha Roy Chaudhuri, , IIT Kharagpur ii. Prof. (Dr.) Rajib Chakraborty University of Calcutta iii. Mr. Palas Biswas, CGCRI, Kolkata iv. Prof. Kallol Bhattacharya, University of Calcutta v. Mr. Subir Biswas, Vodafone
Invited Talk on Frontier of Wireless Mobile Technology	10/09/2016 and 11/09/2016	i.Mr. Santanu Dey, Sr. Pre-emptive Support Consultant ii. Mr. Arunava Maity, Subject Matter Expert iii. Mr. Saptarshi Maiti, Sr. Engineer Packet Core iv.Mrs. Sohini Ghosh, Specialist Customer Support (Ericsson Global Services Pvt. Ltd)
Invited Talk on Application of FPGA for Communication Systems	29/04/2016	Mr. Indranil Hatai Assistant Professor School of VLSI Technology IEST, Shibpur
Invited Talk on Fundamentals of IC Fabrication Technology	01/04/2016	Prof. (Dr.) Chandan Kumar Sarkar, ETCE Dept., JU
Invited Talk on Microwave & its Applications	17/03/2016	Prof. (Dr.) Monojit Mitra, E&TC Dept., IEST,Shibpur
Invited Talk on Design Issues in Low Power VLSI	12/03/2015	Prof. Subir Kumar Sarkar, IEEE Distinguished Lecturer & Professor, Department of Electronics & Telecommunication Engineering, Jadavpur University
Invited Talk on Vision Based Autonomous Path Following and Door Detecting Robots	28/02/2015	Prof. (Dr) Amitava Chatterjee, EE Dept, Jadavpur University
Invited Talk on IP Networks in Modern Communicating World	25/11/2014	Mr. Saptarshi Maity, Sr. Eng(Packet Core) Ericsson Global Services Pvt. Ltd.

Purpose of Visit	Date of visit	Resource persons
Invited Talk on Combat Interrogation - Friend and Foe.	27/10/2014	Prof. Sayan Chatterjee, Asst. Prof, ETCE Dept. Jadavpur University
Invited Talk on Application of Electronics in Railways	13/10/2012	Mr. Bijoy Das, Principal RAMS Manager, Ansaldo-STS India
Seminar on Recent Trends in Mobile Communication 1G to 4G	25/08/2012	Mr. Satyajit Chakravoty, SAMEER, Kolkata

**25. Seminars/ Conferences/ Workshops organized & the source of funding a) National
b) International**

List of Seminar

Module description	Source of Funding	Duration	Resource persons	Target audience
Two-Days National Seminar on Recent Advancements in Lightwave Technology	TEQIP-II	23/09/2016 to 24/09/2016	i. Prof. Partha Roy Chaudhuri, IIT Kharagpur ii. Prof. (Dr.) Rajib Chakraborty University of Calcutta iii. Mr. Palas Biswas, CGCRI, Kolkata iv. Prof. Kallol Bhattacharya, University of Calcutta v. Mr. Subir Biswas, Vodafone	UG and PG Students, Faculty members and Lab Instructors of MCKVIE and other institutes (40 nos)
Seminar on Recent Trends in Mobile Communication on 1G to 4G	YPS,IET(UK), Kolkata Local Network	01 day 25.08.2012	Mr. Satyajit Chakravoty, SAMEER, Kolkata	ECE 4th year students, M.TECH Communication and M. Tech VLSI Students, faculties from different depts. of MCKVIE and lab instructors.

List of National Conference

Module description	Source of Funding	Duration	Resource persons	Target audience
National Conference on 'Recent Developments in Electrical, Electronics & Engineering Physics	IET(UK, Kolkata Local Network), EDS, IET, IETE, IEE (Kolkata Section)	02 days (26th & 27th October 2013)	Invited Speaker: 1. Dr. S Chattopadhyay, CU 2. Dr. A K Mullick 3. Dr. A Gupta, JU 4. Dr. A. Ghosh, CU 5. Dr. Madhusudan Roy, SINP Electronics Paper Presenter No: 15 Electrical Paper Presenter No : 24 Physics Paper Presenter No: 7	MCKV Faculty & TSS and other members from different organization, B.Tech. & M.Tech. Students, M.Sc. Students

List of International Conference

Module description	Source of Funding	Duration	Resource persons	Target audience
ICCCM 2014: International Conference on Computing, Communication & Manufacturing	IET, IET, CSI, SAE, Internet Society	December 22-23, 2014	49 nos of papers	MCKV Faculty & TSS and other members from different organization, B.Tech. & M.Tech. Students

List of Workshops

Module description	Source of Funding	Duration	Resource persons	Target audience
Workshop: Short Term Course on Manufacturing of LED Bulb and LED Chain Light	Student Participation fee: Rs. 900/- per head	12/07/2016 to 15/07/2016	i. Mr. Arijit Sen ii. Mr. Ajoy Ghoshal iii. Mr. Chandan Das iv. Mr. Udaybhanu Dutta	Students of diploma, B.Tech. and M.Tech. (09 nos.)
Front to Back End Design of Integrated Circuit using EDA Tools	TEQIP-II, IEEE-SSCS (Technical Co Sponsorship)	1 week (11/07/2016 to 15/07/2016)	i. Prof C.K.Sarkar, JU ii. Prof. M.K.Naskar, JU iii. Dr. Prajit Nandi, Sankalp	Faculty and laboratory instructors of different degree and diploma engineering colleges (27 nos.)

Module description	Source of Funding	Duration	Resource persons	Target audience
			Semiconductor iv. Mr. Indranil Hatai, IEST, Shibpur	
In House Training Program on C-Language	MCKVIE	09/05/2016 to 13/05/2016	Mr. S.S.Thakur, CSE Dept, MCKVIE	Faculty and Lab Instructors of ECE Dept (16 nos)
Two days workshop on Line Follower and Obstacle Avoider Robotics using Arduino	MCKVIE	23/04/2016 & 24/04/2016	i. Dr. Manabendra Maity ii. Mr. Ajoy Ghosal iii. Mr. Chandan Das iv. Mr. Arijit Sen	Students of MCKVIE (37 nos)
Workshop on Electronic Circuit Design	IJET(UK), Kolkata Local Network	18/03/2016 to 20/03/2016	Dr. Krishnendu Chattopadhyay	Students of ECE 6 th semester (44 nos.)
FPGA Implementation of Digital Systems using Verilog	MCKVIE	01 day (14.10.15)	i) Dr. Swarup Kr. Mitra ii) Mr. Sagar Mukherjee iii) Mrs. Mahua Raha Patra	Students of B.Tech. and M.Tech. of ECE (20 nos.)
Three Days Workshop on TI Embedded System TIVA Series	Texas Instruments & EDGATE Technologies	03 days (06.10.15-08.10.15)	i) Mr. Naveen Kumar, Edgate Technologies ii) Mr. Rohit Prajapati, Edgate Technologies	Students of ECE and EE Dept. (84nos.), Faculty and lab. Instructors (25 nos.)
One Week FDP on Research Methodology	TEQIP-II	1 week (23.03.15 and 27.03.15)	i) Prof. (Dr.) Samir Kr. Saha, MCKVIE ii) Prof. (Dr.)	Faculty members or research scholar of AICTE approved engineering colleges/

Module description	Source of Funding	Duration	Resource persons	Target audience
			Siddhartha Roy, HIT iii) Prof. (Dr.) T.K.Ghoshal, JU iv) Prof. (Dr.) A.K.Jalan, MCKVIE v) Dr. Amit Phadikar, MCKIVIE vi) Prof. (Dr.) Dr. J.K.Roy, MCKVIE vii) Mr. Utpal Saekar, MCKVIE	polytechnics (73 nos.)
Workshop on Design of LED lighting System	IJET(UK), Kolkata Local Network	01 day (01.03.15)	Faculty Members of MCKVIE	ECE Students (28nos)
2- Days workshop on Quad Copter (3D Robotics)	Robo Feast 2014 in association with IIT Roorkee	02 days 31 st August & 1 st September 2014	i) Dr. Gautam Kr. Maity ii) Mr. Ajoy Ghoshal iii) Mr. Vikash Chauhan, Research Engg., Revert Technology Pvt. Ltd.	i) Students of MCKV(2 nd and 3 rd year students of ECE, EE, ME, IT, AUE, CSE) ii) Students of CEMK, ECE 3 rd year (3 nos.) iii) Students of BBIT, ME,EE 3 rd year(4 nos) iv) Students of SDET, Brainware Group of Inst., ECE 3 rd year (3 nos) Total: 69 nos
Workshop on Advanced Design & Simulation	MCKVIE	02 days (16.04.14 to 17.04.14)	i) Dr. S.K.Mitra ii) Mr. Kalyan Biswas iii) Mr. Sagar Mukherjee	Students of ECE Final Year (30 Nos.)

Module description	Source of Funding	Duration	Resource persons	Target audience
Workshop on Swarm Robotics	Technophilia Systems Pvt. Ltd, Andheri, Mumbai	29th & 30th September, 2013	Mr. Vinay Kr. Yadav, Technophilia Systems Pvt. Ltd, Andheri, Mumbai	Students from various department of MCKVIE (59 nos) and outside participants (9, 4 from JIS & 5 from CIT)
Workshop on Electronics Circuit Design	IET(UK), Kolkata Local Network	03 days (17.08.13-19.08.13)	<ul style="list-style-type: none"> i) Mr. Arijit Sen ii) Mr. Sekhar Rana iii) Mr. Ajoy Ghoshal iv) Mr. Joydep Banerjee v) Mr. Soham Lodh vi) Mr. Sagar Mukherjee vii) Mr. Satadal saha viii) Ms. Tanusree Bose ix) Ms. Sumita Dutta x) Mr. Udaybhanu Dutta xi) Mr. Chandan Das xii) Mr. Sudipta Chakraborty xiii) Ms. Priyanka Nath, 	B.Tech. ECE 5 th Semester Students
Workshop on Microcontroller and its Application in Embedded Systems	YPS, IET(UK), Kolkata Local Network	02 days (12.10.12 and 14.10.12)	<ul style="list-style-type: none"> i) Somnath Pradhan, Research Scholar, CMRI, Durgapur ii) Ms. Tanusri Bose iii) Mr. Arijit Sen 	EE 3 rd Year Students, IT & AUE 2 nd year Student, M.Tech. ECE(VLSI) Students
Workshop on Microcontroller and its Application in Embedded Systems	YPS, IET(UK), Kolkata Local Network	04 days (22.09.12-24.09.12 and 30.09.12)	<ul style="list-style-type: none"> i) Somnath Pradhan, Research Scholar, CMRI, Durgapur ii) Ms. Tanusri Bose iii) Mr. Arijit Sen 	ECE 3 rd Year Students

List of Design Contest

Module description	Source of Funding	Duration	Resource persons	Target audience
Texas Instruments Analog Design Contest 2015	Texas Instruments & EDGATE Technologies	02 days (14.11.15 and 20.11.15)	i) Dr. J.K.Roy ii) Dr. Gautam Kr. Maity iii) Mr. Ajoy Ghoshal iv) Mr. Suman Das	Students of ECE and EE Dept. (124 nos.)
Texas Instruments Analog Design Contest 2014	Texas Instruments & EDGATE Technologies	01 day 16/9/2014	i) Dr. J.K.Roy ii) Dr. Gautam Kr. Maity iii) Mr. Ajoy Ghoshal iv) Mr. Arijit sen	Students of MCKV, ECE and EE 2 nd , 3 rd , 4 th year (84 nos)

26. Student profile programme/ course wise:

Not Applicable as students are admitted through JEE MAIN (AIEEE), WBJEE, JELET, PGET, GATE

Name of the Course/ programme (refer question no. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	

*M = Male *F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B. Tech. (ECE) 2016-2020	75	25	0
B. Tech. (ECE) 2015-2019	83	17	0
B. Tech. (ECE) 2014-2018	87	13	0
B. Tech. (ECE) 2013-2017	73	27	0
B. Tech. (ECE) 2012-2016	92	8	0

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B. Tech. (ECE-Lateral) 2016-2020	NA	NA	0
B. Tech. (ECE-Lateral) 2015-2019	83	8	0
B. Tech. (ECE-Lateral) 2014-2018	33	0	0
B. Tech. (ECE-Lateral) 2013-2017	83	0	0
B. Tech. (ECE-Lateral) 2012-2016	83	8	0

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
M. Tech. (ECE-Comm) 2016-2020	33	5	0
M. Tech. (ECE- Comm) 2015-2019	33	0	0
M. Tech. (ECE- Comm) 2014-2018	5	5	0
M. Tech. (ECE- Comm) 2013-2017	44	5	0
M. Tech. (ECE- Comm) 2012-2016	72	0	0

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
M. Tech. (ECE-VLSI) 2016-2020	16	0	0
M. Tech. (ECE- VLSI) 2015-2019	11	5.5	0
M. Tech. (ECE- VLSI) 2014-2018	16	0	0
M. Tech. (ECE- VLSI) 2013-2017	44	11	0
M. Tech. (ECE- VLSI) 2012-2016	50	5.5	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Year	GATE	CAT	MAT/CMAT
2016	3	-	-
2015	10	-	1
2014	2	3	-
2013	8	-	-
2012	5	-	-

29. Student progression

Student progression	Against % enrolled			
	2016	2015	2014	2013
UG to PG	5.2	5.2	9.3	6.2
PG to M.Phil.	0	0	0	0
PG to Ph.D.	0	0	1.33	0
Ph.D. to Post-Doctoral	0	0	0	0
Employed				
Campus selection	42.9	45.5	54.7	43.1
Other than campus recruitment	7.8	0	4	1.5
Entrepreneurship/ Self-employment	1.31	0	0	0

30. Details of Infrastructural facilities

a) Library:

- i. No. of books: 374
- ii. No. of CDs: 115
- iii. No. of books in central library related to ECE: 6430
- iv. No. of CD in central library related to ECE: 238
- v. No. of printed journals in central library related to ECE: 20
- vi. No. of e- journals in central library related to ECE: 3318
- vii. No. of e-books in central library related to ECE: 742

b) Internet facilities for Staff & Students:

The departmental floors are WIFI enabled, therefore all students and faculty members can access internet as well as online courses from anywhere in the campus.

c) Class rooms with ICT facility:

Most of the class rooms are equipped with LCD projector and internet facility.

d) Laboratories

Curriculum Lab Description	Room No.	Curriculum Lab Description	Room No.
EDA & VLSI Design Lab	B 101	Advance Communication System Lab.	B 201 A
VLSI Circuit and System Lab		Design & Simulation Lab.	
Signal and System Lab		Communication System Lab.	
Circuit Theory & Network Lab(Hardware)	B 102 & B 102 A	Auto Electronics Lab.	B 210
Electronic Circuit Design Lab.		Mechatronics Lab.	
Analog and Digital Lab		Microprocessor & Microcontroller Lab.	
Analog Electronics Circuit Lab.		Microprogramming & Architecture Lab.	
VLSI Lab (M.Tech)	B 103	Digital Communication Lab.	B 204
Microwave Engineering Lab.		Analog Communication Lab.	
Advance Communication Lab.		Advanced Communication Lab.	
EM Theory & Tx Lines Lab.	B 104	Circuits & Network Lab (Hardware)	B 205
Project Lab and Pure MCU Lab		Control System Lab.	
COA Lab.	B 106	Signal & System Lab.	B 205
Measurement & Instrumentation Lab.		Circuit Theory Lab.	
Electronic Measurement & Instrument Lab.		Circuits & Network Lab	
Electrical & Electronic Measurement Lab.		DSP Lab.	
DLD Lab		Basic Electronics Engg. Lab.	B108
Analog & Digital Electronics-Lab.		Solid State Devices Lab.	
Metrology & Measurement Lab.	B 107		
Basic Electrical Engg. Lab.			
Electrical Machine Lab.			

31. Number of students receiving financial assistance from college, university, government or other agencies-

TFW: Tuition Fee Waiver Scheme

FF: Full Freeship

HF: Half Freeship

TA: Teaching Assistanceship

Year	Financial Assistance Received				
	B.Tech.			M.Tech. (Comm)	M.Tech. (VLSI)
	TFW	FF	HF	TA	TA
2016-17	8	6	25	10	5
2015-16	7	6	25	6	6
2014-15	9	9	19	13	7
2013-14	6	14	15	6	4
2012-13	5	23	11	12	3

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts:

List of Special Lecture and Seminar with external experts

Module description	Source of Funding	Duration	Resource persons	Target audience
Invited Talk on Multi-Functional Antenna and it's Applications	TEQIP-II	24/09/2016	Mr. Satyajit Chakrabarti, Scientist, SAMEE R, Kolkata	Students of ECE (19 nos)
Two-Days National Seminar on Recent Advancements in Lightwave Technology	TEQIP-II	23/09/2016 to 24/09/2016	i. Prof. Partha Roy Chaudhuri, IIT Kharagpur ii. Prof. (Dr.) Rajib Chakraborty, University of Calcutta iii. Mr. Palas Biswas, CGCRI, Kolkata iv. Prof. Kallol Bhattacharya, University of Calcutta v. Mr. Subir Biswas, Vodafone	UG and PG Students, Faculty members and Lab Instructors of MCKVIE and other institutes (40 nos)
Invited Talk on Frontier of Wireless Mobile Technology	TEQIP-II	10/09/2016 to 11/09/2016	i. Mr. Santanu Dey ii. Mr. Arunava Maity iii. Mr. Saptarshi Maiti iv. Mrs. Sohini	Students of ECE

Module description	Source of Funding	Duration	Resource persons	Target audience
			Ghosh (Ericsson Global Services Pvt. Ltd)	
Invited Talk on Application of FPGA for Communication Systems	IEEE-SSCS (Technical Co Sponsorship), TEQIP-II	29/04/2016	Mr. Indranil Hatai Assistant Professor School of VLSI Technology IEST, Shibpur	Students of ECE (45 nos)
Invited Talk on Fundamentals of IC Fabrication Technology	TEQIP-II	01/04/2016	Prof. (Dr.) Chandan Kumar Sarkar, ETCE Dept., JU	Students of ECE(25 nos)
Invited Talk on Microwave & its Applications	TEQIP-II	17/03/2016	Prof. (Dr.) Monojit Mitra, E&TC Dept., IEST, Shibpur	Students of ECE(36 nos)
Invited Talk on Design Issues in Low Power VLSI	Join IEEE CSS-IMS Socity, Kolkata Section (Technical Co Sponsorship), TEQIP-II	01 day (12/03/2015)	Prof. Subir Kumar Sarkar, IEEE Distinguished Lecturer & Professor, Department of Electronics & Telecommunication Engineering, Jadavpur University	ECE Students (65 nos)
Invited Talk on Vision Based Autonomous Path Following and Door Detecting Robots	Join IEEE CSS-IMS Socity, kolkata Section (Technical Co Sponsorship), TEQIP-II	01 day (28/02/2015)	Prof. (Dr) Amitava Chatterjee, EE Dept, Jadavpur University	ECE, EE, IT Students (62nos)
Invited Talk on IP Networks in Modern	TEQIP-II	01 day (25/11/2014)	Mr. Saptarshi Maity, Sr. Eng(Packet Core)	ECE Students (53 Nos)

Module description	Source of Funding	Duration	Resource persons	Target audience
Communicating World			Ericsson Global Services Pvt. Ltd.	
Invited Talk on Combat Interrogation - Friend and Foe.	TEQIP-II	01 day (27/10/2014)	Prof. Sayan Chatterjee, Asst. Prof, ETCE Dept. Jadavpur University	ECE Students (36 Nos)
Invited Talk on Application of Electronics in Railways	MCKVIE	01 day (13/10/2012)	Mr. Bijoy Das, Principal RAMS Manager, Ansaldo-STS India	ECE 5 th Semester Students, faculties and lab instructors of ECE.
Seminar on Recent Trends in Mobile Communication 1G to 4G	YPS,IET(UK), Kolkata Local Network	01 day (25/08/2012)	Mr. Satyajit Chakravoty, SAMEER, Kolkata	ECE 4th year students, M.TECH Communication and M. Tech VLSI Students, faculties from different depts. of MCKVIE and lab instructors.

List of Workshops with external experts

Module description	Source of Funding	Duration	Resource persons	Target audience
Three Days Workshop on TI Embedded System TIVA Series	Texas Instruments & EDGATE Technologies	03 days (06/10/2015 - 08/10/2015)	i) Mr. Naveen Kumar, Edgate Technologies ii) Mr. Rohit Prajapati, Edgate Technologies	Students of ECE and EE Dept. (84nos.), Faculty and lab. Instructors (25 nos.)
2- Days workshop on Quad Copter (3D Robotics)	Robo Feast 2014 in association with IIT	02 days 31 st August & 1 st September	Mr. Vikash Chauhan, Research Engg., Revert Technology Pvt.	i) Students of MCKV(2 nd and 3 rd year students of ECE, EE,

Module description	Source of Funding	Duration	Resource persons	Target audience
	Roorkee	2014	Ltd.	ME, IT, AUE, CSE) ii) Students of CEMK, ECE 3 rd year (3 nos.) iii) Students of BBIT, ME,EE 3 rd year(4 nos) iv) Students of SDET, Brainware Group of Inst., ECE 3 rd year (3 nos) Total: 69 nos
Workshop on Swarm Robotics	Technophilia Systems Pvt. Ltd, Andheri, Mumbai	29th & 30th September, 2013	Mr. Vinay Kr. Yadav, Technophilia Systems Pvt. Ltd, Andheri, Mumbai	Students from various department of MCKVIE (59 nos) and outside participants (9, 4 from JIS & 5 from CIT)
Workshop on Microcontroller and its Application in Embedded Systems	YPS,IET(UK), Kolkata Local Network	02 days (12/10/2012 and 14/10/2012)	Somnath Pradhan, Research Scholar, CMRI, Durgapur	EE 3 rd Year Students, IT & AUE 2 nd year Student, M.Tech ECE(VLSI) Students
Workshop on Microcontroller and its Application in Embedded Systems	YPS,IET(UK), Kolkata Local Network	04 days (22/09/2012 -24/09/2012 and 30/09/2012)	Somnath Pradhan, Research Scholar, CMRI, Durgapur	ECE 3 rd Year Students

33. Teaching methods adopted to improve student learning:

- For each course, lesson plan is prepared by faculty member and is delivered to the students before starting of the course.

- The objective and the outcome of each course are explained to the students prior to the starting of the course.
- Different pedagogical techniques, e.g. voice modulation, eye contact etc. are applied during course delivery.
- Flipped class room teaching is frequently applied to different courses.
- After teaching a module, each student is put to dais to teach a particular topic to the whole class in presence of the teaching faculty member.
- Class tests are taken regularly and after evaluation, the answer scripts are displayed to students followed by a discussion on improving the quality of writing.
- Weak students are identified on the basis of class test marks and remedial classes are taken for them.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Departmental Faculty members and students are involved with various social welfare activities.

Activities of departmental staffs/ students through ROTARACT Club of MCKVIE:

SL. NO.	EVENT	PARTICIPANTS
1.	Friendship Day Celebration with underprivileged children of night school DISHA on 5 th August 2014.	Ankita Paul, Anish Agarwal, Prerna Singh, Minni Singh, Karishma Malani, Navneet Pandey, Shreha Didwania, Arvind Jha, Hritwika Ghosh
2.	Raksha bandhan celebration with orphan kids of Lal Baba Ashram 9 th August 2014.	Karishma Malani, Ankita Paul, Navneet Pandey
3.	Independence day Celebration with freshers of MCKVIE and specially abled people of Bharatendu Andh Asram 15 th August 2014.	Ankita Paul, Anish Agarwal, Prerna Singh, Minni Singh, Karishma Malani, Navneet Pandey
4.	Mega Blood Donation Drive in association with Akhil Bharatiya Terapanth Yuvak Parishad on 6 th September 2016.	ECE Department Faculty involved. Students- Arvind Kumar, Anish Agarwal
5.	Swacchh Bharat Abhiyaan at Howrah Railway Station in September 2014.	ECE dept. Faculty involved. Students- Ankita Paul, Anish Agarwal, Prerna Singh, Minni Singh, Karishma Malani, Navneet Pandey, Asmita Mukherjee

SL. NO.	EVENT	PARTICIPANTS
6.	Old Clothes donation at a slum near Ballykhal during Rota week in March 2015.	Ankita Paul, Navneet Pandey, Hritwika Ghosh, Minni Singh, Karishma Malani
7.	First aid kit donation to Shishu Shikshalya, Lal Baba Ashram, Shri Chaubey School during Rota week in March 2015.	Ankita Paul, Navneet Pandey, Hritwika Ghosh, Minni Singh, Karishma Malani, Anish Agarwal
8.	Independence Day Celebration with freshers of MCKVIE and health camp at Khalna Balika Vidyapeeth in collaboration with Rotary Club of Belur and Interact Club of MCKV boys' school on 15 th August 2015.	Navneet Pandey, Asmita Mukherjee, Ivana Rakshit, Shweta Das, Hritwika Ghosh, Ankita Bhuniya, Sayani Ghosh, Sanjukta Bhattacharyya, Ayushi Singh
9.	Rakshabandhan Celebration at Lal Baba Ashram and police officers of Belur P.S. on 29 th August 2015.	Prerana Singh, Ankita Bhuniya, Karishma Malani, Madhurima Mukherjee, Vidusha Tripathi
10.	Clothes' Distribution in Rota Week in March 2016 at Dakshineswar	Anish Agarwal, Prerana Singh, Karishma Malani, Arvind Jha, Shreha Didwania, Madhurima Mukherjee, Navneet Pandey, Ankita Bhuniya
11.	Swacchh Bharat Abhiyaan in Rota Week in March 2016 at Liluah Station	Navneet Pandey, Asmita Mukherjee, Ivana Rakshit, Shweta Das, Hritwika Ghosh, Ankita Bhuniya, Sayani Ghosh, Sanjukta Bhattacharyya, Ayushi Singh, Anish Agarwal, Prerana Singh, Karishma Malani, Arvind Jha, Shreha Didwania, Madhurima Mukherjee
12.	Friendship Day Celebration with police officers of Belur P.S. , Rotaract Club of Navi Mumbai Hillside and Rotaract Club of Singapore jointly with RC Central Calcutta on 7 th August 2016.	Navneet Pandey, Ankita Bhuniya, Arvind Jha, Sayani Ghosh

SL. NO.	EVENT	PARTICIPANTS
13.	“Bandhanam”- Rakshabandhan Celebration at Lal Baba Ashram on 19 th August 2016.	Navneet Pandey, Ankita Bhuniya, Madhurima Mukherjee, Sayani Ghosh, Ayushi Singh
14.	“Kishalaya” –professional Development program for kids of Chaubey School, Lal Baba School and Shishu Shikshalaya jointly with RC Calcutta on 9 th September 2016.	Ankita Bhuniya, Sayani Ghosh
15.	Inauguration of long term project of beautification of area outside MCKVIE Campus under the Swacchh Bharat Abhiyaan- Project “ Parishkaar” (Phase I operated on the same day) on 29 th September 2016.	Navneet Pandey, Arvind Jha, Ankita Bhuniya, Ayushi Singh, Sanjukta Bhattacharrya, Madhurima Mukherjee, Sayani Ghosh
16.	“Pranaantika”-free blood group detection for slum dwellers in collaboration with R.I.D 3291 Zone 4 on 24 th September 2016.	Navneet Pandey, Sayani Ghosh
17.	Clothes’ Distribution at Dakshineswar on 24 th October 2016.	Navneet Pandey, Sayani Ghosh, Ankita Bhuniya, Madhurima Mukherjee
18.	Parishkaar Phase I part 2 – swacchh bharat abhiyaan on 24 th October 2016.	Navneet Pandey, Sayani Ghosh, Ankita Bhuniya, Madhurima Mukherjee, Arvind Jha
19.	Diwali Celebration at Lal Baba Ashram on 25 th October 2016.	Navneet Pandey, Arvind Jha, Sayani Ghosh, Ankita Bhuniya, Madhurima Mukherjee
20.	Parishkaar Phase 2 – Dustbin making by first year students and installing them in college on 26 th October 2016.	Navneet Pandey, Arvind Jha, Ankita Bhuniya
21.	“BraveArt” fund-raising project- sit and draw event for kids at the Thakurpukur Cancer Hospital on 12 th November 2016.	Faculty- Prof. Krishnendu Chattopadhyay, Prof. Satadal Saha Students- Navneet Pandey, Asmita Mukherjee, Ankita Bhuniya

Activities of departmental staffs/students through Swami Vivekananda Centre for Positive Thinking

Sl. No.	Event	Date
1.	Endowment Lecture in the memory of Late Shri S. K. Mitra	24/07/2015
2.	One Day seminar on “Value Education & Positive Thinking”	07/06/2015
3.	Visit to BITM and article distribution in Belgharia R.K.Mission.	22/09/2014
4.	Swamiji’s Ancestral House visit	07/01/2014
5.	Lecture by Pathik Guha, Eminent Science Writer	10/01/2014
6.	Youth Convention in MCKVIE	18/01/2014
7.	1 day SEMINAR organized by SVCPT, MCKVIE	14/09/2014
8.	Tejasananda Quiz at Belur Math	30/08/2014
9.	Lecture by Debiprasad Duari, Director, Birla Planetarium	30/08/2014

35. SWOC analysis of the department and Future plans

Strength

1. The B. Tech. (ECE) program accredited by NBA.
2. Well qualified faculty members in the departments.
3. Good Faculty retention.
4. Well equipped Laboratories.
5. Good stock of licensed high-end contemporary Software like Xilinx, Tanner Spice, Qualnet, MATLAB.

Weakness

1. Lack in Research and development/Consultancy.
2. Departmental library is not accessible for student.

Opportunities

1. Carrying out funded project from DST/AICTE/Others.
2. Modernization of Program Specific laboratory.
3. Establishment of student chapter like IEEE/IETE.
4. Tutoring students for entrance examination for higher studies.

Challenges

1. Quality of intake students.
2. Job opportunities in Electronics Industry.

Future Plans

1. Modernization of laboratories to cope up with the industry needs.
2. Getting funds for research projects from different sponsoring agencies.
3. Opening doctoral courses in engineering and technology.
4. To form centre of excellence in the department in association with in association with industries

Electrical Engineering

1. **Name of the department:** Electrical Engineering
2. **Year of Establishment:** 2010
3. **Names of Programmes/ Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) :** B.Tech. in Electrical Engineering
4. **Names of Interdisciplinary courses and the departments/units involved:**

Theory Courses

Sl.No.	Interdisciplinary Courses	Departments
1	Numerical Methods (M (CS) 301)	Basic Science, Humanities and social sciences (BSHSS)
2.	Mathematics-III (M302)	BSHSS
3.	Economics for Engineers (HU-501)	BSHSS
4.	Values and Ethics in Profession (HU-401)	BSHSS
5.	Analog Electronic circuits (EC(EE)301)	ECE
6.	Digital Electronic circuit (EC(EE)302)	ECE
7.	Physics-II (PH(EE)-401)	BSHSS
8.	Thermal Power Engineering ME(EE)411	ME
9.	Basic Environmental Engineering & Elementary Biology (CH-401)	BSHSS)
10.	Micro Processor & Micro controller (EE-504C)	ECE
11.	Principle of Management(HU-601)	BSHSS
12.	Software Engineering (EE-604 a)	CSE
13.	Data Base Management System (EE-604 b)	CSE
14.	Digital Communication (EE-705c)	ECE
15.	Organizational Behaviour (HU-801A)	BSHSS

Practical Courses

Sl.No.	Interdisciplinary Courses	Departments
1	Numerical Methods (M (CS) 391)	BSHSS
2.	Technical report writing & language laboratory practice (hu-381)	BSHSS
3.	Analog & Digital Electronic circuit (EC(EE)391)	ECE

Sl.No.	Interdisciplinary Courses	Departments
4.	Physics-II (PH(EE)-491)	BSHSS
5.	Thermal Power Engineering ME(EE)481	ME
6.	Micro Processor & Micro controller (EE-594C)	ECE
7.	Software Engineering (EE-694 a)	CSE
8.	Data Base Management System (EE-694 b)	CSE
9.	Digital Communication (EE-792c)	ECE

5. Annual/ semester/ choice based credit system (programme wise):

Semester based credit system.

6. Participation of the department in the courses offered by other departments:

Theory Courses

Sl.No.	Name of the Courses	Departments
1	Basic Electrical & Electronics Engineering–I (ES-101)	EE,ECE,ME,AUE, CSE,IT
2.	Basic Electrical & Electronics Engineering–II (ES-201)	EE,ECE,ME,AUE, CSE,IT
3.	Circuit Theory & Networks (EC-301)	ECE
4.	Automotive measurement	AUE M-tech
5.	Automation and Control (ME-803B)	ME
6.	Mechatronics (ME 604B)	ME
7.	Power Electronics (EE 603)	ECE
8.	Automotive Electrical & Electronics system (AUE-702)	AUE
9.	Control System (EC-503)	ECE

Practical Courses:

Sl.No.	Name of the Courses	Departments
1	Basic Electrical & Electronics Engineering–I (ES-191)	EE,ECE,ME,AUE, CSE,IT
2.	Basic Electrical & Electronics Engineering–II (ES-291)	EE,ECE,ME,AUE, CSE,IT
3.	Power Electronics (EE 693)	ECE
4.	Mechatronics (ME 695B)	ME
5.	Automotive Electrical & electronics Lab (AUE-891)	AUE

7. Courses in collaboration with other universities, industries, foreign institutions:

NPTEL, QEEE

8. Details of courses/ programmes discontinued (if any) with reasons:

Not Applicable

9. Number of Teaching posts:

Cadre Type	Sanctioned	Filled
Professors	1	1
Associate Professors	3	0
Assistant Professors	11	11

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt. /Ph.D. / M. Phil. etc.)

Name	Qualification	Designation	Specialization	No of years of Experience	No of Ph.D. students guided for last 4 years
Mrs. Chandrani Sadhukhan	M.C.S.E. (PhD pursuing)	Assistant Professor & Head	Control System	13	-
Prof. (Dr.) Arghya Sarkar	PhD	Professor	Machine & Power system	16	01 (registered) 03 (enrolled)
Dr. Tamal Roy	PhD	Assistant Professor	Control system	12.	1(registered)
Mrs. Nabamita Banerjee Roy	M.E. (PhD pursuing)	Assistant Professor	High Voltage Engineering	12	-
Mrs. Barnali Kundu Sarkar	M.E. (PhD pursuing)	Assistant Professor	Electrical Machines	11	-
Mrs. Suchismita Ghosh	M.Tech (PhD pursuing)	Assistant Professor	Control system	6	-
Mrs. Debopoma Kar Ray	M.Tech. (PhD pursuing)	Assistant Professor	Power System	8	-

Name	Qualification	Designation	Specialization	No of years of Experience	No of Ph.D. students guided for last 4 years
Mr. Sudeep Samanta	M.Tech.	Assistant Professor	Electrical Engineering	5	-
Mrs. Tanushree Kumar	M.Tech. (PhD pursuing)	Assistant Professor	Power System	5	-
Mr. Suman Das	M.Tech. (PhD pursuing)	Assistant Professor	Instrumentation	8	-
Mr. Debanka De	M.Tech.	Assistant Professor	Illumination Tech. & Design	6	-
Mr. Santanu Maity	M.Tech.	Assistant Professor	Power System	6	-

11. List of senior visiting faculty:

Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Nil

13. Student -Teacher Ratio (programme wise):

Sl No.	Name of the program	Sanctioned intake	Actual number of faculty members	Student-Teacher ratio
1	B. Tech in Electrical Engineering	216	12	18

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled :

Sl. No.	Designation	Sanctioned	Filled
1	Technical Support Staff	4	4
2	Administrative staff	0	0

15. Qualifications of teaching faculty with D.Sc./ D.Litt./ Ph.D./ M.Phil. / PG.

Qualifications of teaching faculty	No of Faculty
D.Sc.	0
D.Litt.	0
Ph.D.	2
M.Phil.	0
PG.	10

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

Nil

17. Departmental projects funded by DST- FIST; UGC, DBT, ICSSR, etc. and total grants received:

Nil

18. Research Centre/ facility recognized by the University:

Not Applicable

19. Publications:

- a) Publication per faculty
- b) Number of papers published in peer reviewed journals (national/ international) by faculty and students
- c) Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- d) Monographs
- e) Chapter in Books
- f) Books Edited
- g) Books with ISBN/ ISSN numbers with details of publishers
- h) Citation Index
- i) SNIP
- j) SJR
- k) Impact factor
- l) h-index

Following table shows the publication details of last five years (2012-17) of faculty members of the department.

Sl. No.	Name of Faculty	(a)	(b)	(c)	(d)	(e)	(f)	(g)*	(h)	(i)	(j)	(k) (Highest)	(l)
1	Prof. (Dr.) Arghya Sarkar	20	12	20	00	01		-	-	-	-	1.742	9
2	Mrs. Chandrani Sadhukhan	03	00	00	00	00		00	00	-	-	-	-
3	Dr. Tamal Roy	06	01	01	00	00		00	03	-	-	0	01
4	Mrs. Nabamita Banerjee Roy	09	02	03	00	00		00	24	-	-	0	2
5	Mrs. Barnali Kundu Sarkar	05	0	01	0	0		0	0	-	-	0.52	0
6	Mrs. Suchismita Ghosh	07	03	03	1	0		1	0	-	-	1.436	0
7	Mrs. Debopoma Kar Ray	12	00	00	0	0		0	5	-	-	0	1
8	Mr. Sudeep Samanta	10	00	00	00	00		00	00	-	-	-	-
9	Mrs. Tanushree Kumar	03	00	00	0	0		0	0	-	-	-	-
10	Mr. Suman Das	05	00	00	0	0		0	0	-	-	0	0

* CRC Press, Taylor & Francies, ISBN 13;978-1-4822-1596-0

20. Areas of consultancy and income generated:

Nil

21. Faculty as members in a) National committee b) International Committee c) editorial board etc.

a) National committee b) International Committee

Faculty	Committees
Prof. (Dr.) Arghya Sarkar	Member of Executive committee of IET Kolkata Local Network as Honorable Treasurer, November, 2012.
	“South Asian IET Community’s Volunteer”, in Bangalore, on August, 2012.
Dr. Tamal Roy	Overall Coordinator for the final round of PATW-2013,2014,2015,2015 organized by IET(YPS) Kolkata, Local Network,

Faculty	Committees
	Convener, “Recent Developments in Electrical, Electronics and Engineering Physics”, held between 31/08/2013 to 02/09/2013
	Executive Committee member of IET Kolkata, Local Network for the session 2014-2015
	1 day Industry visit, sponsored by IET (UK) Kolkata Local network at Haldia Refinery, IOCL, on 8 th April, 2015
	1 day Energy Lecture sponsored by IET (UK) Kolkata Local network at MCKVIE, on 24 th April, 2015
	Member of IET (UK), PATW-2016
	Secretary , IET Young Professional Section, Kolkata, Network, October, 2016
	Venue Coordinator for the final round of PATW-2014, organized by IET(YPS) Kolkata, Local Network, held at Green Inn, Kolkata
	MFIS-2016 organizing committee
	Member of MS-17, An AMSE conference
	MFIS-2012, IET (UK)organizing committee
	MFIS-2013 IET (UK)organizing committee
	Convener MFIS-2015 IET (UK)
	Organizing committee of (NCCEDMMT 2016)
Mrs. Nabamita Banerjee (Roy)	Treasurer, “Recent Developments in Electrical, Electronics and Engineering Physics”, held between 31/08/2013 to 02/09/2013
	MFIS-2012, IET (UK)organizing committee
	MFIS-2013 IET (UK)organizing committee
	Organizing committee of (NCCEDMMT 2016)
	MFIS-2016 IET (UK) organizing committee
	Coordinator for the final round of PATW-2013,2014,2015,2016 organized by IET(YPS) Kolkata, Local Network
Mrs. Debopoma Kar Ray	Venue Coordinator, of IET (UK), PATW-2016
Mrs. Nabamita Banerjee (Roy) Mrs. Suchismita Ghosh Mrs. Debopoma Kar Ray Mr. Sudeep Samanta	IET YPS committee member, 2016
Prof. (Dr.) Arghya Sarkar Mrs. Chandrani Sadhukhan Dr. Tamal Roy	Member of IET (UK)

Faculty	Committees
Mrs. Nabamita Banerjee (Roy) Mrs. Barnali Kundu (Sarkar) Mrs. Suchismita Ghosh Mrs. Debopoma Kar Ray Mr. Sudeep Samanta Mrs. Tanushree Kumar Mr. Suman Das	
Prof. (Dr.) Arghya Sarkar Mrs. Chandrani Sadhukhan Dr. Tamal Roy Mrs. Nabamita Banerjee (Roy) Mrs. Barnali Kundu (Sarkar) Mrs. Suchismita Ghosh Mrs. Debopoma Kar Ray Mr. Sudeep Samanta Mrs. Tanushree Kumar Mr. Suman Das	IET YPS event “Hands on Training on Electric Circuit Design”, 2013, 2014, 2015, 2016
Prof. (Dr.) Arghya Sarkar Mrs. Chandrani Sadhukhan Dr. Tamal Roy Mrs. Nabamita Banerjee (Roy) Mrs. Barnali Kundu (Sarkar) Mrs. Suchismita Ghosh Mrs. Debopoma Kar Ray Mr. Sudeep Samanta Mrs. Tanushree Kumar Mr. Suman Das	“Recent Developments in Electrical, Electronics and Engineering Physics”, committee member 2013
Prof. (Dr.) Arghya Sarkar Mrs. Chandrani Sadhukhan Dr. Tamal Roy Mrs. Nabamita Banerjee (Roy) Mrs. Suchismita Ghosh Mrs. Debopoma Kar Ray Mr. Sudeep Samanta Mrs. Tanushree Kumar	PATW-2013,2014,2015,2016 organized by IET(YPS) Kolkata, Local Network
Mrs. Barnali Kundu (Sarkar) Mr. Suman Das	PATW-2016 organized by IET(YPS) Kolkata, Local Network

c) Editorial board

Faculty	Editorial Boards
Dr. Tamal Roy	“International Journal of Control Engineering and Technology (IJ CET)”, published by World Academic Publishing Company, in September, 2012.
	Transactions on Education”, in October, 2012.
Mrs. Nabamita Banerjee (Roy)	Taylor and Francis (Electric power components and systems)
	IET generation, transmission and distribution
	IET science measurement and technology
	IEEE access
Mrs. Suchismita Ghosh	Asian Journal of Control
	Journal of Control Science and Engineering

22. Student projects:

Sl. No.	Year of passing	Percentage of students for in house project	Percentage of students doing project outside from institution
1	2015-16	100	0
2	2014-15	100	0
3	2013-14	100	0

23. Awards / Recognitions received by faculty:

Academic Year	Name of the awardees	International/ National	Name of the awards	Awarded by
2016-2017	Ms. Debopoma Kar Ray	International Conference	Best paper	IET, UK
2015-2016	Mr. Sudeep Samanta	International Conference	Best paper	IET, UK
	Ms. Debopoma Kar Ray	National Conference	Best paper (3)	IET, UK
2013-2014	Mr. Sudeep Samanta	National Conference	Best paper	IET, UK
	Dr. Tamal Roy	National Conference	Best paper (2)	IET, UK
	Ms. Debopoma Kar	National	Best paper	IET, UK

Academic Year	Name of the awardees	International/ National	Name of the awards	Awarded by
	Ray	Conference		
	Ms. Suchismita Ghosh	National Conference	Best paper	IET, UK
2012-2013	Ms. Debopoma Kar Ray	National Conference	Best paper	IET, UK
	Ms. Suchismita Ghosh	National Conference	Best paper	IET, UK

Awards / Recognitions received by students:

Sl. No.	Name of the Event	Total No. of Students	Year	Recognition/Reward
1	NASSCOM E –SUMMIT for 1 st , 2 nd and 3 rd position of university examination (3 rd and 4 th year students) (Merit certificate)	6 (EE)	2016	DEWANG MEHATA Award
2	“Man of the match” in the semi final round of 2 nd division league tournament	1	2016	Merit certificate
3	Present Around the world Competition	1	2015	IET PATW Pre finalist
4	Robo Feast 2015, National QUAD Copter Championship workshop	1	2015	Merit certificate
5	SAP2015	1	2015	Paper presentation
6	Project Based Training in Industrial automation at techno System, Dankuni	6	2015	Participation
7	‘Power Line Monitoring System’ ICCCM 2014, MCKVIE	1	2014	Certificate for Paper Presentation

24. List of eminent academicians and scientists/ visitors to the departments:

Sl. No.	Purpose	Date	Resource person
1	Demonstration on LABVIEW based different laboratory solution	2 nd August, 2016	Mr. Archan Mudwel, Application Engineer, NI system pvt. Ltd.
2	Employability Enhancement Programme on “Power System and	10 th February – 7 th May, 2016 (Every Saturday)	Mr. Meghdutt Bhattacharya, Manager (Eastern Region), Energy Management, Siemens

Sl. No.	Purpose	Date	Resource person
	Protection”		Ltd.
3	Presentation on “DSPACE based Integrated System”	11 th March, 2016	Dynafusion Technology Pvt. Ltd.
4	IET International Energy Lecture	24 th April, 2015	Mr. Anthony Price, Director, Electricity Storage Network, Swanberg.
5	Invited talk in “PLC and Industrial Automation”	3 rd March, 2015	Ms. Soma Chakraborty, Techno system, Dankuni, , Hoogly
6	Delivering lecture on National seminar on “Power System Equipment: Basic requirements, Protection and Condition Monitoring” Topic: “Condition monitoring of Transformer”	26 th February, 2015	Prof. (Dr.) Sivaji Chakraborty, EE Dept. , JU
7	Delivering lecture on National seminar on “Power System Equipment: Basic requirements, Protection and Condition Monitoring” Topic: “Basic requirements of Switchgear and protection”	26 th February, 2015	Mr. Debabrata Basu, Asst. Vice President, Power System Division, ABB India
8	Delivering lecture on National seminar on “Power System Equipment: Basic requirements, Protection and Condition Monitoring” Topic: “energy efficient motors, New standard for efficiency”	26 th February, 2015	Mr. Prabir Chatterjee, General Manager, Bharat Bijlee Ltd.
9	Invited talk in “IEEE membership Drive for students”	3 rd May, 2014	Dr. Debangshu De, Asst. Prof., EE Department, JU
10	Invited talk in “Indian	3 rd May, 2014	Mr. Sanjay Kar Choudhury,

Sl. No.	Purpose	Date	Resource person
	Power Scenerio”		Senior Manager, CESC
11	Invited lecture in “National Conference RDE3P 2013”	27 th October, 2013	Dr. P. K. Karmakar, Asst. Prof., Institute of Radio Physics and Electronics, CU
12	Invited lecture in “National Conference RDE3P 2013”	26 th October, 2013	Prof. (Dr.) Keshab Bhattacharya, EE Department, JU
13	Invited talk in “Present Scenario of core Industries”	28 th September, 2012	Mr. Sankar Mukhopadhyay, CESC Limited
14	Invited talk in “Electric Drives and its applications”	21 st September, 2012	Mr. Pijush Bhaduri, Former AGM, Crompton Greaves
15	Invited talk in “regulation and efficiency of Single phase Transformer	22 nd February, 2012	Prof. (Dr.) Anish Deb, Professor, Applied Physics Department, CU
16	Invited talk in “Basic operation of Single phase Transformer”	8 th February, 2012	Prof. (Dr.) Anish Deb, Professor, Applied Physics Department, CU

25. Seminar/ Conference/ Workshops organized & the source of funding:

List of Seminar:

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
Power System Equipment: Basic requirements, Protection and Condition Monitoring	TEQIP phase II	26 th February, 2015	Prof. (Dr.) Sivaji Chakraborty, EE Dept. , JU Mr. Debabrata basu, Asst. Vice president, Power System Division, ABB India Mr. Prabir Chatterjee, General Manager, Bharat Bijlee Ltd.	3 rd year and final year UG students, Faculty members from MCKVIE and other institution	Knowledge on power system protection, condition monitoring

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
Indian Power Scenario- Adoption of new Technology	TEQIP phase II	3 rd May, 2014	Mr. Sanjay Kar Choudhury, Senior Manager, CESC Dr. Debangshu De, Asst. Prof., EE Department, JU	EE Dept. UG students and faculty members	Creative idea about new technology adopted for improvement of power scenario

List of National Conference:

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
National conference in “Recent Developments in Electrical, Electronics and Engineering Physics”	TEQIP-phase II & IET, UK	31 st August, 2013 to 2 nd September, 2013	Invited Speaker: 1. Dr. S hattopadhyay, CU 2. Dr. A K Mullick 3. Dr. A Gupta, JU 4. Dr. A. Ghosh, CU 5. Dr. Madhusudan Roy, SINP Electronics Paper Presenter No: 15 Electrical Paper Presenter No : 24 Physics Paper Presenter No: 7	MCKV Faculty & TSS and other members from different organization, B.Tech & M.Tech Students, M.Sc Students	To have an exposure on Recent Developments in Electrical , Electronics & Engineering Physics

List of International Conference:

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
ICCCM 2014: International Conference on Computing, Communication & Manufacturing	IET, IEI, CSI, SAE, Internet Society	December 22- 23, 2014	Prof. Ishwar K. Puri, Dean & Professor, Faculty of Engineering, McMaster University, Canada Prof. Subhas Mukhopadhyay, Sensing Technology, Massey Technology, New Zealand Prof. Bhaskar Gupta, Dept. of Electronics and Telecommunication, JU Prf. J.S.Roy, Electronics Engineering, KIIT University, Bhubaneswar Mr. Prakash Jalan, Senior Software Engineer, Network Virtualization, Solaris Core OS group at Oracle USA	MCKVIE Faculty & TSS and other members from different organization, B.Tech., M.Tech. Students	To have an exposure on recent trends in Computing , Communication and Manufacturing

List of workshops:

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
PLC-Industry Automation	TEQIP Phase II	20 th - 24 th September, 2016	Experts from Ardent Computech Pvt. Ltd.	4 th year UG students	Practical knowledge on PLC and its application
Microcontroller based embedded system design	TEQIP Phase II	16 th - 18 th August, 2016	Experts from Ardent Computech Pvt. Ltd.	3 rd year UG students	The Students will be able to implement different embedded systems applications on the platform of 8051 μ C
Course work on "Research methodology and computer application"	TEQIP Phase II	13 th August - 10 th September, 2016 (Every Saturday)	Prof. S.K.Saha Prof. D Dey Prof. Bijan Sarkar Dr. Amit Phadikar Prof. Sidhartha Ray Prof. D. Dey	PhD registered research Scholar (14 no. participants)	The participants will be able to implement research method and computer knowledge to enhance research work

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
Hands on training on Electric Circuit Design	IET(UK), Kolkata Local Network	18 th - 20 th March, 2016	Mrs. Nabamita Banerjee Roy Mr. Suman Das Mr. Biswajit Bhattacharya Mr. Sohorab Hossain	3 rd year UG students	Hand on exposure on design & fabrication of DC power supply
TEXAS Instruments Embedded System TIVA C Series	TEXAS Instruments	6 th – 8 th October, 2015	Experts from TEXAS Instruments	UG and PG Students, Faculty members, TSS from the corresponding Departments	Practical knowledge on embedded system TIVA C series.
Evaluating Students performance	TEQIP Phase II	17 th August to 21 st August, 2015	Ms. Urmila Kar, NITTTR Ms. Habiba Hasssan, NITTTR	Faculty members of AICTE approved engineering colleges/polytechnics	To provide an exposure on student performance evaluation and enhancement of teaching learning methodology
Faculty Development Programme on	TEQIP Phase II	23 rd - 27 th March,	Prof. (Dr.) Samir Kr. Saha, MCKVIE	Faculty members or	To provide an

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
“Research Methodology”		2015	Prof. (Dr.) Siddhartha Roy, HIT Prof. (Dr.) T.K.Ghoshal, JU Prof. (Dr.) A.K.Jalan, MCKVIE Dr. Amit Phadikar, MCKVIE Prof. (Dr.) J.K.Roy, MCKVIE Mr. Utpal Sarkar, MCKVIE	research scholar of AICTE approved engineering colleges/polytechnics (73 nos.)	exposure on Research Methodology
Hands on training on Electric Circuit Design	IET(UK), Kolkata Local Network	31 st January-2 nd February, 2015	Mr. Sudeep Samanta Ms. Suchismita Ghosh Ms. Debopamakar Ray Mr. Debabrata Rana Mr. Pinaki Chakraborty	3 rd year UG students	Hand on exposure on design & fabrication of low power consumable rechargeable portable light
Training on LABVIEW Software	TEQIP Phase II	11 th October, 2014	National Instruments	Departmental academic staff members	Hands on knowledge on Labview software

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
Basic Fundamentals of MIPOWER Software	TEQIP Phase II	10 th to 12 th June, 2014		Departmental academic staff members	Practical knowledge on Mipower software
PLC based Industrial Automation	TEQIP Phase II	6 th January to 11 th January, 2014.	Experts from ARDENT Computech Pvt. Ltd.	4 th year UG students	Practical knowledge on PLC and its application
Hands on Training on Electrical Circuit Design	IET(UK), Kolkata Local Network	31 st August to 2 nd September, 2013	Mr. Sudeep Samanta, Ms. Suchismita Ghosh Ms. Tanushree Kumar Mr. Debabrata Rana Mr. Pinaki Chakraborty	3 rd year UG students	Hand on exposure on design & fabrication of energy saving LED lamp
Microcontroller and its application in Embedded Systems	YPS,IET(UK), Kolkata Local Network	02 days (12.10.12 and 14.10.12)	Somnath Pradhan, Research Scholar, CMRI, Durgapur	EE 3rd Year Students, IT & AUE 2nd year Student, M.Tech ECE(VLSI) Students	The Students will be able to implement different embedded systems applications on the platform of 8051

List of Article Presentation Competition:

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
Present Around The World Competition 2016	IET(UK), Kolkata Local Network	2 nd May, 2016	i) Dr. Suddhasatwa Chakraborty ii) Dr. Debangshu De iii) Prof.(Dr.) J.K.Roy iv) Prof. K.Bhattacharya v) Prof. Debasis Das vi) Prof.(Dr.) Tapas Kumar Sengupta	Technical students from different instates (15 no. of participants)	The students will be able to share their view and improve creativity and communication skill
Present Around The World Competition 2013	IET(UK), Kolkata Local Network	2 nd April, 2013	i) Mr. A.N. Choudhury ii) Mr. M.K. Chakraborty	Technical students from different instates (30 no. of participants)	The students will be able to share their view and improve creativity and communication skill

List of Design Contest:

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
Texas Instruments Analog Design Contest 2015	Texas Instruments & EDGATE Technologies	02 days (14.11.15 and 20.11.15)	i) Prof. J.K.Roy ii) Dr. Gautam Kr. Maity iii) Mr. Ajoy Ghoshal iv) Mr. Suman Das	Students of ECE and EE Dept. (124 nos.)	Hands on exposure on Analog Circuit Design
Texas Instruments Analog Design Contest 2014	Texas Instruments & EDGATE Technologies	01 day 16/9/2014	i) Prof. J.K.Roy ii) Dr. Gautam Kr. Maity iii) Mr. Ajoy Ghoshal iv) Mr. Arijit sen v) Mr. Suman Das	Students of MCKV, ECE and EE2nd, 3rd,4th year (84 nos)	Hands on exposure on Analog Circuit Design

26. Student profile programme/course wise:

Not Applicable as students are admitted through AIEEE (JEE MAIN), WBJEE, JELET, PGET, GATE

Name of the course/ programme (refer to question no. 4)	Application received	Selected	Enrolled		Pass percentage
			*M	*F	

*M = Male *F = Female

27. Diversity of Students:

Name of the course	Academic Year	%of students from the same state	%of students from other state	%of students from abroad
B.TECH in ELECTRICAL ENGINEERING	2013-17	81.43	18.57	0
	2014-18	80.56	19.44	0
	2015-19	89.55	10.45	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.:

Name of the competitive examinations	Number of students qualified		
	2016	2015	2014
GATE	5	9	4
CAT	0	0	1
GRE	1	0	0

29. Student progression:

Student progression	Against % enrolled		
	2016	2015	2014
UG to PG	7.46	5.55	5.71
PG to MPhil	0	0	0
PG to PHD	0	0	0
PHD to Post Doc.	0	0	0
Employed			
Campus Selection	32.83	18	12.85
Other than Campus recruitment	4.47	37.5	5.71
Entrepreneurship	2.98	0	1.42

30. Details of Infrastructural facilities

- a) **Library:** In progress
- b) **Internet facilities for Staff & Students:** Yes
- c) **Class rooms with ICT facility:** In progress
- d) **Laboratories:**

Sl. No.	Name of the laboratory	Room No
1.	Electric Machine-I Lab	B414
2.	Electric machine-II Lab	B414
3.	Power system-I Lab	B413
2.	Power System-II	B409
5.	Power Electronics	B314
6.	Electric Drive	B314
7.	Electrical system design-I	B414
8.	Electrical system Lab-II	B414
9.	Project-I	B412

31. Number of students receiving financial assistance from college, university, government or other agencies

Academic Year	Half Free	TFW
2015-16	6	3
2014-15	6	3
2013-14	7	1
2012-13	0	2

32. Details of student enrichment programmes (special lectures/ workshops/ seminar) with external experts:

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
Workshop on "PLC-Industry Automation"	TEQIP Phase II	20 th -24 th September, 2016	Experts from Ardent Computech Pvt. Ltd.	4 th year UG students	Practical knowledge on PLC and its application
Workshop on "Microcontroller based embedded system design"	TEQIP Phase II	16 th -18 th August, 2016	Experts from Ardent Computech Pvt. Ltd.	3 rd year UG students	The Students will be able to implement different embedded systems applications on

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
					the platform of 8051 μ C
Employability Enhancement Programme on “Power System and Protection”	TEQIP Phase II	10 th February – 7 th May, 2016 (Every Saturday)	Mr. Meghdutt Bhattacharya, Manager (Eastern Region), Energy Management, Siemens Ltd.	3 rd Year UG students from EE department	Acquire knowledge on the area of different protection scheme in power system
Workshop on “Hands on training on Electric Circuit Design”	IET(UK), Kolkata Local Network	18 th -20 th March, 2016	Mrs. Nabamita Banerjee Roy Mr. Suman Das Mr. Biswajit Bhattacharya Mr. Sohorab Hossain	3 rd year UG students from EE departments	Hand on exposure on design & fabrication of DC power supply
Workshop on “TEXAS Instruments Embedded System TIVA C Series”	TEXAS Instruments	6 th – 8 th October, 2015	Experts from TEXAS Instruments	UG and PG Students, Faculty members, TSS from the corresponding Departments	Practical knowledge on embedded system TIVA C series.
Invited talk in “PLC and Industrial Automation”	TEQIP Phase II	3 rd March, 2015	Ms. Soma Chakraborty, Techno system, Dankuni, Hoogly	4 th Year UG students and Faculty members from EE department	Improvement of knowledge in PLC based industrial automation

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
National Seminar on “Power System Equipment: Basic requirements, Protection and Condition Monitoring”	TEQIP phase II	26 th February, 2015	Prof. (Dr.) Sivaji Chakraborty, EE Dept. , JU Mr. Debabrata basu, Asst. Vice president, Power System Division, ABB India Mr. Prabir Chatterjee, General Manager, Bharat Bijlee Ltd.	3 rd year and final year UG students, Faculty members from MCKVIE and other institution	Knowledge on power system protection, condition monitoring
Workshop on “Hands on training on Electric Circuit Design”	IET(UK), Kolkata Local Network	31 st January- 2 nd February, 2015	Mr. Sudeep Samanta Ms. Suchismita Ghosh Ms. Debopama kar Ray Mr. Debabrata Rana Mr. Pinaki Chakraborty	3 rd year UG students	Hand on exposure on design & fabrication of low power consumable rechargeable portable light
National Seminar on “Indian Power Scenario- Adoption of new	TEQIP phase II	3 rd May, 2014	Mr. Sanjay Kar Choudhury, Senior Manager,	EE Dept. UG students and faculty members	Creative idea about new technology adopted for improvement

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
Technology”			CESEC Dr. Debangshu De, Asst. Prof., EE Department, JU		of power scenerio
Workshop on “PLC based Industrial Automation”	TEQIP Phase II	6 th January to 11 th January, 2014.	Experts from ARDENT Computech Pvt. Ltd.	4 th year UG students	Practical knowledge on PLC and its application
Workshop on “Hands on Training on Electrical Circuit Design”	IET(UK), Kolkata Local Network	31 st August to 2 nd September, 2013	Mr. Sudeep Samanta, Ms. Suchismita Ghosh Ms. Tanushree Kumar Mr. Debabrata Rana Mr. Pinaki Chakraborty	3 rd year UG students	Hand on exposure on design & fabrication of energy saving LED lamp
Microcontroller and its application in Embedded Systems	YPS,IET(UK), Kolkata Local Network	02 days (12 th October, 2012 and 14 th October, 2012)	Somnath Pradhan, Research Scholar, CMRI, Durgapur	EE 3rd Year Students, IT & AUE 2nd year Student, M.Tech ECE(VLSI) Students	The Students will be able to implement different embedded systems applications on the platform of 8051

Module description	Source of funding	Duration	Resource Persons	Target Audience	Usage and Citation
Invited talk in “Present Scenario of core Industries”	TEQIP Phase II	28th September, 2012	Mr. Sankar Mukhopadhyay, CESC Limited	4 th Year UG students and Faculty from EE department	Knowledge on core industries present scenerios
Invited talk in “Electric Drives and its applications”	TEQIP Phase II	21st September, 2012	Mr. Pijush Bhaduri, Former AGM, Crompton Greaves	4 th Year UG students and Faculty members from EE department	Basic knowledge on Electric drives and its applications
Invited talk in “regulation and efficiency of Single phase Transformer”	TEQIP Phase II	22 nd February, 2012	Prof. (Dr.) Anish Deb, Professor, Applied Phys Department, CU	2 nd Year UG students from EE department	Basic knowledge on regulation and efficiency of Single phase Transformer
Invited talk in “Basic operation of Single phase Transformer”	TEQIP Phase II	8 th February, 2012	Prof. (Dr.) Anish Deb, Professor, Applied Phys Department, CU	2 nd Year UG students from EE department	Basic knowledge on operation of Single phase Transformer

33. Teaching methods adopted to improve student learning:

- Model class room
- Remedial class / Tutorial class
- QEEE program
- NPTEL
- Invited talk from Industry personal

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Sl. No.	Programme	Date	Staff member involved
1	Lecture on 'Balance beyond life' Mr. Satinath Mukhopadhyay will deliver his lecture and Dr. Purnendu Roy will deliver his lecture	19 th and 21 st December, 2013	Mrs. Chandrani Sadhukhan, Mr. Biswajit Bhattacharya, Mr. Soharab Hossain, Mr. Pinaki Chakroborty, Mr. Debabrata Rana
2	Youth counseling programme at MCKVIE	27 th March, 2014	Mrs. Nabamita Banerjee Roy
3	Distributing Bed sheet/article and Chocolate to 92 Slum Children/ Orphan Children before Puja 2014.	September 2014.	Mrs. Barnali Kundu Sarkar
4	Swach Bharat avijan organized by MCKVIE	20 th January, 2015	Mrs. Suchismita Ghosh and Mr. Biswajit Bhattacharya
5	Seminar on "Value Education and Positive Thinking"	June, 2015	Mrs. Barnali Kundu Sarkar
6	Late S K Mitra Endowment Lecture 2015. (The famous Bengali writer Sri Sastipada Chattapadhyay Writer of Pandab Goyenda, will be the Guest of Honour on that day).	July, 2015	Mr. Biswajit Bhattacharya, Mr. Soharab Hossain, Mr. Pinaki Chakroborty, Mr. Debabrata Rana
7	Cleanliness program by spreading bleaching powder in the campus at MCKVIE	September, 2015	Mr. Sudeep Samanta and Mr. Debabrata Rana
8	Blood Donation Camp organized by Akhil Bhartiya Terapanth Yuvak Parishad at MCKVIE	6 th September, 2015	Mr. Suman Das, Mrs. Suchismita Ghosh, Mrs. Barnali Kundu Sarkar, Mr. Biswajit Bhattacharya
9	Conduction of Pre Puja Articles/ Clothes Distribution among Needy/ Orphan Children	Mahalaya, 12 th October, 2015	Mrs. Barnali Kundu Sarkar
10	Seminar on "Value Education and Positive Thinking".	July, 2016	
11	Conduction of Pre Puja Articles/ Clothes Distribution among Needy/ Orphan Children	4 th October, 2016	Mr. Biswajit Bhattacharya, Mrs. Barnali Kundu Sarkar

35. SWOC analysis of the department and Future plans

Strengths

1. Young energetic faculties with diverse in specialization
2. Excellent faculty retention ratio
3. Availability of high end power system software in the Project laboratory.

Weakness

1. Lack of senior, experienced faculty members.
2. Poor industry interaction
3. Drive for encouragement for student progression and different competitive exam is inadequate.
4. Students lacking research publications.

Opportunities

1. Career guidance improvement for students.
2. Development in research activities.
3. Introduction of M. Tech. course.

Challenges

1. Inducing the students to take up more competitive exams through rigorous preparations
2. Sharpening the entrepreneurship skills and other talents for better transformation of career and prospects of students
3. To obtain NBA Accreditation.

Future Plan

1. To see our students in the global map empowered with state of the art in technology
2. To impart World class research facility customized to Indian environment.
3. Collaboration with foreign universities for student exchange, joint research, IPR protection and joint Ph.D. supervision programmes.

Information Technology

1. **Name of the department:** Information Technology
2. **Year of Establishment:** 1999
3. **Names of Programmes/ Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):** B.Tech. in Information Technology
4. **Names of Interdisciplinary courses and the departments/units involved:**

Participation of other department for the courses offered by the department of IT.

Courses	Department Involved
Values & Ethics in Profession	Basic Science, Humanities and Social Sciences (BSSHSS)
Physics	BSSHSS
Basic Environmental Engineering & Elementary Biology	BSSHSS
Mathematics	BSSHSS
Economics for Engineers	BSSHSS
Principles of Management	BSSHSS
Engineering Mechanics	Department of Mechanical Engineering(ME)

5. **Annual/ semester/ choice based credit system (programme wise):**

Semester based credit system

6. **Participation of the department in the courses offered by other departments:**

Name of the department	Courses Offered
Electronics & Communication Engineering	Object oriented Programming(EC605A), Object oriented Programming Lab(EC695A),

7. **Courses in collaboration with other universities, industries, foreign institutions, etc.:**

NPTEL, QEEE

8. Details of courses/ programmes discontinued (if any) with reasons:

Nil

9. Number of Teaching posts:

Cadre Name	Sanctioned	Filled
Professors	1	0
Associate Professors	3	2
Asst. Professors	11	8

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt./ Ph.D./ M. Phil. Etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Indrajit De	Ph.D.(Engg.) M. Tech, B.Tech,	Associate Professor and Head	Image Quality Assessment, Soft Computing	Academic: 14 Years 8 Months Industry: 3	Nil
Dr. Amit Phadikar	BE, M. Tech, Ph.D.(Engg.)	Associate Professor	Image & Signal Processing, Information	Academic: 11 Years	2 (Continuing)
Ms. Shampa Ghosh (Sengupta)	B. Tech, M. Tech, Ph.D. (Pursuing)	Assistant Professor	Data mining, Pattern Recognition	Academic: 13 Years Industry: 1	Nil
Ms. Jayanti Pathak (Rudra)	AMIE, M.Tech	Assistant Professor	Wireless Sensor N/W	Academic: 11 Years Industry: 9	Nil
Mr. Sachin Balo	BE, ME	Assistant Professor	Image Processing	Academic: 9.5 Years	Nil
Ms. Jayanti Mahata	B.Tech, M.Tech	Assistant Professor	Image Processing	Academic: 9 Years	Nil
Mr. Priyanath Mahanti	M.Sc., ME	Assistant Professor	Network Security	Academic: 9 Years	Nil
Mr. Sougata Dey	B.Tech, ME	Assistant Professor	Image Processing	Academic: 10 Years Industry: 2.5	Nil
Ms. Ipsita Dalui	B.Tech, M.Tech	Assistant Professor	Networking	Academic: 11 Years	Nil

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Mr. Arijit Sarkar	AMIE, M.Tech	Assistant Professor	Communication Engg	Academic: 13 Years	Nil

11. List of senior visiting faculty:

Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Nil

13. Student –Teacher Ratio (programme wise):

Course	Student –Teacher Ratio
B.Tech. in Information Technology	21.6 :1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Designation	Sanctioned	Filled
Academic support staff (technical)	06	06
Administrative staff	Nil	Nil

15. Qualifications of teaching faculty with D.Sc./ D.Litt./ Ph.D./ M.Phil./ PG.:

Qualifications of teaching faculty	No of Faculty
D.Sc.	0
D.Litt.	0
Ph.D.	2
M.Phil.	0
PG.	8

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

- a) **National:** Nil
b) **International:** Nil

17. Departmental projects funded by DST – FIST; UGC, DBT, ICSSR, etc. and total grants received:

Nil

18. Research Centre /facility recognized by the University:

Not Applicable

19. Publications:

- a) **Publication per faculty**
b) **Number of papers published in peer reviewed journals (national / international) by faculty and students**
c) **Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database – International Social Sciences Directory, EBSCO host, etc.)**
d) **Monographs**
e) **Chapter in Books**
f) **Books Edited**
g) **Books with ISBN/ISSN numbers with details of publishers**
h) **Citation Index**
i) **SNIP**
j) **SJR**
k) **Impact factor**
l) **h-index**

Following table shows the publication details of faculty members of the department.

Sl. No.	Name of Faculty	(a)	(b)	(c)	(d)	(e)	(f)	(g)*	(h)	(i)	(j)	(k) (Highest)	(l)
1	Dr. Indrajit De	13	3	14	0	4	0	0	23	2.143	1.763	2.857	4
2	Dr. Amit Phadikar	59	23	47	0	4	0	2 ⁺	307	1.164	0.565	1.084	9
3	Ms. Shampa Ghosh (Sengupta)	12	2	9	0	1	0	0	4	-	-	-	-
4	Ms. Jayanti Pathak (Rudra)	2	0	0	0	0	0	0	-	-	-	-	-

Sl. No.	Name of Faculty	(a)	(b)	(c)	(d)	(e)	(f)	(g)*	(h)	(i)	(j)	(k) (Highest)	(l)
5	Ms. Jayanti Mahata	4	0	0	0	0	0	0	-	-	-	-	-
6	Mr. Priyanath Mahanti	2	0	0	0	0	0	0	-	-	-	-	-
7	Mr. Sougata Dey	4	0	0	0	0	0	0	-	-	-	-	-
8	Mr. Arijit Sarkar	27	0	0	0	0	0	0	-	-	-	-	-

* Books with ISBN/ ISSN numbers with details of publishers: 2

Sl. No.	Book Title	Publisher Name	ISBN/ISSN NO
1	Color Image Watermarking Using MATLAB, By Amit Phadikar	LAP LAMBERT Academic Publishing, Germany, GmbH & Co. KG.	ISSN: 978-3-659-18808-4
2	Data Hiding Techniques and Application Specific Designs, By Amit Phadikar	LAP LAMBERT Academic Publishing, Germany, GmbH & Co. KG.	ISSN: 978-3-659-12577-5

20. Areas of consultancy and income generated:

Dr. Indrajit De received project consultancy grant:

- 2013: Rs Thirteen thousand five hundred(13500) from Rabt Technologies Pvt Ltd and Internet Society Kolkata Chapter
- 2015: Rs One Lakh (Rs 50000 already disbursed) from Internet Society Kolkata Chapter

Dr. Indrajit De and Mr. Arijit Sarkar received project consultancy grant:

- 2012-2014: Rs Five Lakhs Sixty Six Thousand Only (5.66 Lakhs) from Govt of India Through Ramakrishna Math & Ramakrshna Mission, Belur Math(HQ) (**Name of the Project:** Sustained Graded Value Education Project SGVEP Type B)

21. Faculty as members in a) National committee b) International Committee c) editorial board etc.:

Name of the Faculty	Editorial Boards	National committees	International Committees
Dr Indrajit De	-	-	2
Dr. Amit Phadikar	-	1	2

22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/ programme
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies:

Sl. No.	Academic Session [Year of Passing]	a (%)	b (%)
1	2015-2016	100	0
2	2014-2015	100	0
3	2013-2014	82	18
4	2012-2013	100	0
5	2011-2012	100	0

23. Awards/ Recognitions received by faculty and students:

Name of the Faculty	Awards / Recognitions
Dr. Indrajit De	Received Internet Society Kolkata Chapter funded fellowship to participate in IETF 94 meeting ,2015 held in Japan
	Department of Education, West Bengal Govt. Scholarship holder for securing First Class Second rank throughout B.Tech. from Calcutta University.
	Awarded with Indian Refractories Makers Association (IRMA) Excellence award in B.Tech. for holding First Class Second rank in Calcutta University
Dr Amit Phadikar	Recognized as a PhD supervisor of Yuan Ze University, Tiwan
	Recognized as a PhD supervisor of Maulana Abul Kalam Azad University Of Technology, West Bengal

24. List of eminent academicians and scientists/ visitors to the department:

Name of the eminent academicians and scientists / visitors	Affiliation	Purpose of visit	Date of visit
Prof. C.L. Khetrapal	Professor, CBMR, Lucknow	Workshop	01.10.2016
Mr. Abhijan Bhattacharya	Scientist, TCS Innovation Lab, Kolkata	Guest Lecture	16.08.2016
Dr. Subhajit Roy Chowdhury	Assistant Professor, IIT Mandi	Workshop	02.10.2016
Dr. Subhas Khushu	INMAS(DRDO), New Delhi	Workshop	02.10.2016

Name of the eminent academicians and scientists / visitors	Affiliation	Purpose of visit	Date of visit
Dr Ramesh Venkateshan	Scientist, WIPRO GE Healthcare	Workshop	01.10.2016
Mr. Subhendu Chakraborty	Supervisor In-Charge, Bureau of Police Research & Development	Seminar	09.02.2013
Dr. Amit Chowdhuri	Jt-Director, CDAC, Kolkata	Seminar	06.02.2013
Prof. Debesh Das	Professor, J.U.	Seminar	13.10.2012
Prof. Sunanda Banerjee	Professor and Sr. Scientist, SINP	Lecture meet	07.09.2012
Prof. Nandini Mukherjee	Professor, J.U	FDP	12.07.2012
Prof. C.A Murthy	Professor, ISI-Kolkata	Lecture meet	05.05.2012

25. Seminars/ Conferences/ Workshops organized & the source of funding:

Topic	Resource persons	Target Audience	Date	Funding
National Workshop on “Medical Systems and Imaging”	Prof. C.L. Khetrapal, Dr. Subhajit Roy Chowdhury, Dr Ramesh Venkateshan, Dr. Subhas Khushu	B.Tech. IT Students	01.10.2016 - 02.10.2016	TEQIP II
One Week FDP on “Design of Internet”	Dr.Sourav Saha, Dr. Indrajit Banerjee, Mr.Hrishikesh Bhowmick	Faculty of government Polytechnic college	14.03.2016 - 18.03.2016	TEQIP II
Seminar on “Cyber Forensics”	Mr. Subhendu Chakraborty	B.Tech. IT Students	12.08.2016	TEQIP II
Guest Lecture on “Protocol Programming”	Mr. Abhijan Bhattacharya,	B.Tech. IT Students	16.08.2016	TEQIP II
Expert Lecture on “SDLC-Software Engineers Experience”	Mr. Banibrata Patra,	B.Tech. IT Students	28.03.2015	TEQIP II
Expert Lecture on “Chaos Based Security and Authentication in Communication”	Prof. JK Mondal,K.U	B.Tech. IT Students	28.03.2015	TEQIP II

Topic	Resource persons	Target Audience	Date	Funding
Expert Lecture on “Visual Cryptography”	Prof. JK Mondal, K.U	B.Tech. IT Students	28.03.2015	TEQIP II
Expert Lecture on “Application of Soft Computing in Image Processing”	Dr. Siddhartha Bhattacharya	B.Tech. IT Students	28.11.2014	TEQIP II
Workshop on “Web Security-Under the Hood-Geek Lab”	Mr. Anand Raje, Mr. Subhendu Chakraborty,	B.Tech. IT Students	3.08.2013-4.8. 2013	TEQIP II
Seminar on “Crimes of cyber world (Real life case studies) & best practices for secured uses & implementation of mobile and web application”	Mr. Anand Raje, Mr. Subhendu Chakraborty, Mr. Kamanashish Ray, Mr. Avik Bose, Mr. Mithilesh Das	B.Tech. IT Students	09.02.2013	TEQIP II
Seminar on BOSS Operating System”	Dr. Amit Chowdhuri, Dr. Jayanta Pariwal, Dr. Kousik Maity	B.Tech. IT Students	06.02.2013	TEQIP II
Seminar on “Free & Open Source Software”	Prof. Debesh Das, J.U.	B.Tech. IT Students	13.10.2012	TEQIP II
Lecture meet on “Higgs God’s Bosen: The Story of Particle”	Prof. Sunanda Baberjee, SINP	B.Tech. IT Students	07.09.2012	TEQIP II
Five days Faculty Development Program on “Grid Computing”	Prof. Nandini Mukherjee, J.U	Faculty and staff of MCKVIE	12.07.2012	TEQIP II
Lecture on “Pattern Recognition”	Prof. C.A. Murthy, ISI-Kolkata	B.Tech. IT Students	05.05.2012	TEQIP II

26. Student profile programme/ course wise:

Not Applicable as students are admitted through JEE MAIN (Earlier AIEEE), WBJEE, JELET, PGET, GATE

Name of the course/ programme (refer to question no. 4)	Application received	Selected	Enrolled		Pass percentage
			*M	*F	

*M = Male *F = Female

27. Diversity of Students:

Name of the Course	Year of POB	% of students from the same state	% of students from the other state	% of students from abroad
B.Tech. IT	2015-16	86	14	0
	2014-15	80	20	0
	2013-14	86	14	0
	2012-13	86	14	0
	2011-12	93	7	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Year of Passing	GATE	CAT	GRE	Others
2015-16	1			
2014-15	2	1	1	
2013-14	1	1		1(XAT)
2012-13	2			2(XAT)
2011-12	----	----	----	----

29. Student progression:

Student progression	Against % enrolled				
	2015-2016	2014-2015	20-13-2014	2012-2013	2011-2012
UG to PG	1	0	0	0	0
PG to M.Phil.	--	--	--	--	--
PG to Ph.D.	--	--	--	--	--
Ph.D. to Post-Doctoral	--	--	--	--	--
Employed					
Campus selection	37/57=65	29/58=50	28/60=47	31/60=52	36
Other than campus recruitment	0	0	0	0	0
Entrepreneurship/Self-	--	--	--	--	--

30. Details of Infrastructural facilities**a) Library:**

No of Books: 310 Copies

No of Journals: Nil

No of Books in central library related to the department: 4965 Copy + 872(Titles of E-Book)

No of Journals in central library related to the department: 6 (titles) +3318(Titles of E-Journals)

b) Internet facilities for Staff & Students:

The departmental floors are WIFI activated therefore all students and faculty members can access internet as well as online courses.

c) Class rooms with ICT facility:

Room no. A201 & A 204 is also connected with the ICT facilities of the institute through which, a group of students can access online courses like NPTEL etc.

d) Laboratories: (Students' laboratories & Research laboratories)

Sl. No.	Name of The Laboratory	Description
1.	Basic Computing Lab(A219)	Data Structure and Algorithm (CS392)
		Operation Research Lab (IT594)
		Design and Analysis of Algorithm(IT591)
2.	AI and Object Technology	Object Technology Lab (IT491)

Sl. No.	Name of The Laboratory	Description
	Lab(A220)	Numerical Methods(M(CS)491) Computer Architecture lab (IT592)
3.	DBMS and Web Technology Lab(A317)	Database Management System Lab(IT694) Web Technology Lab(IT792) E-Commerce Lab(IT891)
4.	OS and Networking Lab(A318)	Operating System Lab(IT-593) Data Communication & Networking Lab(IT693) Internetworking Lab(IT791)
5.	Multimedia Lab(A315)	Multimedia Lab(IT695) Software Tools Lab(CS492)
6.	Digital Logic Design Lab(B106)	Analog & Digital Communication Lab(CS391) Computer Organization Lab(CS393)
7.	Communication Engineering Lab(B204)	Communication & Coding Theory(CS491)
8.	ECD & AEC LAB And Circuit Theory Hardware Lab(B102)	Analog & Digital Communication Lab(CS391)
9.	Physics Lab(A215)	Physics -2 Lab (PH 391)
10.	English Communication Lab(A108)	Technical Report Writing & Language Laboratory (HU 481) Group Discussion on Professionalism(HU 881)
11.	Research Lab (A202)	Faculties and Students Research Works

31. Number of students receiving financial assistance from college, university, government or other agencies:

B.Tech. (Govt. Scholarships)

	Academic Year	No of students		
		West Bengal Freeship Scheme (WBFS)		Tuition Fee Waiver (TFW)
		Full	Half	
B.Tech. IT	2016-2017	6	20	12
	2015-2016	6	20	12
	2014-2015	9	18	12
	2013-2014	11	15	12
	2012-2013	10	15	12

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts:

Sl. No.	Topic of the Workshop/ Seminar/ Special Lecture	Participants	Date	Resource Person (s)	Source of Funding
1.	Seminar on “Cyber Forensics”	IT department students	12.08.2016	Mr. Subhendu Chakraborty, CID, Kolkata	TEQIP II
2.	Guest Lecture on “Protocol Programming”	IT department students	16.08.2016	Mr. Abhijan Bhattacharya, Scientist, TCS Kolkata	TEQIP II
3.	Expert Lecture on “SDLC- Software Engineers Experience”	IT department students	28.03.2015	Mr. Banibrata Patra, Tech Mahindra	TEQIP II
4.	Expert Lecture on “Chaos Based Security and Authentication in Communication”	IT department students	28.03.2015	Prof. JK Mondal, K.U	TEQIP II
5.	Expert Lecture on “Visual Cryptography”	IT department students	28.03.2015	Prof. JK Mondal, K.U	TEQIP II
6.	Expert Lecture on “Application of Soft Computing in Image Processing”	IT department students	28.11.2014	Dr. Siddhartha Bhattacharya	TEQIP II
7.	Workshop on “Web Security-Under the Hood-Geek Lab”	IT department students	3.08.2013 to 4.08.2013	Mr. Anand Raje, ISOC-Kolkata Mr. Subhendu Chakraborty, Bureau of Police & development	TEQIP II

Sl. No.	Topic of the Workshop/ Seminar/ Special Lecture	Participants	Date	Resource Person (s)	Source of Funding
8.	Seminar on “Crimes of cyber world (Real life case studies) & best practices for secured uses & implementation of mobile and web application”	IT department students	9.02.2013	Mr. Anand Raje, VP-Membership, ISOC-Kolkata & Director RABT Technology, Mr. Subhendu Chakraborty, Cyber cases (Core study), Bureau of Police research & development, Mr Kamanashish Ray, Co-founder “Web Prachar” Mr. Avik Bose, Member CSI-Kolkata, Mr. Mithilesh Das, Co-founder “Web Prachar”	TEQIP II
9.	Seminar on “BOSS Operating System”	IT department students	6.02.2013	Dr. Amit Chowdhuri, Jayanta Pariwal, KOUSIK Maity CDAC, Kolkata	TEQIP II
10.	Seminar on “Free & Open Source Software”	IT department students	13.10.2012	Prof. Debesh Das, J.U.	TEQIP II

Sl. No.	Topic of the Workshop/ Seminar/ Special Lecture	Participants	Date	Resource Person (s)	Source of Funding
11.	Lecture meet on “Higgs God’s Bosen:The Story of Particle	IT department students	7.09.12	Prof. Sunanda Baberjee, SINP	TEQIP II
12.	Lecture on “Pattern Recognition”	IT department students	5.05. 2012	Prof. C.A.Murthy, ISI-Kolkata	TEQIP II
13.	Lecture meet on “IPV6 (ISOC ,Kolkata chapter)”	IT department students and faculty MCKVIE	17.11.2012	Mr. Anupam Agarwal, President-Membership, ISOC-Kolkata & Mr. Anand Raje, VP-Membership, ISOC-Kolkata.	TEQIP II
14.	Lecture meet on “IPV6 (ISOC ,Kolkata chapter)”	IT department students and faculty MCKVIE	20.10.2011	Mr. Anupam Agarwal, President-Membership, ISOC-Kolkata & Mr. Anand Raje, VP-Membership, ISOC-Kolkata.	Institute Fund
15.	Lecture meet on “IPV6 (ISOC ,Kolkata chapter)”	IT department students and faculty MCKVIE	29.09.2011	Mr. Anand Raje. Mr. Anupam Agarwal	Institute Fund
16.	Lecture meet on “Recent Information Technology Trends”	IT department students and faculty MCKVIE	26.08.2011	Mr. Kushal Banerjee TCS-Kolkata	Institute Fund

33. Teaching methods adopted to improve student learning:

- Lectures & tutorials
- Chalk & board
- Presentation
- Experimental Laboratory Work
- Assignments
- QEEE Program
- NPTEL
- Diagnostic test to identify slow and advance learners.
- Tutorials for needy students
- Soft Skill Classes for students as a preparatory course work for enhanced Employability

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Sl. No.	Name of the event	Date	Faculty member/ students involved	Role
1	Swach Bharat Abhiyan organized by Rotaract Club	January, 2014	Mr. Amlan Karmakar, Mr. Sandip Chakrabarty	Member
2	Lecture on “Value Education and Positive Thinking’	June, 2015	Mr. Soumen Chakraborty	Participant
3	Participated in Blood donation	2015	Mr. Soumen Chakraborty	Participant
4	Contribution to Earthquake Relief Fund	2015	All Faculties of IT	Donor
5	NSS	2016	Mr. Priyanath Mahanti	Member
6	Seminar on Value Education and Positive Thinking’ for Outside Participants	31st July 2016 Sunday	Mr. Arijit Sarkar	Organizer and Speaker
7	Seminar on Value Education and Positive Thinking’ for Outside Participants	7 th June 2015, Sunday	Mr. Arijit Sarkar	Organizer and Speaker
8	Distribution of Utility Items to 92 Nos Orphan & Needy Children Before Puja 2015 at Belghoria	22nd September 2014.	Mr. Arijit Sarkar	Organizer
9	Distribution of Utility Items to 105 Nos Orphan & Needy Children Before Puja 2015 at Belghoria & Moulalai, Kolkata	12 th October 2015 Monday	Mr. Arijit Sarkar	Organizer

Sl. No.	Name of the event	Date	Faculty member/ students involved	Role
10	Distribution of Utility Items to 45 Nos Orphan & Needy Children Before Puja 2016 at Howrah	4 th October 2016	Mr. Arijit Sarkar	Organizer

35. SWOC analysis of the department and Future plans:

Strength:

1. Experienced Qualified dedicated academic staff members.
2. Well Equipped laboratories.
3. State of the art infrastructure & well managed academic environment.
4. a. NBA Accreditation of the Department.
5. ISO Certification of Institute.
6. Publications by the faculty members are well in number.
7. The academic staff members have the vision to do research work and to serve in the department for providing best outcome.
8. Regular Workshops & Seminars held in the Department.
9. Department has exclusive research lab.

Weakness:

1. The Department has no dedicated Meeting Room.
2. Number of books in the departmental Library is less.
3. Absence of Dual Degree and student exchange program.
4. Deficiencies in the rate enhancement and enrichment of course curriculum.

Opportunity:

1. NBA Accreditation as a value addition regarding scope to carry out the funded Project like DST, AICTE and other organizations.
2. Introduction of professional development Courses for the students by utilizing the college resources beyond college hours.
3. Increased interactions with other universities and industries.
4. Establishment of students' chapters like IEEE, IET, ACM, ISTE etc.

Challenges:

1. Engaging faculty members in various research activities.
2. More focuses on collaborative and entrepreneurial initiation
3. Creating a state-of-the-art learning environment for students.
4. Industrial training of Faculty members and laboratory instructors.

Future plan:

1. Introduction of M.Tech. in Information Technology.
2. To make the Department as the Centre of Excellence.

Mechanical Engineering

1. **Name of the department:** Mechanical Engineering
2. **Year of Establishment:** 2008
3. **Names of Programmes/ Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):** B.TECH. IN MECHANICAL ENGINEERING
4. **Names of Interdisciplinary courses and the departments/units involved:**

Sl. No.	Paper Code	Name of the paper	Name of the department involved
1	HU 301	Values & Ethics in Profession	BSHSS
2	PH 301	Physics - 2	BSHSS
3	CH 301	Basic Environmental Engineering &	BSHSS
4	HU 381	Technical report Writing & Language Lab	BSHSS
5	PH 391	Physics Lab-2	BSHSS
7	M(CS)	Numerical Methods	BSHSS
8	M 402	Mathematics - 3	BSHSS
9	M(CS)	Numerical Methods Lab	BSHSS
10	HU 511	Principles & Practices of Management	BSHSS
11	ME604B	Mechatronics	EE / ECE
12	ME695B	Mechatronics Lab	EE / ECE
13	ME783	Group Discussion	BSHSS
14	ME801	Economics for Engineers	BSHSS
15	ME803D	Automobile Engineering	AUE

5. **Annual/ semester/ choice based credit system (programme wise):**

Semester based credit system.

6. **Participation of the department in the courses offered by other departments:**

Mechanical engineering department faculties are handling subjects like workshop practice, engineering mechanics, engineering thermodynamics and fluid mechanics, engineering graphics, production planning and control, production management and operations research for several departments. The details are as follows:

Academic year	Courses offered in other Departments	Semester	Papers Handled	Paper Code
2016-17	BSSHSS	1 st (CSE / ECE/ME)	Workshop Practice	ME 192
	BSSHSS	1 st (CSE / ECE / ME)	Engineering Mechanics	ME 101
	BSSHSS	ME /ECE/CSE	Engineering Graphics	ME 191
	AUE	M.Tech. 3 rd	Production Planning and Control	MAE 301
2015-16	BSSHSS	1 st (ME /CSE/ECE)	Engineering Thermodynamics and Fluid Mechanics	ME 201
	AUE	6 th Sem	Production Management and Operations Research	AUE 606 (HU)
2014-15	BSSHSS	1 st (CSE / ECE/ME)	Workshop Practice	ME 192
	BSSHSS	1 st (CSE / ECE / ME)	Engineering Mechanics	ME 101
	BSSHSS	ME /ECE/CSE	Engineering Graphics	ME 191
	AUE	M. Tech 3 rd	Production Planning and Control	MAE 301
2013-14	BSSHSS	1 st (CSE / ECE/ME)	Engineering Thermodynamics	ME 201
	BSSHSS	1 st ME /ECE/CSE	Engineering Graphics	ME 191
	AUE	6 th sem	Production Management and Operations Research	AUE 606 (HU)

7. Courses in collaboration with other universities, industries, foreign institutions, etc.:

The institute is affiliated to Maulana Abul Kalam Azad University of Technology (MAKAUT). There is no provision for affiliated institutions to run such courses. However, QEEE courses are conducted in collaboration with IIT Chennai.

8. Details of courses/ programmes discontinued (if any) with reasons:

Not Applicable

9. Number of Teaching posts:

Programme	Designation	Sanctioned	Filled
B. Tech in Mechanical Engineering	Professors	1	2
	Associate Professors	3	2
	Asst. Professors	11	10

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./ D.Litt./ Ph.D./ M.Phil. etc.):

Name	Qualification	Designation	Specialization	No. of Years experience	No. of Ph.D. students guided for the last 4 years
Dr. Prasenjit Chatterjee	Ph.D.	HOD & Associate Professor	Production Management	8	0
Prof. (Dr.) Parasar Bandyopadhyay	Ph.D.	Professor	Applied Mechanics	34	0
Prof. (Dr.) Samir Kumar Saha	Ph.D.	Professor	Thermal Engineering	35	1
Dr. Ranjib Biswas	Ph.D.	Associate Professor	Production Technology	12	1
Mr. Chaitanya Nandi	M.E.	Assistant Professor	Machine Design	12	0
Dr. Goutam Paul	Ph.D.	Assistant Professor	Production Technology	7	0
Mr. Rajat Subhra Bhowmik	M.E.	Assistant Professor	Production Technology	8	0
Mr. Tuhin Patra	M.E.	Assistant Professor	Machine Design	7	0

Name	Qualification	Designation	Specialization	No. of Years experience	No. of Ph.D. students guided for the last 4 years
Mr. Biswajit Gayen	M.E.	Assistant Professor	Fluid Mechanics & Hydraulics	6	0
Mr. Soutrik Bose	M.E.	Assistant Professor	Applied Mechanics	7	0
Mr. Suvanjan Bhattacharya	M.E.	Assistant Professor	Thermal Engineering	5	0
Mr. Nabankur Mondal	M.Tech.	Assistant Professor	Mechanical Engineering	2	0

11. List of senior visiting faculty:

Name	Qualification	Designation	Specialization	No. of Years experience	No. of Ph.D. students guided for the last 4 years
Mr. Subhasish Dasgupta	PGDIE	Assistant Professor	Refrigeration, Air Conditioning and Ventilation	32	0
Mr. Sawar Dhanania	MME	Assistant Professor	Renewable Energy	30	0

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty:

Name of Faculty	% of Lecture classes taken	% of Practical/ Sessional/ Project classes taken
Mr. Subhasish Dasgupta	2	6
Mr. Sawar Dhanania	1.5	6

13. Student -Teacher Ratio (programme wise):

Programme	Students: Teacher
B. Tech in Mechanical Engineering	15.4

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Programme	Designation	Sanctioned	Filled
B. Tech in Mechanical Engineering	Lab Instructor	5	5
	Administrative Staff	0	0

15. Qualifications of teaching faculty with D.Sc./ D.Litt./ Ph.D./ M.Phil./ PG:

Degree	Number
D.Sc.	0
D.Litt.	0
Ph.D.	5
M.Phil.	0
PG	9

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

No. of faculty	Total grant received in Rs
1	256700

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:

Name of the faculty member	Title of the Project	Amount of fund granted	Funding Agency	Starting date	Status	Duration of the Project
Mr. Suvanjan Bhattacharya	“Design and Experiment of a Geothermal Air-Conditioner	Rs 74,000	Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE)	Jan. 2016	Completed	1 Year
	Thermo hydraulics on forced convection	Rs 67700	MCKVIE	Jan 2015	Ongoing	3 years

Name of the faculty member	Title of the Project	Amount of fund granted	Funding Agency	Starting date	Status	Duration of the Project
	Solar unmanned aerial vehicle	115000	Sam Castings	Jan 2014	Ongoing	3 years

18. Research Centre/ facility recognized by the University:

Not Applicable

19. Publications:

- a) Publication per faculty
- b) Number of papers published in peer reviewed journals (national/ international) by faculty and students
- c) Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- d) Monographs
- e) Chapter in Books
- f) Books Edited
- g) Books with ISBN/ ISSN numbers with details of publishers
- h) Citation Index
- i) SNIP
- j) SJR
- k) Impact factor
- l) h-index

Following table shows the publication details of faculty members of the department.

Sl. No.	Name of Faculty	(a)	(b)	(c)	(d)	(e)	(f)	(g)*	(h)	(i)	(j)	(k) (Highest)	(l)
1	Dr. Samir Kumar Saha	100	08	2	0	1	1	1	10	1.547	1.199	1.174	0
2	Dr. Ranjib Biswas	28	10	9	0	0	0	3	130	1.8	1.202	2.357	6
3	Dr. Prasenjit Chatterjee	43	29	24	0	0	0	0	717	2.526	1.916	4.959	10
4	Mr. Suvanjan Bhattacharya	42	21	08	0	0	0	3	83	1.761	1.389	2.12	4
5	Dr. Goutam Paul	20	04	5	0	0	0	0	15	1.3	-	1.568	2
6	Mr. Soutrik Bose	06	02	-	-	-	-	-	-	-	-	-	-
7	Mr. Rajat Subhra Bhowmik	07	02	-	-	-	-	-	-	-	-	-	-
8	Mr. Tuhin Patra	01	01	-	-	-	-	-	-	-	-	-	-

* Books with ISBN/ ISSN numbers with details of publishers

Sl. No.	Name of Author	Title of Book	Publisher List with ISBN/ ISSN No.
1.	Dr. Samir Saha	Engineering Education in India	Sahitya Samsad, ISBN: 978-81-7955-193-6
2.	Dr. Ranjib Biswas	Engineering Graphics (ME-291)	New Age International Publishers, ISBN: 81-224-2054-0
3.	Dr. Ranjib Biswas	Workshop Practical (ME-292)	New Age International Publishers, ISBN: 81-224-2053-2
4.	Dr. Ranjib Biswas	Engineering Graphics (ME-191)	New Age International Publishers, ISBN: 81-224-2055-6

20. Areas of consultancy and income generated:

Nil

21. Faculty as members in National committees b) International Committees c) Editorial Boards....

Name of the faculty member	Editorial board membership in international journals	International Committees	National Committees
Dr. Parasar Bandyopadhyay	0	0	5
Dr. Samir Kr. Saha	3	0	3
Dr. Prasenjit Chatterjee	11	6	4
Mr. Suvanjan Bhattacharya	6	0	2
Dr. Ranjib Biswas	4	3	7

22. Student projects

- Percentage of students who have done in-house projects including inter departmental/ programme:
- Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/ Industry/ other agencies:

SL. No.	Academic Year	% of Students done In-house Projects	% of Students done Projects of Outside Organization
1	2016-17	100	0
2	2015-16	97.43	2.57
3	2014-15	100	0
4	2013-14	100	0
5	2012-13	100	0

23. Awards/ Recognitions received by faculty and students

Faculty:

Name of the faculty member	Awards/ Recognitions received
Dr. Ranjib Biswas	<ol style="list-style-type: none"> 1. National Scholarship in Class VII 2. University Gold Medal in M.Tech. at Jadavpur University
Dr. Prasenjit Chatterjee	<ol style="list-style-type: none"> 3. ELSEVIER and SCIENCE DIRECT awarded certificate for research paper titled “Selection of Materials using Compromise Ranking and Outranking Methods, <i>Materials & Design</i>, Volume 30, Issue 10, Pp. 4043-4053, featured in the SCIENCEDIRECT Top 25 List of Most Downloaded Articles. 4. Awarded University Gold Medal for securing 1st rank in production engineering examinations of West Bengal University of Technology, 2007. 5. Most cited ‘Materials & Design’ articles since 2011 “Materials selection using complex proportional assessment and evaluation of mixed data methods”, Prasenjit Chatterjee, V.M Athawale, and Shankar Chakraborty, <i>Materials and Design</i>, 32 (2), pp. 851-860, 2011. ELSEVIER. 6. Most cited ‘Robotics and Computer-Integrated Manufacturing’ articles since 2009 to 2015, “Selection of industrial robots using compromise ranking and outranking methods”, Prasenjit Chatterjee, V.M Athawale, and Shankar Chakraborty, <i>Robotics and Computer Integrated Manufacturing</i>, 26(5), pp. 483-489, 2010. ELSEVIER. 7. Certificate of Recognition for participating as a reviewer during 2015-2016 in the peer review process for Journal of Civil Engineering and Management, Taylor and Francis. 8. Certificate of Recognition for participating as a reviewer during 2015-2016 in the peer review process for International Journal of Management Science and Engineering Management, Taylor and Francis. 9. Certificate of Appreciation from Asia Pacific Management Review journal in recognition of contribution to the Journal. Patron Member of World Academic – Industry Research Collaboration Organization (WAIRCO). Member Number- 04000912. 10. Member of Young Researchers Committee of the World Federation on Soft Computing (WFSC)

Name of the faculty member	Awards/ Recognitions received
<p>Mr. Suvanjan Bhattacharyya</p>	<p>11. Master's Thesis – “Heat transfer characteristics of laminar flow through a circular duct having integral transverse rib roughness and fitted with center-clear twisted tape “ Nominated as one of the best “Innovative Student Project Award” in the year of 2012 by Indian National Academy of Engineering (INAE), New Delhi.</p> <p>12. Won Best Paper award at International Conference on Recent Innovations in Science, Engineering and Technology, Goa – 16th March, 2014, on “Designing of an Aerofoil blades with 2-D geometry”.</p> <p>13. Won Best Paper award and Golden Medal at International Conference on “Experimental investigation of drag and lift force on an airfoil shaped body at different angles” at Bangalore – 22nd June, 2014, at International Conference on Mechanical and Production Engineering.</p> <p>14. Won Best paper award and Medal at International Conference on “Convective heat transfer enhancement in low Reynolds number of a circular pipe with full length twisted tape inserts” at Pune – 29th June, 2014, at International conference on Recent Innovations in Science, Engineering and Technology – ICRASET.</p> <p>15. Won Best paper award and Memento at International Conference on “Design and Fabrication of a Solar power unmanned aerial vehicle” at Chennai – 28th Sept, 2014, at International conference on Computer Science and Mechanical Engineering.</p> <p>16. Won Best and 3rd Best Poster award and Memento at International Workshop on “Frontier energy research with industry academia partnership” at IIT, Guwahati, 2015.</p> <p>17. Won Best Paper award and Medal at International Conference on Computer Science and Mechanical Engineering, Goa – 5th July, 2015, on “Heat Transfer Enhancement of Turbulent Flow of Air through a Circular Pipe and Fitted with Spring Tape”.</p> <p>18. Won Best Poster award at International Conference on Advances in Chemical Engineering, NITK Surathkal, India – Dec 20th -22nd, 2015, On “Experimental Investigation of Laminar Flow Heat transfer through a Circular Ribbed Duct Having Centre-Cleared Twisted-Tape Inserts”.</p>

Name of the faculty member	Awards/ Recognitions received
Dr. Goutam Paul	19. National scholarship in X th and XII th 20. University Gold Medal in Master of Production Engineering in 2007 21. UGC scholarship for meritorious students in Science in 2007-2008 22. CSIR-SRF direct fellowship in 2008-2010 23. GATE Fellowship with AIR 50 in 2005

Students:

Sl. No.	Project Title.	Held on.	Organized by.	Award.	Number of students Enrolled.
1	Designing and Experiment of an explosive Releasing Mechanism by a Prototype Aircraft	23 rd -25 th January 2014	National conference on mechatronics, robotics and automation, BUIE, Bankura	Certificate of participation.	01
2	Design and Optimization of gas turbine blade	27th Dec- 29th Dec, 2013.	International Conference on Recent Trends in Science & Technology, CEM, Kolaghat,	Certificate of participation.	01
3	CFBC Technology for critical steam generator in power plant	21st Dec - 22nd Dec, 2013.	National Symposium on Environmental Management Coal Based Thermal Power Plant in Indian Perspective, CEM, Kolaghat	Certificate of participation.	01
4	Automated Railway crossing system using mechanical sensor. EUREKA,2012	2012	EUREKA,2012 IIT, Kharagpur	2 nd in Mechanical Engg. discipline and 3 rd among other	03

Sl. No.	Project Title.	Held on.	Organized by.	Award.	Number of students Enrolled.
5	Mayukh Bhattacharya	2012	International conference on recent advancement in mechanical engineering at Dr. MGR Education and Research Institute University.	Certificate of participation.	01
6	Effi-Cycle Project	17 th -21 st Jan, 2012	BITM	Won prize of Rs. 36,000.00 and Certificate.	03
7	Effi-Cycle Project	2012	National Science & Engineering fair	Won prize of Rs. 12,000.00 and Certificate.	01
8	'KHISTIJ'- Technical Paper Presentation	Jan'2012	IIT Kharagpur	Won 3 rd prize	02
9	Kshitij	2013	IIT Kharagpur	Participation and ranked top 45 among 350+	03
10	ASME SDE, Kshitij'2015	2 nd Feb'2015	IIT Kharagpur	Finalist	01
11	SOE, Kshitij'2015	2 nd Feb'2015	IIT Kharagpur	Finalist	01
12	Designing Experiment of a prototype Solar System	2014-2015	BITM; Eastern India Science & Engg	Special Prize	02
13	PATW 2014	2014	IET	Kolkata Local Network Finalist	01

Sl. No.	Project Title.	Held on.	Organized by.	Award.	Number of students Enrolled.
14	IIT National Aero modeling competition	2014	Boeing	Participation	03
15	Droid Blitz	2014	Institute of mechanical engineers	Participation	02
16	PATW	2014	IET	Participation	01
17	Robo Feast	2014	IIT Roorkee	3 rd prize	02
18	Nation student space challenge 14	2014	IIT Kharagpur	Rank 4	06
19	Swach Bharat Abhiyaan	2014	Rotaract Club, MCKVIE	NA	05
20	Blood Donation	2014	ABTYP	NA	07
21	Football tournament	2014	Xavier's College, Budge Budge Institute Of Technology, Calcutta Business School	Participation	06
22	Debate And Extempore	2014	MCKVIE	Participation	01
23	NFS most wanted	2014	Meghnad Shah Institute Of Technology	2nd prize	01
24	Table Tennis Tournament And Badminton, Basketball Match	2014	MCKVIE, Calcutta Business School	Participation	01
25	Cricket Tournament	2014	Rota Sports	Participation	06
26	Debate	2014	Future Institute Of Engineering And Management	Participation	01
27	Marathon	2014-15	TCS	Participation	01
28	Credit Risk Management	2014	TU DELFT, Netherlands	Participation	01

Sl. No.	Project Title.	Held on.	Organized by.	Award.	Number of students Enrolled.
29	Dance ,Music And Singing	2014	MCKVIE	Participation	04
30	UGC-SPONSORED NATIONAL LEVEL SEMINAR	2014	UGC	Participation	01
31	Seminar By Volvo-Eicher	2014	VOLVO -Eicher	Participation	All ME 2 nd year
32	Seminar By Birla Tyre	2014	Birla Tyres	Participation	All ME 2 nd year
33	Elocution	2013	RKM Cultural Institution	1 st in State	01
34	Extempore	2013	RKM Cultural Institution	1 st in District Purba Midnapore	01
35	National Summer Camp	2012 to 2014	ALAPAN & TCSR D	Participation	01
36	2 nd All Bengal open rapid chess tournament	2014	Dhrubatarra Chess Academy	Achieved 5 points of 9 rounds	01
37	Checkmate	2014	St. Thomas College of Engg & Tech.	Participation	01
38	ICCCM-2014, ACEEE Int. Conf. On Computing, Communication & Manufacturing 2014, MCKVIE	22nd to 23rd Dec 2014	MCKVIE	Participation	08
39	Two Days International Workshop on Low Carbon Development: Carbon Capture and Carbon Sequestration Technology Route	12th - 13th Feb 2014	MCKV Institute of Engineering in collaboration with Nexgen Systems Corporation, Maryland,USA	Participation	All ME students

Sl. No.	Project Title.	Held on.	Organized by.	Award.	Number of students Enrolled.
40	Two days National Workshop on Future Paradigms in Engineering: Road Maps for Manufacturing & Design, Engines, Thermo-Fluids and Service Sectors.	19-20th July 2014	MCKV Institute of Engineering under TEQIP II	Participation	All ME students
41	3d Computational Investigation Of Fluid Flow And Heat Transfer Characteristics In Elliptical Tube Heat Exchanger	February 11-13, 2015	International Conference on Energy Systems and Developments ICESD2015, Pune, Maharashtra, India	Best Paper Award	01
42	3d computational investigation of fluid flow and heat transfer characteristics in elliptical tube heat exchanger	February 11-13, 2015	International Conference on Energy Systems and Developments (ICESD 2015), Pune, Maharashtra, India	Best paper Award	03
43	Wind Energy: A Tesla Turbine for Power Generation in a Moving Train	20-21 st March, 2015	Frontier Energy research with Industry academia partnership at IIT, Guwahati	Third best poster award	02
44	Design and Experiment of a Solar Power Unmanned Aerial	20-21 st March, 2015	Frontier Energy research with Industry academia	Best poster Award	01

Sl. No.	Project Title.	Held on.	Organized by.	Award.	Number of students Enrolled.
	Vehicle (UAV) for various purposes		partnership at IIT, Guwahati		

24. List of eminent academicians and scientists/ visitors to the department:

Name of the academicians/ scientists	Affiliation	Date of visit	Purpose of visit
Prof. Ali Cemal Benim	CFS, Department of Mechanical and Process Engineering, Duesseldorf University of Applied Sciences	29 th September 2016	Invited speaker in One - day symposium on advances of thermo - fluid science
Prof. Pradip Majumdar	Chairman and Professor, Department of Mechanical Engineering, Northern Illinois University	29 th September 2016	Invited speaker in One - day symposium on advances of thermo - fluid science
Prof. P. K. Das	Professor and Head of the Department, Department of Mechanical Engineering, Indian Institute of Technology, Kharagpur	29 th September 2016	Invited speaker in One - day symposium on advances of thermo - fluid science
Prof. Himadri Chattopadhyay	Professor, Mechanical Engineering Department, Jadavpur University	29 th September 2016	Invited speaker in One - day symposium on advances of thermo - fluid science
Prof. V. Radhakrishnan	Adviser (Academic), APJ Abdul Kalam Technological University, Kerala	13 th September, 2016	Chief Guest of 3 days national seminar on Micro-Machining

Name of the academicians/ scientists	Affiliation	Date of visit	Purpose of visit
Prof. Bijoy Bhattacharya	Professor, Production Engineering Department, Jadavpur University	13 th September, 2016	Guest of Honour in 3 days national seminar on Micro-Machining
Prof. A.K.Chattopadhyay	Professor, Mechanical Engineering Department, IIT Kharagpur	13 th September, 2016	Invited speaker in 3 days national seminar on Micro-Machining
Dr. A.M.Sidpara	Asst. Professor, Mechanical Engineering Department, IIT Kharagpur	13 th September, 2016	Invited speaker in 3 days national seminar on Micro-Machining
Prof. B.N.Doloi	Professor, Production Engineering Department, Jadavpur University	14 th September, 2016	Invited speaker in 3 days national seminar on Micro-Machining
Prof. A.K.Nath, IIT Kharagpur	Professor, Mechanical Engineering Department, IIT Kharagpur	14 th September, 2016	Invited speaker in 3 days national seminar on Micro
Dr. Ranjan Sen	Chief Scientist and Head, Metrology Dept, CSIR-CMERI, Durgapur	15 th September, 2016	Invited speaker in 3 days national seminar on Micro
Dr. Rahul Shukla	Scientific Officer, RRCAT Indore	15 th September, 2016	Invited speaker in 3 days national seminar on Micro-Machining
Prof. Swarnendu Sen	Professor, Mechanical Engineering Department, Jadavpur University	26 th August, 2016	Invited speaker in ISHRAE orientation programme

Name of the academicians/ scientists	Affiliation	Date of visit	Purpose of visit
Mr. Amit Chowdhury	DGM, Lloyd Insulation	26 th August, 2016	Invited speaker in ISHRAE orientation programme
Prof. Asok Kumar Mallik	Honorary Distinguished Professor, IEST, Shibpur	17 th March, 2015	Guest lecture on “Design of Planner Linkages: Theory to Practice”
Prof. Siddhartha Roy	Head & Professor, ME Dept., Heritage Institute of Technology	5 th March 2014.	Invited speaker on “Inventory Management”
Prof. Santanu Das	Prof & Former Head, Mechanical Engineering Department, Kalyani Govt. Engg. College	28 th February, 2014	Guest lecture on “Introduction to Welding & other Metal Joining Processes”
Prof. Suman Chakraborty	Professor, Mechanical Engineering Department, IIT Kharagpur	19 th September, 2013	Guest lecture on “Fundamentals of Fluid Mechanics”
Prof. Debasish Datta	Mechanical Engineering Department, IEST, Shibpur	18 th September, 2013	Guest lecture on “Fundamentals of Machine Design”.
Prof. A.B. Chattopadhyay	Former Professor, Mechanical Engineering Department, IIT Kharagpur	12 th September, 2013	Guest lecture on “Fundamentals of metal cutting”
Dr. Jayanta Kr. Saha	Dy. General Manager (Tech), Institute for Steel Development and Growth, Kolkata	10 th September, 2013	Guest lecture on “Application and characterization of steel”

Name of the academicians/ scientists	Affiliation	Date of visit	Purpose of visit
Prof. Bijan Kumar Mandal	Professor Mechanical Engineering Department, IEST, Shibpur	17 th April, 2013	Guest lecture on “Biodiesel as an alternate fuel”

25. Seminars/ Conferences/ Workshops organized & the source of funding:

National:

Sl. No.	Seminar/ conference/ workshop organized	Source of funding	Duration	Resource person
1	5 days national workshop on “recent advances in heat and fluid flow”	TEQIP	18 th - 22 nd Oct, 2016	Prof. Himadri Chattopadhyay, Prof. P.K.Das, Prof. A.Bhattacharya, Prof. A.R.Pal, Prof. Raja Banerjee, Prof. Pranab Mondal, Prof. Bijan Kumar Mandal, Prof. Swarnendu Sen, Mr. Subhashis Das Gupta, Prof. Saptarshi Basu, Prof. Achinta Mukhopadhyay, Prof. Prasenjit Rath, Prof. Suvanjan Bhattacharya, Mr. Dhiraj Minglani
2	One day symposium on “advances in thermo-fluid sciences”,	TEQIP	29 th Sept, 2016	Prof. Ali Cemal Benim, Prof. Pradip Majumdar, Prof. P. K. Das, Prof. Himadri Chattopadhyay
3	3 days national seminar on “micro-machining”	TEQIP	13 th - 15 th , Sept, 2016	Prof. V. Radhaksihnan, Prof. Bijoy Bhattacharya, Prof.

Sl. No.	Seminar/ conference/ workshop organized	Source of funding	Duration	Resource person
				A.K.Chattopadhyay, Dr. A.M.Sidpara, Prof. B.N.Doloi, Dr. A.B.Puri, Prof. A.K.Nath, Dr. Ranjan Sen, Dr. Rahul Shukla, Dr. Golam Kibria
4	ISHRAE orientation programme	TEQIP	26 th August, 2016	Prof. Swarnendu Sen, Jadavpur University, Mr. Amit Chowdhury, DGM, Lloyd Insulation
5	Summer student quiz - 2016, chilled	TEQIP	26 th & 27 th April, 2016	Prof. Himadri Chattopadhyay, Jadavpur University, Mr. Manoj Chakraborty, CEO, Engineering Consultancy Services
6	2 days' national workshop on 'future paradigms in engineering: road maps for manufacturing & design, engines, thermo-fluids and service sectors', organized by mechanical and automobile engineering departments	TEQIP	July 19 th - 20 th 2014	Prof. Souvik Bhattacharyya, the then Deputy Director & Professor of Mechanical Engineering, IIT, Kharagpur, Prof. Subir Kr. Saha, Naren Gupta Chair Professor, Mechanical Engineering Dept., IIT, Delhi, Prof. Sarit Kr. Das, Dean (Research), IIT, Madras, Prof. Gautam Biswas, Director, IIT, Guwahati, Sri Prateek

Sl. No.	Seminar/ conference/ workshop organized	Source of funding	Duration	Resource person
				Datta Roy, Chief Engineering Manager (Mechanical), Engineering Design and Research Centre, Larsen Toubro, Sri Partha Chatterjee, M.D. & CEO, Praxis Softek Solution Pvt. Ltd., Sri Debapriya Dasgupta, Seneior Lead, Cognizant Technology Solutions, Kolkata, Sri Sital K. Choudhury, Vice President, Maruti Suzuki India Ltd., Prof. Shyamal Chatterjee, Professor, Mechanical Engineering Dept., IEST, Shibpur

International:

Sl. No.	Seminar/ conference/ workshop organized	Source of funding	Duration	Resource person
1	5 days' international workshop on ' low carbon development: carbon capture and carbon sequestration technology route ', organized by mechanical and automobile engineering departments in collaboration with Nexgen Systems Corporation, Maryland, USA	TEQIP	February 12 th -13 th 2014	Mr. Asok Motayed, Chairman, Nexgen System Corporation, USA, Prof. Abhijit Chakrabarti, the then Hon'ble Vice Chancellor, Jadavpur University, Dr. P. Abdul Salam, School of environment and Resource and Development, Asian Institute of Technology,

Sl. No.	Seminar/ conference/ workshop organized	Source of funding	Duration	Resource person
				Thailand, Dr. Sudip Ghosh, Dept. of Mechanical Engineering, BESU, Shibpur, Howrah, Prof. Amitosh De, Automobile Engg. Dept., MCKVIE

26. Student profile programme/ course wise:

Not Applicable as students are admitted through JEE MAIN (AIEEE), WBJEE, JELET, PGET, GATE

Name of the course/ programme (refer to question no. 4)	Application received	Selected	Enrolled		Pass percentage
			*M	*F	

*M = Male *F = Female

27. Diversity of Students:

Year of passing	Name of the course	% of students from the same state	% of students from other state	% of students from abroad
2016	B.Tech in Mechanical Engineering (UG)	79.5	20.5	0
2015	B.Tech in Mechanical Engineering (UG)	86.4	13.6	0
2014	B.Tech in Mechanical Engineering (UG)	79.5	20.5	0
2013	B.Tech in Mechanical Engineering (UG)	82.9	17.1	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc?

Year of graduation	No. of students cleared national and state competitive examinations such as					
	NET	SLET	GATE	Civil services	Defense services	Others (CAT/ XAT)
2017	NA	NA	NA	0	0	0
2016	NA	NA	5	0	0	0
2015	NA	NA	10	0	0	0
2014	NA	NA	3	0	0	0
2013	NA	NA	4	0	0	0

29. Student progression:

Year of graduation	Student Progression						
	UG to PG	PG to M.Phil.	PG to Ph.D.	Ph.D. to Post Doctoral	Campus selection	Other than campus recruitment	Entrepreneurs hip/ Self-employment
2016	01	NA	NA	NA	39	1.2	0
2015	11.59	NA	NA	NA	31.9	15.9	0
2014	20	NA	NA	NA	30	24.3	0
2013	7.81	NA	NA	NA	50	31.3	4.7
2012	9.375	NA	NA	NA	56.3	18.8	1.6

30. Details of Infrastructural facilities:

a) Library

Item	Quantity
No. of Book titles	223
Number of journals	02

b) Internet facilities for Staff & Students:

The departmental floors are WIFI activated therefore all students and faculty members can access internet as well as online courses.

c) Class rooms with ICT facility

Most of the class rooms are having LCD projectors with wifi internet connectivity.

d) Laboratories

Sl. No.	Curriculum Lab Description	Semester	Room No.
1	Workshop Practice (ME 192)	Odd	Workshop
2	Engineering Graphics (ME 291)	Even	A110
3	Machine Drawing I (ME 391)	Odd	A110/ B406
4	Workshop Practice II (ME 392)	Odd	Workshop
5	Applied Mechanics Lab (ME 393)	Odd	C001
6	Fluid Mechanics & Hydraulics lab (ME 491)	Even	C004
7	Manufacturing Technology Lab (ME 492)	Even	Workshop (Manufacturing lab)
8	Material testing lab (ME 493)	Even	C001
9	Machine Drawing II (ME 494)	Even	B303 (CAD LAB)
10	Seminar-I (ME 581)	Odd	B312/A214
11	Applied Thermo & Heat Transfer Lab (ME 592)	Odd	C104
12	Design Practice I (ME 593)	Odd	B406
13	ME595B Applied Fluid Mechanics Lab	Even	C005
14	Metrology & Measurement lab (ME 594)	Odd	C001
15	Machining & Machine Tools Lab (ME 691)	Odd	Workshop (Machining lab)
16	IC Engine Lab (ME 692)	Odd	Workshop (ETBM lab)
17	Design Practice II (ME 693)	Even	B303 (CAD LAB)
18	Dynamics of Machines Lab (ME 694)	Even	C402
19	Air Conditioning & Refrigeration (ME 695A)	Even	C105
20	Advanced Manufacturing Lab (ME 791)	Even	C002
21	Project Lab (ME)	Odd/ Even	C401

31. Number of students receiving financial assistance from college, university, government or other agencies:

Academic Year	Half Free	Full Free	TFW
2015-16	6	0	3
2014-15	6	0	3
2013-14	3	2	3
2012-13	6	6	3

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts:

Sl. No.	Name of the programme	Date	Invited speakers	Source of funding
1	5 days national workshop on “recent advances in heat and fluid flow”, at Govt. College of Engineering and Textile Technology, Berhampore, jointly organized by Mechanical Engineering Department of MCKV Institute of Engineering, and Mechanical Engineering Department of Govt. College of Engineering and Textile Technology, Berhampore	18 th - 22 nd October, 2016	Prof. Himadri Chattopadhyay, Prof. P.K.Das, Prof. A.Bhattacharya, Prof. A.R.Pal, Prof. Raja Banerjee, Prof. Pranab Mondal, Prof. Bijan Kumar Mandal, Prof. Swarnendu Sen, Mr. Subhashis Das Gupta, Prof. Saptarshi Basu, Prof. Achinta Mukhopadhyay, Prof. Prasenjit Rath, Prof. Suvanjan Bhattacharya, Mr. Dhiraj Minglani	TEQIP
2	One - day symposium on advances of thermo - fluid science	29 th September 2016	Prof. Ali Cemal Benim, CFS, Department of Mechanical and Process Engineering, Duesseldorf University of Applied Sciences, Prof. Pradip	TEQIP

Sl. No.	Name of the programme	Date	Invited speakers	Source of funding
			Majumdar, Chairman and Professor, Department of Mechanical Engineering, Northern Illinois University, Prof. P. K. Das, Professor and Head of the Department, Department of Mechanical Engineering, Indian Institute of Technology, Kharagpur, Prof. Himadri Chattopadhyay, Jadavpur University	
3	3 days national seminar on "Micromachining"		Prof. V. Radhakrishnan, Prof. Bijoy Bhattacharya, Prof. A.K.Chattopadhyay, Dr. A.M.Sidpara, Prof. B.N.Doloi, Dr. A.B.Puri, Prof. A.K.Nath, Dr. Ranjan Sen, Dr. Rahul Shukla, Dr. Golam Kibria	TEQIP
4	Guest lecture on "Study on Radiative heat transfer"	26 th August, 2016	Prof. Swarnendu Sen, Jadavpur University	TEQIP
5	Guest lecture on "Introduction to Rapid Prototyping"	26 th August, 2016	Mr. Amit Chowdhury, DGM, Lloyd Insulation	TEQIP

Sl. No.	Name of the programme	Date	Invited speakers	Source of funding
6	Guest lecture on “Study on convective heat transfer by using jets”	26 th April, 2016	Prof. Himadri Chattopadhyay, Jadavpur University	TEQIP
7	Guest lecture on “Sustenance of Green building”	27 th April, 2016	Mr. Manoj Chakraborty, CEO, Engineering Consultancy Services	TEQIP
8	Lecture on “Design of Planner Linkages: Theory to Practice”	17 th March, 2015	Prof. Asok Kumar Mallik, Honorary Distinguished Professor, IEST, Howrah on	TEQIP
9	Lecture on “Sustainability & HVAC System”	26 th March 2015	Dr. S. P. GonChowdhury	TEQIP
10	Lecture on “Product Development Process Design & Simulation”	29 th February, 2015	Mr. Bhaskar Halder, Birla Tyre,	TEQIP
11	Employability Skill Development Training for 7 th semester students	10 th - 14 th February, 2015	Mr. Naresh Kumar M	TEQIP
12	Demonstration on “Altair Hyper works Software”	27 th September, 2014	Mr. Atanu Saha, Design Tech Systems, Kolkata on	TEQIP
13	Employability Skill Development Training for 7 th semester students	4 th August, 2014	Ms. SumanBansal, Mr. Subrato Bose, Mr. SnehalDoshi, Mr. Debajyoti Das, Ms. Moheet Gupta, Mr. ArnabSen, onwards	TEQIP

Sl. No.	Name of the programme	Date	Invited speakers	Source of funding
14	A national workshop on “Future Paradigms in Engineering : Road Maps for Manufacturing & Design, Engines, Thermo-Fluids and Service Sector”	19 th - 20 th July, 2014	Speakers from different IITs, JU, IEST, L&T, TCS etc. on	TEQIP
15	Lecture on “Inventory Management”	5 th March, 2014	Prof. Siddhartha Roy, Head & Professor, ME Dept., Heritage Institute of Technology, Kolkata	TEQIP
16	Lecture on “Introduction to Welding & other Metal Joining Processes”	28 th February, 2014	Prof. Santanu Das, Prof & Former Head, Mechanical Engineering Department, Kalyani Govt. Engg. College	TEQIP
17	International Workshop on “Low Carbon Development, Carbon Capture & Carbon Sequestration Technology Route” in collaboration with Nexgen System Corporation.	12 th - 13 th February, 2014	Speakers from AIT, Malaysia, JU, IEST, IIT, CESC etc.	TEQIP
18	A Guest lecture on “Manufacturing Methods”	21 st September, 2013	Prof. Santanu Das, Prof & Former Head, Mechanical Engineering Department, Kalyani Govt Engg College	TEQIP

Sl. No.	Name of the programme	Date	Invited speakers	Source of funding
19	A guest lecture on “Fundamentals of Fluid Mechanics”	19 th September, 2013	Prof. Suman Chakraborty, Mechanical Engineering Department, IIT Kharagpur	TEQIP
20	A guest lecture on “Fundamentals of Machine Design”.	18 th September, 2013	Prof. Debasish Datta, Mechanical Engineering Department, Bengal Engg. and Science University, Shibpur	TEQIP
21	A guest lecture on “Fundamentals of metal cutting”	12 th September, 2013	Prof. A.B. Chattopadhyay, Former Prof. IIT Kgp.	TEQIP
22	A Guest lecture on “Application and characterization of steel”.	10 th September, 2013	Dr. Jayanta Kr. Saha, Dy. General Manager (Tech), Institute for Steel Development and Growth, Kolkata	TEQIP
23	Employability Skill Development Training	5/8/2013	Mr. Ankuran Das, Mr. Debdeep Chakraborty, Mr. Sajal Mitra, Mr. Samrat Roy, Ms Sunita Singhvi, Mr. Sarvajeet Mukherjee	TEQIP
24	A guest lecture on “Biodiesel as an alternate fuel”	17 th April, 2013	(Dr) Bijan Kumar Mandal, Mechanical Engineering Department, Bengal Engg and Science University, Shibpur	TEQIP
25	Employability Skill	4 th April, 2013	Mr. Ankuran Das, Mr.	TEQIP

Sl. No.	Name of the programme	Date	Invited speakers	Source of funding
	Development Training		Debdeep Chakraborty, Mr. Sajal Mitra, Mr. Samrat Roy, Ms Sunita Singhvi, Mr. Sarvajeet Mukherjee	
26	Lecture on “Latest Engine Management Technology”	19 th February, 2013	Mr. Srijib Kr Bera, Sr. Executive, Robert Bosch India Limited	TEQIP

33. Teaching methods adopted to improve student learning

The following teaching methods are adopted to improve student learning process during their stay of 4 years:

- Lectures & tutorials
- Chalk & board
- Presentation
- Experimental Laboratory Work
- Assignments
- QEEE Program
- NPTEL
- Soft Skill Classes for students as a preparatory course work for enhanced employability
- Guest lectures, industry visit, workshops/seminars/conferences, oriental programme, technical quiz

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

The staff and students of the department take part in various social activities under Swami Vivekananda Centre of Positive Thinking and NSS including blood donation, charity - help poor students, tree plantation, encouraging talents, rural development activities in surrounding areas.

35. SWOC analysis of the department and Future plans

Strength

1. Good Cadre Ratio
2. Highly Qualified Faculty Members
3. Good number of research publications
4. State-of-the-art facilities available in all laboratories

5. Good Co-curricular and Extra- curricular activities of the students
6. Regular organization of guest lectures, industry tours, workshops and seminars.
7. Students are encouraged to participate in extracurricular and co-curricular activities.

Weakness

1. Lack space for further expansion
2. Lack of interdisciplinary and industry oriented students projects
3. Lack of Funded Research and Consultancy
4. Poor Outside World Interaction of Faculty Members

Opportunity

1. Participation and collaboration at National and International Levels.
2. Student and Faculty Exchange Programme
3. Introduction of special coaching for Competitive Examinations/ Higher Studies

Challenge

1. Introduction of M.Tech. Course
2. National/ International Accreditation
3. Faculty Intellectual Property Rights

Future Plans

1. Setting up R & D Lab in the department.
2. Increase of student's intake in the department.
3. Modernization of laboratories to cope up with the industry needs.
4. Getting more funds for research projects from different sponsoring agencies.
5. Introduction of M.Tech. courses.
6. Collaboration with nationally reputed universities/ institutes for student exchange, joint research and Ph.D. supervision programme.
7. Programme specific academic collaboration with industry.

Master of Computer Applications

1. **Name of the department:** Master of Computer Applications (MCA)
2. **Year of establishment:** 2008
3. **Name of the programmes/ courses offered (UG, PG, M.Phil, PhD, Integrated Masters, Integrated PhD, etc.):**

Level	Program	Full/ Part Time	Year Started	Sanctioned Intake
PG	Master of Computer Applications (MCA)	Full Time	2008	60

4. **Names of the interdisciplinary courses and the departments/ units involved:**

Course Name	Course Code	Department Involved
Business English and Communication	HU101	BSHSS
Business Management	MBA301	
Management Accounting	MBA302	
Values and Ethics of Profession	HU501	
Discrete Mathematical Structure	MM101	BSHSS
Statistics and Numerical Techniques	MM301	
Statistics and Numerical Analysis Lab	MM 391	
Operational Research and Optimization Technique	MM401	
Micro Programming & Architecture Lab	MCA191	ECE

5. **Annual/ semester/ choice based credit system (Program wise):**

Semester based credit system

6. **Participation of the department in the courses offered by other departments:**

Course Code	Course Name	Department
1. Paper Code:EC803A	Software Engineering	ECE
2. Grooming	C Programming for Campus Recruitment Preparation	EE
3. Paper Code: XC181	NSS Curriculum	B.Tech. (ECE/EE)
4. 1st Sem Entry level test	Online Diagnostic Test	B.Tech. (All Dept.)

1. Mr. Nilay Kr. Nag and Mr. Partha Pratim Saha has taken classes of S/W Engg. (Paper Code:EC803A) for BTech 4th year students (Session:12-13)
2. Mr. Anjan Goswami and Mr. Samir Malakar has conducted special class on C Programming for final year students of EE Department (Session: 2015-2016) for Campus Preparation on request form Training and Placement Department, MCKV Institute of Engineering.
3. Mr. Anjan Goswami and Mr. Arijit Bhattacharya participated in conducting NSS curriculum (BTech 1st year)
4. Department conducts online diagnostic Test for BTech 1st year students of all departments

7. Courses in collaboration with other universities, industries, foreign institutions etc.:

NPTEL

8. Details of courses/ programmes discontinued(if any) with reasons:

NIL

9. Number of teaching posts:

Cadre Name	Sanctioned	Filled
Professors	1	0
Associate Professors	1	0
Asst. Professors	9	11

10. Faculty profile with name, designation, specialization, (D.Sc/ D. Litt/ PhD/ M.Phil etc.):

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Mr. Nilay Kr Nag	MS (Software Systems), AMIE (ETC), B.Sc. (Physics Hons.)	Assistant Professor & Head	Web Technology	Teaching: 15 Industry: 8	-
Mrs. Nabamita Majumder	M.Tech (SE), MCA, B.Sc. (Chemistry Hons.)	Assistant Professor	Software Engineering	Teaching: 8 Industry: 4 Others: 2	-

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Ms. Nibedita Naskar	MCA, M.Sc. (Environmental Science).	Assistant Professor	-	Teaching: 8 Others: 0.5	-
Mr. Partha Pratim Saha	M.Tech (IT), M.Sc. (Comp. Sc), B.Sc. (Physics Hons.), Ph.D. Pursuing (Engg.)	Assistant Professor	VLSI Physical Design	Teaching: 11 Industry: 0.5 Others: 2	-
Mrs. Antara Sengupta	MCA, B.Sc. (Physics, Mathematics, Computer Sc.), Ph.D. Pursuing (Science)	Assistant Professor		Teaching: 11	-
Mrs. Sharmistha Banerjee	MCA, B.Sc. (Physics Hons.)	Assistant Professor	Nil	Teaching: 9	-
Mr. Arijit Bhattacharya	MCA, ADCA (Advanced diploma computing), PGDCA (Post Graduate Diploma in computing) B.Sc.	Assistant Professor	-	Teaching: 8 Industry: 1.5	-
Mr. Anjan Goswami	MCA, B.Sc. (Comp. Sc. Hons.)	Assistant Professor	Parallel Computing	Teaching: 11	-
Mr. Samir Malakar	MCA, B.Sc. (Mathematics Hons.), Ph.D. Pursuing (Engg.)	Assistant Professor	Image Processing, Artificial Intelligence	Teaching: 7	-
Mr. Subir Bhadra	M.Tech (CSA), M.Sc. (Statistics), B.Sc. (Statistics Hons.)	Assistant Professor	Artificial Intelligence, Network Security	Teaching: 5 Industry: 2 Others: 10	-

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Mr. Arindam Das	M.Tech (IT), MCA, B.Sc. (Zoology Hons.), DOEACC-A level.	Assistant Professor	Operating System, Cloud Computing, Networking	Teaching: 6 Others: 9	-

11. List of the senior visiting faculty:

Nil

12. Percentage of lectures delivered and practical classes handled (program wise) by temporary faculty:

Nil

13. Student- teacher ratio (programme wise):

Academic Session	2016-2017
Ratio	16:1

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Designation	Sanctioned	Filled
Academic support staff (technical)	3	3
Administrative staff	-	-

15. Qualification of teaching faculty with D.Sc./ D. Litt/ Ph.D./ M.Phil./ PG.:

Qualification	No. of Faculty
M.Tech./ MS.	5
MCA	6

16. Number of faculty with ongoing projects from:

Nil

17. Departmental projects funded by DST – FIST; UGC, DBT, ICSSR, etc. and total grants received:

Nil

18. Research Centre/ facility recognized by the University:

Not Applicable

19. Publications:

- a) Publication per faculty
- b) Number of papers published in peer reviewed journals (national / international) by faculty and students
- c) Number of publications listed in International Database (For Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)
- d) Monographs
- e) Chapter in Books
- f) Books Edited
- g) Books with ISBN/ ISSN numbers with details of publishers
- h) Citation Index
- i) SNIP
- j) SJR
- k) Impact factor
- l) h-index

Following table shows the publication details of faculty members of the department.

Sl. No.	Name of Faculty	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k) (Highest)	(l)
1	Mrs Nabamita Majumder	1	1	0					33				1
2	Mr. Partha Pratim Saha	4	2	4	-	-	-	-	1	-	-	-	1
3	Mrs. Antara Sengupta	3	1	4	-	-	-	-	-	-	-	-	-
4	Mr. Samir Malakar	20	7	13	-	-	-	-	42	0.593	0.189	-	4
5	Mr. Subir Bhadra	1	1	-	-	-	-	-	-	-	-	-	-
6	Mr. Arindam Das	1	1	-	-	-	-	-	6	-	-	-	1

20. Areas of consultancy and income generated:

We have started ETS TOEFL iBT (internet Based Test) from 24th Jan 2015 continued up to 28th Feb in Lab A-317. For convenience now we are conducting the Test Administration at C-101 Lab, C-Block.

DRG: As per \$980/ Test, the department has already earned **Rs: 1233550.00** up to September, 2016

21. Faculty as members in a) National committee b) International Committee c) editorial board etc.:

Name	Editorial Board	National Committee	International Committee
Mr. Nilay Kr. Nag	0	4	1
Mrs.Nabamita Majumdar	0	4	1
Ms. Nibedita Naskar	0	4	0
Mr. Partha Pratim Saha	0	5	0
Mrs. Antara Sengupta	0	4	1
Mrs. Sharmistha Banerjee	0	4	0
Mr. Arijit Bhattacharya	0	4	0
Mr. Anjan Goswami	0	4	0
Mr. Samir Malakar	0	8	6
Mr. Subir Bhadra	0	4	0
Mr. Arindam Das	0	4	1

22. Students projects:

- Percentage of students who have done in-house projects including inter departmental programme:
- Percentage of students placed for projects in organizations outside the institution i.e., in Research laboratories / Industry / other agencies:

Type of Project	Percentage of students
Minor Project (MCA591)	
(a)	100%
(b)	0%
Major Project (MCA691)	
(a)	1%
(b)	99%

23. Awards/ Recognitions received by faculty and students:

Sl .	NAME	Month, Year	AWARD/RECOGNITION	RANK
1.	Bhagesh Seraogi	April, 2013	Paper Presentation Competition ,Tech -Fest, MCKVIE	2
2.	Sumonto Saha	April, 2014	Paper Presentation Competition, Tech-Fest, MCKVIE	1
3.	Mainak Acharya	August, 2014	6 th ALL INDIA INTER ENGINEERING COLLEGE ACADEMIC MEET 2015 AND SCIENCE & TECHNOLOGY EXHIBITION FOR A SUSTAINABLE SOCIETY Organized By FOSET	Best Paper Presentation
4.	Chandan Jana, Sk. Shahnawaz Alam	May, 2015	Code Storm, Tech-Fest, MCKVIE	2 nd
5.	Mainak Acharya	May, 2016	Paper Presentation Competition, Tech-Fest, MCKVIE	1 st

24. List of eminent academicians and scientists/ visitors to the department:

Sl.	Name	Date of Visit	Purpose	Target Participants
1.	Dr. Gautam Paul, Asst. Professor, Indian Statistical Institute, Kolkata	14.03.2015	Delivering lecture in workshop entitled "Effect of food on Body, Mind & Environment"	All Students, Faculty members and Staff of MCKVIE.
2.	Prof. (Dr.) Sankhayan Choudhury, Dept. of CSE, University of Calcutta, Kolkata	08.03.2014	Delivering lecture in seminar entitled "Semantic Web"	All Students of MCA/CSE/IT, Faculty members and Staff of MCKVIE.
3.	Prof. (Dr.) Nabendu Chaki, Dept. of CSE, University of Calcutta, Kolkata	21.03.2013	Delivering lecture in seminar entitled "Distributed System: A Few Open research Issues"	All Students of MCA/CSE/IT, Faculty members and Staff of MCKVIE.
4.	Sister Shreyashi, Brahma	25.08.2012	Delivering lecture in	All Faculty

Sl.	Name	Date of Visit	Purpose	Target Participants
	Kumaris Iswariya Vishwa Vidyalaya		seminar entitled "Stress Management"	members and Staff of MCKVIE.

25. Seminars/ conferences/ workshops organized & source of funding:

Sl.	Title of seminar / Workshop	Date	Speaker(s)	Funded By
1.	Effect of food on Body, Mind & Environment	14.03.2015	Dr. Arka Ghosh , Specialist Medical Officer, Sick Newborn Care Unit, M. R. Bangur Hospital, Kolkata Ms. Soumi Pal , Research Scholar, Dept. of CSE, Jadavpur University & Ex-IT Professional (Cognizant Technology Solutions) Dr. Goutam Pal , Asst. Professor Indian Statistical Institute, Kolkata	MCKV Institute of Engineering, Howrah, India
2.	Semantic Web	08.03.2014	Prof. (Dr.) Sankhayan Choudhury, Dept. of CSE, University of Calcutta, Kolkata	Computer Society of India, MCKVIE Chapter
3.	Distributed System: A Few Open research Issues	21.03.2013	Prof. (Dr.) Nabendu Chaki, Dept. of CSE, University of Calcutta, Kolkata	Computer Society of India, MCKVIE Chapter
4.	Stress Management	25.08.2012	Sister Shreyashi, Brahma Kumaris Iswariya Vishwa Vidyalaya	MCKV Institute of Engineering, Howrah, India

26. Student profile programme/ course wise:

Name of the course/ programme: MCA

Academic Session	Applications received	Selected	Enrolled		Pass percentage
			M	F	
2012-2013	Conducted by Joint Entrance Examination for Computer Applications (JECA)	Through JECA Counseling	34	18	96.15
2013-2014			33	18	90.2
2014-2015			11	10	YTP
2015-2016			9	4	YTP
2016-2017			12	8	YTP

YTP: Yet to Pass

27. Diversity of Students:

Academic Session (Admission in 1st year)	% of students from same state	% of students from others states	% of students from abroad
2012-2013	100	0	0
2013-2014	92	8	0
2014-2015	90	10	0
2015-2016	100	0	0
2016-2017	95	5	0

28. How many students have cleared national and state competitive examinations such as NET/ SLET/ GATE/ Civil services, Defense services, etc.?

Nil

29. Student Progression

Student progression	Against % enrolled in Academic Session				
	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
UG to PG	NA	NA	NA	NA	NA
PG to M.Phil.	-	-	YTP	YTP	YTP
PG to Ph.D.	-	-	YTP	YTP	YTP
Ph.D. to Post-Doctoral	NA	NA	NA	NA	NA
Employed					
• Campus Selection	35.56	32.69	38	YTP	YTP
• Other than Campus recruitment	15.56	17.31	22	YTP	YTP
Entrepreneurship/ Self-employment	01	04	-	YTP	YTP

YTP: Yet to Pass

30. Details of Infrastructural facilities:**a) Library:**

• Number of Books:	187
• Number of CDs:	1
• Number of Books in Central Library related to MCA:	3961
• Number of Journals/ Magazines in Central Library related to the Dept.:	13
• E-Journal(Online):	3318
• E-Books(Pearson IEEE):	1800
• CD/ DVD:	232

b) Internet facilities for Staff & Students:

• Internet facilities for Staff & Students
• Wi-fi available for all
• All the machines of 2 departmental laboratories, computer center (C-101) and HOD room are connected with 100mbps broadband line

c) Class room with ICT facility:

There is a Model Class Room with LCD Projector facility and Internet Facility. All other classrooms are equipped with wifi- facility.

d) Laboratories:

Number of Laboratories: 02

Sl. No	Name of Laboratory	Brief Description of the Lab
1	MCA Lab1	Allotted lab for Laboratory Classes of Business Presentation, Tally, Numerical Lab, Windows Programming with VB, Database Lab, Data Structure Lab, Advanced Database Lab, Minor and Major Project.
2	MCA Lab2	Allotted lab for Laboratory Classes C, UNIX and Shell Programming, System Administration Lab, OO Programming Lab using C++, Graphics and Multimedia Lab, Software Engg. Lab, Minor and Major Project.

31. Number of students receiving financial assistance from college, university, government or others:

Nil

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts:

Sl. No.	Topic Name	Speaker	Affiliation	Date	Source of Funding
01	Learning Visual Basic Programming (VB 6) through resemble, contrast and mapping to C Language	Mrs. Madhumita Pal Mohanta,	Asst. Prof,(Ex.), National Institute of Science and Technology (NIST), Palur Hills, Berhampur, Odisha-761008	09.03.2013	NIL
02	A Weighted Sum Validity Function for Clustering Using Particle Swarm Optimization Technique	Mr. Sk. Aziz Ali	Programmer Analyst, Cognizant Technology Solutions.	17.08.2013	NIL
03	Adaptation to Corporate Ambiance: a brief discussion	Mr. Abhinandan Das	Consultant-CRM, Cognizant Technology Solutions.	14.09.2013	NIL
04	Discussion on some preprocessing schema of an OCR system and issues.	Mr. Dheeraj Mohanta	Program Analyst, Cognizant Technology Solutions	05.10.2013	NIL
05	Basics in Pattern Recognition	Mrs. Madhumita Pal Mohanta	Asst. Prof,(Ex.), National Institute of Science and Technology (NIST), Palur Hills, Berhampur, Odisha-761008	16.11.2013	NIL
06*	Image super-resolution	Mr. Srimanta Mandal	PhD scholar, IIT Mandi, Kamand Campus, MDR 23, Suran, Himachal Pradesh	29.01.2014	NIL

Sl. No.	Topic Name	Speaker	Affiliation	Date	Source of Funding
07	Walk through Document Image Skew Correction Mechanism	Mr. Bhagesh Seraogi	Project Linked Person, CVPR, ISI Kolkata	22.02.2014	NIL
08	Improved Thinning Strategies for Optical Character Recognition	Mr. Soumyadeep Ghosh	MTech Student, Department of Computer Science and Engineering, IIT Bhubaneswar, India	08.03.2014	NIL
09	Ways to Innovation and their exploitation for the benefit of mankind	Dr. A. K. Chakrabarty	Co-ordinator, Innovation & Entrepreneurship Development Cell, MCKV Institute of Engineering	29.03.2014	NIL
10	Lecture on Cellular, Wireless and Ad-hoc network	Mr. Avijit Bose	Asst. Professor, Dept. of CSE and ex-HOD, Dept. of MCA, MCKV Institute of Engineering	26.04.2014	NIL
11	Relationship among Programming Languages like C, Java with Insight into Software Engineering	Mr. Sumonto Saha	Ensim Corporation Private Limited	21.03.2015	NIL
12	Exploring Test case design with simple laboratory program	Mrs. Madhumita Pal Mohanta	Asst. Professor, Dept. of MCA, St Mary's Technical Campus Kolkata, Barasat	09.05.2015	NIL
13	Semantic Web	Prof. (Dr.) Sankhayan Choudhury	Lecturer (Selection Grade), Dept. of CSE, University of Calcutta, Kolkata	08.03.2014	CSI, MCKV IE Chapter
14	Distributed System: A Few Open research Issues	Prof. (Dr.) Nabendu Chaki,	Reader, Dept. of CSE, University of Calcutta, Kolkata	21.03.2013	CSI, MCKV IE Chapter

* Organized in collaboration with IEEE GOLD Kolkata Section

33. Teaching methods adopted to improve student learning:

- Traditional Chalk and Talk Method
- Visual Teaching Methodology (Power Point and Video Lectures)
- Online MCQ based Test
- Technical and / or non-technical Grooming Class for placement assistance
- Class Assignment
- Surprise Test
- Quiz
- Role Playing
- Activity based learning
- Research and Latest Technology oriented projects
- Practical Demonstration
- Handout
- E-learning Methodology
- Video Lectures of NPTEL.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Sl. No.	Program	Date	Faculty Member Involved	Role
1	Teacher Orientation Workshop on Value Education	Dec'2012	Nilay Kr. Nag, Arijit Bhattacharya, Anjan Goswami, Arpita Dawn.	Member
2	Orphanage visit Program	Feb'2013	Arijit Bhattacharya, Anjan Goswami, Arpita Dawn.	Member
3	A program on endowment lecture Meet	Jul'2013	Nilay Kr. Nag, Arijit Bhattacharya, Anjan Goswami, Arpita Dawn.	Member
4	Celebration of Birth Tithi Puja of Holi Mother Sri Sharada Devi	Jan'2013	Arijit Bhattacharya, Anjan Goswami, Arpita Dawn.	Member
5	Student Competitions and	8-9 Jan'2013	Arijit	Member

Sl. No.	Program	Date	Faculty Member Involved	Role
	Sc. And Technology Lecture		Bhattacharya, Anjan Goswami, Arpita Dawn.	
6	Educational Tour at Swamiji's House and Indian Museum.	Feb'2013	Arijit Bhattacharya, Anjan Goswami, Arpita Dawn.	Member
7	Seminar on Value Education and Positive Thinking	May'2013	Nilay Kr. Nag, Arijit Bhattacharya, Anjan Goswami, Arpita Dawn.	Member/ Participant
8	Lecture on "Balance Beyond Life" [Mr. Satinath Mukhopadhyay and Dr. Purnendu Roy delivered their Lecture]	19 th and 21 st Dec'2013	Arijit Bhattacharya, Anjan Goswami, Arpita Dawn.	Member
9	Value Education Classes	11/08/2012- 22/02/2015	Nilay Kr. Nag	Teacher
10	Value Education Classes	17/08/2014- 22/02/2015	Arindam Das	Teacher
11	SVCPT Activities	Till Date	Anjan Goswami	Treasurer
12	Daily Activities	01/01/2012- 01/03/2016	Arijit Bhattacharya	Coordinator

35. SWOC analysis of the department and Future plans

Strength:

1. Qualified and Cordial faculty members
2. All faculty members are following the teaching pedagogy trained from IIT KGP.
3. 6 faculty members are Wipro Mission 10x/ Infosys Campus connect-TTT trained
4. Well equipped laboratory
5. TOEFL-IBT test centre certified by ETS, New Jersey.
6. Some Alumni Members are well established entrepreneur.

Weaknesses:

1. Lack of ICT class room
2. Activities contributing to research still need improvement.
3. Funded R &D Project/ Consultancy activities need improvement.
4. Industry Institute interaction to be established and strengthened further.

Opportunities:

1. Introduce Special Vendor Certification courses in current Application Domain such as Oracle Certified Java Professionals(OCJP), AWS Solution Architect, CCNA, CCNP etc. for Faculty members and Students
2. Placing more students in the best Industries / Research Laboratory / Higher Study as well as local industries
3. Managing regular Alumni interaction / constant support to be in touch at all times.

Challenges:

1. Enhancing in growing competitive pressures in regular basis
2. Increasing the number of students employed through Campus Drive.
3. Students with diverse background with diverse need or inclination.
4. Motivating more students towards the need of new technologies for enhancing their employability.
5. Preparing students industry ready under traditional university syllabus.

Future plans:

1. To build collaboration with external funding agencies
2. To build dedicated and well equipped Research & Development Laboratory
3. To prepare more certified lab for conducting prestigious examination like TOEFL
4. To open some international standard certification courses.
5. To start industry academic collaborative projects.
6. To encourage Open Source Research activities.
7. To organize a National Conference every year.

G. DECLARATION BY THE HEAD OF THE INSTITUTION



MCKV INSTITUTE OF ENGINEERING

(College Code 116-Engg.)
(A Co-ed PG Degree Engineering College)
Approved by AICTE & Affiliated to Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly West Bengal University of Technology)
243, G.T. ROAD (NORTH), LILUAH, HOWRAH - 711 204, WEST BENGAL, INDIA
Ph. - (033) 2654-9315/17 • Fax - 2654-8318 • Email - mckvie@vsnl.net • Web - www.mckvie.edu.in



MCKVIE/2017/59

01st March, 2017

DECLARATION BY THE HEAD OF THE INSTITUTION

I certify that the data included in this Self-study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.



Signature of the Head of the institution with seal

Place: Howrah

Date: 01/03/2017



Principal
MCKV Inst. of Engg.
Liluah, Howrah-711 204

H. CERTIFICATE OF COMPLIANCE



MCKV INSTITUTE OF ENGINEERING

(College Code 116-Engg.)

(A Co-ed PG Degree Engineering College)

Approved by AICTE & Affiliated to Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly West Bengal University of Technology)

243, G.T. ROAD (NORTH), LILUAH, HOWRAH - 711 204, WEST BENGAL, INDIA

Ph. - (033) 2654-9315/17 • Fax - 2654-9318 • Email - mckvie@vsnl.net • Web - www.mckvie.edu.in

MCKVIE/2017/60



01st March, 2017

Certificate of Compliance

(Affiliated/ Constituent/ Autonomous Colleges and Recognized Institutions)

This is to certify that MCKV INSTITUTE OF ENGINEERING fulfils all norms

1. Stipulated by the affiliating University Maulana Abdul Kalam Azad University of Technology (MAKAUT).
2. Regulatory Council AICTE and
3. The affiliation and recognition is valid as on date.

In case the affiliation/ recognition is conditional, then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

Date: 01/03/2017

Place: Howrah


Principal/ Head of the Institution
(Name and Signature with Office seal)

Principal
MCKV Inst. of Engg.
Liluah, Howrah-711 204



ANNEXURE I

Ph. 24246454, 24246704, 24246774
24244116, 24245734, 24242417
24246735, 24249437, 24249627

Extension No. 413 (CPP-I Colleges)
UGC Website: www.ugc.ac.in
F. No. 8-93/2013 (CPP-I/C)



UNIVERSITY GRANTS COMMISSION
BAHADURSHAH ZAFAR MARG
NEW DELHI-110 002

March, 2013

The Registrar,
West Bengal University of Technology
BF-142, Sector 1, Salt Lake, Bidhannagar,
Kolkata – 700 064
West Bengal

21 MAR 2013

Sub: - Recognition of College under Section 2 (f) of the UGC Act, 1956.

Sir,

I am directed to refer to the letter no. MCKVIE/2013/508 dated 21.01.2013 received from the Principal, MCKV Institute of Engineering, 243, G.T. Road (North), Liluah, Howrah – 711 204, West Bengal on the above subject and to say that it is noted that the following college is **un-aided/self financed and temporarily** affiliated to **West Bengal University of Technology**. I am further to say that the name of the following college has been included in the list of colleges prepared under Section 2 (f) of the UGC Act, 1956 under the head '**Non-Government** Colleges teaching upto **Master's Degree**':-

Name of the College	Year of Establishment	Remarks
MCKV Institute of Engineering, 243, G.T. Road (North), Liluah, Howrah – 711 204, West Bengal.	1999	The college does not fulfill the requirement of permanent affiliation. Therefore, the college is not eligible to receive Central assistance under Section 12 (B) of the UGC Act, 1956.

The Indemnity Bond and the other supporting documents submitted in respect of the above College have been accepted by the University Grants Commission.

Yours faithfully,

(P.K. Sharma)
Under Secretary

Copy to:-

1. The Principal, MCKV Institute of Engineering, 243, G.T. Road (North), Liluah, Howrah – 711 204, West Bengal.
2. The Secretary, Government of India, Ministry of Human Resource Development, Department of Secondary Education & Higher Education, Shastri Bhavan, New Delhi – 110 001.
3. Addl. Chief Secretary (Higher Education), Government of West Bengal, 6th Floor, Room No. 604, Biksh Bhawan, Salt Lake, Sector - 2, Kolkata – 700 091, (West Bengal).
4. Joint Secretary, UGC, Eastern Regional Office (ERO), LB-8 Sector-III, Salt Lake, Kolkata - 700 091, (West Bengal).
5. Publication Officer (Website-UGC), New Delhi.
6. Section Officer (F.D.-III Section), U.G.C., New Delhi
7. Guard file.

(Sunita Gulati)
Section Officer

ANNEXURE II



MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL
(Formerly West Bengal University of Technology)
Office of the Inspector of Colleges
BF-142, Salt Lake City, Kolkata – 700 064
Tel. No. (033)2321-7588, (033)2334-1014-1021/1025/1028/1031; Fax: (033)2321-8776

No. **116 / B.TECH / Affiliation / 2016-17** Date : 30/05/2016

The **RENEWAL** affiliation is hereby accorded for the academic year **2016-17** under Section 5(4) of the West Bengal University of Technology Act, 2000 (West Bengal Act XV of 2000) to

MCKV INSTITUTE OF ENGINEERING
243 G.T. ROAD (NORTH), LILUAH, HOWRAH, WEST BENGAL 711204. [College Code : 116]

for conducting the following course(s) with the intake indicated below :

PROGRAM	LEVEL OF COURSE	NAME OF COURSE	INTAKE FOR 2016-17
ENGINEERING & TECHNOLOGY	UNDER GRADUATE	AUTOMOBILE ENGINEERING	60
ENGINEERING & TECHNOLOGY	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	60
ENGINEERING & TECHNOLOGY	UNDER GRADUATE	ELECTRICAL ENGINEERING	60
ENGINEERING & TECHNOLOGY	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG.	60
ENGINEERING & TECHNOLOGY	UNDER GRADUATE	INFORMATION TECHNOLOGY	60
ENGINEERING & TECHNOLOGY	UNDER GRADUATE	MECHANICAL ENGINEERING	60

The above affiliation is issued subject to fulfillment of the following terms and conditions :

1. That this Affiliation/Renewal Affiliation is being granted based on the (i) The hard copy of the computer generated report containing 113 Pages of the AICTE approved College list for the Academic Year 2016-2017 duly authenticated by the Hon'ble Vice Chancellor dated 19.05.2016 which had been received by him through email dated 18.05.2016 and (ii) Decision dated 19.05.2016 of the Hon'ble Vice Chancellor, MAKAUT,WB in the File No. IC-184/2016.
2. That the sponsoring Society / Trust/Company established under Section 25 of Companies Act 1956 shall provide adequate funds for development of land and for providing related infrastructural, instructional and other facilities as per norms and standards laid down by the MAKAUT,WB and AICTE from time to time and for meeting recurring expenditure.
3. That the admission and conduct of courses shall be made in accordance with the regulations notified by the State Govt., MAKAUT,WB and AICTE from time to time.
4. That the curriculum of the course, the procedure for evaluation/assessment of students and infrastructure in the classes, laboratories & library shall be in accordance with the norms prescribed by the MAKAUT,WB and AICTE.
5. That the Institution shall not allow closure of the Institution or discontinuation of the course(s) or start any new course(s) of after intake capacity of seats without the prior approval of the MAKAUT,WB and AICTE.





6. That no excess admission shall be made by the Institution over and above the approval intake under any circumstances. In case any excess admission is reported to / founded by the MAKAUT, WB, appropriate penal action including withdrawal of affiliation shall be initiated against the Institution.
7. That the Institution shall not conduct any course(s) in the field of technical education in the same premises / campus and / or in the name of the Institution without prior permission / approval of MAKAUT, WB and AICTE. In case any violation is reported to / founded by the MAKAUT, WB, appropriate penal action including withdrawal of affiliation shall be initiated against the Institution.
8. That the Institution shall not conduct any non-technical course(s) in the same premises / campus under any circumstances. In case any violation is found by the MAKAUT, WB, appropriate penal action including withdrawal of affiliation shall be initiated against the Institution.
9. That the Institution shall operate only from the approved location, and that the Institution shall not open any off campus study centres / extension centres directly or in collaboration with any other Institution / University Organisation for the purpose of imparting technical education without obtaining prior approval from the MAKAUT, WB and AICTE.
10. That the accounts of the Institution shall be audited annually by a certified Chartered Accountant and shall be open for inspection by the MAKAUT, WB.
11. That the Institution shall furnish requisite returns & reports as desired by MAKAUT, WB in order to ensure proper maintenance of administrative & academic standards
12. That the Director / Principal and the teaching staff, Technical Assistants and other staff shall be selected according to procedures, qualifications and experience prescribed by the MAKAUT, WB / AICTE / UGC from time to time and pay scales and other allowances & benefits shall be as per the norms prescribed by the Govt. of W.B. / UGC / AICTE from time to time.
13. That if the Institution fails to disclose the information or suppress and/or misrepresent the information, appropriate action could be initiated including withdrawal of MAKAUT, WB affiliation.
14. MAKAUT, WB may carry out random inspections round the year for verifying the status of the Institutions to ensure maintenance of norms and standards prescribed by MAKAUT, WB/AICTE. Deficiencies / Shortcomings if any (in respect of built-up area requirement, instructional area requirement, laboratories requirement, computer requirement, library requirement, full-time faculty members requirement and other desirable requirements etc. in accordance with the AICTE / MAKAUT, WB norms) as were/will be pointed out shall have to be removed within a reasonable time to be prescribed by MAKAUT, WB failing which penal action including withdrawal of affiliation shall be initiated against the Institution.
15. That the MAKAUT, WB may also conduct inspections with or without notifying the dates to verify specific complaints of mis-representation, violation of norms and standards, mal-practices etc. Adverse findings will lead appropriate penal action including withdrawal of affiliation.
16. The Institute shall take appropriate measures for prevention of ragging in any form, in the light of directions of Supreme Court of India in Writ Petition No. © 656/1998 and norms as stipulated by the UGC & AICTE.
17. The Institution shall remain bound by the norms, rules and regulations formulated by the University in respect of the conditions of affiliation, course & fee structure, syllabi content and academic regulations governing the conduct of the course(s) and shall pay fees / charges to be fixed by the University in respect of inspection, affiliation, registration of students, examination fees, etc. including any subsequent changes therein introduced by the University from time to time.





In the event of closure of the institution, the Organizing Society / Trust will not close Institution till the last batch of students admitted in the academic programmes complete the total duration of their respective academic programmes (i.e. 2 years, 3 years, 4 years etc. as the case may be).

18. The University will have no financial liability whatsoever for conducting the course(s).

Any infringement / contravention / non-compliance of the conditions mentioned above lead to withdrawal of affiliation. All liabilities arising out of such withdrawal would solely rest upon to that of organizing Trust / Society. After completion of the academic year (2016 – 2017), the Institute will seek renewal of affiliation course-wise for the year (2017 – 2018).

Checked & Verified

S. Saha

(Sujit Kumar Saha)

Sd/—
Inspector of Colleges

Copy forwarded for information and necessary action to :

1. The Principal / Director,
MCKV INSTITUTE OF ENGINEERING
243 G.T. ROAD (NORTH), LILUAH, HOWRAH, WEST BENGAL 711204.
2. The Chairman, West Bengal Joint Entrance Examinations Board, AQ 13/1, Sector V, Salt Lake, Kol – 91.
3. The Principal Secretary to the Govt. of West Bengal, Higher Education Dept., Bikash Bhavan, Salt Lake, Kolkata – 700 091.
4. The Regional Officer, Eastern Regional Office, AICTE, Block LB, Sector III, Salt Lake, Kolkata - 98.
5. The Vice Chancellor's Unit.
6. The Registrar's Unit.
7. The Controller of Examinations' Unit.
8. The Finance Officer's Unit.
9. The Inspector of Colleges' Unit.
10. GENERAL Guard File.
11. AFFILIATION GUARD FILE.
12. College File.



Sd/—
Inspector of Colleges




MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL
 (Formerly West Bengal University of Technology)

Office of the Inspector of Colleges

BF-142, Salt Lake City, Kolkata – 700 064

Tel. No. (033)2321-7588, (033)2334-1014/1021/1025/1028/1031, Fax (033)2321-8776

No. 116 / M.TECH / Affiliation / 2016-17

Date : 30/05/2016

The **RENEWAL** affiliation is hereby accorded for the academic year **2016-17** under Section 5(4) of the West Bengal University of Technology Act, 2000 (West Bengal Act XV of 2000) to

MCKV INSTITUTE OF ENGINEERING
 243 G.T. ROAD (NORTH), LILUAH, HOWRAH,
 WEST BENGAL 711204.

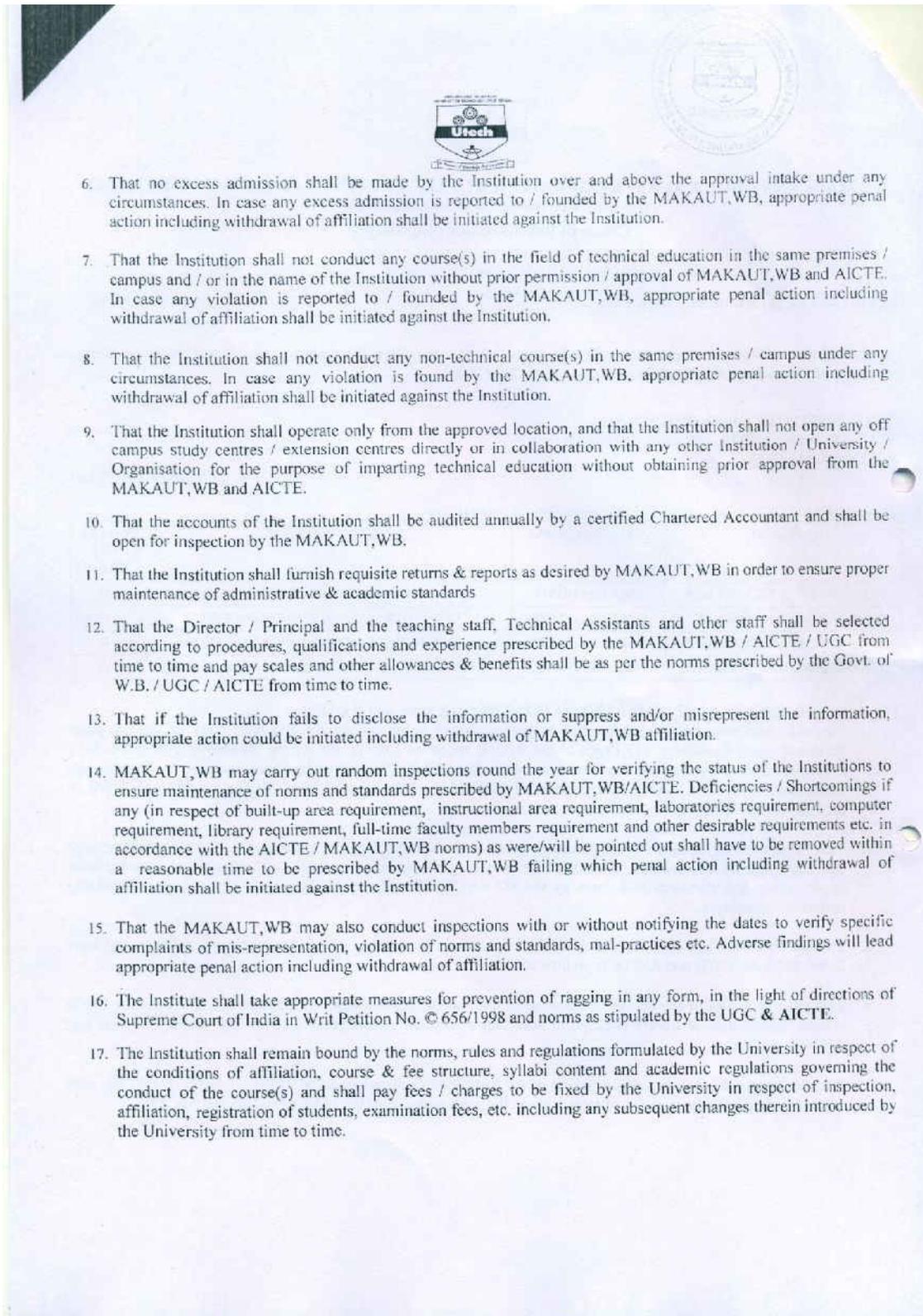
[College Code : 116]

for conducting the following course(s) with the intake indicated below :

PROGRAM	LEVEL OF COURSE	NAME OF COURSE	INTAKE FOR 2016-17
ENGINEERING & TECHNOLOGY	POST GRADUATE	AUTOMOTIVE TECHNOLOGY	18
ENGINEERING & TECHNOLOGY	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	18
ENGINEERING & TECHNOLOGY	POST GRADUATE	ELECTRONICS & COMMUNICATION ENGG	18
ENGINEERING & TECHNOLOGY	POST GRADUATE	ELECTRONICS & COMMUNICATION (VLSI DESIGN)	18

The above affiliation is issued subject to fulfillment of the following terms and conditions :

1. That this Affiliation/Renewal Affiliation is being granted based on the (i) The hard copy of the computer generated report containing 113 Pages of the AICTE approved College list for the Academic Year 2016-2017 duly authenticated by the Hon'ble Vice Chancellor dated 19.05.2016 which had been received by him through email dated 18.05.2016 and (ii) Decision dated 19.05.2016 of the Hon'ble Vice Chancellor, MAKAUT, WB in the File No. IC-184/2016.
2. That the sponsoring Society / Trust/Company established under Section 25 of Companies Act 1956 shall provide adequate funds for development of land and for providing related infrastructural, instructional and other facilities as per norms and standards laid down by the MAKAUT, WB and AICTE from time to time and for meeting recurring expenditure.
3. That the admission and conduct of courses shall be made in accordance with the regulations notified by the State Govt., MAKAUT, WB and AICTE from time to time.
4. That the curriculum of the course, the procedure for evaluation/assessment of students and infrastructure in the classes, laboratories & library shall be in accordance with the norms prescribed by the MAKAUT, WB and AICTE.
5. That the Institution shall not allow closure of the Institution or discontinuation of the course(s) or start any new course(s) of after intake capacity of seats without the prior approval of the MAKAUT, WB and AICTE.





In the event of closure of the institution, the Organizing Society / Trust will not close Institution till the last batch of students admitted in the academic programmes complete the total duration of their respective academic programmes (i.e. 2 years, 3 years, 4 years etc. as the case may be).

18. The University will have no financial liability whatsoever for conducting the course(s).

Any infringement / contravention / non-compliance of the conditions mentioned above lead to withdrawal of affiliation. All liabilities arising out of such withdrawal would solely rest upon to that of organizing Trust / Society. After completion of the academic year (2016 – 2017), the Institute will seek renewal of affiliation course-wise for the year (2017 – 2018).

Checked & Verified

S. Saha

(Sujit Kumar Saha)

sd
Inspector of Colleges

Copy forwarded for information and necessary action to :

1. The Principal / Director,
MCKV INSTITUTE OF ENGINEERING
243 G.T. ROAD (NORTH), LILUAH, HOWRAH, WEST BENGAL 711204.
2. The Chairman, PGET Examination.
3. The Principal Secretary to the Govt. of West Bengal, Higher Education Dept., Bikash Bhavan, Salt Lake, Kolkata – 700 091.
4. The Regional Officer, Eastern Regional Office, AICTE, Block LB, Sector III, Salt Lake, Kolkata - 98.
5. The Vice Chancellor's Unit.
6. The Registrar's Unit.
7. The Controller of Examinations' Unit.
8. The Finance Officer's Unit.
9. The Inspector of Colleges' Unit.
10. GENERAL Guard File.
11. AFFILIATION GUARD FILE.
12. College File.



[Signature]
Inspector of Colleges



MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

(Formerly West Bengal University of Technology)

Office of the Inspector of Colleges

BF-142, Salt Lake City, Kolkata – 700 064

Tel. No. : (033)2321-7588, (033) 2334-1014/1021/1025/1028/1031, Fax : (033) 2321-8776

No. 116 / MCA / Affiliation / 2016-17

Date : 30/05/2016

The **RENEWAL** affiliation is hereby accorded for the academic year **2016-17** under Section 5(4) of the West Bengal University of Technology Act, 2000 (West Bengal Act XV of 2000) to

MCKV INSTITUTE OF ENGINEERING

243 G.T. ROAD (NORTH), LILUAH, HOWRAH, WEST BENGAL 711204.

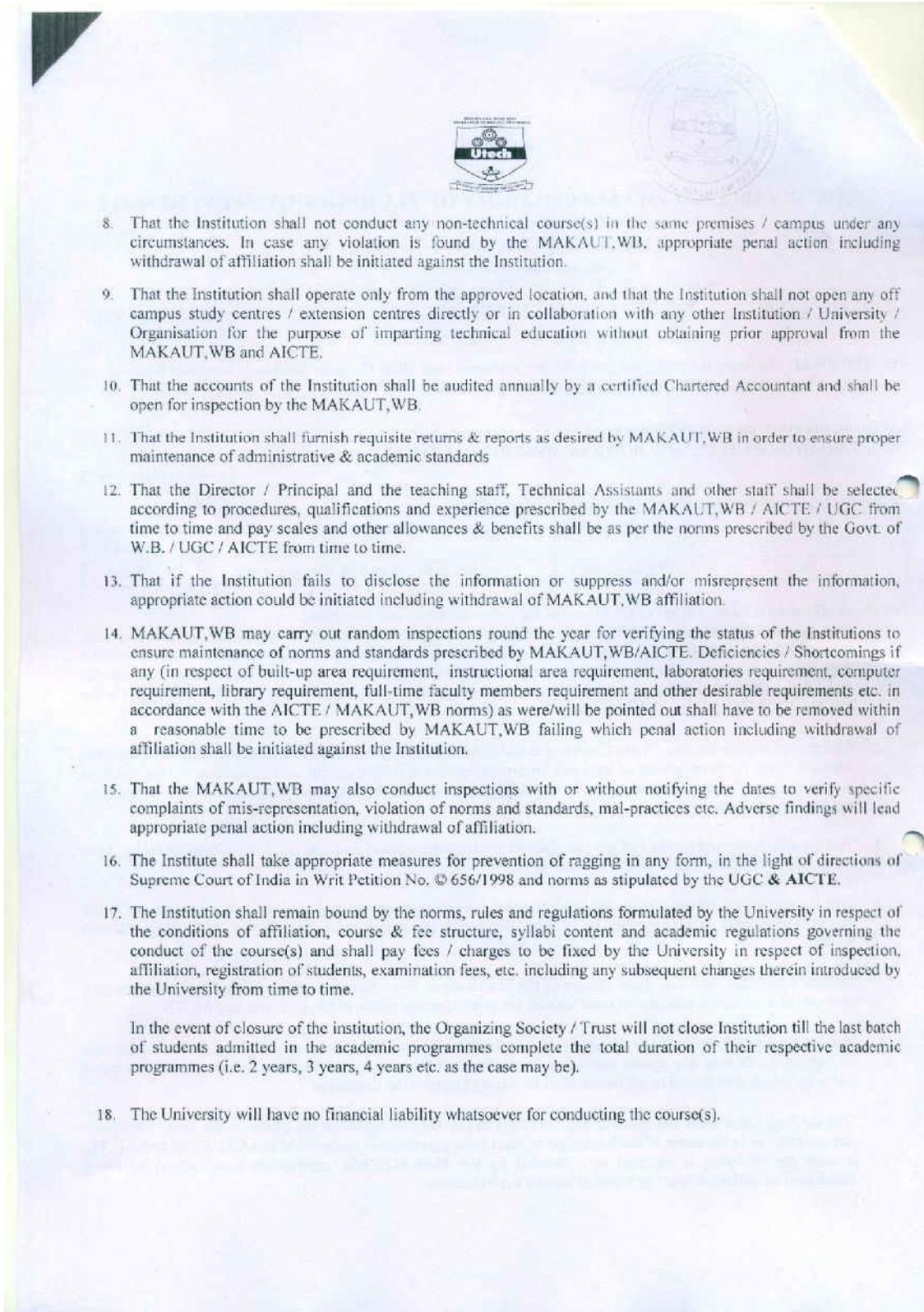
[College Code : 116]

for conducting the following course(s) with the intake indicated below :

PROGRAM	LEVEL OF COURSE	NAME OF COURSE	INTAKE FOR 2016-17
MCA	POST GRADUATE	MASTERS IN COMPUTER APPLICATIONS	60

The above affiliation is issued subject to fulfillment of the following terms and conditions :

1. That this Affiliation/Renewal Affiliation is being granted based on the (i) The hard copy of the computer generated report containing 113 Pages of the AICTE approved College list for the Academic Year 2016-2017 duly authenticated by the Hon'ble Vice Chancellor dated 19.05.2016 which had been received by him through email dated 18.05.2016 and (ii) Decision dated 19.05.2016 of the Hon'ble Vice Chancellor, MAKAUT, WB in the File No. IC-184/2016.
2. That the sponsoring Society / Trust/Company established under Section 25 of Companies Act 1956 shall provide adequate funds for development of land and for providing related infrastructural, instructional and other facilities as per norms and standards laid down by the MAKAUT, WB and AICTE from time to time and for meeting recurring expenditure.
3. That the admission and conduct of courses shall be made in accordance with the regulations notified by the State Govt., MAKAUT, WB and AICTE from time to time.
4. That the curriculum of the course, the procedure for evaluation/assessment of students and infrastructure in the classes, laboratories & library shall be in accordance with the norms prescribed by the MAKAUT, WB and AICTE.
5. That the Institution shall not allow closure of the Institution or discontinuation of the course(s) or start any new course(s) of after intake capacity of seats without the prior approval of the MAKAUT, WB and AICTE.
6. That no excess admission shall be made by the Institution over and above the approval intake under any circumstances. In case any excess admission is reported to / founded by the MAKAUT, WB, appropriate penal action including withdrawal of affiliation shall be initiated against the Institution.
7. That the Institution shall not conduct any course(s) in the field of technical education in the same premises / campus and / or in the name of the Institution without prior permission / approval of MAKAUT, WB and AICTE. In case any violation is reported to / founded by the MAKAUT, WB, appropriate penal action including withdrawal of affiliation shall be initiated against the Institution.





Any infringement / contravention / non-compliance of the conditions mentioned above lead to withdrawal of affiliation. All liabilities arising out of such withdrawal would solely rest upon to that of organizing Trust / Society. After completion of the academic year (2016 – 2017), the Institute will seek renewal of affiliation course-wise for the year (2017 – 2018).

Checked & Verified

S. Saha

(Sujit Kumar Saha)

Sd/-
Inspector of Colleges

Copy forwarded for information and necessary action to :

1. The Principal / Director,
MCKV INSTITUTE OF ENGINEERING
243 G.T. ROAD (NORTH), LILUAH, HOWRAH, WEST BENGAL 711204.
2. The Chairman, West Bengal Joint Entrance Examinations Board, AQ 13/1, Sector V, Salt Lake, Kol – 91.
3. The Principal Secretary to the Govt. of West Bengal, Higher Education Dept., Bikash Bhavan, Salt Lake, Kolkata – 700 091.
4. The Regional Officer, Eastern Regional Office, AICTE, Block LB, Sector III, Salt Lake, Kolkata - 98.
5. The Vice Chancellor's Unit.
6. The Registrar's Unit.
7. The Controller of Examinations' Unit.
8. The Finance Officer's Unit.
9. The Inspector of Colleges' Unit.
10. GENERAL Guard File.
11. AFFILIATION GUARD FILE.
12. College File.



Sd/-
Inspector of Colleges



All India Council for Technical Education
 (A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
 PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-india.org

F.No. Eastern/1-2811941181/2016/EOA

Date: 06-Apr-2016

To,

The Secretary (Technical education)
 Govt. of West Bengal,
 Bikash Bhawan, Room No. 602,
 6th Floor Salt Lake, Kolkata-700091

Sub: Extension of approval for the academic year 2016-17

Ref: Application of the Institution for Extension of approval for the academic year 2016-17

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations 2012 notified by the Council vide notification number F-No.37-3/Legal/2012 dated 27/08/2012 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Regional Office	Eastern	Application Id	1-2811941181
Name of the Institute	MCKV INSTITUTE OF ENGINEERING	Permanent Id	1-6893721
Name of the Society/Trust	MIRZAMAL CHHAGANLAL KEJRIWALA CHARITY TRUST	Institute Address	243, G.T. ROAD (NORTH), LILUAH, HOWRAH, West Bengal, 711204
Institute Type	Unaided - Private	Society/Trust Address	11, BRABOURNE ROAD, 1ST FLOOR, KOLKATA, KOLKATA, West Bengal, 700001

Opted for change from Women to Co-ed and Vice versa	No	Opted for change of name	No	Opted for change of site	No
Change from Women to Co-ed approved and Vice versa	Not Applicable	Change of name Approved	Not Applicable	Change of site Approved	Not Applicable

To conduct following courses with the intake Indicated below for the academic year 2016-17

Application Id: 1-2811941181			Course	Full/Part Time	Affiliating Body	Intake 2015-16	Intake Approved for 2016-17	NRI Approval status	PIC / FN / Gulf quota Approval status	Foreign Collaboration/Twinning Program Approval status
Program	Shift	Level								
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	AUTOMOTIVE TECHNOLOGY	FULL TIME	West Bengal University of Technology, Kolkata	18	18	NA	NA	NA

Application Number: 1-2811941181
 Note: This is a Computer generated Report.No signature is required.

Printed By : ae953141

Page 1 of 3
 Letter Printed On:24 May 2016

A. Arama
 Principal
 MCKV Inst. of Engg.
 Liluah, Howrah-711 204





All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724183 www.aicte-india.org

ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	West Bengal University of Technology, Kolkata	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	ELECTRONICS & COMMUNICATION ENGG	FULL TIME	West Bengal University of Technology, Kolkata	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	POST GRADUATE	ELECTRONICS & COMMUNICATION (VLSI DESIGN)	FULL TIME	West Bengal University of Technology, Kolkata	18	18	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	AUTOMOBILE ENGINEERING	FULL TIME	West Bengal University of Technology, Kolkata	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	FULL TIME	West Bengal University of Technology, Kolkata	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRICAL ENGINEERING	FULL TIME	West Bengal University of Technology, Kolkata	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	ELECTRONICS & COMMUNICATION ENGG	FULL TIME	West Bengal University of Technology, Kolkata	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	INFORMATION TECHNOLOGY	FULL TIME	West Bengal University of Technology, Kolkata	60	60	NA	NA	NA
ENGINEERING AND TECHNOLOGY	1st Shift	UNDER GRADUATE	MECHANICAL ENGINEERING	FULL TIME	West Bengal University of Technology, Kolkata	60	60	NA	NA	NA
MCA	1st Shift	POST GRADUATE	MASTERS IN COMPUTER APPLICATIONS	FULL TIME	West Bengal University of Technology, Kolkata	60	60	NA	NA	NA

Application Number: 1-2811941181
Note: This is a Computer generated Report.No signature is required.
Printed By : ae863141

Page 2 of 3
Letter Printed On:24 May 2016



All India Council for Technical Education
(A Statutory body under Ministry of HRD, Govt. of India)

7th Floor, Chandralok Building, Janpath, New Delhi- 110 001
PHONE: 23724151/52/53/54/55/56/57 FAX: 011-23724163 www.aicte-india.org

The above mentioned approval is subject to the condition that MCKV INSTITUTE OF ENGINEERING shall follow and adhere to the Regulations, guidelines and directions issued by AICTE from time to time and the undertaking / affidavit given by the institution along with the application submitted by the institution on portal.

In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Strict compliance of Anti-Ragging Regulation:- Approval is subject to strict compliance of provisions made In AICTE Regulation notified vide F. No. 37-3/Legal/AICTE/2009 dated July 1, 2009 for Prevention and Prohibition of Ragging in Technical Institutions. In case institution fails to take adequate steps to Prevent Ragging or fails to act in accordance with AICTE Regulation or fails to punish perpetrators or incidents of Ragging, it will be liable to take any action as defined under clause 9(4) of the said Regulation.

Note: Validity of the course details may be verified at www.aicte-india.org.

Dr. Avinash S Pant
Vice - Chairman, AICTE

Copy to:

1. **The Regional Officer,**
All India Council for Technical Education
College of Leather Technology Campus
Block LB, Sector III, Salt Lake City
Kolkata - 700 096, West Bengal
2. **The Director Of Technical Education,**
West Bengal
3. **The Registrar,**
West Bengal University of Technology, Kolkata
4. **The Principal / Director,**
MCKV INSTITUTE OF ENGINEERING
243, G.T. ROAD (NORTH),
LILUAH, HOWRAH,
West Bengal, 711204
5. **The Secretary / Chairman,**
MIRZAMAL CHHAGANLAL KEJRIWALA CHARITY TRUST
11, BRABOURNE ROAD, 1ST FLOOR,
KOLKATA, KOLKATA,
West Bengal, 700001
6. **Guard File(AICTE)**

Application Number: 1-2611941181
Note: This is a Computer generated Report.No signature is required.
Printed By : ae663141

Page 3 of 3
Letter Printed On: 24 May 2016

ANNEXURE III

Audit Report 2015-16

 **J. LOYALKA & CO.**
CHARTERED ACCOUNTANTS

FORM NO. 10B

Audit Report under section 12A(b) of the Income-Tax Act, 1961 in the case of Charitable or religious trusts or institutions.

We have examined the Balance Sheet of **M/s Mirzamal Chagganlal Kejriwala Charity Trust** as at 31st March, 2016 and the Income & Expenditure account for the year ended on that date which are in agreement with the books of account maintained by the said trust.

We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of the audit. In our opinion, proper books of account have been kept by the Head Office, so far as appears from our examination of the books.

In our opinion and to the best of our information and according to the information given to us, the said accounts give a true and fair view:

- (i) In the case of the Balance Sheet of the State of affairs of the above named trust as at 31st March, 2016 and
- (ii) In the case of the Income & Expenditure A/c, excess of **Expenditure over Income** of its accounting year ending on 31st March, 2016.

The prescribed particulars are annexed hereto.

For J Loyalka & Co.
Chartered Accountants
FRN No: 303071E


Bholanath Ray
(Partner)
M No. 011420



Place : Kolkata .
Date : The 30th Day of August 2016

16, Mangoe Lane, Kolkata - 700 001
Ph. : 2248-4796, 2230-1380, 3028-4333, Fax : 3028-5333, E-mail : loyalkacompany@gmail.com

M.C.K.V. INSTITUTE OF ENGINEERING
243, G.T. ROAD IN LUDHIA, BHOWRAH - 711202
P.O. MEZAMAL, CHANGANAI, BHOWRAH CHARITY TRUST
INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2016

(Figures in Rs.)

Previous Year	EXPENDITURE	Current Year	Previous Year	INCOME	Current Year
5,442,247.00	To Advertisment & Publicity	3,886,604.52	155,228,000.00	By Tuition & Other Fees Received	144,597,750.00
546,522.47	• Affiliation Fee	446,500.00	4,595,500.00	• Hostel Charges Received	4,933,200.00
52,372.00	• Auditors Remuneration	41,504.00	3,490,036.00	• Miscellaneous Receipts	3,455,119.00
26,625.00	• Books & Periodicals	28,175.00	2,103,001.77	• Interest Received	2,041,157.50
1,916,614.00	• College Function Expenses	2,208,386.29		• Excess of expenditure over income transferred to BIS	7,245,787.00
33,640.00	• College Bus Expenses	115,242.77			
9,716,794.94	• Depreciation	9,416,474.55			
4,210,049.00	• Electricity Charges	3,101,306.00			
524,248.00	• General Expenses	425,841.00			
85,481.67	• Insurance Charges	76,010.33			
54,398.00	• Interest & Financial Charges	71,123.00			
457,241.00	• Workshop, Seminar & Orientation	376,508.38			
111,457.24	• Membership & Subscription	188,423.80			
219,629.27	• Miscellaneous Expenses	179,788.67			
3,901,377.75	• Hostel Charges	4,500,767.25			
415,132.95	• Motor Car Expenses	357,205.74			
1,162,388.35	• Postage & Telephone Charges	1,166,902.11			
1,279,891.80	• Printing & Stationery	1,717,720.33			
2,020,005.00	• Professional & Consultancy Charges	3,129,191.00			
645,404.00	• Rent, Rates & Taxes	646,851.00			
4,043,540.42	• Repair & Maintenance	5,503,004.58			
100,377,626.00	• Salary & Allowances	105,728,879.00			
1,715,005.00	• Security Charges	1,852,860.00			
2,907,247.00	• Staff & Student Welfare	3,555,095.00			
1,354,004.00	• Training & Placement Expenses	1,038,451.05			
259,601.83	• Travelling & Conveyance	1,231,310.00			
8,558,000.00	• Scholarship	7,074,500.00			
3,520,000.00	• Transfer to Trust A/C	3,000,000.00			
3,200,000.00	• Contribution Towards TEQIP	52,445.00			
6,639,854.06	• NDA Expenses				
	• Excess of income over expenditure transferred to BIS				
165,516,697.77		162,233,014.38	165,516,697.77		162,233,014.38

In Name of our report of even date

For J. Loyalika & Co.

Chartered Accountants



PK Roy

M.No. 011420

Partner

Dated: The 30th Day of August, 2016

Place: Mohala

For & on Behalf of Trustees

For MCKV Institute of Engineering

For MCKV Institute of Engineering

Trustees

Audit Report 2014-15

CA

J. LOYALKA & CO.
CHARTERED ACCOUNTANTS

FORM NO. 10B

Audit Report under section 12A(b) of the Income-Tax Act, 1961 in the case of Charitable or religious trusts or institutions.

We have examined the Balance Sheet of M/s Mirzamal Chhaganlal Kejriwala Charity Trust as at 31st March 2015 and the Income & Expenditure account for the year ended on that date which are in agreement with the books of account maintained by the said institution.

We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of the audit. In our opinion, proper books of account have been kept by the above named institution so far as appears from our examination of the books.

In our opinion and to the best of our information and according to the explanations given to us, the said accounts give a true and fair view:

- (i) In the case of the Balance Sheet of the State of affairs of the above named institution as at 31st March, 2015, and
- (ii) In the case of the Income & Expenditure A/c, excess of income over expenditure of its accounting year ending on 31st March 2015.

The prescribed particulars are annexed hereto.

Place : 16, Mangoe Lane, Kolkata – 700 001.
Dated : The 10th Day of August '2015 .

For J.Loyalka & Co.
Chartered Accountants
(Firm Reg. No. 303071E)


B.N Ray
M. No. 011420
(Partner)



16, Mangoe Lane, Kolkata - 700 001
Ph. : 2248-4796, 2230-1380, 3028-4333, Fax : 3028-5333, E-mail : loyalkacompany@gmail.com

MCKV INSTITUTE OF ENGINEERING
225, G.T. ROAD, IN. ULUSA, HOWRAH - 711014
Prof. MIRZAMAL CHHAGANLAL KEJRIWALA CHARITY TRUST
INCOME & EXPENDITURE A/C FOR THE YEAR ENDED 31st MARCH, 2015

EXPENDITURE		Previous Year	Current Year	Previous Year	Current Year	INCOME	Current Year
To	Achievement & Policy	4,834,416.00	5,402,247.00	154,685,500.00	155,228,000.00	Tuition & Other Fees Received	4,695,600.00
	Affiliation Fee & Other Charge Paid	356,520.00	546,522.47	4,170,300.00		Hesbi Charges Received	3,490,059.00
	Auditors Remuneration	252,813.00	62,372.60	1,774,382.50		Miscellaneous Receipts	2,103,051.77
	Books & Periodicals	28,433.00	26,695.00	1,855,270.04		Interest Received	
	College Function Expenses	1,396,889.00	1,916,814.00				
	College Bus Expenses		33,640.00				
	Depreciation	10,102,039.36	9,716,754.94				
	Electricity Charges	3,577,777.00	4,210,049.00				
	General Expenses	722,657.00	1,122,648.00				
	Insurance Charges	96,458.26	85,461.57				
	Interest & Financial Charges	38,815.20	54,369.00				
	Laboratory & Voluntary Expenses	145,788.26	137,262.00				
	Mentorship & Subscription	356,679.56	111,457.24				
	Miscellaneous Expenses	526,285.72	539,668.37				
	Motor Charge	2,076,645.00	3,501,377.75				
	Motor Car Expenses	237,442.00	415,133.36				
	Postage & Telephone Charges	1,132,663.54	1,162,368.35				
	Printing & Stationery	1,346,652.02	1,279,891.80				
	Professional & Consultancy Charges	3,070,644.20	2,050,105.00				
	Rent, Rates & Taxes	443,522.00	645,404.00				
	Repair & Maintenance	5,264,121.50	4,043,540.42				
	Salary & Allowances	36,340,341.20	40,377,528.00				
	Security Charges	1,882,801.00	1,715,035.00				
	Staff Welfare	2,191,679.00	2,468,847.00				
	Training & Placement Expenses	1,229,790.34	1,304,094.00				
	Traveling & Conveyance	359,808.00	289,001.83				
	Scholarship	9,350,500.00	6,555,000.00				
	Transfer to Trust A/C	4,500,000.00	3,520,000.00				
	Contribution towards TEQUIP	4,000,000.00	3,200,000.00				
	NBA Expenses	82,886.00	5,639,854.08				
	Excess of income over expenditure transferred to B/S	6,452,574.84					
		162,508,822.54	165,516,697.77	167,525,827.54	165,516,697.77		


MIRZAMAL CHHAGANLAL KEJRIWALA CHARITY TRUST
 Trustee


J. Loyal & Co.
 Chartered Accountants
 B K Roy
 M No. 011420
 Partner

In terms of our report of even date
 For J. Loyal & Co.
 Chartered Accountants

Date: The 10th Day of August, 2015
 Place: Kolkata

Audit Report 2013-14



J. LOYALKA & CO.

CHARTERED ACCOUNTANTS

FORM NO. 10B

Audit Report under section 12A(b) of the Income-Tax Act, 1961 in the case of Charitable or religious trusts or institutions.

We have examined the Balance Sheet of **M/s Mirzamal Chhaganlal Kejriwala Charity Trust** as at 31st March 2014 and the Income & Expenditure account for the year ended on that date which are in agreement with the books of account maintained by the said institution.

We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of the audit. In our opinion, proper books of account have been kept by the above named institution so far as appears from our examination of the books.

In our opinion and to the best of our information and according to the explanations given to us, the said accounts give a true and fair view:

- (i) In the case of the Balance Sheet of the State of affairs of the above named institution as at 31st March, 2014, and
- (ii) In the case of the Income & Expenditure A/c, excess of income over expenditure of its accounting year ending on 31st March 2014.

The prescribed particulars are annexed hereto.

Place: 16, Mangoe Lane, Kolkata – 700 001.
Date: The 10th Day of September, 2014.



For J. Loyalka & Co.
Chartered Accountants
Firm Reg. No. 303071E)

[Signature]
M. Ray
M. No. 011420
(Partner)

16, Mangoe Lane, Kolkata - 700 001

Ph.: 2248-4796, 2230-1380, 3028-4333. Fax : 3028-5333, E-mail : loyalkacompany@gmail.com

MIRZAMAL CHHAGANLAL MERIWALA CHARITABLE TRUST
INCOME & EXPENDITURE A/C FOR THE YEAR ENDED 31ST MARCH, 2014

(Figures in Rs.)

Previous Year	Expenditure	Current Year	Previous Year	Income	Current Year
2,569,601.81	To Advertisement & Publicity	4,463,720.00	130,940,790.00	By Tuition & Other Fees Received from Students	154,696,500.00
522,022.47	• Affiliation Fee & Other Charges Paid	555,500.00			
110,102.00	• Audit Fee	252,613.00			1,774,052.50
16,185.00	• Books & Periodicals	28,433.00	1,655,921.75	• Miscellaneous Receipt	1,855,270.04
1,171,700.00	• College Fundation Expenses	1,386,889.00	932,658.79	• Interest Received	4,170,000.00
5,195,176.60	• Depreciation	10,103,836.05	3,429,500.00	• Hostel Charges Received	
	(As per Schedule A, attached)				
3,756,557.00	• Electricity Charges	3,907,727.00			
277,545.00	• General Expenses	722,551.00			
109,226.97	• Insurance Charges	98,403.00			
394,420.65	• Interest Paid	36,616.00			
1,054,833.00	• Laboratory & Workshop Expenses	149,768.26			
287,574.12	• Membership & Subscription	308,879.68			
453,653.92	• Miscellaneous Expenses	538,255.22			
2,187,157.00	• Hostel Charges	2,876,646.00			
168,745.00	• Motor Car Expenses	237,442.00			
1,249,651.17	• Postage & Telephone Charges	1,132,656.54			
891,596.00	• Printing & Stationery	1,346,662.02			
2,564,694.00	• Professional & Consultancy Charges	3,009,664.00			
254,192.00	• Rates & Taxes	335,622.00			
106,000.00	• Rent	108,000.00			
3,295,403.50	• Repair & Maintenance	5,254,121.50			
60,659,455.00	• Salary & Allowances	55,342,341.00			
1,699,664.00	• Security Charges	1,682,801.00			
65,652.00	• Staff Recruitment Expenses	270,037.00			
2,320,628.00	• Staff Welfare	2,194,679.00			
1,198,411.11	• Training & Placement Expenses	1,229,700.34			
375,684.00	• Travelling & Conveyance	359,403.00			
8,170,365.00	• Scholarship	9,350,500.00			
1,500,000.00	• Transfer to Trust A/C	4,000,000.00			
	• Contribution Towards Equip	82,686.00			
25,037.00	• NBA Expenses				
4,564,657.07	• Excess of Income over expenditure Transferred to Balance Sheet	6,489,674.84	136,561,830.54		162,525,872.54
136,561,830.54		162,525,872.54	136,561,830.54		

In Terms of our report of even date
For J. Loyalka & Co.
Chartered Accountants

For & on Behalf of Trustees
For MCKV Institute of Engineering



Dated: The 10th Day of September, 2014
Place: Kolkata

Audit Report 2012-13



J. LOYALKA & CO.
CHARTERED ACCOUNTANTS

FORM NO. 10B

Audit Report under section 12A(b) of the Income-Tax Act, 1961 in the case of Charitable or religious trusts or institutions.

We have examined the Balance Sheet of M/s Mirzamal Chhaganlal Kejriwala Charity Trust as at 31st March 2013 and the Income & Expenditure account for the year ended on that date which are in agreement with the books of account maintained by the said institution.

We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of the audit. In our opinion, proper books of account have been kept by the above named institution so far as appears from our examination of the books.

In our opinion and to the best of our information and according to the explanations given to us, the said accounts give a true and fair view:

- (i) In the case of the Balance Sheet of the State of affairs of the above named institution as at 31st March, 2013, and
- (ii) In the case of the Income & Expenditure A/c, excess of income over Expenditure of its accounting year ending on 31st March 2013.

The prescribed particulars are annexed hereto.

Place: 16, Mangoe Lane, Kolkata – 700 001.

Date: The 7 Th Day of August, 2013



For J. Loyalka & Co.
Chartered Accountants
(Firm Reg. No. 303071E)

Shreya Loyalka
Shreya Loyalka
M. No. 64812
(Partner)

16, Mangoe Lane, Kolkata - 700 001

Ph : 2248-4796, 2230-1380, 3028-4333, Fax : 3028-5333, E-mail : loyalkacompany@gmail.com

MCKV INSTITUTE OF ENGINEERING
243, G.T. ROAD (N), ULULAH, HOWRAH - 711004

INCOME & EXPENDITURE A/C FOR THE YEAR ENDED 31.03.2013

Previous Year (RS.)	Expenditure	Current Year (RS.)	Previous Year (RS.)	Income	Current Year (RS.)
23,33,998.50	• Advertisement & Visibility	26,84,801.81	23,10,04,856.00	By Tuition & Other Fees Received	13,08,46,750.00
4,17,000.00	• Affiliation Fee	5,42,021.47		• From Students	14,55,921.75
61,348.00	• Audit Fee	1,13,102.00	13,87,326.24	• Miscellaneous Receipt	0.00
28,476.00	• Books & Periodicals	19,181.00	6,36,183.59	• Interest Received	35,26,500.00
9,01,612.00	• College Function Expenses	11,71,702.00	40,23,390.00	• Hostel Charges Received	
9,10,426.16	• Depreciation	37,86,597.00	59,27,707.49	• Excess of expenditure over income transferred to Balance Sheet	
31,55,632.00	• Electricity Charges	2,77,945.00			
3,88,275.00	• General Expenses	1,09,245.00			
99,295.00	• Insurance Charges	3,94,420.45			
7,53,883.31	• Interest Paid				
22,866.00	• Investigation Charges				
2,98,431.20	• Laboratory & Workshop Expenses	10,94,493.00			
7,78,266.65	• Membership & Subscription	2,87,574.12			
8,63,833.25	• Miscellaneous Expenses	4,53,593.52			
27,96,270.00	• Hostel Charges	21,87,457.00			
4,53,120.00	• Motor Car Expenses	1,83,745.00			
10,58,084.76	• Postage & Telephone Charges	12,49,651.17			
7,40,419.00	• Printing & Stationery	9,91,806.00			
1,40,646.00	• Professional & Consultancy Charges	25,64,654.00			
3,05,666.00	• Rates & Taxes	2,84,152.00			
1,00,000.00	• Rent	1,08,000.00			
36,62,333.00	• Repair & Maintenance	32,06,403.58			
7,10,07,943.00	• Salary & Allowances	8,85,00,445.20			
13,69,487.20	• Security Charges	16,09,684.00			
1,30,197.00	• Staff Recruitment Expenses	89,690.00			
23,45,860.00	• Staff Welfare	23,00,535.00			
3,69,315.15	• Training & Placement Expenses	11,89,473.11			
3,88,719.00	• Travelling & Conveyance	3,79,664.00			
37,15,000.00	• Scholarship	81,70,385.00			
10,00,000.00	• Transfer to Trust/A/C	15,00,000.00			
8,00,000.00	• Contribution Towards Technical Education Quality Programme				
	• NCA Expenses	25,007.00			
	• Excess of income over expenditure transferred to Balance Sheet	45,64,489.97			
11,20,22,610.70		15,65,92,896.54	11,30,22,837.70		13,53,61,930.51

Notes to the Accounts - Schedule 'B' attached

In terms of our report of even date.

For J. Loyalka & Co.
Chartered Accountants



16, Mangra Lane, Kolkata-700001
The 7th Day of August, 2013

For MCKV Institute of Engineering

(Signature)

Trustee