



# **Annual Quality Assurance Report (AQAR) (JUNE 2018 – DECEMBER 2018)**

**SUBMITTED BY**

**Internal Quality Assurance Cell (IQAC)**

**Of**

**Institute of Engineering & Management  
Gurukul, Y-12, Block -EP, Sector-V,  
Salt Lake Electronics Complex, College More  
Kolkata-700091  
India.**



# **The Annual Quality Assurance Report (AQAR) of the IQAC**

*(For Affiliated/Constituent Colleges)*

Institutions Accredited by NAAC need to submit an Annual self-reviewed progress report i.e. Annual Quality Assurance Report (AQAR) to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas, specifically identified by the IQAC at the beginning of the Academic year. *The AQAR period would be the Academic Year. (For example, July 1, 2017 to June 30, 2018)*

## **Part – A**

### **Data of the Institution**

*(data may be captured from IIQA)*

1. Name of the Institution: Institute of Engineering & Management, Kolkata.

- Name of the Head of the institution : Prof (Dr) Satyajit Chakrabarti
- Designation: Director
- Does the institution function from own campus: Yes
- Phone no./Alternate phone no.: +91 33 2357 2969, +91 33 2357 7649
- Mobile no.: +91 9903846956
- Registered e-mail: director@iemcal.com
- Alternate e-mail : iqac@iemcal.com
- Address : Gurukul, Y-12, Block -EP, Saltlake Electronics Complex, Sector –V
- City/Town : Kolkata
- State/UT : West Bengal
- Pin Code : 700091

## 2. Institutional status:

- Affiliated
- Type of Institution: Co-education
- Location : Urban
- Financial Status: Self financing
- Name of the Affiliating University: Maulana Abul Kalam Azad University of Technology (Formerly WBUT).
- Name of the IQAC Co-ordinator : Prof. (Dr) Himadri Nath Saha & Prof. Sanghamitra Poddar
- Phone no. : +91 9830249238
- Alternate phone no:- +91 9433310775
- Mobile: +91 9830249238
- IQAC e-mail address: iqac@iemcal.com
- Alternate Email address: himadri@iemcal.com

## 3. Website address: [www.iem.edu.in](http://www.iem.edu.in)

Web-link of the AQAR: (Previous Academic Year): <http://iem.edu.in/aqar-2018/>

## 4. Whether Academic Calendar prepared during the year?

Yes, It is uploaded in the Institutional website: [www.iem.edu.in](http://www.iem.edu.in)

Web-link: <http://iem.edu.in/aqar-2018/>

## 5. Accreditation Details:

Cycle	Grade	CGPA	Year of Accreditation	Validity Period	
1 <sup>st</sup>	A	3.25	2017	from: 2017	to: 2022
2 <sup>nd</sup>				from:	to:
3 <sup>rd</sup>				from:	to:
4 <sup>th</sup>				from:	to:
5 <sup>th</sup>				from:	to:

6. Date of Establishment of IQAC: DD/MM/YYYY: 30/04/2015

## 7. Internal Quality Assurance System

7.1 Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & duration	Number of participants/beneficiaries
Conducted International conferences to promote quality, research & development, encourage students to pursue higher education	1 <sup>st</sup> -3 <sup>rd</sup> November, 2018	100 Students, 40 Foreign Speakers, 30 Software Enterprise Delegates
Academic audit has been conducted by a team of external experts	25 <sup>th</sup> August, 2018	Dr. Anup Kumar Sikdar
Academic audit both at departmental and institutional level	11 <sup>th</sup> August, 2018	Dr. Debika Bhattacharya (Dean Academics) Dr. Himadri Nath Saha (IQAC Co-ordinator) Sanghamitra Poddar (IQAC Co-ordinator)
Development of soft skills and personalities of the students by organising training programme	13 <sup>th</sup> , 14 <sup>th</sup> , 15 <sup>th</sup> , September, 2018	Students, Placement Department
Teachers were encouraged to attend & organise different faculty development programs	3 <sup>rd</sup> to 7 <sup>th</sup> July, 2018	Faculties
Budgetary provisions were discussed & upgraded for R&D activities in the college	21 <sup>st</sup> August, 2018	Member of Board of Management, IQAC Cell & Accounts Department of the Institute
Feedback was collected from students, employees, parents, alumni of various departments. These reports were analysed through IQAC quality management members & different improvements were suggested.	6 <sup>th</sup> September, 2018	IQAC Cell & Academic Audit Cell

***Note: Some Quality Assurance initiatives of the institution are:  
(Indicative list)***

- Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback from all stakeholders collected, analysed and used for improvements
- Academic Administrative Audit (AAA) conducted and its follow up action
- Participation in NIRF
- ISO Certification
- NBA etc.
- Any other Quality Audit

**8. Provide the list of funds by Central/ State Government-**

UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

<b>Institution/ Department/Faculty</b>	<b>Scheme</b>	<b>Funding agency</b>	<b>Year of award with duration</b>	<b>Amount</b>
IEDC Lab	Social Economic Development	DST	2014-19	27lakhs
ME Department	Student Project	ISHRAE	2017-till date	50,000
IEM Trust	R & D	IEM	2017- 2019	40 Lakhs
IEDC Lab	Social Economic Development	DST	2017- till date	40 Lakhs`

**9. Whether composition of IQAC as per latest NAAC guidelines: Yes**

No. of Teachers

14

No. of Administrative/Technical staff

2

No. of students

2

No. of Management representatives

2

No. of Alumni

2

No. of any other stakeholder and  
community representatives

1

No. of Employers/ Industrialists

3

No. of other External Experts

2

Total No. of members

28

**10. No. of IQAC meetings held during the year: 2 nos (From June 2018 to December 2018)**

The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website

Yes

<http://iem.edu.in/aqar-2018/>

**11. Whether IQAC received funding from any of the funding agency to support it activities during the year? No**

If yes, mention the amount: NA

Year: NA

**12. Significant contributions made by IQAC during the current year (maximum five bullets)**

- \* Academic audits and green initiatives are conducted.
- \*. Grievance cell receives complains and suggestions from the students and accordingly.
- \* Student's Grievance Cell Committee (GCC) is regularly addressing the issues.
- \* The IQAC has conducted conferences at the National and International Level.
- \* Conducted placement training, foreign language classes and different club activities.

**13. Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year**

Plan of Action	Achievements
To Encourage meritorious faculty, employees and students by presenting them with awards, prizes and recognition certificates by IEM	Institute has given academic awards, best teacher's award. The meritorious students were given gold medals, prizes and cash awards during the annual fest of the institute.
To collect feedback from students on 10 quality parameters related to curriculum, teaching learning and evaluation process	The feedback from students in each department after completion of odd & even semester examinations are collected and analysed. Consolidated reports were sent to the departmental heads for communicating & discussing the results with the teachers.
To collect feedback from parents, employee and alumni	Feedback were collected on sample basis and analysed. The consolidated report was placed before the management for effective implementation of the suggestions received from them.
To Collect self - evaluation report from faculty and department evaluation report.	Reports from all faculties were collected and analysed. The consolidated report is placed before the management and communicated back to the faculty.  The departmental evaluation report from each department were placed before the management and communicated back to the department.
To conduct quality awareness campaign	The IQAC has conducted quarterly meetings under the chairmanship of the Principal and detailed plans and programmes were formulated for quality awareness.

Digitization	<ul style="list-style-type: none"> <li>• E-file system is promoted to encourage the practice of paperless office.</li> <li>• Online grievance redressal system was suggested.</li> <li>• Online fees payment.</li> </ul>
Minimizing environmental degradation	<ul style="list-style-type: none"> <li>• Decreased use of paper and plastic.</li> <li>• Optimization of existing infrastructure.</li> <li>• Tree plantation.</li> </ul>
Development Programmes	<ul style="list-style-type: none"> <li>• Workshop conducted for students on recent development in Technological arena.</li> <li>• Orientation programmes for faculties on teaching and research methodology.</li> <li>• Counselling session for students.</li> <li>• Participation in workshop, conferences, seminars and poster presentation by faculty and students.</li> </ul>
Fulfilling social responsibilities	<ul style="list-style-type: none"> <li>• Remedial Class for weaker students in especially English language, Maths, Physics for 1<sup>st</sup> year students.</li> <li>• Books, clothes, food, medicine donation camps to slum dwelling children.</li> <li>• Evening classes for the under privileged.</li> </ul>
Participation from stakeholders	<ul style="list-style-type: none"> <li>• Alumni meetings are continuously arranged, annual alumni meet organised to discuss and enhance wholesome education and development.</li> <li>• Principal of the institute continuously interacts with the students to discuss various aspects.</li> </ul>
Enabling better participation from the differently abled	<ul style="list-style-type: none"> <li>• Ramps on campus are present.</li> <li>• Audio- Visual Board for differently abled are installed.</li> <li>• Easy access to lifts is ensured.</li> </ul>

**14. Whether the AQAR was placed before statutory body? Yes**

Name of the statutory body: IQAC

Date of meeting(s): 28/09/2018, 05/12/2018

**15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning?**

**No**

Date: NA

**16.** Whether institutional data submitted to AISHE: No

Year: NA

Date of Submission: NA

**17.** Does the Institution have Management Information System?

**Yes**

If yes, give a brief description and a list of modules currently operational.  
(Maximum 500 words)

Administrative procedure includes

- Student Admission.
- Student Attendance.
- Evaluation & Examination Procedure.
- Research Activities.
- Seminar, Conference, Training activities.
- Finance.
- Automatic generation of ID Cards.
- Office records are being digitalised for archiving.
- Records maintained manually (at record room) converted into digital format.
- Tools developed for conducting conference and workshops.
- Online registration portal for conducting national, International conference and workshop.



## Part-B

CRITERION I – CURRICULAR ASPECTS					
1.1 Curriculum Planning and Implementation					
1.1.1 Institution has the mechanism for well-planned curriculum delivery and documentation. Explain in 500 words					
The Board of studies (BOS) at PG & UG Levels were constituted with members from industry, expert faculty and student alumni. The Meeting of the BOS are conducted at regular intervals. The ideas obtained from the various bodies are thoroughly discussed by the experts and forwarded to MAKAUT. The feedback collected from the students and alumni for curriculum and suggestions are placed in BOS meetings. Analysis of all collected feedback done on the employability and value-based education.					
1.1.2 Certificate/ Diploma Courses introduced during the Academic year					
Name of the Certificate Course	Name of the Diploma Courses	Date of introduction and duration	focus on employability/ entrepreneurship	Skill development	
10 Certificate Course of 30 hours on Web development, Python, Raspberry Pi, Arduino, IoT, Data Analytics, Big Data, Cloud Computing for UG students	NA	August-September, 2018	Employability	Web development, Python, Raspberry Pi, Arduino, IoT, Data Analytics, Big Data, Cloud Computing, R Programming, BCI.	
1.2 Academic Flexibility					
1.2.1 New programmes/courses introduced during the Academic year					
Programme with Code	Date of Introduction	Course with Code	Date of Introduction		
NA	NA	Software Tools CS492 using Python	December		
1.2.2 Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the Academic year.					
Name of Programmes adopting CBCS	UG	PG	Date of implementation of CBCS / Elective Course System	UG	PG
MBA	--	Yes	August 2018	--	Yes
PGDM	--	Yes	August 2018	--	Yes
CSE (Operation Research & Information Theory & Coding)	Yes	--	October, 2018	Yes	--
1.2.3 Students enrolled in Certificate/ Diploma Courses introduced during the year					
No of Students	Certificate	Diploma Courses			
835	Web development, Python, Raspberry Pi.	NA			

	Arduino, IoT, Data Analytics, Big Data, Cloud Computing	
<b>1.3 Curriculum Enrichment</b>		
1.3.1 Value-added courses imparting transferable and life skills offered during the year		
<b>Value added courses</b>	<b>Date of introduction</b>	<b>Number of students enrolled</b>
Value-Added Programme (VAP)	July, 2016	All students of BBA 2 <sup>nd</sup> year
Aptitude Training	August 2018	160
Tally Using GST	February 2018	45
Digital Marketing	December 2018	90
Entrepreneurship	August 2018	66
HR Talks	June 2018	17
Workshop on Ethical Hacking	11 <sup>th</sup> August, 2018	180
Workshop on Software Engineering	22th February to 24th February 2018	30
Workshop On 'Machine Learning and Visual Analytics'	18th, 20th, 21st August 2018	30
1.3.2 Field Projects / Internships under taken during the year		
<b>Project/Programme Title</b>	<b>No. of students enrolled for Field Projects / Internships</b>	
Student Internship	70	
Campus to Corporate	50	
Vodafone Pathshala	20	
On-the-job training	10	
Industries for internship	15	
MEP overview in KMRCL Project	10	
Internship in Keysight Inc.	02	
NRI FINTECH	03	

<b>1.4 Feedback System</b>				
1.4.1 Whether structured feedback received from all the stakeholders.				
1) Students	2) Teachers	3) Employers	4) Alumni	5) Parents
Yes	Yes	Yes	Yes	Yes
<p>1.4.2 How the feedback obtained is being analysed and utilized for overall development of the institution?</p> <p>The institution conducts student feedback process every semester to improve teaching, infrastructure, and the entire learning experience for the students during their tenure. The college has instituted an online student's feedback system to obtain feedback on teaching, coursework and various academic activities. The student's feedback is considered as a valuable source of information to measure their level of satisfaction. One of the Missions of the organization is to continuously upgrade knowledge base of our manpower, improve infrastructure and use of latest technology/pedagogical tools, and update curriculum through periodic feedback from stake holders to enable students to meet professional requirements and their expectations. The feedback collected from the students and alumni for curriculum and suggestions are placed in BOS meetings. Analysis of all collected feedback done on the employability and value based education.</p> <p>Annexure II – Feedback analysis</p>				

CRITERION II -TEACHING-LEARNING AND EVALUATION					
2.1 Student Enrolment and Profile					
2.1.1 Demand Ratio during the year					
Name of the Programme	Number of seats available	Number of applications received	Students Enrolled		
B.Tech	828	38,891	828		
M.B.A	180	250	180		
PGDM	120	210	120		
BBA	120	240	120		
BCA	120	243	120		
M.SC (CS)	20	21	14		
M.Tech	54	54	54		
2.2 Catering to Student Diversity					
2.2.1. Student - Full time teacher ratio (current year data)					
Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of full time teachers available in the institution teaching only UG courses	Number of full time teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2017-2018	4032	736	280	12	13
2.3 Teaching - Learning Process					
2.3.1 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)					
Number of teachers on roll	Number of teachers using ICT (LMS, e-Resources)	ICT tools and resources available	Number of ICT enabled classrooms	Number of smart classrooms	E-resources and techniques used
175	175	Projectors, Lecture DVD, E library, White Board, Sound System	96	03	Laptops, Web 2.0 , Office applications, E-books we subscribe to, Student record system, PowerPoint, Institutional level interactive resources like IEMCRP, Gymkhana TV, NPTEL And Faculty Website

2.3.2 Students mentoring system available in the institution? Give details. (maximum 500 words)

Tri-Mentoring Programme.

i) Objective of the practice:

- Identify and clarify students' personal and professional goals.
- Encourage students to face challenges with greater ease and confidence.
- To improve teacher-student relationship.
- To help them to get back on track when distracted.
- To counsel students and interact with them in one to one manner.
- To guide students to choose right career path.
- To develop strategies and action plans that yield results and improve the quality of life of students in many respects.
- Alumni – student interaction encouraged and established.
- Industry – student interaction encouraged and established.
- To make students motivated and committed until successful completion of the course.

ii) The Context:

Mentoring is a professional relationship in which an experienced person (faculty) assists another (student) to develop specific skills and knowledge that enhances the less-experienced person's professional and personal growth. The mentor provides an empathic ear to students' concerns and offers support in setting their goals helps in practicing time and stress management techniques, and in acquiring more efficient study routines.

Since the majority of the students is not matured enough to take their own decision in the vast changing scenario of technology and fast life, the mentorship programme of the institute guides and counsel the students in academic, non-academic matters including personal domain to achieve their best in life. In particular, the scheme aims at addressing deficiencies in attitudes, habits, and knowledge of the students regarding study and learning.

iii) The Practice:

In this process of Tri-mentoring three mentors are assigned for each and every student. Where one mentor is a faculty of the institute, then another mentor is an alumni of the institute and last one is a corporate personnel. The task of the faculty mentor is to guide and help the students in their academic related problems and to streamline them in career oriented plans for their development. The task of the alumni member is to help the students as a college senior in all aspects of their life i.e. both academic as well as non-academic issues. The task of the corporate mentor is to guide the students for the knowhow of their placement activities and they also guide students on the current trends of the industry.

For proper record maintenance about the students, the mentors monitor and analyse on regular basis. Each mentor maintains the student's database and reports the same to his/her HODs. Mentors meet with each group regularly to discuss academic and non-academic issues. The issues include:

- Students' study habits.
- Study planning and techniques.

- Students' attendance.
- Real life problems.
- Examination preparation.
- Weaker student identification.
- Remedial classes requirement.

iv) Evidence of Success:

- Improved teacher-student relationship.
- Improvement of academic performance.
- Improvement in Student's discipline and involvement in various college activities.

v) Problem encountered and resources required:

There are some identified problems encountered and resources provided to implement the practice. These are:

- The newly joined faculty members from other colleges who are not accustomed with the culture are separately instructed to get involved in the mentorship program.

Apart from regular theory and practical classes, allocating sufficient time for one to one student interaction through mentorship program sometimes becomes a constraint for the faculty members. However, the institute encourages and appreciates such activities through the annual appraisal of the faculty members

Number of students enrolled in the institution	Number of fulltime teachers	Mentor: Mentee Ratio
4768	297	1:16

## 2.4 Teacher Profile and Quality

### 2.4.1 Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
40	40	0	Asst. Professor, Associate Professor, Professor	08

**2.4.2 Honours and recognitions received by teachers**

(received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year )

<b>Year of award</b>	<b>Name of full time teachers receiving awards from state level, national level, international level</b>	<b>Designation</b>	<b>Name of the award, fellowship, received from Government or recognized bodies</b>
2018	Indraneel Mukhopadhyay	Professor	Certificate of Appreciation Towards Outstanding Contribution To The Institute
2018	Dr. Pabitra Kumar Ray	Emeritus Professor	Distinguished Teacher from IEST, Shibpur
2018	Dr. Sankhyabrata Bandyopadhyay	Associate Professor	CSIR RA Award
2018	Ratna Chakrabarty	Assistant Professor	Appreciation Certificate for instrumental role and best performance as SPOC for NPTEL Local Chapter (Rated AAA)
2018	Rahul Baidya	Assistant Professor	Icons -Springer Excellent Paper Award – 2018 at 8 <sup>th</sup> International Conference on Sustainable Waste Management
2018	Gunjan Kumar	Assistant Professor	Best Session paper award in International conference “English Learning and Teaching Skills- ICELTS 2018”
2018	Arup Kumar Chattopadhyay	Assistant Professor	Promoted as Senior Member ACM
2018	Arup Kumar Chattopadhyay	Assistant Professor	Qualified for NET, July 2018

2018	Arup Kumar Chattopadhyay	Assistant Professor	Online TAship offered by NPTEL & IIT Kharagpur
2018	Swagatam Basu	Assistant Professor	Qualified for NET, July 2018
2018	Sourav Mukherjee	Development Officer	Academic ERP Software (IEMCRP) recognized by AICTE

## 2.5 Evaluation Process and Reforms

2.5.1 Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year-end examination
B.Tech	NA	Semester	19th December, 2018	February, 2019 (Tentative)
M.Tech	NA	Semester	13 <sup>th</sup> December, 2018	February, 2019 (Tentative)
MBA	NA	Semester	22 <sup>nd</sup> December, 2018	February, 2019 (Tentative)
PGDM	NA	Semester	20 <sup>th</sup> December, 2018	February, 2019 (Tentative)
BCA	NA	Semester	20 <sup>th</sup> December, 2018	February, 2019 (Tentative)
BBA	NA	Semester	20 <sup>th</sup> December, 2018	February, 2019 (Tentative)
M.Sc	NA	Semester	20 <sup>th</sup> December, 2018	February, 2019 (Tentative)



### 2.5.2 Reforms initiated on Continuous Internal Evaluation (CIE) system at the institutional level (250 words)

- Assessment strategies – Measuring the academic progress of the students through internal assessment, result analysis, attendance, project method and through academic units and functionaries.
- Student's feedback – The institution conducts student feedback process every semester to improve teaching, infrastructure, and the entire learning experience for the students during their tenure. The college has instituted an online student's feedback system to obtain feedback on teaching, coursework and various academic activities. The student's feedback is considered as a valuable source of information to measure their level of satisfaction.
- Parent teacher meeting /monitoring – Parents are invited at least once in a semester to discuss the progress of their wards. This is in addition to the regular monitoring of the student's progress by their mentors.
- Academic audit – Regular academic audit both internal/external are conducted. The audit reports are reviewed and approved by the management.
- The faculty (mentor) regularly interacts with the assigned students to access and monitor the progress of each student and the same is communicated to the parents.
- Alumni association strengthens and increased by different programmes.

### 2.5.3 Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)

The University-Registration process for ensuing newly admitted students process started on June 11, 2018. Admission activities (for ensuing new students) completed by July 31, 2018. Commencement of Academic Programme occurred at August 1, 2018 July 13, 2018. Registration activities (for ensuing newly admitted students for the session 2018-19) completed by September 10, 2018. First Test Slot September was scheduled from 14<sup>th</sup> to 20<sup>th</sup> September, 2018. Second Test Slot was scheduled from 14<sup>th</sup> to 20, 2018. Practical Examinations & Viva-Voce November was scheduled to be from 22<sup>nd</sup> to 30<sup>th</sup> November. Theory Examinations took place from December 4 to 21, 2018. Inter Semester Break is scheduled from December 24, 2018 to January 12, 2019. Publication of Result will be announced in the University website in February 2019. Separate Supplementary Examination for final year student will be held on September.

*Annexure I – Academic Calendar*

## 2.6 Student Performance and Learning Outcomes

2.6.1 Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the web-link)

<https://iemcse.wordpress.com/>  
<https://iemitgurukul.wixsite.com/itdept/>  
<https://sites.google.com/a/iemcal.com/iem-department-of-electronics-communication-engineering/>  
<https://iemeee.wordpress.com/>  
<http://iem.edu.in/iem-college-of-engineering/department-mechanical-engineering/program-educational-objectives/>  
<http://iem.edu.in/iem-college-of-engineering/department-electrical-engineering-ee/program-educational-objectives-peos/>  
<http://iem.edu.in/iem-college-of-engineering/department-basic-science-humanities/>  
<http://iem.edu.in/iem-college-of-management/department-business-administration/program-outcomes/>  
<http://iem.edu.in/iem-college-of-management/pgdm-department/program-outcomes/>  
<http://iem.edu.in/iem-school-of-it/department-business-administration/program-outcomes/>  
<http://iem.edu.in/iem-school-of-it/department-computer-applications/bca-course-objective-outcome/>  
<http://iem.edu.in/iem-school-of-it/department-basic-sciences/lesson-plan/>

2.6.2 Pass percentage of students

Programme Code	Programme name	Number of students appeared in the final year examination	Number of students passed in final semester/year examination	Pass Percentage
UG	B.Tech.	624	623	99.7
PG	M.Tech.	37	37	99.8
UG	BBA	98	98	99.7
PG	MBA	153	152	99.7
UG	BCA	109	109	99.9
PG	PGDM	31	31	99.8

<b>2.7 Student Satisfaction Survey</b>
2.7.1 Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as web-link)
<a href="http://iem.edu.in/aqar-2018/">http://iem.edu.in/aqar-2018/</a>

**CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION****3.1 Resource Mobilization for Research**

3.1.1 Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding Agency	Total grant sanctioned	Amount received during the Academic year
Major projects	2014-19	DST	47lakhs	9 lakhs
Minor Projects	2017-till date	ISHRAE	50,000	50,000
Interdisciplinary Projects	---	---	---	---
Industry sponsored Projects	---	---	---	---
Projects sponsored by the University/ College	2017-19	IEM	40 Lakhs	40 Lakhs
Students Research Projects (other than compulsory by the College)	2017- till date	DST&IEM	40 Lakhs`	12 Lakhs
International Projects	---	---	---	---
Any other(Specify)	----	---	---	---
Total		DST, ISHRAE, IEM	1,27,50,000	61,50,000

**3.2 Innovation Ecosystem**

3.2.1 Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of Workshop/Seminar	Name of the Dept.	Date(s)
“Overview of IBM Systems Technology Group”	ECE	18 <sup>th</sup> July, 2018
“Modern Networking Trends”	ECE	22 <sup>nd</sup> August, 2018
Seminar on Renewable Energy – ENGINEIOUS 2018 by Dr S M Ali, Director, IEI	ME	27 <sup>th</sup> & 28 <sup>th</sup> September, 2018
HVAC designing for Sport Complex	ME	11 <sup>th</sup> November, 2018
Cold Chain Technology	ME	1 <sup>st</sup> August, 2018

Workshop on 3D Design and Printing	ME	20 <sup>th</sup> – 24 <sup>th</sup> September, 2018
SAEINDIA EFFI-CYCLE Workshop	ME	22 <sup>nd</sup> July, 2018
Future Role of Management Students into Corporate	BBA	28 July, 2018
IoT Applications using Arduino	CSE	1 <sup>st</sup> September, 2018
Image Processing Workshop	CSE	6 <sup>th</sup> September, 2018

### 3.2.2 Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of the Awardee	Awarding Agency	Date of Award	Category
Fructoriipe	Harsh Shah and Shailendra Panda	ISHRAE	24/11/18	Global Poster Competition
Green Geo – Rative Cold Storage	Ramesh Kumar Karthick and Samarpan Deb Majumder	ISHRAE	22/11/18	Global Poster Competition
Packaging Improvement in Cold Chain	Tunish Moitra and Nayan Nag	ISHRAE	22/11/18	Global Poster Competition
RA Award	Dr. Sankhyabrata Bandyopadhyay	CSIR	25.08.2018	Research

### 3.2.3 No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Centre	Name	Sponsored by
1	Innovation & Entrepreneurship Development Centre	DST, Govt. of India

Name of the Start-up	Nature of Start-up	Date of commencement
Renderbit Technologies	End-to-end web presence provider, Search Engine Optimization	5 <sup>th</sup> June, 2018
Sampark Technologies	Networking based start-up	17 <sup>th</sup> August, 2018
Clippy Solutions	Android Application	3 <sup>rd</sup> September, 2018

<b>3.3 Research Publications and Awards</b>			
3.3.1 Incentive to the teachers who receive recognition/awards			
<b>State</b>	<b>National</b>	<b>International</b>	
NA	NA	Prof. Malay Gangopadhyay -25,000/- (for SCI Journal)	
NA	NA	Prof. Srijita Chakroborty – 15000/- (for ESCI Journal)	
NA	NA	Prof. Himadri Nath Saha 25,000/- (for SCI Journal)	
NA	NA	Prof. Amit Kumar Das 25000/- (for SCI Journal)	
NA	NA	Prof. Nilanjana Dutta Roy 15000/- (for ESCI Journal)	
NA	NA	Prof. Sourav Saha 15000/- (for ESCI Journal)	
NA	NA	Prof. Sukanya Mukherjee 15000/- (for ESCI Journal)	
NA	NA	Prof. K.K Ghosh 15000/- (for ESCI Journal)	
3.3.2 Ph. Ds awarded during the year ( <i>applicable for PG College, Research Center</i> )			
Name of the Department		No. of Ph. Ds Awarded	
NA		NA	
3.3.3 Research Publications in the Journals notified on UGC website during the year			
	<b>Department</b>	<b>No. of Publication</b>	<b>Average Impact Factor, if any</b>
<b>National</b>	BCA and M.Sc(CS)	05	6.552
	BBA	03	Nil
	MBA	14	Nil
<b>International</b>	BBA	02	Nil
	MBA	09	Nil
	ECE	16	2
	ME	02	Nil
	IT	07	1.77
	CSE	04	2
3.3.4 Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year			
<b>Department</b>		<b>No. of publication</b>	
BCA,M.Sc(CS)		02	
BBA		08	
MBA		04	
ECE		32	
ME		08	

IT	10
CSE	01

3.3.5 Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or Pub Med/ Indian Citation Index						
Title of the paper	Name of the author	Title of the journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citation excluding self citation
Attribute selection for improving spam classification in online social networks: a rough set theory-based approach	Soumi Dutta, Sujata Ghatak, Ratnadeep Dey, Asit Kumar Das, Saptarshi Ghosh	Social Network Analysis and Mining	2018	02	IEM, Kolkata & IEST Shibpur	02
Optimizing the role of organizational commitment: A qualitative study in the school education sector	Rooprekha Baksi Maiti, Shamindra Nath Sanyal	International Journal of Organisational Analysis	2018	142	IEM, Kolkata & UEM Kolkata	Nil
Buying behavior of herbal cosmetics by women consumers. An exploratory study in Kolkata	Dibyendu Chattaraj, Rabin Mazumder, Sahana Lahiri	Indian Journal of Marketing	2018	08	IEM, Kolkata & St. Mary's Campus, Kolkata.	Nil
Theory and Experiment on Horizontally Inhomogeneous Rectangular Microstrip Antenna	Dr. Malay Gangapadhyaya	IET Microwave s, Antennas & Propagation	2017-2018	1.739	IEM, Kolkata	0

The Complete Modal Chart of Cylindrical Dielectric Waveguide	Dr. Malay Gangapadhyaya	Electronics Letters	2017-2018	1.231	IEM, Kolkata	0
45°–45°–90° Triangular dielectric resonator antenna with broadside radiation patterns	Dr. Malay Gangapadhyaya	Elsevier	2017-2018	2.115	IEM, Kolkata	0
Evaluation of Argon ion irradiation hardening of ferritic/martensitic steel-T91 using nanoindentation, X-ray diffraction and TEM techniques	Dr. G. S. Taki	Taylor & Francis	2017-2018	4.439	IEM, Kolkata	0
45 keV N <sup>5+</sup> ions induced spikes on CdS thin films: Morphological, structural and optical properties	Dr. G. S. Taki	Applied Surface Science, Elsevier	2017-2018	4.439	IEM, Kolkata	0
“High Performance DGS Integrated Compact Antenna for 2.4/5.2/5.8 GHz WLAN Band”	Srijita Chakraborty	Radio Engineering	2017-2018	1.048	IEM, Kolkata	0
State Estimation and Non-Linear Model Based Control of a Continuous Stirred Tank Reactor Using Unscented Kalman Filter	Dr. Atanu Panda	Wiley Online Library	2017-2018	1.356	Madras Institute of Technology	01
Adaptive Non-linear Model Based Control	Dr. Atanu	Nonlinear Dynamics,	2017-2018	4.339	Madras Institute	01



Scheme Implemented on the Non-linear Processes	Panda	Springer			of Technol ogy	
Dual Estimation and Combination of State and Output Feedback Based Robust Adaptive NMBC Control Scheme on Non-linear Process	Dr. Atanu Panda	Springer	2017-2018	0.58	IEM, Kolkata	0
‘Operational control of an integrated drum boiler of a coal fired thermal power plant’	Dr. Atanu Panda	Elsevier	2017-2018	4.968	IEM, Kolkata	0
Efficient splitting of broadband LED light into narrowbands using superlensing effect and defects on its top 2D photonic crystal	Rajib Ghosh	Springer	2017-2018	1.168	IEM, Kolkata	01
High resolution wide range pressure sensor using hexagonal ring and micromachined cantilever tips on 2D silicon photonic crystal	Rajib Ghosh	Optics Communic ations, Elsevier	2017-2018	1.887	IEM, Kolkata	0
Blast Furnace Flue Dust Co-processing in Cement Kiln – A Pilot Study	Rahul Baidya	Waste Manageme nt & Research	2018	72	Jadavpur Universi ty	65
Low Carbon Cement Manufacturing in India by Co-processing of Alternative Fuel and Raw Materials	Rahul Baidya	Energy Sources Part A: Recovery, Utilization, and Environmental Effects	2018	72	Jadavpur Universi ty	65
Investigation of Nanoparticle as a Drug Carrier Suspended in a MHD Blood Nanofluid Flowing Through an Irregular shaped Stenosed Artery	Satyasaran Changdar	Iran J. Sci. Technol. Trans. A Sci.	2018		IEM, Kolkata	01

Analytical Investigation of non-Spherical Nanoparticle as a Drug Agent Suspended in a MHD Blood Nanoid Flowing Through an Irregular Shape Stenosed Artery,	Satyasaran Changdar	Journal of Nanofluids	2018		IEM, Kolkata	--
Two Algorithms for Computing All Spanning Trees of a Simple, Undirected, and Connected Graph: Once Assuming a Complete Graph	Maumita Chakraborty	IEEE Access	2018		IEM, Kolkata	--
Implementing Fuzzy TOPSIS in Cloud Type and Service Provider Selection	Sanchita Ghosh	Advances in Fuzzy Systems	2018		IEM, Kolkata	--
A Computer Vision based IoT enabled Automated Malaria Detection, Monitoring and Mitigation Framework	Nilanjana Dutta Roy	Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization	2018		IEM, Kolkata	--
A quasi-visibility graph based clique-extraction heuristic model for partitioning of planar shape	Sourav Saha, Ankita Mondal, Sayantan Rana, Priya Ranjan Sinha Mahapatra	IJAMS	2018	02	IEM, Kolkata	--
A Graph Theoretic Model for Semantic Annotation of Articulated Shape-Parts using Zernike Moment based Features	Sourav Saha, Laboni Nayak, Saptarsi Goswami and Priya Ranjan Sinha	International Journal of Pure and Applied Mathematics	2018		IEM, Kolkata	--

	Mahapatra					
A quasi-visibility graph-based clique-extraction heuristic model for partitioning of planar shape.	Sourav Saha, Ankita Mandal, Sayantan Rana, Priya Ranjan Sinha Mahapatra	Int. J. Applied Management Science	2018		IEM, Kolkata	--

3.3.6 h-index of the Institutional Publications during the year. (based on Scopus/ Web of science)						
Title of the paper	Name of the author	Title of the journal	Year of publication	h-index	Number of citations excluding self citations	Institutional affiliation as mentioned in the publication
A Feature Selection Technique Based On Rough Set And Improved PSO Algorithm (PSORS-FS) For Permission Based Detection Of Android Malwares	Bhattacharya, A., Goswami, R.T. & Mukherjee, K	Int. J. Mach. Learn. & Cyber.	2018	26	0	IEM, Kolkata
An Ensemble voted Feature Selection technique for Predictive Modeling of Malwares of Android	Bhattacharya, A., Goswami, R.T. & Mukherjee, K	International Journal of Information System Modeling and Design (IJISMD)	2018	12	0	IEM, Kolkata
A complete	Rupam Bhattacharya,	International Journal of Information	2018	12	0	IEM,

routing simulator for Digital Microfluidic Biochip	Pranab Roy, Hafizur Rahaman	System Modeling and Design				Kolkata & IEST, Shibpur
Attribute selection for improving spam classification in online social networks: a rough set theory-based approach	Soumi Dutta, Sujata Ghatak, Ratnadeep Dey, Asit Kumar Das, Saptarshi Ghosh	Social Network Analysis and Mining	2018	22	02	IEM, Kolkata & IEST, Shibpur
Attribute selection for improving spam classification in online social networks: a rough set theory-based approach	Soumi Dutta, Sujata Ghatak, Ratnadeep Dey, Asit Kumar Das, Saptarshi Ghosh	Social Network Analysis and Mining	2018	22	02	IEM, Kolkata & IEST, Shibpur

Optimizing the role of organizational commitment: A qualitative study in the school education sector	Rooprekha Baksi Maiti, Shamindra Nath Sanyal	<i>International Journal of Organisational Analysis</i>	2018	142	Nil	IEM, Kolkata & UEM Kolkata
Psychological contract and its role in the infrastructure sector: A review study	Ipsita Satpathy, B.C.M. Patnaik, Saikat Chakrabarti	<i>International Journal of Civil Engineering &amp; Technology</i>	2018	02	Nil	Kalinga Institute of Industrial Technology; IEM, Kolkata
Buying behavior of herbal cosmetics by women consumers. An exploratory study in Kolkata	Dibyendu Chattaraj, Rabin Mazumder, Sahana Lahiri	<i>Indian Journal of Marketing</i>	2018	08	Nil	IEM, Kolkata  St. Mary's Campus, Kolkata.
45 keV N5+ ions induced spikes on CdS thin films: Morphological, structural and optical properties	Dr. G. S. Taki et al	Radiation Effects and Defects in Solids	2018	06	0	IEM, Kolkata
State Estimation and Non-	Atanu Panda et al	Applied Surface Science	2018	01	0	IEM, Kolkata

Linear Model Based Control of a Continuous Stirred Tank Reactor Using Unscented Kalman Filter						
Adaptive Non-linear Model Based Control Scheme Implemented on the Non-linear Processes	Atanu Panda et al	The Canadian Journal of Chemical Engineering	2018	01	0	IEM, Kolkata
Comparative Studies on Performance of Commercially Available High-Power PC-LED Bulbs Under Tropical Conditions	Arindam Chakraborty et al	Nonlinear Dynamics	2018	03	0	IEM, Kolkata
Solar Powered Automatic Irrigation System on Sensing Moisture Content Using	Gautam Ghosh et al	Energy and Environment. Water Science and Technology Library	2018	0	0	IEM, Kolkata

Arduino and GSM						
DENSITY BASED TRAFFIC LIGHT SYSTEM	Gautam Ghosh et al	International Journal of Advanced Research in Electronics and Communication Engineering (IJARECE)	2018	0	0	IEM, Kolkata 0
The Complete Modal Chart of Cylindrical Dielectric Waveguide	Dr. Malay Gangapadhyaya et al	Electronics Letters	2018	04	0	IEM, Kolkata
45°–45°–90° Triangular dielectric resonator antenna with broadside radiation patterns	Dr. Malay Gangapadhyaya et al	AEU - International Journal of Electronics and Communications	2018	04	0	IEM, Kolkata Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization
Dual Estimation and Combination of State and Output Feedback Based Robust Adaptive NMBC Control Scheme on Non-linear Process	Dr. Atanu Panda et al	International Journal of Dynamics and Control (IJDY)	2018	01	0	IEM, Kolkata

Efficient splitting of broadband LED light into narrowbands using superlensing effect and defects on its top 2D photonic crystal	Rajib Ghosh et al	Optical and Quantum Electronics, Springer, 2017. doi:10.1007/s11082-017-1049-9	2018	02	0	IEM, Kolkata
High resolution wide range pressure sensor using hexagonal ring and micromachined cantilever tips on 2D silicon photonic crystal	Rajib Ghosh et al	International Journal of Dynamics and Control (IJDY)	2018	02	0	IEM, Kolkata
Theory and Experiment on Horizontally Inhomogeneous Rectangular Microstrip Antenna '	Dr. Malay Gangapadhyaya et al	IET Microwaves, Antennas & Propagation	2018	04	0	IEM, Kolkata
Design study of a portable permanent magnet	Dr. G. S. Taki	2018 1st International Conference on Electronics, Materials	2018	06	0	IEM, Kolkata



ECR plasma source for thin film deposition		Engineering and Nano-Technology (IEMENTech), IEEE Conference				
Design of 1-bit Full Adder Using NMOS based Negative Differential Resistance	Mili Sarkar	DEV IC	2018	03	0	IEM, Kolkata
Miniaturization of Rectangular Microstrip Antenna at	Srijita Chakraborty	2018 2nd International Conference on Electronics, Materials Engineering & Nano-Technology (IEMENTech	2018	01	0	IEM, Kolkata
Control of Higher Order modes and their Radiation	Srijita Chakraborty	2018 2nd International Conference on Electronics, Materials Engineering & Nano-Technology (IEMENTech)	2018	01	0	IEM, Kolkata
A Novel Design of Flip-Flop Circuits using Quantum Dot Cellular Automata (QCA)	Ratna Chakrabarty	IEEE CCWC	2018	06	0	IEM, Kolkata
IoT Based Patient	T.K.Rana	IEMENTECH	2018	0	0	IEM,

Guidance System using Raspberry pi		2018				Kolkata
Design of 2's Complement of 4-Bit Binary Numbers Using Quantum Dot Cellular Automata	Ratna Chakrabarty	IEMENTECH 2018	2018	06	0	IEM, Kolkata
Design of Binary to Gray Code Converter for Error Correction in Communication Systems Using Layered Quantum Dot Cellular Automata	Ratna Chakrabarty	IEMENTECH 2018	2018	06	0	IEM, Kolkata
Wearable DGS Integrated High Performance Compact Antenna for 2.4 /5.2/5.8 GHz WLAN Band on Leather	Srijita Chakraborty	IEMENTECH 2018	2018	01	0	IEM, Kolkata

Substrate						
Miniaturization of Rectangular Microstrip Antenna at WiMAX Band with Slot in Patch and Ground Surface	Srijita Chakraborty	IEMENTECH 2018	2018	01	0	IEM, Kolkata
Control of Higher Order Modes and Their Radiation in Microstrip Antenna Using Extremely Compact Defected Ground Structure & Symmetric Stub	Srijita Chakraborty	IEMENTECH 2018	2018	01	0	IEM, Kolkata
A simple Star shaped Microstrip Patch Antenna for penta band application	Murari Shaw	IEMENTECH 2018	2018		0	IEM, Kolkata
Circular Microstrip Patch Antenna	Murari Shaw	IEMENTECH 2018	2018		0	IEM, Kolkata

with U-slots for multi band application						
Frequency Tuning & Bandwidth Enhancement in Compact Microstrip Antenna using Saw Tooth Shaped DGS	Srijita Chakraborty	IEMCON 2018	2018	01	0	IEM, Kolkata
Comparator Design using CTL and Outputwired based Majority Gate	Mili Sarkar	IEMENTECH 2018	2018	03	0	IEM, Kolkata
A Survey Paper on Architecture of Internet Of Things	Sutapa Ray Adhikary	IEMCON 2018	2018		0	IEM, Kolkata

Blast Furnace Flue Dust Co-processing in Cement Kiln – A Pilot Study	Rahul Baidya	Waste Management & Research	2018	06	65	Jadavpur University
Low Carbon Cement Manufacturing in India by Co-processing of Alternative Fuel and Raw Materials	Rahul Baidya	Energy Sources Part A: Recovery, Utilization, and Environmental Effects	2018	06	65	Jadavpur University
Implementing Fuzzy TOPSIS in Cloud Type and Service Provider Selection	Sanchita Ghosh	Advances in Fuzzy Systems	2018	13	0	IEM, Kolkata

#### 4 Extension Activities

3.4.1 Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the Activities	Organising unit/ agency/ collaborating agency	Number of teachers co-ordinated such activities	Number of students participated in such activities
Distribution of Blanket for visually impaired children	Louis Braille Memorial School for the Sightless, Makhla, Uttarpara	11	54
IEM-Marathon	IEM	135	525
Teaching Street Children	IEM	45	85
MoU with	IEM, CRY	40	135

CRY			
MoU with SMILE	IEM, SMILE	20	65
3.4.2 Awards and recognition received for extension activities from Government and other recognized bodies during the year			
Name of the Activity	Award/recognition	Awarding bodies	No. of Students benefited
NA	NA	NA	NA

3.4.3 Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year				
<b>Name of the scheme</b>	<b>Organising unit/ agency/ collaborating agency</b>	<b>Name of the activity</b>	<b>Number of teachers coordinated such activities</b>	<b>Number of students participated in such activities</b>
Charity	Louis Braille Memorial School for the Sightless, Makhla, Uttarpara	Distribution of Blanket for visually impaired children	11	54
Community Service	IEM	IEM-Marathon	135	525
Education Dispersion	IEM	Teaching Street Children	45	85
Children's Right	IEM, CRY	MoU with CRY	40	135
Children's Right	IEM, SMILE	MoU with SMILE	20	65
<b>3.5 Collaborations</b>				
3.5.1 Number of Collaborative activities for research, faculty exchange, student exchange during the year				
<b>Nature of Activity</b>	<b>Participant</b>	<b>Source of financial support</b>	<b>Duration</b>	
STUDENT EXCHANGE PROGRAM	PGDM STUDENTS	IEM	June-September, 2018	

Research	Dr. Malay Gangopadhyaya with Jadavpur University	Institute	1 Year
Research	Dr. Atanu Panda with Anna University	Institute	1 Year
Research	Dr. Rintu Kumar Gayen with IIT (ISM), Dhanbad	Institute	1 Year
Research	Dr. Rintu Kumar Gayen with IIT, Kharagpur	Institute	1 Year
Research	Dr. Sankhyabrata Bandyopadhyay with CSIR-CGCRI, Kolkata	Institute	1 Year
Research	Dr. Sankhyabrata Bandyopadhyay with Indian Association for the Cultivation Of Science, Kolkata	Institute	1 Year
Research	Indranil Basu with Bose Institute, Kolkata	Institute	1 Year
Research	Dr. K.K.Ghosh with IISc, Bangalore	Institute	1 Year
Research	Dr. G.S.Taki with IISc, Bangalore	Institute	1 Year
Research	Dr. G.S.Taki with UGC-DAE CSR, Kolkata Center	Institute	1 Year
Research	Dr.G.S.Taki with CRNN, Kolkata	Institute	1 Year

Research Proposal Discussion with Professor of University of Hertfordshire	Rahul Baidya and Tapobrata Bhattacharya	NA	NA
Research	Prof. Amit Kumar Das with CADENA on IOT	NA	NA
Research	Prof. Amit Kumar Das with CU on Machine Learning	NA	NA
Research	Prof. Amit Kumar Das with CTS on Machine Learning & Big Data	NA	NA

**3.5.2 Linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the year**

<b>Nature of linkage</b>	<b>Title of the linkage</b>	<b>Name of the partnering Institution/ industry /research lab with contact details</b>	<b>Duration (From-To)</b>	<b>participant</b>
Internship	Student Internship	Kantar IMRB, WOW! MOMO, NEXA, Domino's Pizza, TVS Motors, GROSUM, KOTAK SECURITIES, Times of Bengal, Furure Generali, Bajaj Finserve	04 July, 2018 to 14 August, 2018	Souvik Adhikary Rupsa Saha Solanki Ghosh Ankur Basak Soumita Chakraborty Pragya Banga
On Job Training	Campus to Corporate	PWC SDS	July-Sept, 2018	All MBA & PGDM Finance Students
INDUTRIES FOR INTERNSHIP	Vodafone Pathshala	Vodafone	June-July, 2018	All MBA & PGDM Marketing Students
On-the-job training	On-the-job training	Wipro	2018-2019	Students
On-the-job training	On-the-job training	TCS	2018-2019	Students



On-the-job training	On-the-job training	CTS	2018-2019	Students
Industries for internship	Industries for internship	VECC, Kolkata	2018-2019	Students
Industries for internship	Industries for internship	Bose Institute, Kolkata	2018-2019	Students
Industries for internship	Industries for internship	BSNL, Kolkata	2018-2019	Students
Industries for internship	Industries for internship	Airport Authority of India, Kolkata	2018-2019	Students
Project Work	MEP overview in KMRCL Project	Voltas Limited	11 <sup>th</sup> June-10 <sup>th</sup> July	Mr. Gaurav Kumar Jha (4 <sup>th</sup> Year Student)
IEI – IEM Students, Chapter	Internship and Final Year Project Fund	The Institution of Engineers (India)	August - November , 2018	8 students
Internship	Internship	BackOffice Associates (BOA), Singapore	4 <sup>th</sup> October 2018 to 12 <sup>th</sup> November 2018	1. Simanta Sarkar (BCA 5 <sup>th</sup> semester) 2. Rhea Bonnerji (BCA 5 <sup>th</sup> semester)
Industry Internship	Industry Internship	Keysight Inc.	August - November , 2018	Gautam Bose, Sayan Bacchar, Pushkar Deb, Sagnik Mukherjee
Industry Internship	Industry Internship	NRI FINTECH	August - November , 2018	Gulshan Kumar, Samyak Jain, Siddhartha Yashwee

3.5.3 MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

<b>Organisation</b>	<b>Date of MoU signed</b>	<b>Purpose and Activities</b>	<b>Number of students/teachers participated under MoUs</b>
University of Nevada, Las Vegas	20.07.2018	Student & Faculty Exchange	02

CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES		
4.1 Physical Facilities		
4.1.1 Budget allocation, excluding salary for infrastructure augmentation during the year		
Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development	
20,00,000,00	106797678.60	
4.1.2 Details of augmentation in infrastructure facilities during the year		
Facilities	Existing	Newly added
Campus area	12140.53 in sq.mts	NIL
Class rooms	4620 in sq.mts	660 in sq.mts
Laboratories	3238 in sq.mts	493 in sq mts.
Seminar Halls	901 in sq.mts	179 in sq mts.
Classrooms with LCD facilities	--	--
Classrooms with Wi-Fi/ LAN	10	10
Seminar halls with ICT facilities	901 in sq.mts	179 in sq mts.
Video Centre	0	2 nos
No. of important equipments purchased (≥ 1-0 lakh) during the current year.	0	36
Value of the equipment purchased during the year (Rs. in Lakhs)	0	Rs 1,96,49,786/- only
Others		

4.2 Library as a Learning Resource						
4.2.1 Library is automated { Integrated Library Management System -ILMS }						
Name of the ILMS software	Nature of automation	Version	Year of automation			
	1.LSEase 2.KOHA (partially)	LSEase(Rel.5.0) KOHA(3.22.09.000)	2005(LSEase) 2016(KOHA)			
4.2.1 Library Services:						
	Existing	Newly added	Total			
	No.	Value	No.	Value in Rs	No	Value
Text Books	34716(Central library) 26600(Departmental libraries)	239(C.Library) 1500(D.Library)	34955(C.library) 28100(D.Library )	63,055		
Reference Books	3500(C.Library) 2235 (D.Library)	135(C.Library) 130(D.Library)	3635(C.library) 2365 (D.library)	6000		
e-Books	300	100	400			
Journals	35(Printed)	05	40			
e-Journals	IEEE IEL EBSCO J-Gate 18,000(journals)	350	18350			
Digital Database	1.Delnet 2.J-Gate	-	02			
CD & Video	400	25	425			
Library automation	Yes	-	-			
Weeding (Hard & Soft)						
Others (specify)	Library Hours: 24x7x365	-	-			

4.3 IT Infrastructure									
4.3.1 Technology Up gradation (overall)									
	Total Com puter s	Compter Labs	Internet	Browsing Centres	Computer Centres	Office	Dep artm ents	Available band width (GBPS)	Others
Existing	1650	912	1650	120	115	27	145	01	30
Added	137	100	137	10	05	03	25	01	05
Total	1787	1012	1787	130	120	30	170	02	35
4.3.2 Bandwidth available of internet connection in the Institution (Leased line)									
2 GBPS									
4.3.3 Facility for e-content									
Name of the e-content development facility					Provide the link of the videos and media centre and recording facility				
Gymkhana TV					http://www.gymkhanatv.org				
4.3.4 E-content developed by teachers such as: e-PG-Pathshala, CEC (under e-PG-Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc									
Name of the teacher		Name of the module			Platform on which module is developed		Date of launching e - content		
Prof. Sourav Saha		Gymkhana TV			CloudTech, Amazon Web Services		January		

<b>4.4 Maintenance of Campus Infrastructure</b>			
4.4.1 Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year			
Assigned budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurred on maintenance of physical facilities
5,00,000.00	21576811.20	1700 Cr	Rs 4,15,52,252.80
4.4.2 Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. ( <i>maximum 500 words</i> ) (information to be available in institutional Website, provide link)			
<a href="http://iem.edu.in/aqar-2018/">http://iem.edu.in/aqar-2018/</a>  The physical facilities including Laboratories, Classrooms and Computers etc. are made available for the students those who are admitted in the college. The students seek admission to desired courses are charged at the time of the admission as suggested by the statutory body MAKAUT (formerly WBUT). Separate funds are allotted to all H.O.D of the			

respective department for maintenance of the laboratories and the classrooms which a part of the teaching and the learning processes

The classrooms boards and furniture facilities are utilized regularly by the students but sometimes it is also made available for the other governmental and the non-governmental organizations for conducting the exams like scholarships, WBJEE, PSC, UPSC, etc. if not in use for the said period. The maintenance and the cleaning of the classrooms and the laboratories are done with the efforts of regular staffs of the institute.

The college garden is maintained by the gardener appointed by the institute. The college has adequate number of the computers with internet and Wi-Fi connections and the utility software distributed in different departments like office, laboratories, library, etc. All the stakeholders have equal opportunity to use those facilities as per the rules and the policies of the institution. The central computer laboratory connected in LAN is open for the students as time permits them, the office computers which are also connected through the LAN is consisting of the office software making work easier and systematic are restricted their use only to the appointed office staff. The library is also provided LAN facility for the computers and they are loaded with the library software. The departments and the staff can make use of the computer system with internet at their seating places in addition that majority of the staff has their own laptops and the internet providing instruments; all those computer related facilities are under AMC.

The ICT Smart Class Rooms and the related systems are maintained with AMC of the corresponding service provider. Electrical and the plumbing related maintenance is done with the help of Institute appointed skilled persons and the expenditure is done from yearly allotted budget approved by the competent authorities. The academic support facilities like library, the sports and other platforms supporting overall development of the students like NSS or Competitive examination cell etc. is open only to the college students. 24X7 hours accession is permitted at the cost of the deposits of one-time library fees.

A provision of the budget for the library maintenance is made by the college management. The activities like fumigation and keeping library clean is done frequently by library staff. The sport department of the college is meritorious and some credit defiantly goes to the adequate infrastructure of this department consisting of volleyball court, badminton court can be used by student staff. The running track and the outdoor facilities are free to use for all the stakeholders.

A competitive examination is established by the college, which supports the students preparing them for competitive exam and motivate them for debate competition etc. The maintenance of this department done with the yearly allotted budget approved by the competent authority.

<b>CRITERION V - STUDENT SUPPORT AND PROGRESSION</b>			
<b>5.1 Student Support</b>			
<b>5.1.1 Scholarships and Financial Support</b>			
	Name /Title of the scheme	Number of students	Amount in Rupees
Financial support from institution	Free ship, Half Free ship and TFW	108	8693000.00
Financial support from other sources			
a) National	Not yet	Not yet	Not yet
b) International	Not yet	Not yet	Not yet
5.1.2 Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,			
Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
Pre- Placement Training Classes(Basic)	26 <sup>th</sup> June-30 <sup>th</sup> August	700	Tech Bridge
Pre- Placement Training Classes(Advanced)	2 <sup>nd</sup> November, 2018 to January 2019	700	Tech Bridge
Aptitude Class	4 <sup>th</sup> September, 2018 to January 2018	720	Co-Cubes
Employability and Job Readiness Classes (Includes Quantitative Aptitude, Analytical Reasoning, English Usage, Domain (Technical), Coding, Written English	4 <sup>th</sup> September, 2018 to January 2018	720	Co-Cubes

Motivational Speech by Mr. Shiv Khera	25 <sup>th</sup> August, 2018	2035	Mr. Shiv Khera
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5.1.3 Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students by Guidance for Competitive examination	Number of benefited students by Career Counselling activities	Number of students who have passed in the competitive exam	Number of students placed
2018	Student Employability	Not Available	464	Not Available	464

5.1.4 Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	No. of grievances redressed	Average number of days for grievance redressal
2	2	10 days

**5.2 Student Progression**

5.2.1 Details of campus placement during the year

On campus			Off Campus		
Name of Organizations Visited	Number of Students Participated	Number of Students Placed	Name of Organizations Visited	Number of Students Participated	Number of Students Placed
TCS DIGITAL	100	30	Not Reported	Not Reported	Not Reported
SANKALP	120	01	Not Reported	Not Reported	Not Reported
TCS ENCODE	120	01	Not Reported	Not Reported	Not Reported
ERNST & YOUNG	60	08	Not Reported	Not Reported	Not Reported
TCS CODEVITA - Generic Profile	200	46	Not Reported	Not Reported	Not Reported
TCS CODEVITA - Digital Profile	160	01	Not Reported	Not Reported	Not Reported
INFOSYS System Engineer-Specialist	110	16	Not Reported	Not Reported	Not Reported
INFOSYS -	85	02	Not Reported	Not Reported	Not



Specialist Programmer					Reported
TCS ENGINX - Generic Profile	50	01	Not Reported	Not Reported	Not Reported
TCS ENGINX - Digital Profile	50	01	Not Reported	Not Reported	Not Reported
VALUELABS	100	06	Not Reported	Not Reported	Not Reported
TCS NINJA	500	202	Not Reported	Not Reported	Not Reported
GREYB	60	04	Not Reported	Not Reported	Not Reported
NRI FINTECH	60	03	Not Reported	Not Reported	Not Reported
WIPRO	70	20	Not Reported	Not Reported	Not Reported
BENTLEY	100	RESULT AWAITED	Not Reported	Not Reported	Not Reported
VIDEONETICS	50	02	Not Reported	Not Reported	Not Reported
THINK ANALYTICS	40	01	Not Reported	Not Reported	Not Reported
UNISEVEN	40	01	Not Reported	Not Reported	Not Reported
SAPLABS	55	RESULT AWAITED	Not Reported	Not Reported	Not Reported
WIPRO	150	41	Not Reported	Not Reported	Not Reported
RELIANCE	70	09	Not Reported	Not Reported	Not Reported
KREETI TECHNOLOGIES	50	01	Not Reported	Not Reported	Not Reported
IBM	100	13	Not Reported	Not Reported	Not Reported
INFOSYS - SYSTEMS ENGINEER	130	52	Not Reported	Not Reported	Not Reported
DEBSON PUMPS	40	01	Not Reported	Not Reported	Not Reported

5.2.2 Student progression to higher education in percentage during the year					
Year	Number of students enrolling into higher education	Programme graduated from	Department graduated from	Name of institution joined	Name of Programme admitted to
2018	50	B.Tech	CSE	Jadavpur University, IEST Shibpur, ISI Dhanbad, IIT Kharagpur, NIT Durgapur, IIT Kanpur, IIT Roorkee.	M.Tech CSE
2018	10	B.Tech	CSE	IIM , Kolkata, IMT, Dubai, International Management Institute, New Delhi, IIM Indore	MBA
2018	05	B.Tech	CSE	Duke University, UCA Santa Barbara, University of Southern California, Yale U, Stanford University	MS
2018	20	B.Tech	IT	Jadavpur University, IEST Shibpur, ISI Dhanbad, IIT Kharagpur, NIT Durgapur, IIT Kanpur, IIT Roorkee.	M.Tech CSE
2018	03	B.Tech	IT	Jamshedpur Master of Business Administration (MBA), HR,	XLRI, MBA

				FMS Delhi	
2018	52	B.Tech	ECE	Jadavpur University, IEST Shibpur, ISI Dhanbad, IIT Kharagpur, NIT Durgapur, IIT Kanpur, IIT Roorkee, IIT Delhi, IISC Bangalore	M.Tech
2018	21	B.Tech	ECE	IIM , Kolkata, IMT, Dubai, International Management Institute, New Delhi, IIM Indore	MBA
2018	08	B.Tech	ME	Jadavpur University, IEST Shibpur, NIT Durgapur, IIT Kanpur, IIT Roorkee, IIT Delhi, NIT Mizoram	M.Tech

5.2.3 Students qualifying in state/ national/ international level examinations during the year (eg: NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	No. of Students selected/ qualifying	Registration number/roll number for the exam
NET	Not Reported	Not Reported
SET	Not Reported	Not Reported
SLET	Not Reported	Not Reported
GATE	169	EC18S56062421 EC18S56066080 EC18S56059107 EC18S56059106 EC18S56056153 EC18S56060415 EC18S56058057 EC18S56061127

		EC18S56059205 ME18S16056097 ME18S26062404 ME18S16060218 ME18S16061172 ME18S26061053 ME18S26061420 CS18S36061239 CS18S36065133 CS18S36072037 CS18S36067101 CS18S36070130 CS18S36064262 CS18S36064340 CS18S36068145 CS18S36072083
GMAT	5	100000034598 100000034763 100000024560 100000056723 100000089123
CAT	108	7073516 7002217 7141194 7174535 7087575 7149644
GRE	5	1682874 2462543 2462544 1515255 2093887
TOFEL	3	0000 0000 3182 2819 0000 0000 3182 2867 0000 0000 3182 2419
Civil Services	NA	Not Reported
State Government Services	NA	Not Reported
Any Other	NA	Not Reported
5.2.4 Sports and cultural activities / competitions organised at the institution level during the year		
Activity	Level	Participants
Cricket Tournament	Makaut Zonal Inter College Tournament	Captain: Kaustav Shome

<b>5.3 Student Participation and Activities</b>						
5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)						
<b>Year</b>	<b>Name of the award/ medal</b>	<b>National/ International</b>	<b>Sports</b>	<b>Cultural</b>	<b>Student ID number</b>	<b>Name of the student</b>
2018	Makaut Zonal Inter College Tournament	National	Sports	NA	NA	Kaustav Shome
2018	IEST Invitational Cricket Tournament	National	Sports	NA	NA	Kaustav Shome
2018	College Premier Liga	National	Sports	NA	NA	Kaustav Shome
2018	Budge Budge Institute Of Technology (BBIT) Champions Trophy	National	Sports	NA	NA	Kaustav Shome
2018	1 <sup>st</sup> Savate State Championship	State, National	Assault (Weight Category 75 Kg)	NA	NA	Dibyadeep Bhattacharya
2018	West Bengal Kickboxing State Championship	State, National	Point Fighting (Weight Category 85 Kg)	NA	NA	Dibyadeep Bhattacharya
2018	West Bengal Grappling State Championship	State, National	Grappling (Weight Category 71 Kg)	NA	NA	Dibyadeep Bhattacharya
2018	Chess Competition, iLead College	National	Chess	NA	NA	Ankur Kumar Suman (CSE,3rd)
2018	National Sports	National	Football	NA	NA	Debdutta

	And Physical Fitness Championship 2018					Saha, ECE, 4 <sup>th</sup> Year  Belawal Mumtaz, ECE, 4 <sup>th</sup> Year  Anubrata Das, IT, 4 <sup>th</sup> Year
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### 5.3.2 Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

A Student Council named as student's Gymkhana is set with its own objectives with the guidance of the institute; A faculty leads the Council with a final year student being the general secretary.

Students are encouraged to be a part of the decision-making process supporting democratic form of governance. This is achieved by

- Forming a student council with class representatives
- Representatives of all student related activities
- Involving class representatives and batch representatives in the meetings held by heads of the departments with the class teachers

A unique feature of the Institute is the Art of Living program conducted for both faculty and students. This program is completely sponsored by the management.

Moreover, in all decision-making bodies the student representatives hold a good position and also participate in any decision making with their opinion. In IQAC cell the student's members also plays a pivotal role.

In grievance cell, anti-ragging cell all decisions are decided in a congenial environment.

The Institute holds national and international conferences where participation of students is praiseworthy.

## 5.3 Alumni Engagement

### 5.3.1 Whether the institution has registered Alumni Association? Yes/No, if yes give details (maximum 500 words):

Yes

A registered Alumni association is present. Alumni meetings are continuously arranged, annual alumni meet organised to discuss and enhance wholesome education and development. This year the meet was held on 21st December, 2018. Alumni members help the institution in every possible extend. They are regularly invited to interact with the students. They come and share their expertise from various fields like government, academia, corporate world, start-ups etc. Workshop are conducted by alumni on current trend/technology. Alumni of the institute working in different reputed government /private /MNCs / academia are regularly invited to address the students and boost their self-confidence.

On 21st December 2018, Institute of Engineering and Management (IEM) organized the much-awaited Alumni Meet — The Homecoming 2018, at the IEM Gurukul Campus with over 500 alumni members attending the event. The event witnessed the launch of the Alumni E-Magazine — Memories@IEM, created as a medium to bridge the gap between the institution and its proud graduates spanning across the world. The college took this opportunity to felicitate some remarkable projects undertaken by current IEM students and a total sum of Rs.15 lakhs were awarded as assistance for the completion of their dream projects by the IEM Alumni Association. Also several alumni were awarded during the prize distribution ceremony for their noted work in

entrepreneurial ventures, community services and academic research.

The Young Alumnus Award was bagged in by Sourav Sarkar (Senior Systems Executive, EA to Chief General Manager, RBI), Parichay Bhattacharya (Assistant Manager at Steel Authority of India Limited), Dipanjan Ghosh (Scientist/Assistant Director), Sambaran Bandyopadhyay (Senior Research Engineer at IBM Research Lab, Bangalore), Dr. Pratik Chattopadhyay (Assistant Professor in Computer Science & Engineering at IIT(BHU), Varanasi), Pritam Bhattacharya (PhD Student IIT, KGP), Gourab Mitra (Alumni of 2013, currently working in Wipro), Aritra Subhra Mondal (Alumni of 2013, currently working in TCS). The main attraction of the event was that 15 people from the first batch of IEM, Class of 2000: Dirojit Paul, Sourav Bose, Sukanta Das, Ankurita Ghosh, Arindam Karmakar, Suparno Chatterjee, Bikram Chakraborty, Shahina Parveen Ali, Somak Shome, Prithwiraj Chakraborty, Saikat Maity, Anirban Das, Lakshman Haldar, Arijit Roy, Ananda Sinha were felicitated with the Alumni Award of Distinction. Apart from this Mr. Avijit Basu and Prof. Dr. Biswajoy Chatterjee from 3rd batch of IEM, batch of 2002, also bagged the Alumni Award of Distinction.

The award ceremony was then followed up with the customary cake-cutting ceremony and the extravaganza was then finally concluded with a cultural program and a DJ night, where the students, alumni members and professors danced their hearts off and had a blast. The Homecoming 2018 ended with a promise to meet again and everyone bid an emotional farewell to each other.

5.3.2 No. of ~~registered~~ enrolled Alumni: 1050

5.3.3 Alumni contribution during the year (in Rupees): Rs.7320000.00

5.3.4 Meetings/activities organized by Alumni Association:

The Institute has a registered alumni association.

The alumni association organizes annual alumni meet known as “Homecoming” where almost 300-400 alumni from all over the world enthusiastically attend the program along with their family members.

- Several students are placed in different MNCs with the help of Institute alumni cell and also visiting lectures by eminent alumni are arranged.
- Alumni are associated in designing and updating the curriculum through participation in IQAC meetings.
- Feedbacks on institute, academic, non-academic activities are provided by the alumni on regular basis.
- They also participate in different community development and society welfare programmes like the annual IEM marathon organized in association with C.R.Y.
- The alumni also provide scholarships/awards/prizes to the deserving students.
- The alumni association also sponsors different endowment lectures.

**CRITERION VI –GOVERNANCE, LEADERSHIP AND MANAGEMENT****6.1 Institutional Vision and Leadership**

6.1.1 Mention two practices of decentralization and participative management during the last year (maximum 500 words)

**Decentralization:**

Institute has a mechanism for delegating authority and providing operational autonomy to all the various functionaries to work towards decentralized governance system.

**1. Principal Level**

The Governing body delegates all the academic and operational decisions based on policy to the Academic Monitoring Committee headed by the Principal in order to fulfill the vision and mission of the institute. Academic Monitoring Committee formulates common working procedures and entrusts the implementation with the faculty members.

**2. Faculty Level**

Faculty members are members of various committees/cells and allowed to conduct various programs to showcase their abilities. They are encouraged to develop leadership skills by being in charge of various academic, co-curricular, and extracurricular activities. They are given authority to conduct industrial tours and to have tie up with industry experts and appointed as coordinator and convener for organizing seminars/workshops/conferences/FDPs. For effective implementation and improvement of the institute, following committees are formed. Other units of the institute like sports, library, store etc. have operational autonomy under the guidance of the various committees/cells.

**3. Student Level**

Students are empowered to play an active role as a coordinator of co-curricular and extra-curricular activities, social service group coordinator.

**Participative Management**

The institute promotes a culture of participative management by involving the staff and students in various activities. All decisions of the institution are governed by board of management. Both students and faculties are allowed to give any suggestions to improve the excellence in any aspect of the Institute.

**Strategic Level**

- The Director, Principal, Academic Co-coordinator and Staff members are involved in defining the policies and procedures, framing guidelines and rules & regulations pertaining to admission, placement, discipline, grievance, counseling, training & placement, library services etc., and effectively implementing the same to ensure smooth and systematic functioning of the institute.



- For the various programs to be conducted by the institute all the staff members will meet, discuss, share their opinion and plan for the event and form various committees involving students and coordinate with each other.
- Faculties and Staff members are also involved in deciding academic activities and examinations to be conducted by the college.

#### **Functional Level**

- At functional level, in every academic day the faculty members participate daily in sharing the knowledge by discussing the latest trends in technology and academic progress of students in their morning meeting. Staff members of audit department and institute are involved in preparation of annual budget of the institute.
- Faculty members also write joint research papers and share their knowledge.

#### **Operational level**

- The Director of the institution is a member secretary of the Governing body. The GB gives suggestions and monitors the procurement, introduction of new programs and welfare activities.
- The Principal of the institution is responsible for academic, non-academic and administrative activities of the institution.
- On behalf of the institution, he interacts and corresponds with AICTE, Govt. of West Bengal, UGC, Affiliating University, etc.,
- The budget is earmarked for staff members and also students to participate in various programmes organized by the institute. All the staff members actively participate in implementing the policies, procedures, and framework designed by the management in order to maintain and achieve the quality standards.
- Office staffs are involved in executing day to day support services for both students and faculties.

LEVELS OF PARTICIPATIVE MANAGEMENT				
<b>Teaching Staff</b> a) Governing Body b) IQAC c) Grievances Redressal Cell d) Women Grievance redressal cell e) Anti-ragging Committee f) Examination committee g) Extracurricular & NSS activities h) Industrial Training ,Placements & Visits i) Guest lectures, Seminars j) R&D committee (including Industry Institute Partnership Cell (IIPC)) k) Alumni Committee l) Website Committee m) Central stores committee n) Anti-ragging Committee	<b>Non - Teaching Staff</b> a) Admission committee	<b>Students</b> a) Students Council b) Grievances Redressal Cell c) Anti-ragging Committee d) IQAC e) Students Editorial Board	<b>External Representation</b> a) Grievances Redressal Cell b) Anti-ragging Committee c) IQAC d) Industry Institute Partnership Cell (IIPC)	<b>Parents Representation</b> a) Anti- ragging Committee b) IQAC c) Grievances Redressal Cell

### **Case study: Academic Monitoring Committee (AMC)**

**Role:** AMC is centralized (Institute level) committee responsible for drafting, regulating and implementing different academic policies. It is meant for smooth & uniform conduction of academics throughout the institute.

**Committee Hierarchy:** AMC is headed by Chairman who is the Principal of the institute. Other members of the committee are Academic Coordinator, subject experts for respective subjects, class teachers and exam in-charge.

#### **Activities conducted by AMC:**

- AMC monitors the teaching learning process. It prepares the academic calendar of the institute which is a reflection of University's academic calendar that includes curricular, co-curricular, extracurricular activities.
- Academic calendar is meticulously planned and prepared in advance by academic coordinator and ensures the proper implementation of the academic calendar in due time.
- Academic coordinator is responsible for confirmation and observation of academic activities.
- Academic coordinator confirm lab and course file audit, does defaulter counseling, takes action against findings, issues appreciation and show cause notice and gives input to IQAC
- AMC does lab and course file audit before commencement of semester and in the middle of semester, random confirmation of attendance once in a month, ensures student and faculty uniform and ID card and takes action on defaulter student and faculty and gives feedback to Principal.
- AMC keeps records of daily attendance and submits it to Principal.
- Class in-charge ensures smooth conduction of practical and lecture of class, prepare roll call list, does result analysis, takes feedback and syllabus coverage after every 15 days.
- Class in-charge conducts average, weak and advance learner activity at class level and gives feedback to department AMC.
- HOD of all departments does batch wise student list, collect student biodata and conduct meeting with student to resolve their problems. The students whose attendance/performance is poor are identified by the AMC and the same is informed to the parents through telephonic conversation and by post.
- HOD of all departments collect student participation certificate, undertaking, declaration and leave forms and keeps record of Parent meeting and gives feedback to class In-Charge.

**Outcome:** Meetings are held in a regular fashion for discussing the issues and challenges, developmental aspect of the Institute. Thus, the institute encourages teachers, students, parents, corporate resource persons, employers, alumni, staff, class coordinators and class representatives to share their ideas, opinions, suggestions through proper channels i.e through parent-teacher meet, alumni meet, class teacher's meetings, student feedback system, and through other various committee meetings. The inputs received from various stakeholders of the institute are reviewed and those which are in line with our institute's Vision and Mission Statements will be considered by the AMC for the decision making.

#### 6.1.2 Does the institution have a Management Information System (MIS)?

Yes

The basic principle of IEM Management information system is "The right information in the right place in right time". All information related to academics and finance is placed before the Management for approval and necessary action.

All the data related to academic and financial related matter is kept in the data bank of the Institute for future reference.

### 6.2 Strategy Development and Deployment

#### 6.2.1 Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

##### ❖ Curriculum Development

The Board of studies (BOS) at PG & UG Levels were constituted with members from industry, expert faculty and student alumni. The Meeting of the BOS are conducted at regular intervals. The ideas obtained from the various bodies are thoroughly discussed by the experts and forwarded to MAKAUT. The feedback collected from the students and alumni for curriculum and suggestions are placed in BOS meetings. Analysis of all collected feedback done on the employability and value-based education.

##### ❖ Teaching and Learning

The following are some of the innovative processes adopted by the institution towards TLP (Teaching and Learning Programme)

- E-Learning solution of automatic recording and distribution of class room lectures through Gymkhana TV.
- Creation of departmental advisory board for advising academic materials.
- Collaborative laboratory with industry.
- Live lecture programmes.
- Internships.
- Rubrics to assess the level of student projects.
- Animation/Power point/Smart Classroom facilities.

- To motivate and help students to do minor educational projects in related area/topics.
- Conduct External and internal academic audits on a regular basis.
- Workshop by alumni on current trend/technology.
- Project based learning (self-study).
- Progression of students is continuously monitored.
- Inter departmental student projects.
- Funding for multi-disciplinary projects
- Awards for best student projects.
- Financial support to students for participating in competitions and model preparation.

#### ❖ Examination and Evaluation

Institute has adopted reforms to maintain the quality of teaching and learning process and improving academic standards.

- The college conducts regular orientation and awareness programmes for the benefit of the students.
- The institution continues to adopt improved examination process.
- Examination reform – The Course instructor /Coordinator prepares the question paper in the respective courses. Few more sets of question/s are invited from external examiners. Further evaluation of scripts with respect to those courses is also done by respective course instructor along with moderation by external examiners. The students are provided with an opportunity to access their answer script of each course. This process happens immediately after the announcement of mid-term results. A student aggrieved by the marks awarded to him/her can appeal for re-evaluation. All the copies (internal) are shown to the students & signed by them.
- For each department 2 midterm internal examination and one end semester examination are conducted.
- 2 midterm examinations are conducted by the concerned department and question papers are set by internal teachers, moderators and external subject experts.
- Assignments and seminars are part of internal examination conducted by institute's examination cell.
- Regular tutorial and remedial classes are conducted.
- Continuous evaluation is carried out through regular tests, assignments, projects.

#### ❖ Research and Development

The Institute has a research committee to facilitate, monitor and encourage the research activities. It meets regularly to discuss various plans to promote research and motivate the faculty for academic advancement.

- The committee keeps track of different government schemes and schemes other agencies like

CSIR, DST, DBT, DRDO and CSIR.

- Creation of inter and multi-disciplinary research teams.
- Organization of conferences/seminars/workshops/training programmes.
- Sponsoring faculty members for attending different conferences /seminars/workshops.
- Establishment of research forum.
- Encouraging faculty towards getting projects.
- Establishment of department research committees.
- Faculties are rewarded for publication in reputed journals and book publication.
- Sabbatical leave is provided to faculties for pursuing higher studies.
- College provides registration fees and travel cost for attending reputed National/International conferences.
- Subscription to both printed and online journals.
- Seed money provided to projects.
- Appointment of Research Assistant.
- Many research papers are published by students.
- Dedicated cubicles in laboratories for research works.
- Inviting distinguished visiting fellows from national & international levels.
  - Providing seed money for research activities.
  - Providing Incentives for publishing research papers in referred journals with impact factor.
  - Cluster concept.
  - Extension Lectures.
  - Recognising inspiration thinking of the students by awarding best student project award in every year.

❖ Library, ICT and Physical Infrastructure / Instrumentation

Institute Central Library was established with nearly 60 Thousand books and 1700 books were added during 2017-2018 period and 40 print journals having e-learning resources with 100 eBooks and 350 e-journals were added. Library is well connected with consortium of Indian libraries INFLIBNET. The Institute has more than 1787 computers and 2 e-class rooms. Each department is provided with computer and internet facilities. The institute has well established classrooms, seminar halls and fully equipped laboratories. Other amenities such as canteen, medical room, bank, hostels, recreation clubs, basketball court, indoor auditorium and common halls, are available. Each department of the College has well established laboratories with modern equipment. The institute has well build gymnasium for all the students of the campus.

❖ Human Resource Management

- Delegations of responsibility – some of the key responsibility areas are identified and delegated at different levels – office function, Principal, HOD/Asst. HOD.
  - ❖ Academic Council – All academic matter (including BOS functions) through academic council
  - ❖ Internal Quality Assessment Cell (IQAC)
- Participatory Management – Subcommittee for different functional activities comprises representatives of teachers, non-teaching staff and students. It includes the involvement of the staffs for organizing different programmes of the college.
- Staff Orientation Programmes are organized by the college on regular basis.
- Performance appraisal system is practiced.
- Promotion policy – College follows the promotion policies of the Higher Education Department. In addition, College also has introduced seniority based and performance-based promotions.
- Policy for compensation – College extends the following benefits to the staff members. Such as:
  - ❖ Provident fund – Each member of the staff shall subscribe to duly constituted College Provident Fund in accordance with statutory rule.
  - ❖ Gratuity – College pays Gratuity to the staff members.
  - ❖ Leave Encashment – College pays leave encashment to the staff members as per the Higher Education Department guidelines. All teachers are treated at par.
- Performance Recognition
  - ❖ The College gives performance recognition by way of monetary incentives, like, sponsoring registration fees for the faculty members whose paper have been accepted at Seminars and Conferences (including International Conferences) providing the Ph.D registration fees to the candidates; by felicitating the retired staff members and recognising contributing efforts of those, with at least 2 years of service.

#### ❖ Industry Interaction / Collaboration

- Institute has interaction and collaboration with reputed research organizations, industries and institutions in India and abroad.
- It has more than 7 MOUs and also has several interdisciplinary and multidisciplinary projects in collaboration with other reputed organizations.
- Institute has entered into student and faculty exchange programmes in collaboration with Foreign Universities/Institutions.
- The institute has MOU with CII (Confederation of Indian Industry) and participates in all industry academia outreach and exchange programs. The students and faculty members are sent in regular industry visits.
- Many faculty members are involved with different consultancy programs. This increases the institute industry interaction.
- Alumni of the institute working in different reputed government/private/MNCs/academia are regularly invited to address the students.

<p>❖ Admission of Students</p> <p>The Institute has a well-organized and transparent admission system. All the admissions are based on merit in accordance with the rank obtained in the WBJEE or rank obtained in all India level entrance examinations JEE (Main).</p>
<p>6.2.2 Implementation of e-governance in areas of operations:</p>
<ul style="list-style-type: none"> <li>• Planning and Development</li> <li>• Audio-visual system in all classrooms</li> <li>• Each department is provided with computers having internet facility.</li> <li>• The institute Central Library has adequate no. of books, journal, computer with internet facility and provision for digital library.</li> <li>• 24X7 library facilities provided by the institute for the students and faculties.</li> </ul>
<p>❖ Administration</p> <ul style="list-style-type: none"> <li>• Internet access to all machines and 2 GBPS leased line.</li> <li>• Wi-Fi facility throughout the institute.</li> <li>• Leave and Attendance of Faculties can be tracked through the IEMCRP software</li> <li>• Administrative information is digitalised and all the departments of the institute are provided with computer&amp; data cable network facility.</li> <li>• CCTV surveillance system for central library and all the existing facilities.</li> </ul>
<p>❖ Finance and Accounts</p> <ul style="list-style-type: none"> <li>• Tally System for maintaining the accounts in accounts department.</li> <li>• CYN SYS for the tax calculation in accounts department.</li> </ul>
<p>❖ Student Admission and Support</p> <ul style="list-style-type: none"> <li>• Internet facility is provided in student hostel</li> <li>• Video lectures are available in the Gymkhana TV based on course materials available for the benefit of the students.</li> <li>• E-Learning resources were created using e-Journals and e-books. The library provides e-Journal facilities.</li> <li>• Admission and examination procedure are computerised.</li> </ul>
<p>❖ Examination</p> <ul style="list-style-type: none"> <li>• Execution of Class test and marking scheme both are possible in the IEMCRP software.</li> </ul>



**6.3 Faculty Empowerment Strategies**

6.3.1 Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

<b>Year</b>	<b>Name of teacher</b>	<b>Name of conference/ workshop attended for which financial support provided</b>	<b>Name of the professional body for which membership fee is provided</b>	<b>Amount of support</b>
2018	Dr. Shamindra Nath Sanyal	LVMH-SMU Luxury Research Conference	The Financial help was offered to attend the Conference organized jointly by LVMH and Singapore management University at Singapore	34,500
2018	Prof. Dr. Indraneel Mukhopadhyay	NEN FDP	NEN	24548
2018	Prof. Anuradha Saha	Enhance your Research Accumen	Globsyn Knowledge Campus	3000
2018	Prof. Dr. Indraneel Mukhopadhyay	FDP at MAKAUT	MAKAUT	4000
2018	Prof. Saptaparna Ghosh	NEN FDP	NEN	1382
2018	Prof. Anuradha Saha	Crafting and Conducting Research and how to publish	St. Xaviers College (Autonomous)	800
2018	Prof. Saptaparna Ghosh	Crafting and Conducting Research and how to publish	St. Xaviers College (Autonomous)	800
2018	Prof. Arundhati Ray	NCCMP	Army Institute of Management	2500
2018	Dr. Malay Gangopadhyaya	IEMCON 2018	IEEE	15,000
2018	Dr. Malay Gangopadhyaya	CCWC 2018	IEEE	21,000
2018	Dr. Himadri Nath Saha	IEMCON 2018	IEEE	15,000
2018	Prof. Sanghamitra Poddar	IEMCON 2018	IEEE	15,000
2018	Dr. K.K. Ghosh	Nano	IISC Bangalore	8,000

		electronics Device Fabrication Workshop		
2018	Dr. G.S.Taki	IEMENTECH 2018	IEEE	5,000
2018	Ratna Chakrabarty	IEMENTECH 2018	IEEE	5,000
2018	Mili Sarkar	IEMENTECH 2018	IEEE	5,000

6.3.2 Number of professional development / administrative training programmes organized by the College for teaching and non-teaching staff during the year

<b>Title of the professional development programme organised for teaching staff</b>	<b>Year</b>	<b>Title of the administrative training programme organised for non-teaching staff</b>	<b>Dates (from-to)</b>	<b>No. of participants (Teaching staff)</b>	<b>No. of participants (Non-teaching staff)</b>
Securing Cyber Space	2018	Jun 26 2017	55	05	--
Cyber Crime and Security	2018	Jun 26 2018	55	05	--
An Introduction to Data Sciences	2018	Jun 26 2018	65	03	--
Data Sciences: Clustering and Classification	2018	Jul 19 2018	45	02	--
Pedagogy-Effective Teaching	2018	Jul 21 2018	72	06	--
Deep Insights into Machine Learning and Deep Learning	2018	Jul 22 2018	56	05	--
Developing Critical Thinking in College Students	2018	Jul 29 2018	89	04	--
The Art of Setting Good Question Paper	2018	Aug 4 2018	73	05	--
Agile Management	2018	Jan 2 – 6 2018	300	10	--
Ethical Hacking	2018				
Block Chain	2018				
Being Digital	2018				
Recent Trend in Energy Storage	2018				
Why is China Ahead of India?	2018				

GST	2018				
2 day MDP on Emerging Trends in E-Business & E-Retailing	2018	Jan 19 & 20 2018	23	-	--
Industrial Training and FDP on Principles of Management and Project Management	2018	Feb 2 2018, Feb 24 2018, Mar 10 2018	20	02	--
Technology Awareness Programme on Power Grid Management in India	2018	Apr 24 2018	56	03	--
Awareness of Competitive Coding	2018	May 3 2018	226	10	--
1 day MDP - The Achiever's Mindset – Peak Performance & Personal Productivity	2018	May 12 2018	20	01	--
Participatory learning	2018	Jun 26 – Jul 3 2018	54		--
ONLINE TEACHING LEARNING METHODOLOGY	2018				
Digital Inspection Video Presentation	2018				
Flipped Classroom	2018				
Python Theory & Hands on	2018				
Intel® Scalable Platform (Purley)	2018	Nov 30 2018	20	1	--

6.3.3 No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	Date and Duration (from – to)
---	---------------------------------	-------------------------------

Securing Cyber Space	5	Jun 26 2017
Cyber Crime and Security	3	Jun 26 2018
An Introduction to Data Sciences	2	Jun 26 2018
Data Sciences: Clustering and Classification	6	Jul 19 2018
Pedagogy-Effective Teaching	5	Jul 21 2018
Deep Insights into Machine Learning and Deep Learning	4	Jul 22 2018
Developing Critical Thinking in College Students	5	Jul 29 2018
The Art of Setting Good Question Paper	10	Aug 4 2018
Agile Management	6	
Ethical Hacking	5	
Block Chain	4	
Being Digital	5	
Recent Trend in Energy Storage	10	Jan 2 – 6 2018
Why is China Ahead of India?	6	
GST	-	
2 Day MDP on Emerging Trends in E-Business & E-Retailing	2	Jan 19 & 20 2018
Industrial Training and FDP on Principles of Management and Project Management	3	Feb 2 2018, Feb 24 2018, Mar 10 2018
Technology Awareness Programme on Power Grid Management in India	10	Apr 24 2018
Awareness of Competitive Coding	1	May 3 2018
1 day MDP - The Achiever's Mindset – Peak Performance & Personal Productivity	-	May 12 2018
Participatory learning	1	
ONLINE TEACHING LEARNING METHODOLOGY	2	
Digital Inspection Video Presentation		

Jun 26 – Jul 3 2018

Flipped Classroom	5	
Python Theoruy & Hands on	1	
Intel® Scalable Platform (Purley)	7	Nov 30 2018

6.3.4 Faculty and Staff recruitment (no. for permanent/fulltime recruitment):			
Teaching	Non-teaching		
Permanent	Fulltime	Permanent	Temporary
297	50	50	39
6.3.5 Welfare schemes for			
Teaching	<ul style="list-style-type: none"> <li>• Free medical facility.</li> <li>• Loans for housing, vehicle and medical needs.</li> <li>• Group insurance.</li> <li>• Festival advances.</li> <li>• Fee concession for employee's children in education.</li> <li>• Transport facility.</li> </ul>		
Non-teaching	<ul style="list-style-type: none"> <li>• Free medical facility.</li> <li>• Group insurance.</li> <li>• Separate cooperative society.</li> <li>• Festival advances.</li> <li>• Loans for housing, vehicle and medical needs.</li> <li>• Fee concession for employee children in education.</li> <li>• Transport facility.</li> </ul>		
Students	<ul style="list-style-type: none"> <li>• Accommodation (hostel facility).</li> <li>• Free medical facility.</li> <li>• Student insurance.</li> <li>• Play grounds and gymnasium, meditation hall, yoga practice centre.</li> <li>• Recreational facilities.</li> <li>• Implementation of fee reimbursement scheme.</li> <li>• Assistance for getting scholarships.</li> <li>• Publication of annual magazine.</li> </ul>		
6.4 Financial Management and Resource Mobilization			
6.4.1 Institution conducts internal and external financial audits regularly			
<p>The accounts of the college are audited regularly as per the government rules. IEM has separate internal departments. The internal auditor checks receipts including fee receipts and payments with vouchers and necessary supports. He also ensures that all payments are duly authorized. The external auditor conducts statutory audit at the end of financial year. After the audit the report is sent to the management for review. The auditor is appointed by the board of trustees in the board meeting. Last audit was done on 4<sup>th</sup> September 2018 and as on date there is no adverse remark on the accounts of the institution. The college fills income tax return every year within the stipulated time.</p>			
6.4.2 Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year (not covered in Criterion III)			
Name of the non-government funding agencies/ individuals	Funds/ Grants received in Rs.	Purpose	

DST	27lakhs	Research		
ISHRAE	50,000	Research		
IEM	40 Lakhs	Research		
DST	Rs 40 Lakhs/-	Research		
DST, ISHRAE	Rs. 1,27,50,000/-	Research		
6.4.2 Total corpus fund generate: Rs 13,45,810835.00				
6.5 Internal Quality Assurance System				
6.5.1 Whether Academic and Administrative Audit (AAA) has been done?				
Audit Type	External	Internal		
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	Internal	Yes	IEM
Administrative	Yes	Internal	Yes	IEM
6.5.2 Activities and support from the Parent – Teacher Association (at least three)				
<ul style="list-style-type: none"><li>• Institute has quarterly parent-teacher meetings to understand the perceptions and expectations of the parents.</li><li>• The feedback from parents on various academic and non-academic activities is collected and analysed by the IQAC.</li><li>• Along with the students, parents are invited for the induction meeting conducted by the Institute Administration.</li><li>• Institute believes in maintaining a holistic relationship between teachers and parents can improve the quality of education and it adopts several initiatives in this direction.</li><li>• Institute has plans to introduce additional online programmes in every department for each student in which the parents can interact and get required information.</li></ul>				
6.5.3 Development programmes for support staff (at least three)				
<p>Different Development programmes are organised by the college for the support staff such as:</p> <ul style="list-style-type: none"><li>• Orientation programme</li><li>• Development programme</li><li>• Improvement programme</li><li>• Computer and skill-based training</li><li>• Regular birthday celebration</li><li>• Sports</li><li>• Regular medical check-up.</li></ul>				
6.5.4 Post Accreditation initiative(s) (mention at least three)				
<ul style="list-style-type: none"><li>•</li><li>• Arrangement of National and International Conferences.</li><li>• Arrangement of FDP for the teaching faculty.</li><li>• Arrangement of Seminar, Workshop and Conferences at regular intervals.</li><li>• Steps taken towards campus drives for placement of final year Students</li><li>•</li></ul>				
6.5.5				
a. Submission of Data for AISHE portal : (No)				
b. Participation in NIRF : (Yes)				
c. ISO Certification : (Yes ISO :9001)				

d. NBA or any other quality audit : (Yes)				
6.5.6 Number of Quality Initiatives undertaken during the year				
Year	Name of quality initiative by IQAC	Date of conducting activity	Duration (from----- to-----)	Number of participants
2018	International Conference on English Learning and Teaching Skill	26 <sup>th</sup> -28 <sup>th</sup> July	26 <sup>th</sup> -28 <sup>th</sup> July	200
2018	ACM Distinguished Speaker Program	1 <sup>st</sup> August	1 <sup>st</sup> August	75
2018	1 <sup>st</sup> Year Inauguration(Speech by Mr .D.P Duary Director of Birla Museum)	2 <sup>nd</sup> August	2 <sup>nd</sup> August	265
2018	IEM Diversion	22 <sup>nd</sup> September	22 <sup>nd</sup> September	150
2018	ENGINEIOUS, 2018	27 <sup>th</sup> – 28 <sup>th</sup> September	27 <sup>th</sup> – 28 <sup>th</sup> September	100
2018	Kolkata Mini Maker Faire	18 <sup>th</sup> November	18 <sup>th</sup> November	260
2018	Video Recording of Lectures	--	--	All Faculties

CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES						
7.1 - Institutional Values and Social Responsibilities						
7.1.1 Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)						
Title of the programme		Period (from-to)		Participants		
Women empowerment training programmes		August-September		50 Female		10 Male
7.1.2 Environmental Consciousness and Sustainability/Alternate Energy initiatives such as: Percentage of power requirement of the College met by the renewable energy sources						
<ul style="list-style-type: none"><li>Decreased use of paper and plastic.</li><li>Optimization of existing infrastructure.</li><li>Tree plantation.</li></ul>						
7.1.3 Differently abled (Divyangjan) friendliness						
Items Facilities			Yes/No		No. of Beneficiaries	
Physical facilities			Y		10	
Provision for lift			Y		15	
Ramp/ Rails			Y		03	
Braille Software/facilities			N		--	
Rest Rooms			Y		04	
Scribes for examination			N		--	
Special skill development for differently abled students			N		--	
Any other similar facility			N		--	
7.1.4 Inclusion and Situatedness						
Enlist most important initiatives taken to address locational advantages and disadvantages during the year						
Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date and duration of the initiative	Name of the initiative	Issues addressed	Number of participating students and staff
2018	07	0	17 <sup>th</sup> August	Corporate talks	Student’s Training	100
2018	20	0	22 <sup>nd</sup> September	Placement	--	400
2018	07	0	20 <sup>th</sup> November	Traffic	--	07
7.1.5 Human Values and Professional Ethics						
Code of conduct (handbooks) for various stakeholders						
Title		Date of Publication		Follow up (maximum 100 words each)		
NA		NA		NA		



7.1.6 Activities conducted for promotion of universal Values and Ethics		
Activity	Duration (from-----to-----)	Number of participants
IEM, Department of Management in association with “Dhatri” Foundation organized “Stem Cell Banking” Campaign to spread awareness among people regarding stem cell preservation to combat fatal diseases.	10 <sup>th</sup> February 2018	200
<p>“<b>Humane: An Outcry</b>” is an environmental education and CSR campaign for IEM Management/MBA students in association with <b>Humane Society International/India</b> that works to help animals through campaign against factory farming and street animals mainly “street dogs” &amp; birds.</p> <p>The primary features of “Humane: An Outcry” are to take care of Street dogs in &amp; around College campuses and to provide food &amp; water to birds &amp; other street animals. The participants were Management/MBA students, the program was held during Management Fest, and in total it was a 7-day outdoor camp.</p>	12 <sup>th</sup> March to 19 <sup>th</sup> March 2018	165
MBA/PGDM students participated in another camp co-hosted by ‘ <b>Humane Society International</b> ’- one of the largest animal protection organizations in the world in association with ‘Institute of Engineering & Management’, Saltlake, Kolkata on June 15, 2018 visited “Howrah Vivekananda Institution”. The program consisted of lectures, meditation, games and CSR activities along with street animals and environment welfare.	15 <sup>th</sup> June 2018	50
Department of Management & IEM	28 <sup>th</sup> September 2018	250

<p>e-Cell Management in association with <b>Titan Eye+</b> cordially invited all (Faculty members &amp; staff of Institute of Engineering &amp; Management) for a Free Eye check up 2018 at Management House campus.</p> <p>Titan Eye+ offered the following services:-</p> <p>Free eye testing for all Faculty members &amp; Staff (from 11.30 am to 4.30pm) in association with Shankar Netralaya, Kolkata team was done with huge participation.</p>		
<p>A visit to <b>SOS Children House:</b> An Orphanage on Children's Day was arranged by IEM, Department of Management to "love, care &amp; affection" in the form of "books, clothing &amp; food".</p>	14 <sup>th</sup> November 2018	35
<p>A Day with "Street Children" was made beautiful by our MBA/PGDM students on the eve of Christmas with warm cloths, books &amp; drawing books.</p>	30 <sup>th</sup> November 2018	40
<p>MoU with CRY has been signed and students from different departments conduct weekend and night class for under-privileged students on a regular basis, to impart basic education.</p>	Throughout the Year	175
<p>MoU with SMILE organisation has been signed under which the students of BBA and BCA Department of Ashram Campus are involved in social activities which include imparting education to down-trodden children of the society.</p>	Throughout the Year	85

A Pre-Diwali distribution of sweets, gifts and clothes had been carried out in the month of November by the members of the Student's Gymkhana	2 <sup>nd</sup> November, 2018	70
Blankets were distributed among the visually impaired students of Louis Braille Memorial for the Sightless, Makhla, Uttarpara by the members of Student's Gymkhana	14 <sup>th</sup> December, 2018	65
A Pre-Christmas distribution of cakes, chocolates and woollen clothes had been carried out in the month of December by the members of the Student's Gymkhana	23 <sup>rd</sup> December, 2018	80
The Amount collected from IEM Marathon is donated to CRY	After Completion of Marathon (Yearly)	On behalf of entire organization

#### 7.1.7 Initiatives taken by the institution to make the campus eco-friendly (at least five)

##### **Plantation:**

Programmes for tree plantation are done inside/outside the campus to maintain the greenery and healthiness of the campus.

**Water harvesting:** Water harvesting is practiced in the Institute.

**Hazardous waste management:** The Institute has set up a committee to handle hazardous waste management. Effective discharge of water from laboratories (Underground drainage system), putting of damaged glassware and chemicals in specified locations. The Institute is plastic free campus.

**E-waste management:** The Institute administration has nominated a centralized team to look after obsolete items from the institute campus and their proper disposal. The e-waste is disposed calling tenders from the vendors who use it for recycling. Necessary steps are taken for speedy disposal.

**Solar Panel:** Solar panels have been installed on the roof top of the institute.

## **7.2 Best Practices--**

### **I Title of the practice**

To enhance research potential of faculty members.

#### **Goal**

The aim of this particular practice is to provide necessary infrastructure, human resources and motivation to nurture the research competencies among the faculty members.

#### **The context**

The college offers 08 UG and 04 PG degree programs in various Engineering & Management departments. It is the responsibility of faculty members to inculcate effective learning methodology in their students to understand various engineering concepts. To accomplish this, they need to be creative and innovative in their approach to teaching / learning activities and should possess holistic idea about the subjects what they teach, which requires some level of research competencies in the teaching faculty members.

#### **The practice**

An institution- industry interaction cell has been established. The institution encourages the faculty members to publish research papers, attend national/ international conferences and to carry out consultancy work. The faculty members are encouraged by providing cash incentive to those who publish research articles in national / international journals. They are sponsored to attend the national/international conferences in India/abroad. The Cash incentives are provided to those faculty members who are doing the consultancy work, based on the amount and nature of work. Many MoUs have been signed between the institution and various industries to carry out the research and consultancy activities. MoUs are also signed between foreign universities also to expose the faculty members to the current research areas.

#### **Evidence of success**

The number of Ph.D., degree holders in the institution have increased considerably. The results of the above said practice has increased the number of papers published by the faculty members. A lot of research projects have been sanctioned to our institution for doing the research by the faculty members.

#### **Problem encountered and resources required**

The staff members are finding it difficult to find the time to carry out this type activities due to their academic commitment. Quarters are in proposal, to encourage the staff members to stay in the campus to carry out the research activities. Laboratories, e-learning facility and computer aided packages are required for which contribution from the management and money collected from sponsoring institution have been used.

## **II Title of the Practice**

To help students who have financial difficulties.

### **Goal**

The aim of the practice is to provide the financial support to those who have problem in paying tuition and other fees. This will help those students continue their studies without any problem.

### **The context**

The college receives students from various backgrounds. There are several students who are meritorious but not capable of paying tuition and other fees due to their financial conditions. It is the interest of the institution to see those students also complete their course without any problem.

### **The practice**

The institution has initiated a scholarship scheme to distribute fund to the needy students as full semester tuition fees, waiver & half semester tuition fees waiver based on economic status and performance in the academic activities. Apart from this college has Rs 8693000.00 lakhs as scholarship fund as on 31<sup>st</sup> March 2018 sponsored by trust. The interest generated from this fund is also utilized for giving assistance to purchasing books and instruments. 108 Students are beneficiary of these schemes.

### **Evidence of success**

More number of students receives those scholarships and completed their degree without any problem. The exit feedback from those students clearly indicates the true success of these two scholarship programs.

### **Problem encountered and resource required**

The institution does not face any problem as such to identify those students to receive the scholarships. Man-power and huge amount of money are required to provide this type of assistance at college level.

## **7.3 Institutional Distinctiveness**

Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust

Provide the web-link of the institution in not more than 500 words

<http://iem.edu.in/aqar-2018/>

Institute of Engineering and Management (IEM) is committed to incite all possible platforms pertaining to Scientific & Technological Learning for not only the professional growth but also for the personal growth of the students by providing transformational teaching and value based education with international standards. The institution has a motto to achieve academic

excellence, promoting quality education with incomparable innovations in teaching and learning by empowering the manpower through innovative research and development.

The Institute of Engineering and Management Trust (IEMT) with a passion to scatter the fragrance of education entered the educational arena to meet the needs of education, established a number of educational institutions from 1989 to 2018, over a period of 29 years.

The institution has taken utmost care to build fully equipped language laboratories for the benefit of the student community.

Students are even encouraged to take up projects concerned with the future of the country with a motto to promote global citizenship and ethical conduct.

In order to provide excellent placement opportunities to all the students, institution has been conducting campus recruitment training (CRT) classes with the help of eminent faculty members, who have great expertise in the area, to train the students for all the levels of the campus recruitment process. Since the beginning of the 1<sup>st</sup> Semester, students undergo the training along with the prescribed curriculum. Students are encouraged to participate in aptitude and soft skills related training, group discussions, mock interviews, debates, presentations and role plays etc.

On-line learning is a rapidly growing aspect in technical education. To train the students for the future needs, a digital library is designed with an excellent collection of e-material, in addition to the central library with more than 18,350 volumes and departmental libraries. Digital class rooms, grand infrastructure, well-equipped laboratories, spacious seminar halls and conference halls and reading halls, student counsellors to keep in touch with parents, corporate placements, technical events like implementation of innovative teaching techniques and trends along with the conventional teaching methods, provide a vibrant backdrop to the academic achievements.

## **8. Future Plans of action for next academic year (500 words)**

IQAC plan of action to be decided upon at the beginning of the academic year

- Academics
  1. To organise interdisciplinary seminars, workshops, conferences.
  2. Regular workshops and extra courses pertaining to the course curriculum to be organised.
- Development programmes and collaborations
  1. To encourage faculty members to start thinking about new courses.
  2. To increase the number of collaborations with foreign universities.
  3. To establish faculty and student exchange programmes.
- Research and innovations
  1. To explore possibilities for active industry participation.
  2. To increase the number of patent applications.
  3. To increase publication of research papers in reputed journals with good impact factor.
  4. Search for funding from reputed industry and corporate houses related to research projects.

- Institutional social responsibility
  1. Eco friendly measures to be adopted.
  2. To organise more community service activities to contribute to the wellness of the society.
  3. To implement the existing awareness programmes on environmental issues.
- Welfare programmes
  1. To increase number of student internships, to support financially weak students, help students with very serious medical crisis.
- Administrative
  1. To enhance infrastructural development.
  2. Ensuring interactive feedback, analysis & monitoring.
  3. Offer specific and targeted training to teachers & students.
  4. Academic audit (Internal/External) for continuous of academic upgradation.
  5. Introduction of academic autonomy in UG, PG courses.

Prof.(Dr.) Himadri Nath Saha

&

Name Prof. Sanghamitra Poddar

Name Prof.(Dr.) A.K.Nayak

*Himadri Nath Saha*

*Sanghamitra Poddar*

*A.K. Nayak*

*Signature of the Coordinator, IQAC*

*Signature of the Chairperson, IQAC*

# **Annexures**

*Annexure I: Academic Calendar*

*Annexure II: Feedback*