



## Yearly Status Report - 2018-2019

### Part A

#### Data of the Institution

<b>1. Name of the Institution</b>		INSTITUTE OF ENGINEERING AND 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.		03323572969
Mobile no.		9903846956
Registered Email		director@iemcal.com
Alternate Email		iqac@iemcal.com
Address		Gurukul, Y-12, Block -EP, Saltlake Electronics Complex, Sector - V
City/Town		Kolkata
State/UT		West Bengal
Pincode		700091

2. Institutional Status					
Affiliated / Constituent		Affiliated			
Type of Institution		Co-education			
Location		Urban			
Financial Status		private			
Name of the IQAC co-ordinator/Director		Prof. (Dr.) Himadri Nath Saha & Prof. Sanghamitra Poddar			
Phone no/Alternate Phone no.		+919433310775			
Mobile no.		9830249238			
Registered Email		iqac@iemcal.com			
Alternate Email		himadri@iemcal.com			
3. Website Address					
Web-link of the AQAR: (Previous Academic Year)		<a href="http://iem.edu.in/aqar-2018/">http://iem.edu.in/aqar-2018/</a>			
4. Whether Academic Calendar prepared during the year		Yes			
if yes,whether it is uploaded in the institutional website: Weblink :		<a href="http://iem.edu.in/aqar-2018/">http://iem.edu.in/aqar-2018/</a>			
5. Accrediation Details					
Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
1	A	3.25	2017	09-Jun-2017	08-Jun-2022
6. Date of Establishment of IQAC		30-Apr-2015			
7. Internal Quality Assurance System					
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	01-Nov-2018 3		170		

quality, research & development, encourage students to pursue higher education		
Academic audit has been conducted by a team of external experts	25-Aug-2018 1	1
Academic audit both at departmental and institutional level	11-Aug-2018 1	3
Development of soft skills and personalities of the students by organising training programme	13-Sep-2018 3	167
Teachers were encouraged to attend & organise different faculty development programs	03-Jul-2018 5	155
Budgetary provisions were discussed & upgraded for R&D activities in the college	21-Aug-2018 1	145
Feedback was collected from students, employees, parents, alumni of various departments. These reports were analysed through IQAC quality management members & different improvements were suggested.	06-Sep-2018 1	25

**8. Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.**

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
IEDC Lab	Social Economic Development	DST	2014 5	2700000
No Files Uploaded !!!				

<b>9. Whether composition of IQAC as per latest NAAC guidelines:</b>	Yes
Upload latest notification of formation of IQAC	<a href="#">View File</a>
<b>10. Number of IQAC meetings held during the year :</b>	4

The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
Upload the minutes of meeting and action taken report	<a href="#">View File</a>
<b>11. Whether IQAC received funding from any of the funding agency to support its activities during the year?</b>	No

**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.

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

Plan of Action	Achivements/Outcomes
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	Efile system is promoted to encourage the practice of paperless office. Online grievance redressal system was suggested. Online fees payment.
Minimizing environmental degradation	Decreased use of paper and plastic. Optimization of existing infrastructure. Tree plantation.
Development Programmes	Workshop conducted for students on recent development in Technological arena. Orientation programmes for faculties on teaching and research methodology. Counselling session for students.
Fulfilling social responsibilities	Remedial Class for weaker students in especially English language, Maths, Physics for 1st year students. Books, clothes, food, medicine donation camps to slum dwelling children. Evening classes for the under privileged.
To Encourage meritorious faculty, employees and students by presenting	Institute has given academic awards, best teacher's award. The meritorious

them with awards, prizes and recognition certificates by IEM	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 every semester examinations are collected and analysed. These were sent to the departmental heads for communicating
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.
Participation from stakeholders	Alumni meetings are continuously arranged, annual alumni meet organised to discuss and enhance wholesome education and development. Principal of the institute continuously interacts with the students to discuss various aspects.
Enabling better participation from the differently abled	Ramps on campus are present. Audio Visual Board for differently abled are installed. Easy access to lifts is ensured.
To Collect self evaluation report from faculty and department evaluation report	Reports from all faculties and were collected and analysed. The consolidated report is placed before the management and communicated back to the faculty.
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<b>14. Whether AQAR was placed before statutory body ?</b>	Yes
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Name of Statutory Body	Meeting Date
IQAC	26-Jun-2019

<b>15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?</b>	No
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<b>16. Whether institutional data submitted to AISHE:</b>	No
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<b>17. Does the Institution have Management Information System ?</b>	Yes
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If yes, give a brief descripton and a list of modules currently operational (maximum 500 words)	Administrative procedure includes: ? Student Admission. ? Student Attendance. ? Evaluation Examination Procedure. ? Research Activities. ?
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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

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employability/entrepreneurship	Skill Development
Web Development Course		02/08/2018	10	Employability	Web Development
Python Course		06/09/2018	10	Employability	Python Program Development
IoT using Raspberry Pi		22/08/2018	10	Employability	IoT Skill Development
Big Data		12/09/2018	10	Employability	Big Data Skill Development
Cloud Computing		24/09/2018	10	Employability	Cloud Computing Knowledge

#### 1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
<b>No Data Entered/Not Applicable !!!</b>		

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	Programme Specialization	Date of implementation of CBCS/Elective Course System
MBA		01/08/2018
PG Diploma		01/08/2018
BCA		08/01/2019
MSc		08/01/2019

### 1.2.3 – Students enrolled in Certificate/ Diploma Courses introduced during the year

	Certificate	Diploma Course
Number of Students	835	0

## 1.3 – Curriculum Enrichment

### 1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Value added Program	11/07/2018	120
Aptitude Training	08/08/2018	160
Tally Using GST	20/12/2018	45
Digital Marketing	17/12/2018	90
Entrepreneurship	22/08/2018	66
HR Talks	12/06/2018	17
Workshop on Ethical Hacking	11/08/2018	180
Workshop on Software Engineering	22/02/2019	30
Workshop On Machine Learning and Visual Analytics	18/08/2018	30
VAP (Value Added Program)	14/01/2019	120
Hands on Training on Capital Markets	15/02/2019	55
Capstone Project	21/02/2019	55
Soft skill Training	18/03/2019	55
Internet of Things	05/06/2019	220
Statistical Computing	06/06/2019	220
Quantum Computing	07/06/2019	220
Deep Learning	10/06/2019	220
Machine Learning	11/06/2019	220
Data Mining	12/06/2019	220
Blockchain	13/06/2019	220
Cyber Security	14/06/2019	220
Aptitude Classes	15/01/2019	110
Soft Skill	27/03/2019	25

### 1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BTech		71
PG Diploma		195
MBA		126
BCA		73
BBA		98

#### 1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	Yes

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution?  
(maximum 500 words)

Feedback Obtained
<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>

### CRITERION II – TEACHING- LEARNING AND EVALUATION

#### 2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
BTech		828	38891	828
MBA		180	250	180
PG Diploma		120	210	120
BBA		120	240	120
BCA		120	243	120
MSc		20	21	14
Mtech		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 fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
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	5	96	3	9

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

TriMentoring Programme. i) Objective of practice: ? Identify and clarify students' personal and professional goals. ? Encourage students to face challenges with greater ease and confidence. ? To improve teacherstudent 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) Context: Mentoring is a professional relationship in which an experienced 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, nonacademic 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 Trimentoring 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 nonacademic 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. 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 nonacademic 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 teacherstudent relationship. ? Improvement of academic performance. ? Improvement in Student's discipline and involvement in various college activities. 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	2	8
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2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year )

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2018	Prof. Dr. Himadri Nath Saha	IQAC / CIQA coordinator	Invited to talk on IoT at University of Connecticut, USA
2019	Prof. Dr. Himadri Nath Saha	IQAC / CIQA coordinator	Invited for research at TU Ilmenau, Germany
2019	Prof. Dr. Himadri Nath Saha	IQAC / CIQA coordinator	Invited to teach at DHBW, Germany

## 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
BTech	NA	Semester	19/12/2018	27/02/2019
Mtech	NA	Semester	13/12/2018	20/03/2019
MBA	NA	Semester	22/12/2018	07/02/2019
PG Diploma	NA	Semester	20/12/2018	07/02/2019
BCA	NA	Semester	20/01/2019	07/02/2019
BBA	NA	Semester	20/12/2018	07/02/2019
MSc	NA	Semester	20/12/2018	20/03/2019

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 201819) completed by September 10, 2018. First Test Slot September was scheduled from 14th to 20th September, 2018. Second Test Slot was scheduled from 14th to 20, 2018. Practical Examinations VivaVoce November was scheduled to be from 22nd to 30th 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.

## 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 weblink)

<https://iem.edu.in/iem-college-of-engineering/>

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
UG	BTech		624	623	99.7
PG	Mtech		37	37	99.8
UG	BBA		98	98	99.8
PG	MBA		153	152	99.7
UG	BCA		109	109	99.9
PG	PG Diploma		31	31	99.8

## 2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

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

## 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 year
Major Projects	5	DST	47	9
Minor Projects	3	ISHRAE	0.5	0.5
Projects sponsored by the University	3	IEM	40	40
Students Research	3	DST IEM	40	12

Projects (Other than compulsory by the University)				
Major Projects	3	DST SERB	2.8	1.4
Any Other (Specify)	0.5	ISHRAE	0.5	0.5
Any Other (Specify)	0.5	ISHRAE	0.5	0.5
Major Projects	5	DBT Govt. of India	10	10

### 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
Prof. Bhaskar Gupta, Professor, Jadavpur University, delivers a lecture on "Fundamentals of radiation" to the students	ECE	22/01/2019
Seminar on NPTEL Online Courses	ECE	06/02/2019
"Overview of IBM Systems Technology Group"	ECE	18/07/2018
"Modern Networking Trends"	ECE	22/08/2018
Seminar on Renewable Energy – ENGINIOUS 2018 by Dr S M Ali, Director, IEI	ME	27/09/2018
HVAC designing for Sport Complex	ME	11/11/2018
Cold Chain Technology	ME	01/08/2018
Workshop on 3D Design and Printing	ME	20/09/2018
SAEINDIA EFFICYCLE Workshop	ME	22/07/2018
Future Role of Management Students into Corporate	BBA	28/07/2018
IoT Applications using Arduino	CSE	01/09/2018
Image Processing Workshop	CSE	06/09/2018
Workshop on Solar Electronics: Direct applications of offgrid, low voltage solar	BSH	08/03/2019

electricity		
Lectures on Industry Academic Innovative practices from Community Lead at Facebook Developer Circle, Community Lead at REDX Comm	BSH	31/01/2019
Lectures on Industry Academic Innovative practices from Regional Manager, Wadhvani Foundation, National Entrepreneurship Network	BSH	28/01/2019
Lectures on Industry Academic Innovative practices from Senior Member Intel, Google Developers Group	BSH	18/01/2019
Seminar on Solar energy technology and its products, present market scenario	Electrical Engineering	29/04/2019
Workshop on Goods and Sales Tax	PGDM	01/08/2018
Campus Talk by Shiv Khera	PGDM	01/08/2018
Study Tour - Singapore	PGDM	01/03/2019
Shantiniketan - First Hand Training on Sales and Profit	PGDM	01/01/2019
Seminar on Rising Crime against Women	PGDM	01/03/2019
Workshop on ICICI Securities	PGDM	01/08/2018
Industry Visit to BHEL Vishakhapatnam	PGDM	01/03/2018
Industry Visit to Ordinance Factory	PGDM	01/04/2019
Development of AI Automation System	CSE	27/04/2019
IEEE IEMCON 2018(workshop on IoT)	CSE	01/11/2018
IEEE UEMCON 2018(workshop on IoT)	CSE	08/11/2018
IEEE CCWC 2018(workshop on IoT)	CSE	07/01/2019
Lincoln University, Malyasia (workshop on IoT)	CSE	19/01/2019

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

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
Fructoriipe	Harsh Shah and Shailendra Panda	ISHRAE	24/11/2018	Global Poster Competition
Green Geo - Rative Cold Storage	Ramesh Kumar Karthick and Samarpan Deb Majumder	ISHRAE	22/11/2018	Global Poster Competition
Packaging Improvement in Cold Chain	Tunish Moitra and Nayan Nag	ISHRAE	22/11/2018	Global Poster Competition
RA Award	Dr. Sankhyabrata Bandyopadhyay	CSIR	25/08/2018	Research
Electrocuted, INNOVACION	Md. Ehteshamullha Sandeep Rai Prateeti Mukherjee	IEM	27/01/2019	Paper presentation
IEMPACT	Ankana Bhattacharya SOUVIK PRADHAN Ratul Das, Dattatreyo Roy Abhishek Roy	IEM	27/01/2019	Movie Making competition Photography Competition Short Film Making Competition Group Step Up: Dance Competition
SPECTRUM International Students' Conference on Emerging Trends in Science Technology	Prashant Gaurav and Raubins Kumar Satyaki Chatterjee and Amulayan Bhargow Sumalyo Datta, Sayanti Dutta, Nilanjana Bandyopadhyay, Susmita Basu	IEM	20/04/2019	Paper presentation
Design Fabrication of Concentrated Solar Waste Water Treatment Apparatus	Samarpan Deb Majumder, Simran Saha, Rahul Baidya	World Invention Innovation Contest (WiC), Seoul, Korea	15/06/2019	Gold Medal
New School Building HVAC system Design	Gaurav Kumar Jha, Harsh K. Shah Sahil Sonkar	RACON HVAC Design Challenge	07/06/2019	Winner
New School Building HVAC system Design	Shounak Das, Sakib Rahi, Subham Barnwal R K Karthick.	RACON HVAC Design Challenge	07/06/2019	1st Runnerup

New School Building HVAC system Design	Avinish Kumar, Ankit Das, Rustam Alam Sidharth Ghosh	RACON HVAC Design Challenge	07/06/2019	2nd Runnerup
Machine Learning based Intrusion Detection and Side Channel Attack Prevention	Sekhar Sonthalia, Trideep Mandal	Indian Chamber of Commerce in association with CDAC and Nasscom	25/04/2019	First Prize
Design and Fabrication of Concentrated Solar Waste Water Treatment	Simran Saha	World Invention Innovation Contest	07/06/2019	Gold Medal
Student Innovative Project	Simran Saha	Fire and Security Association of India in Mumbai	28/02/2019	Research
A foldscope based automated malarial detection and real time monitoring of the malarial outbreak area to enable mitigation efforts before it takes an epidemic stature	Prof. Nilanjana Dutta Roy	DBT India, Stanford University, Assam University	15/01/2019	Research
A foldscope based automated malarial detection and real time monitoring of the malarial outbreak area to enable mitigation efforts before it takes an epidemic stature	Prof. Nilanjana Dutta Roy	NVIDIA	17/08/2018	Research
Best contributor Award	Prof. Amit Kumar Das	Innovacion 2018	23/01/2019	TechFest
Malicious URL Filtering Algorithm	Sohang Sengupta	ICC Cybersecurity Conclave	24/04/2019	Second Prize

The Artificial Intelligence Assistant	Soumik Paul	Innovacion 2018	23/01/2019	First Prize
Hardware Honeypot	Dibyadeep Bhattacharya, Meghna Bhardwaj	Innovacion 2018	23/01/2019	Second Prize

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

Incubation Center	Name	Sponsered By	Name of the Start-up	Nature of Start-up	Date of Commencement
1	Innovation E ntrepreneurs hip Development Centre	DST, Govt. of India	Oye Dabba	Food Delivery Application	10/06/2018
1	Innovation E ntrepreneurs hip Development Centre	DST, Govt. of India	Pubba	Apparel/Post er Shopping Platform	05/05/2019
1	Innovation E ntrepreneurs hip Development Centre	DST, Govt. of India	Unseen Beyond	Event Management Platform	22/07/2018
1	Innovation E ntrepreneurs hip Development Centre	DST, Govt. of India	Renderbit Technologies	Endtoend web presence provider, Search Engine Optimization	05/06/2018
1	Innovation E ntrepreneurs hip Development Centre	DST, Govt. of India	Sampark Technologies	Networking based startup	17/08/2018
1	Innovation E ntrepreneurs hip Development Centre	DST, Govt. of India	Clippy Solutions	Android Application	03/09/2018
1	Innovation E ntrepreneurs hip Development Centre	DST, Govt. of India	Drivers4Me	Android Application (Book Private Car Drivers)	21/11/2018

### 3.3 – Research Publications and Awards

#### 3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
0	0	180000

#### 3.3.2 – Ph. Ds awarded during the year (applicable for PG College, Research Center)



Name of the Department	Number of PhD's Awarded
NA	0

3.3.3 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
National	BCA and M.Sc(CS)	5	6.5
National	BSH	1	0
National	BBA	3	0
National	PGDM	2	0
National	MBA	14	0
International	ECE	24	2
International	ME	3	1.6
International	IT	7	1.7
International	CSE	12	2
International	EE	1	6.4

3.3.4 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
BCA, M. Sc (CS)	19
BBA	10
MBA	4
ECE	32
ME	12
IT	12
CSE	26
PGDM	3
BSH	14

3.3.5 – Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Attribute selection for improving spam classification in online social networks: a rough	Soumi Dutta, Sujata Ghatak, Ratnadeep Dey, Asit Kumar Das, Saptarshi Ghosh	Social Network Analysis and Mining	2018	2	IEM, Kolkata IIEST Shibpur	2

set theory based approach						
Optimizing the role of organizational commitment: A qualitative study in the school education sector	Rooprekha Baksi Maiti, Shamindra Nath Sanyal	International Journal of Organizational Analysis	2018	142	IEM, Kolkata UEM Kolkata	0
Buying behavior of herbal cosmetics by women consumers. An exploratory study in Kolkata	Dibyendu Chattaraj, Rabin Mazumder, Sahana Lahiri	Indian Journal of Marketing	2018	8	IEM, Kolkata St. Mary's Campus, Kolkata.	0
Theory and Experiment on Horizontally Inhomogeneous Rectangular Microstrip Antenna	Dr. Malay Gangapadhyaya	IET Microwaves, Antennas Propagation	2018	1.7	IEM, Kolkata	0
The Complete Modal Chart of Cylindrical Dielectric Waveguide	Dr. Malay Gangapadhyaya	Electronic Letters	2018	1.2	IEM, Kolkata	0
45°-45°-90° Triangular dielectric resonator antenna with broadside radiation patterns	Dr. Malay Gangapadhyaya	Elsevier	2018	2.1	IEM, Kolkata	0
Evaluation of Argon ion irradiation hardening of ferritic/martensitic	Dr. G. S. Taki	Taylor Francis	2018	4.4	IEM, Kolkata	0

tic steelT91 using nano indentatio n, Xray di ffraction and TEM techniques						
45 keV N5 ions induced spikes on CdS thin films: Mor phological , structural and optical properties	Dr. G. S. Taki	Applied Surface Science, Elsevier	2018	4.4	IEM, Kolkata	0
"High Perf ormance DGS Integrated Compact Antenna for 2.4/5. 2/5.8 GHz WLAN Band"	Srijita Ch akraborty	Radio Engi neering	2018	1.048	IEM, Kolkata	0
State Estimation and NonLinear Model Based Control of a Continuous Stirred Tank Reactor Using Unscented Kalman Filter	Dr. Atanu Panda	Wiley Online Library	2018	1.356	Madras Institute of Technology	1
Adaptive Nonlinear Model Based Control Scheme Imp lemented on the Nonlinear Processes	Dr. Atanu Panda	Nonlinear Dynamics, Springer	2018	4.339	Madras Institute of Technology	1
Dual	Dr. Atanu	Springer	2018	0.59	IEM,	0

Estimation and Combination of State and Output Feedback Based Robust Adaptive NMBC Control Scheme on Nonlinear Process	Panda				Kolkata	
'Operational control of an integrated drum boiler of a coal fired thermal power plant'	Dr. Atanu Panda	Elsevier	2018	4.968	IEM, Kolkata	0
Efficient splitting of broadband LED light into narrow bands using superlensing effect and defects on its top 2D photonic crystal	Rajib Ghosh	Springer	2018	1.168	IEM, Kolkata	1
High resolution wide range pressure sensor using hexagonal ring and micromachined cantilever tips on 2D silicon photonic crystal	Rajib Ghosh	Elsevier	2018	1.887	IEM, Kolkata	0
Blast Furnace	Rahul Baidya	Waste Management	2018	7.2	Jadavpur University	65

Flue Dust Coprocessing in Cement Kiln - A Pilot Study		Research				
Low Carbon Cement Manufacturing in India by Coprocessing of Alternative Fuel and Raw Materials	Rahul Baidya	Energy Sources Part A: Recovery, Utilization, and Environmental Effects	2018	7.2	Jadavpur University	65
Investigation of correlation effects on the electronic structure of 3d1 perovskites	Sanhita Paul	Journal of Physics and Chemistry of Solids	2019	9	IEM, Kolkata	6
Human Factor Analysis for Railway Coach and Bogie Maintenance using Principal Component Analysis and Factor Analysis	Dr. Malay Gangapadhyaya et al	Inderscience	2019	0	IEM, Kolkata	0

3.3.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
A Feature Selection Technique Based On Rough Set And Improved PSO Algorithm	Bhattacharya, A., Goswami, R.T. Mukherjee, K	Int. J. Mach. Learn. Cyber.	2018	26	0	IEM, Kolkata

(PSORSFS) For Permission Based Detection Of Android Malwares						
An Ensemble voted Feature Selection technique for Predictive Modeling of Malwares of Android	Bhattachar ya, A., Goswami, R.T. Mukherjee, K	Internatio nal Journal of Informatio n System Modeling and Design (IJISMD)	2018	12	0	IEM, Kolkata
A complete routing simulator for Digital Mi crofluidic Biochip	Rupam Bhat tacharya, Pranab Roy ,Hafizur Rahaman	Internatio nal Journal of Informatio n SystemMo deling and Design	2018	12	0	IEM, Kolkata IEST, Shibpur
Attribute selection for improving spam class ification in online social networks: a rough set theory based approach	Soumi Dutta, Sujata Ghatak, Ratnadeep Dey, Asit Kumar Das, SaptarshiG hosh	Social Network Analysis and Mining	2018	22	2	IEM, Kolkata IEST, Shibpur
Optimizing the role of organiz ational co mmitment: A qualitat ive study in the school education sector	Rooprekha Baksi Maiti, Shamindra Nath Sanyal	Internatio nal Journal of Organisati onal Analysis	2018	142	0	IEM, Kolkata
Psychologi cal contract and its role in the infras	Ipsita Satpathy, B.C.M. Patnaik, Saikat Cha krabarti	Internatio nal Journal of Civil Engi neering Technology	2018	2	0	Kalinga Institute of Industrial Technology IEM,

structure sector: A review study						Kolkata
Buying behavior of herbal cosmetics by women consumers. An exploratory study in Kolkata	Dibyendu Chattaraj, Rabin Mazumder, Sahana Lahiri	Indian Journal of Marketing	2018	8	0	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	6	0	IEM, Kolkata
State Estimation and NonLinear Model Based Control of a Continuous Stirred Tank Reactor Using Unscented Kalman Filter	Atanu Panda et al	Applied Surface Science	2018	1	0	IEM, Kolkata
Adaptive Nonlinear Model Based Control Scheme Implemented on the Nonlinear Processes	Atanu Panda et al	The Canadian Journal of Chemical Engineering	2018	1	0	IEM, Kolkata
Comparative Studies on Performance of Commercially	Arindam Chakraborty et al	Nonlinear Dynamics	2018	3	0	IEM, Kolkata

Available HighPower PCLED Bulbs Under Tropical Conditions						
The Complete Modal Chart of Cylindrical Dielectric Waveguide	Dr. Malay Gangapadhyaya et al	Electronic s Letters	2018	4	0	IEM, Kolkata
45°-45°-90° Triangular dielectric resonator antenna with broadside radiation patterns	Dr. Malay Gangapadhyaya et al	AEU Intern ational Journal of Electronic s and Comm unications	2018	4	0	IEM, Kolkata
Dual Estimation and Combin ation of State and Output Feedback Based Robust Adaptive NMBC Control Scheme on Nonlinear Process	Dr. Atanu Panda et al	Internatio nal Journal of Dynamics and Control (IJDY)	2018	1	0	IEM, Kolkata
Efficient splitting of broadband LED light into narrowbands using supe rlensing effect and defects on its top 2D photonic crystal	Rajib Ghosh et al	Optical and Quantum El ectronics, Springer, 2017. doi: 10.1007/s1108201710499	2018	2	0	IEM, Kolkata
High resolution wide range	Rajib Ghosh et al	Internatio nal Journal of	2018	2	0	IEM, Kolkata



pressure sensor using hexagonal ring and micromachined cantilever tips on 2D silicon photonic crystal		Dynamics and Control (IJDY)				
Theory and Experiment on Horizontally Inhomogeneous Rectangular Microstrip Antenna	Dr. Malay Gangapadhyaya et al	IET Microwaves, Antennas Propagation	2018	4	0	IEM, Kolkata
Design study of a portable permanent magnet ECR plasma source for thin film deposition	Dr. G. S. Taki	2018 1st International Conference on Electronics, Materials Engineering and Nano Technology (IEMENTech), IEEE Conference	2018	6	0	IEM, Kolkata
Design of 1bit Full Adder Using NMOS based Negative Differential Resistance	Mili Sarkar	DEV IC	2018	3	0	IEM, Kolkata
Miniaturization of Rectangular Microstrip Antenna at	Srijita Chakraborty	2018 2nd International Conference on Electronics, Materials Engineering NanoTechnology (IEMENTech)	2018	1	0	IEM, Kolkata
Control of Higher	Srijita Chakraborty	2018 2nd International	2018	1	0	IEM, Kolkata

Order modes and their Radiation		al Conference on Electronics, Materials Engineering NanoTechnology (IEMENTech				
A Novel Design of FlipFlop Circuits using Quantum Dot Cellular Automata (QCA)	Ratna Chakrabarty	IEEE CCWC	2018	6	0	IEM, Kolkata
Design of 2s Complement of 4Bit Binary Numbers Using Quantum Dot Cellular Automata	Ratna Chakrabarty	IEMENTECH 2018	2018	6	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	6	0	IEM, Kolkata
Wearable DGS Integrated High Performance Compact Antenna for 2.4 /5.2/5.8 GHz WLAN Band on	Srijita Chakrabarty	IEMENTECH 2018	2018	1	0	IEM, Kolkata

Leather Substrate							
Miniaturization of Rectangular Microstrip Antenna at WiMAX Band with Slot in Patch and Ground Surface	Srijita Chakraborty	IEMENTECH 2018	2018	1	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	1	0	IEM, Kolkata	
Frequency Tuning and Bandwidth Enhancement in Compact Microstrip Antenna using Saw Tooth Shaped DGS	Srijita Chakraborty	IEMCON 2018	2018	1	0	IEM, Kolkata	
Comparator Design using CTL and Output wired based Majority Gate	Mili Sarkar	IEMENTECH 2018	2018	3	0	IEM, Kolkata	
Low Carbon Cement Manufacturing in India by Coprocessing of Alternative Fuel and	Rahul Baidya	Energy Sources Part A: Recovery, Utilization, and Environmental Effects	2018	6	65	Jadavpur University	

Raw Materials							
Implementing Fuzzy TOPSIS in Cloud Type and Service Provider Selection	Sanchita Ghosh	Advances in Fuzzy Systems	2018	13	0	IEM, Kolkata	
Time Division Bargaining for Cognitive Radio Emergency Network	Swagata Roy Chatterjee, Sreya Ghosh and Mohuya Chakraborty	Proceedings of International Conference on Data Science, Machine Learning Applications (ICDSMLA 2019), SpringerBriefs in Applied Sciences and Technology ISSN: 2191530X	2019	12	0	IEM, Kolkata	
An approach of feature selection using graph theoretic heuristic and hill climbing	Amit Kumar Das	Pattern Analysis and Applications	2019	3	40	IEM, CU	
A Computer Vision based IoT enabled Automated	Nilanjana Dutta Roy	CMBBE	2018	2	18	IEM, IEST	
How to Analyze the Overall Performance of a Student: Strong or Weak	Monalisa Dey	IEEE 5th International Congress on Information Science and Technology (CiSt)	2018	4	82	JU, IEM	
Relation Extraction of Medical	Anupam Mondal	Cognitive Computation	2018	4	45	JU, IEM	

Concepts Using Categorization and Sentiment Analysis						
Broadcast Storm Problem–A Hidden Consequence of Content Distribution in Content Delivery Networks	Darothi Sarkar	Networking Communication and Data Knowledge Engineering	2018	3	80	Amity University, IEM

### 3.3.7 – Faculty participation in Seminars/Conferences and Symposia during the year :

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	10	25	0	0
Presented papers	15	45	0	0

### 3.4 – 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 participated in 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
IEMMarathon	IEM	135	525
Teaching Street Children	IEM	45	85
MoU with CRY	IEM, CRY	40	135
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	Number of students Benefited
NA	NA	NA	0

#### 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

Name of the scheme	Organising unit/Agen	Name of the activity	Number of teachers	Number of students
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	cy/collaborating agency		participated in such activities	participated in such activities
Charity	Louis Braille Memorial School for the Sightless, Makhla, Uttarpura	Distribution of Blanket for visually impaired children	11	54
Community Service	IEM	IEMMarathon	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

### 3.5 – Collaborations

#### 3.5.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
STUDENT EXCHANGE PROGRAM	PGDM STUDENTS	IEM	1
Research	Dr. Malay Gangopadhyaya with Jadavpur University	Institute	1
Research	Dr. Atanu Panda with Anna University	Institute	1
Research	Dr. Rintu Kumar Gayen with IIT (ISM), Dhanbad	Institute	1
Research	Dr. Rintu Kumar Gayen with IIT, Kharagpur	Institute	1
Research	Dr. Sankhyabrata Bandyopadhyay with CSIR-CGCRI, Kolkata	Institute	1
Research	Dr. Sankhyabrata Bandyopadhyay with Indian Association for the Cultivation Of Science, Kolkata	Institute	1
Research	Indranil Basu with Bose Institute, Kolkata	Institute	1
Research	Dr. K.K.Ghosh with IISc, Bangalore	Institute	1
Research	Dr. G.S.Taki with IISc, Bangalore	Institute	1
Research	Dr. G.S.Taki with	Institute	1

	UGC-DAE CSR, Kolkata Center		
Research	Dr.G.S.Taki with CRNN, Kolkata	Institute	1
Research Collaboration with Jadavpur University	Rahul Baidya	NA	1
Research Collaboration with University Of Hertfordshire	Rahul Baidya	NA	2
Research Collaboration with ISWMAW	Rahul Baidya	NA	2
Research Collaboration with CSIRCentral Mechanical Engineering Research Institute, Durgapur	Dr. Abhishek Kundu	NA	2
Research Collaboration with NOVOSIBIRSK State University, Russia	Dr. Abhishek Kundu	NA	2
Student Exchange with ESC Rennes School of Business, France	Students	IEM	1

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

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Internship	Student Internship	Kantar IMRB, WOW! MOMO, NEXA, Dominos Pizza, TVS Motors, GROSUM, KOTAK SECURITIES, Times of Bengal, Furure Generali, Bajaj Finserve	04/08/2018	04/08/2018	Souvik Adhikary Rupsa Saha Solanki Ghosh Ankur Basak Soumita Chakraborty Pragya Banga

On Job Training	Campus to Corporate	PWC SDS	01/07/2018	01/09/2018	All MBA PGDM Finance Students
INDUTRIES FOR INTERNSHIP	Vodafone Pathshala	Vodafone	01/06/2018	01/07/2018	All MBA PGDM Finance Students
Onthejob training	Onthejob training	Wipro	01/07/2018	01/07/2019	Students
Onthejob training	Onthejob training	TCS	01/06/2018	01/06/2019	Students
Onthejob training	Onthejob training	CTS	01/07/2018	01/07/2019	Students
Industries for internship	Industries for internship	VECC, Kolkata	01/07/2018	01/07/2019	Students
Industries for internship	Industries for internship	Bose Institute, Kolkata	01/07/2018	01/07/2019	Students
Industries for internship	Industries for internship	BSNL, Kolkata	01/07/2018	01/07/2019	Students
Industries for internship	Industries for internship	Airport Authority of India, Kolkata	01/06/2018	01/06/2019	Students
Project Work	MEP overview in KMRCL Project	Voltas Limited	11/06/2018	10/07/2018	Mr. Gaurav Kumar Jha
IEI - IEM Students, Chapter	Internship and Final Year Project Fund	The Institution of Engineers (India)	01/08/2018	01/11/2018	Students
Internship	Internship	BackOffice Associates (BOA), Singapore	04/10/2018	12/11/2018	1. Simanta Sarkar (BCA 5th semester) 2. Rhea Bonnerji (BCA 5th semester)
Industry Internship	Industry Internship	Keysight Inc	01/08/2018	01/11/2018	Gautam Bose, Sayan Bacchar, Pushkar Deb, Sagnik Mukherjee
Industry Internship	Industry Internship	NRI FINTECH	01/08/2018	01/11/2018	Gulshan Kumar, Samyak Jain, Siddartha Yashwee
Summer Internship	Summer Internship	KANTAR, JUBILANT	19/06/2018	19/08/2018	BBA Students



		FOOD, NEXA, SKA SHIPPING, GROSUM, THE HINDU, FLAIR CREATIVES, BAJAJ FINSERVE, TIMES OF BENGAL etc			
Internship	30 Hours	Ardent Computech Pvt. Ltd. GP Block Sector V, Salt Lake, Kol 91	20/06/2018	20/07/2018	Students
Internship	30 Hours	OGMATECH Mr. Sourav Ghosh, 5th Floor, Room No. 503 of SHAILA Tower, Block EP GP Sector V, Kol 91	12/06/2018	30/07/2018	Students

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

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
University of Nevada, Las Vegas	20/07/2018	Student Faculty Exchange	2
Global Language Centre (CDA)	06/10/2018	Collaborative work	25
University of Aizu	22/02/2019	Promoting closer ties and greater understanding in higher education and science and technology	15
REBACA Technologies	04/03/2019	Industrial Tieup	9
CADENA	10/03/2019	Industrial Tieup	8

## 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
200000000	106797678.6

#### 4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Campus Area	Existing
Class rooms	Newly Added
Laboratories	Newly Added
Seminar Halls	Newly Added
Classrooms with LCD facilities	Newly Added
Classrooms with Wi-Fi OR LAN	Newly Added
Seminar halls with ICT facilities	Newly Added
Video Centre	Newly Added
Value of the equipment purchased during the year (rs. in lakhs)	Existing
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added

#### 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 (fully or partially)	Version	Year of automation
LSEase	Fully	LSEase (Rel.5.0)	2005
KOHA	Fully	KOHA (3.22.09.000)	2016

##### 4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	71000	1739	63000	63055	134000	64794
Reference Books	5735	265	6000	6000	11735	6265

##### 4.2.3 – 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.(Dr.) Sourav Saha	Gymkhana TV	CloudTech, Amazon Web Services	01/01/2018

#### 4.3 – IT Infrastructure

##### 4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MGBPS)	Others
Existing	1650	912	1650	120	115	27	145	1	30

Added	137	100	137	10	5	3	25	1	5
Total	1787	1012	1787	130	120	30	170	2	35

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

2 MBPS/ 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	<a href="http://www.gymkhanatv.org">http://www.gymkhanatv.org</a>

#### 4.4 – Maintenance of Campus Infrastructure

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
50000000	21576811.2	170000	41552253

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

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 nongovernmental 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 WiFi 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 onetime 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

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

## CRITERION V – STUDENT SUPPORT AND PROGRESSION

### 5.1 – Student Support

#### 5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	Free ship, Half Free ship and TFW	108	8693000
Financial Support from Other Sources			
a) National	NA	0	0
b)International	Google Venkat Panchpakeshan Scholarship	1	70000

#### 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 implemetation	Number of students enrolled	Agencies involved
Mentoring	18/08/2018	780	Internal faculty resource
Mentoring	19/02/2019	360	Internal faculty resource
Remedial coaching	16/04/2019	52	Prof. Ankita Mondal, Prof. Sreelekha Biswas
Soft skill development	11/01/2019	120	Prof. Nayantara Mitra
Soft skill development	14/01/2019	127	Internal faculty resource
Aptitude Development	14/01/2019	250	Prof. Tapas Mukherjee
Personal Counselling	23/08/2018	780	Internal faculty resource
Remedial Classes	18/03/2019	45	Faculties from BBA(H) Department
Soft Skill Development Sessions	01/03/2019	56	Prof. Soumik Das from BBA (H) Department

Mentoring	01/02/2019	176	Staff, alumni
Pre Placement Training Classes(Basic)	26/06/2018	700	Tech Bridge
Pre Placement Training Classes(Advanced)	02/11/2018	700	Tech Bridge
Aptitude Class	04/09/2018	720	CoCubes
Employability and Job Readiness Classes (Includes Quantitative Aptitude, Analytical Reasoning, English Usage, Domain (Technical), Coding, Written English	04/09/2018	720	CoCubes
Motivational Speech by Mr. Shiv Khera	25/08/2018	2035	Mr. Shiv Khera
Soft skill development	05/09/2018	780	Internal faculty resource
Remedial coaching	04/10/2018	300	Internal faculty resource
Language lab	14/01/2019	780	Internal faculty resource
Bridge courses	02/08/2018	780	Internal faculty resource

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 for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
2019	Students' Grooming for Career Enhancement (IT)	135	105	105	101

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	Number of grievances redressed	Avg. number of days for grievance redressal
2	2	10

## 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 SANKALP TCS ENCODE ERNST YOUNG TCS CODEVITA Generic Profile TCS CODEVITA Digital Profile INFOSYS System Engineer Specialist INFOSYS Specialist Programmer TCS ENGINX Generic Profile TCS ENGINX Digital Profile VA	3006	636	NA		

### 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, IIEST 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	5	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	3	B.Tech	IT	Jamshedpur Master of Business Administration (MBA), HR, FMS Delhi	MBA
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	8	B.Tech	ME	Jadavpur University, IEST Shibpur, NIT Durgapur, IIT Kanpur, IIT Roorkee, IIT Delhi, NIT Mizoram	M.Tech

2019	3	BCA	BCA	National College of Ireland, Dublin, Ireland	MSc. in Data Analytics , MSc. in Cyber security
2018	10	B.Tech	EE	IISC Bangalore, IIT Kharagpur, IEST, Shibpur, Jadavpur University, University of Calcutta	M.Tech, MBA
2018	12	B.Tech	EE	University of Seagen, Germany, IIT Kharagpur, IEST, Shibpur, Jadavpur University, University of Calcutta	MS, M.Tech
2018	6	B.Tech	ME	Columbia Univ. (US), Univ. of Leeds (UK), Univ. Windsor (Canada), Univ. of Western Australia (Australia), IIT (Chennai), IIFT (New Delhi)	MS, MEng., MTech, MBA.
2018	1	B.Tech	ECE	South California University	MS
2018	1	B.Tech	ECE	NIT, Warangal	M.Tech
2018	2	B.Tech	ECE	IEST , Shibpur	M.Tech
2018	1	B.Tech	ECE	VIT, Vellore	MS
2018	2	B.Tech	ECE	IEST , Shibpur	M.Tech
2018	1	B.Tech	ECE	VIT, Vellore	MS
2018	1	B.Tech	ECE	SRM University,	M.Tech



				Chennai	
2018	1	B.Tech	ECE	NIA, Pune	MBA
2018	1	B.Tech	ECE	IIT Bhubaneswar	M.Tech
2018	4	B.Tech	ECE	IIT Kharagpur	M.Tech
2018	1	B.Tech	ECE	IIT Madras	M.Tech
2018	1	B.Tech	ECE	University of Maryland	MS
2018	1	B.Tech	ECE	IIT Kanpur	M.Tech
2018	1	B.Tech	ECE	IIM Ranchi	MBA
2018	3	B.Tech	ECE	IISC Bangalore	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	Number of students selected/ qualifying
GATE	218
CAT	36
TOFEL	5
GRE	16

5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
Football Tournament (JUBENOUS)	Inter College	2
OVAL organized by IEST Shibpur	Inter College	3
Game of Thrones Football Tournament organized by RCCIIT	Inter College	3
Tag of War winner	Inter college	1
Marathon	Institution level	900
Cycle marathon	Institution level	10
Table Tennis Tournament	Inter College	30
Carrom Tournament	Inter College	40
PUBG Tournament	Inter College	60
The Fest: NIRVANA 2K19	Inter College	200
B Plan Competition	Inter College	2
1 Dollar Venture	Inter College	12
Cricket Tournament	Makaut Zonal Inter College Tournament	1
Foot ball (1st year	Institution level	200

b.tech)		
Foot ball (inter dept.)	Institution level	150
Cricket	Institution level	150
Kabaddi	Institution level	100
Volleyball	Institution level	100
Basketball (boys)	Institution level	50
Basketball (girls)	Institution level	100
Badminton ( boys)	Institution level	50
Badminton ( girls)	Institution level	100
Table tennis(girls)	Institution level	25
Billiards (boys)	Institution level	50
Billiards (girls)	Institution level	10
Carrom (boys)	Institution level	70
Carrom (girls)	Institution level	10
Mini galf (boys)	Institution level	50
Mini galf (girls)	Institution level	10
Tugofwar(boys)	Institution level	100
Tugofwar(girls)	Institution level	30
Annual sports	Institution level	400
MUN MODEL UNITED NATION	Inter College	4
CULTURAL FOOTLOOSE MUSIC DANCE COMPETITION	Inter College	4
TRUST GUESS	Inter College	3
LUKKAD STREET PLAY	Inter College	2
TRADE BATE DEBATE COMPETITION	Inter College	3
LENS FLARE PHOTOGRAPHY COMPETITION	Inter College	5
GRAFFITI COMPETITION	Inter College	4
ADMAKING COMPETITION	Inter College	3
Football Tournament organized by MAKAUT	University level	2

### 5.3 – Student Participation and Activities

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)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2018	Makaut Zonal Inter College	National	1	0	NA	Kaustav Shome

	Tournament					
2018	IIEST Invitational Cricket Tournament	National	1	0	NA	Kaustav Shome
2018	College Premier Liga	National	1	0	NA	Kaustav Shome
2018	Budge Budge Institute Of Technology (BBIT) Champions Trophy	National	1	0	NA	Kaustav Shome
2018	1st Savate State Championship	National	1	0	NA	Dibyadeep Bhattacharya
2018	West Bengal Kickboxing State Championship	National	1	0	NA	Dibyadeep Bhattacharya
2018	Chess Competition, iLead College	National	1	0	NA	Ankur Kumar Suman
2019	1st position in Dance at IEM Cultural festival 2019	National	0	1	NA	Aditya Atulya
2019	1st position in Dance at IEM Cultural festival 2019	National	0	1	NA	Indrajeet Kumar
2019	1st position in Eastern Dance at IEM Cultural festival 2019	National	0	1	NA	Sandipan Das
2019	IEMPACT	National	1	0	NA	Abheek Das
2018	3rd in Calcutta	National	1	0	NA	Abheek Das

	Medical college Football Tournament					
2019	1st position in the Step-up-Classical event at IEM Cultural Festival	National	0	1	NA	Anushka Banerjee
2018	IEMPACT-Eastern Dance	National	0	1	NA	Subarna Mitra

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 decisionmaking 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 decisionmaking 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, antiragging cell all decisions are decided in a congenial environment. The Institute holds national and international conferences where participation of students is praiseworthy.

#### 5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

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, startups 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 selfconfidence. On 21st December 2018, Institute of Engineering and Management (IEM) organized the muchawaited 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 EMagazine – 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 Halder, 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 cakecutting 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.

5.4.2 – No. of enrolled Alumni:

1050

5.4.3 – Alumni contribution during the year (in Rupees):

7320000

5.4.4 – 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 300400 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, nonacademic 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)

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, cocurricular, 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 cocurricular 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 Cooordinator 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, nonacademic 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

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

Yes

## 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):

Strategy Type	Details
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 valuebased education.

Teaching and Learning

The following are some of the innovative processes adopted by the institution towards TLP (Teaching and Learning Programme) ? ELearning 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 (selfstudy). ? Progression of students is continuously monitored. ? Inter departmental student projects. ? Funding for multidisciplinary 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 midterm results. A student aggrieved by the marks awarded to him/her can appeal for reevaluation. 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 multidisciplinary 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.

Library, ICT and Physical Infrastructure / Instrumentation

Institute Central Library was established with nearly 60 Thousand books and 1700 books were added during 20172018 period and 40 print journals having elearning resources with 100 eBooks and 350 ejournals were added. Library is well connected with consortium of Indian libraries INFLIBNET. The Institute has more than 1787 computers and 2 eclass 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, nonteaching 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 performancebased 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	<p>? 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. ?</p> <p>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>The Institute has a wellorganized 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>

6.2.2 – Implementation of e-governance in areas of operations:

E-governance area	Details
Planning and Development	<p>? Audiovisual system in all classrooms            ? Each department is provided with computers having internet facility. ?            The institute Central Library has adequate no. of books, journal, computer with internet facility and provision for digital library. ? 24X7 library facilities provided by the institute for the students and faculties.</p>
Administration	<p>? Internet access to all machines and 2 GBPS leased line. ? WiFi facility throughout the institute. ? Leave and Attendance of Faculties can be tracked through the IEMCRP software ?            Administrative information is digitalised and all the departments of the institute are provided with computer data cable network facility. ?            CCTV surveillance system for central library and all the existing</p>

	facilities.
Finance and Accounts	Tally System for maintaining the accounts in accounts department. • CYNSYS for the tax calculation in accounts department.
Student Admission and Support	? Internet facility is provided in student hostel ? Video lectures are available in the Gymkhana TV based on course materials available for the benefit of the students. ? ELearning resources were created using eJournals and ebooks. The library provides eJournal facilities. ? Admission and examination procedure are computerised.
Examination	? Execution of Class test and marking scheme both are possible in the IEMCRP software.

### 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

Year	Name of Teacher	Name of conference/workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2018	Dr. Shamindra Nath Sanyal	LVMHSMU Luxury Research Conference	The Financial help was offered to attend the Conference organized jointly by LVMH and Singapore management University at Singapore	34500
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	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	15000

2018	Dr. Malay Gangopadhyaya	CCWC 2018	IEEE	21000
2018	Dr.Himadri Nath Saha	IEMCON 2018	IEEE	15000
2018	Prof. Sanghamitra Poddar	IEMCON 2018	IEEE	15000
2018	Dr. K.K.Ghosh	Nano electronics Device Fabrication Workshop	IISC Bangalore	8000
2018	Dr. G.S.Taki	IEMENTECH 2018	IEEE	5000
2018	Ratna Chakrabarty	IEMENTECH 2018	IEEE	5000
2018	Mili Sarkar	IEMENTECH 2018	IEEE	5000

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

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2019	Innovative Tools and Techniques in Technology	Innovative Tools and Techniques in Technology	25/03/2019	29/03/2019	13	7
2019	Pedagogy Academics	Pedagogy Academics	14/02/2019	15/02/2019	13	7

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	From Date	To date	Duration
<b>No Data Entered/Not Applicable !!!</b>				

6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
297	297	50	39

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
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<p>? Free medical facility. ? Loans for housing, vehicle and medical needs. ? Group insurance. ? Festival advances. ? Fee concession for employees children in education. ? Transport facility.</p>	<p>? Free medical facility. ? Group insurance. ? Separate cooperative society. ? Festival advances. ? Loans for housing, vehicle and medical needs. ? Fee concession for employee children in education. ? Transport facility.</p>	<p>? Accommodation (hostel facility). ? Free medical facility. ? Student insurance. ? Play grounds and gymnasium, meditation hall, ? yoga practice centre. ? Recreational facilities. ? Implementation of fee reimbursement scheme. ? Assistance for getting scholarships. ? Publication of annual magazine.</p>
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#### 6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

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 4th 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.

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/ Grnats received in Rs.	Purpose
IEM	4000000	Research

6.4.3 – Total corpus fund generated

1345810835

#### 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	University Expert	Yes	IEM
Administrative	Yes	University Expert	Yes	IEM

6.5.2 – Activities and support from the Parent – Teacher Association (at least three)

? Institute has quarterly parentteacher meetings to understand the perceptions and expectations of the parents. ? The feedback from parents on various academic and nonacademic activities is collected and analysed by the IQAC. ? Along with the students, parents are invited for the induction meeting conducted by the Institute Administration. ? 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. ? Institute has plans to introduce additional online programmes in every department for each student in which the parents can interact and get required information.

6.5.3 – Development programmes for support staff (at least three)

Different Development programmes are organised by the college for the support staff such as: ? Orientation programme ? Development programme ? Improvement programme ? Computer and skillbased training ? Regular birthday celebration ? Sports ? Regular medical checkup.

6.5.4 – Post Accreditation initiative(s) (mention at least three)

? Arrangement of National and International Conferences. ? Arrangement of FDP for the teaching faculty. ? Arrangement of Seminar, Workshop and Conferences at regular intervals. ? Steps taken towards campus drives for placement of final year Students

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	No
b) Participation in NIRF	Yes
c) ISO certification	Yes
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 IQAC	Duration From	Duration To	Number of participants
2018	International Conference on English Learning and Teaching Skill	26/07/2018	26/07/2018	28/07/2018	200
2018	ACM Distinguished Speaker Program	01/08/2018	01/08/2018	01/08/2018	75
2018	1st Year Inauguration (Speech by Mr .D.P Duary Director of Birla Museum)	02/08/2018	02/08/2018	02/08/2018	265
2018	IEM Diversion	22/09/2018	22/09/2018	22/09/2018	150
2018	ENGINEIOUS, 2018	27/09/2018	27/09/2018	28/09/2018	100
2018	Kolkata Mini Maker Faire	18/11/2018	18/11/2018	18/11/2018	260

**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	Period To	Number of Participants	
			Female	Male
Women empowerment training programmes	01/08/2018	01/09/2018	50	10

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University 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

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	10
Provision for lift	Yes	15
Ramp/Rails	Yes	3
Rest Rooms	Yes	4

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
<b>No Data Entered/Not Applicable !!!</b>							

7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
<b>No Data Entered/Not Applicable !!!</b>		

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
IEM POETICA: Development of aesthetic value through appreciation of poetries and literary composition.	09/05/2019	09/05/2019	130
IEM Voices: Integration of multi cultural and multilingual	22/02/2019	22/02/2019	100

exchanges			
Candle March Procession for Our homage to the Brave Hearts.	21/02/2019	21/02/2019	100
"Humane: An Outcry" is an environmental education and CSR campaign for IEM Management/MBA students in association with Humane Society International/India that works to help animals through campaign against factory farming and street animals	12/03/2018	19/03/2018	165
MBA/PGDM students participated in another camp cohosted by 'Humane Society International' one of the largest animal protection organizations in the world in association with 'Institute of Engineering Management', Saltlake, Kolkata	15/06/2018	15/06/2018	50
Department of Management IEM eCell Management in association with Titan Eye cordially invited all (Faculty members staff of Institute of Engineering Management) for a Free Eye check up	28/09/2018	28/09/2018	250
A visit to SOS Children House: An Orphanage on Children's Day was arranged by IEM, Department of Management to "love, care affection" in the form of "books, clothing food".	14/11/2018	14/11/2018	35



A Day with "Street Children" was made beautiful by our MBA/PGDM students on the eve of Christmas with warm cloths, books drawing books.	30/11/2018	30/11/2018	40
A PreDiwali distribution of sweets, gifts and clothes had been carried out in the month of November by the members of the Student's Gymkhana	02/11/2018	02/11/2018	70
IEM, Department of Management in association with "Dhhatri" Foundation organized "Stem Cell Banking" Campaign to spread awareness among people regarding stem cell preservation to combat fatal diseases.	10/02/2018	10/02/2018	200
Blankets were distributed among the visually impaired students of Louis Braille Memorial for the Sightless, Makhla, Uttarpara by the members of Student's Gymkhana	14/12/2018	14/12/2018	65
A PreChristmas distribution of cakes, chocolates and woollen clothes had been carried out in the month of December by the members of the Student's Gymkhana	23/12/2018	23/12/2018	80

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. Ewaste management: The Institute administration has nominated a centralized team to look after obsolete items from the institute campus and their proper disposal. The ewaste 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

### 7.2.1 – Describe at least two institutional 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, elearning 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 practi

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

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

## 7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

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 1st 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. Online 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 ematerial, 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.

Provide the weblink of the institution

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

### **8.Future Plans of Actions for Next Academic Year**

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.