

Self Assessment Report (SAR)
For
NBA Accreditation of
Undergraduate Engineering Program
Bachelor of Technology
In
Computer Science and Engineering



Asansol Engineering College
Vivekananda Sarani, Kanyapur
Asansol, Burdwan
West Bengal, Pin-713305

Submitted To



National Board of Accreditation
4th Floor, East Tower, NBCC Place, Bhisham Pitamah Marg, Pragati Vihar,
New Delhi, India
March 2022

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PART A: Institutional Information

1. Name and address of the Institution:

Asansol Engineering College
Vivekananda Sarani, Kanyapur
Asansol – 713 305 (W.B)

2. Name and address of the Affiliating University:

Maulana Abul Kalam Azad University of Technology
(Formerly Known as West Bengal University of Technology)
BF-142, Sector 1, Salt Lake City Kolkata 700064, West Bengal

3. Year of establishment of the Institution:

1998

4. Type of the Institution:

University	<input type="checkbox"/>
Deemed University	<input type="checkbox"/>
Government Aided	<input type="checkbox"/>
Autonomous	<input type="checkbox"/>
Affiliated	<input checked="" type="checkbox"/>

5. Ownership Status:

Central Government	<input type="checkbox"/>
State Government	<input type="checkbox"/>
Government Aided	<input type="checkbox"/>
Self financing	<input checked="" type="checkbox"/>
Trust	<input type="checkbox"/>
Society Section 25 Company	<input type="checkbox"/>
Any Other (Please specify)	<input type="checkbox"/>

Provide Details: **Non profitable benevolent society**

6. Other Academic Institutions of the Trust/Society/Company etc., if any:

None

7. Details of all the programs being offered by the institution under consideration:

S. No	Program Name	Name of the Department	Year of Start	Intake	Increase in intake, if any	Year of increase	AICTE Approval	Accreditation Status*

1	B. Tech in Electronics & Communication Engineering	Electronics & Communication Engineering	1998	40 60 90 120	20 30 30	2000 2002 2009	Yes	Applied
2	B. Tech in Computer Science & Engineering	Computer Science & Engineering	1998	40 60 90 120 180	20 30 30 60	1999 2001 2009 2020	Yes	Applied
3	B. Tech in Mechanical Engineering	Mechanical Engineering	2003	30 60 120 60	30 60 -60	2008 2011 2020	Yes	Applied
4	B. Tech in Information Technology	Information Technology	1998	40 60 90 120	20 30 30	2000 2001 2020	Yes	Yet to apply
5	B. Tech in Electrical Engineering	Electrical Engineering	1998	60 90 120	30 30	2002 2014	Yes	Yet to apply
6	B. Tech in Civil Engineering	Civil Engineering	2009	60 30	-30	2020	Yes	Yet to apply
7	B. Tech in Applied Electronics & Instrumentation	Applied Electronics & Instrumentation	2002	40 60 30 00	20 -30 -30	2003 2020 2021	Yes	Not Applicable
8	B. Tech in Computer Science & Business Systems	Computer Science & Business Systems	2020	30			Yes	Not Applicable
9	B. Tech in Artificial Intelligence and Machine Learning	AI & ML	2021	30			Yes	Not Applicable

TableA.7

8. Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Computer Science & Engineering
2	Under Graduate	Engineering & Technology	Electronics & Communication Engineering
3	Under Graduate	Engineering & Technology	Mechanical Engineering

9. Total number of employees in the institution:

A. Regular Employees (Faculty and Staff)

Items		CAY 2021 -22		CAYm1 2020-21		CAYm2 2019-20	
		Min.	Max.	Min.	Max.	Min.	Max.
Faculty in Engineering	M	104	104	110	110	112	112
	F	19	19	22	22	21	21
Faculty in Mathematics, Science & Humanities	M	19	19	18	18	18	18
	F	10	10	10	10	10	10
Non-Teaching Staff	M	56	56	56	56	56	56
	F	08	08	08	08	08	08

B. Contractual staff Employees (Faculty and Staff) (not covered in Table A)

Items		CAY 2021 -22		CAYm1 2020-21		CAYm2 2019-20	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	M	0	0	0	0	0	0
	F	0	0	0	0	0	0
Faculty in Mathematics, Science & Humanities	M	0	0	0	0	0	0
	F	0	0	0	0	0	0
Non-Teaching staff	M	0	0	0	0	0	0
	F	0	0	0	0	0	0

10. Total No. of Engineering Students:

Item	CAY 2021 -22	CAYm1 2020-21	CAYm2 2019-20
Total no. of Boys	1840	1936	2154
Total no. of Girls	557	520	538
Total no. of Students	2397	2456	2692

11. Vision of the Institution:

To emerge as a center of excellence in technical education, offering best of the teaching and learning by creating ambience for advanced level of education and research to serve the society.

12. Mission of the Institution:

IM-1. To create an ambience for advanced level of teaching and learning process.

IM-2. To generate new ideas by engaging in cutting-edge research and technology.

IM-3. To initiate collaborative projects which offer opportunities for long term interaction with industry and academia.

IM-4. To develop intellectual human potential for serving the society according to the regional, national and global needs.

13. Contact Information of the Head of the Institution and NBA coordinator, if designated:

a. Name: Dr. (Prof.) P.P. Bhattacharya

Designation: Principal

Mobile No: (+91) 9261778708

Email id: principal@aecwb.edu.in

b. **NBA coordinator, if designated:**

Name: Dr. Sandip Halder

Designation: HOD, Basic Sciences & HU Mobile No:

(+91) 90514 19422

Email id: hodbs_hu@aecwb.edu.in

PART B: Criteria Summary

Name of the Program: B. Tech in Computer Science & Engineering

Criteria No.	Criteria	Mark / Weightage
Program Level Criteria		
1.	Vision, Mission and Program Educational Objectives	60
2.	Program Curriculum and Teaching–Learning Processes	120
3.	Course Outcomes and Program Outcomes	120
4.	Students' Performance	150
5.	Faculty Information and Contributions	200
6.	Facilities and Technical Support	80
7.	Continuous Improvement	50
Institute Level Criteria		
8.	First Year Academics	50
9.	Student Support Systems	50
10.	Governance, Institutional Support and Financial Resources	120
Total		1000

CRITERION 1
VISION, MISSION AND
PROGRAM EDUCATIONAL OBJECTIVES

1. VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60)**1.1. State the Vision and Mission of the Department and Institute (5)****1.1.A Availability of statements of the departments****Institute's Vision**

To emerge as a centre of excellence in technical education, offering best of the teaching and learning by creating ambience for advanced level of education and research to serve the society.

Institute's Mission

IM-1. To create an ambience for advanced level of teaching and learning process.

IM-2. To generate new ideas by engaging in cutting-edge research and technology.

IM-3. To initiate collaborative projects which offer opportunities for long term interaction with industry and academia.

IM-4. To develop intellectual human potential for serving the society according to the regional, national and global needs.

Department's Vision

To emerge as a leading destination in the field of Computer Science and Engineering education and research, by providing quality technical education to the aspiring students.

Department's Mission

DM-1. To educate the students with state-of-the-art technologies to meet the current needs of the industry and society.

DM-2. To inculcate ethical values, team spirit and leadership qualities among the students.

DM-3. To create an environment that will encourage higher study and research

1.1.B Appropriateness/Relevance of the statements

If the students are educated with state-of-the-art technologies that meets industry and societal needs, develop ethical values, team spirit and leadership qualities, and the department is able to create an environment that inspires higher study and research then only the department can become a leading destination for Computer Science and Engineering education meeting the expectation of the aspiring students.

1.1.C Consistency of the Department's statements with the Institute's statements

The consistency of the Department's Vision with Institute's Vision and the consistency of Department's Mission with Institute's Mission are shown in Table 1.1.1 and Table 1.1.2 respectively. The keywords in the Department's and the Institute's statements are highlighted to show the consistency.

Table 1.1.1 Consistency of Department Vision with Institute's Vision

Department's Vision	Institutes Vision
To emerge as a leading destination in the field of Computer Science and Engineering education and research , by providing quality technical education to the aspiring students .	To emerge as a centre of excellence in technical education , offering best of the teaching and learning by creating ambience for advanced level of education and research to serve the society .

Table 1.1.2 Consistency of Department's Mission with Institute's Mission

Department's Mission	Institutes Mission
To educate the students with state-of-the-art technologies to meet the current needs of the industry and society .	To create an ambience for advanced level of teaching and learning process. To generate new ideas by engaging in cutting-edge research and technology .
To inculcate ethical values, team spirit and leadership qualities among the students.	To initiate collaborative projects which offer opportunities for long term interaction with industry and academia .
To create an environment that will encourage higher study and research .	To develop intellectual human potential for serving the society according to the regional, national and global needs .

1.2. State the Program Educational Objectives (PEOs) (5)

After 3-4 years of graduation, the students of the program will be able to:

1. **PEO1:** Apply the knowledge acquired in the field of Computer Science and Engineering to provide solutions for various multidisciplinary engineering and societal challenges.
2. **PEO2:** Involve in life-long learning for sustainable development in the evolving technological domains.
3. **PEO3:** Emerge as successful computer engineers, administrators, academicians and entrepreneurs through teamwork while maintaining ethical values.

1.3. Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (10)

The various stake holders of this program are

Internal Stakeholders

1. Students
2. Faculty and technical staff

External Stakeholders

1. Affiliating University (MAKAUT)
2. Guardian

3. Institute Management

3. Employers

4. Board of Governors

4. Alumni

The interests of various stake holders in the program are as follows:

- **Students:** The students are interested in whether the program completely prepares them for future employment.
- **Faculty and technical staff:** The faculty and technical staff members are involved in knowledge transfer and identification of curricular gaps.
- **Board of Governors (BoG):** BoG provides the strategic direction of the institution, through approval, monitoring and review of the strategic (i.e. corporate) and operational plans. It also ensuring the existence of an effective internal control framework for smooth running of different programs.
- **Institute Management:** Responsible for execution of the strategies developed by the BoG. Key to provide necessary financial and operational support for the success of the program.
- **Maulana Abul Kalam Azad University of Technology:** Being the affiliating university, the program follows the university guidelines.
- **Guardian:** They are interested in quality technical education and employability of their wards.
- **Employers (government, industry and universities):** Employers' satisfaction with the students' education and acquired skills provide measure of the program's success. Their satisfaction translates to employment opportunities for the students.
- **Alumni:** The satisfaction of this stakeholder is a measure of the effectiveness of the program at a large and their success in professional careers is an indicator of the effectiveness of the program's implementation.

1.3.A Adequacy in respect of publication and dissemination

The Vision & Mission of the department and Program Educational Objectives (PEOs) of the program are published in:

- College brochure and admission kit.
- Departmental page of the college website (<https://sites.google.com/view/aecwb-cse/home>).
- Flexi/Permanent boards in HOD room, Faculty rooms and other prominent locations in the department like laboratories and notice boards.
- The college makes several efforts to ensure that the Vision & Mission of the department and Program Educational Objectives (PEOs) of the program are disseminated effectively to all the stakeholders.

The Vision, Mission and PEOs are: -

- Informed *to the students* and their importance is explained.

- Circulated and informed *to parents* during orientation program and when they visit the college.
- Communicated *to the new staff members* and their opinion is sought about the commission and omission of the objectives.
- Circulated and informed to the *alumni, management* and **BoG**.

1.3.B Process of dissemination among stakeholders

The places where Mission and Vision statements of the Department are published and disseminated to the stakeholders are shown in **Table 1.3.1** and that for the PEOs are shown in **Table 1.3.2**. **Figures 1.3.1** and **1.3.2** show two of the places as an example.

Table 1.3.1 Places where Mission and Vision statements of the Department are published and disseminated to the stakeholders

Particulars	Internal Stakeholders	External Stakeholders
Departmental page of the college website (https://sites.google.com/view/aecwb-cse/home)	√	√
College Brochure	√	
Faculty rooms	√	
Class rooms	√	
Laboratories	√	
Departmental Corridors	√	√
Departmental Library	√	
Seminar Hall	√	√

Table 1.3.2 Places where PEOs of the Department are published and disseminated to the stakeholders

Particulars	Internal Stakeholders	External Stakeholders
Departmental page of the college website (https://sites.google.com/view/aecwb-cse/home)	√	√
Faculty rooms	√	
Laboratories	√	
Departmental Corridors	√	√
Departmental Library	√	
Seminar Hall	√	√

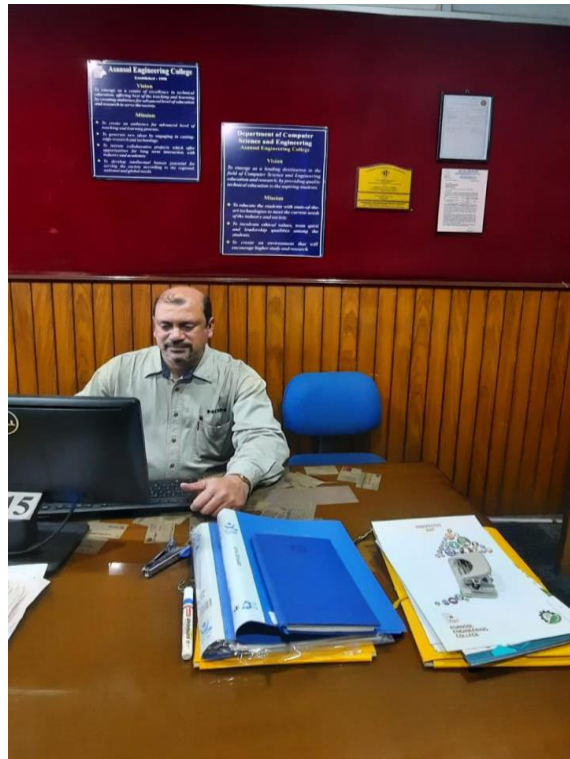


Fig. 1.3.1 HOD's room



Fig. 1.3.2 Corridor

1.3.C Extent of awareness of Vision, Mission and PEOs among the stakeholders

- Faculty members attend workshops on Outcome Based Education (OBE). The Department motivates new faculty members to attend workshops on Curriculum Development and OBE. A sample is shown in Fig. 1.3.3.
- In the faculty meeting at the beginning of every semester, Vision, Mission, PEOs and PSOs are discussed so that everyone remains focussed. In parent-teacher meetings and 1st year orientation, these are also discussed so that the students and parents/guardian are aware of the same.

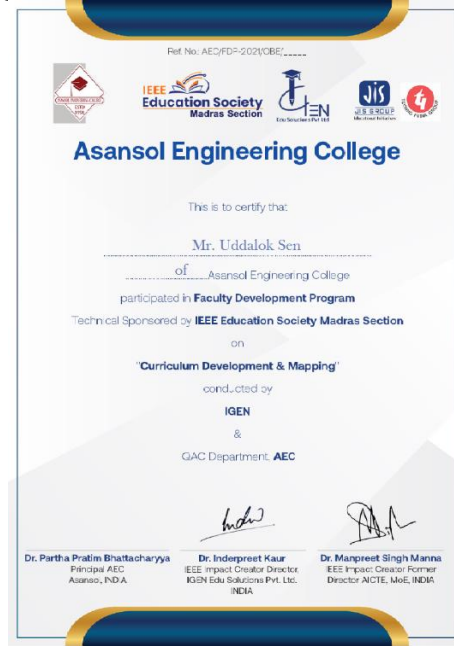


Fig.1.3.3 Faculty attending workshop on Curriculum Development

1.4. State the process for defining the Vision and Mission of the Department, and PEOs of the program (25)

To begin with, feedback was collected from various stakeholders as per the notification of the Head of the Department and then a brainstorming session was organized by DAC to discuss on:

- Re-alignment of courses to the contemporary industry needs
- Need for accreditations and the way ahead

Taking inputs from the session, the Vision and Mission of the Department and PEOs of the program were framed.

1.4.A Description of process involved in defining the Vision, Mission of the Department

In coherence with Institute's vision & mission, the vision and mission statements of the department were prepared by involving the stakeholders. Following process as depicted in **Fig.1.4.1** was adopted in developing departmental Vision & Mission statements:

- Information was collected, summarized and the following most critical components for developing vision and mission of the department were listed by DAC:

- Quality Knowledge
- Professional career
- Higher education

- Innovation and research
- Lifelong learning
- Social and Ethical Responsibilities

- Armed with the information thus collected, the DAC drafted a strong and meaningful Vision and Mission.
- The drafted Vision and Mission were then put before the Academic Committee (AC) for approval.
- If approved by AC, the Vision and Mission statements were forwarded to the Board of Governors (BoG). If modifications were required these were returned to DAC for redrafting.
- If approved by BoG,
- Finally, after due consideration, Vision & Mission for the department were established and were sent for ratification by Board of Governors (BoG).

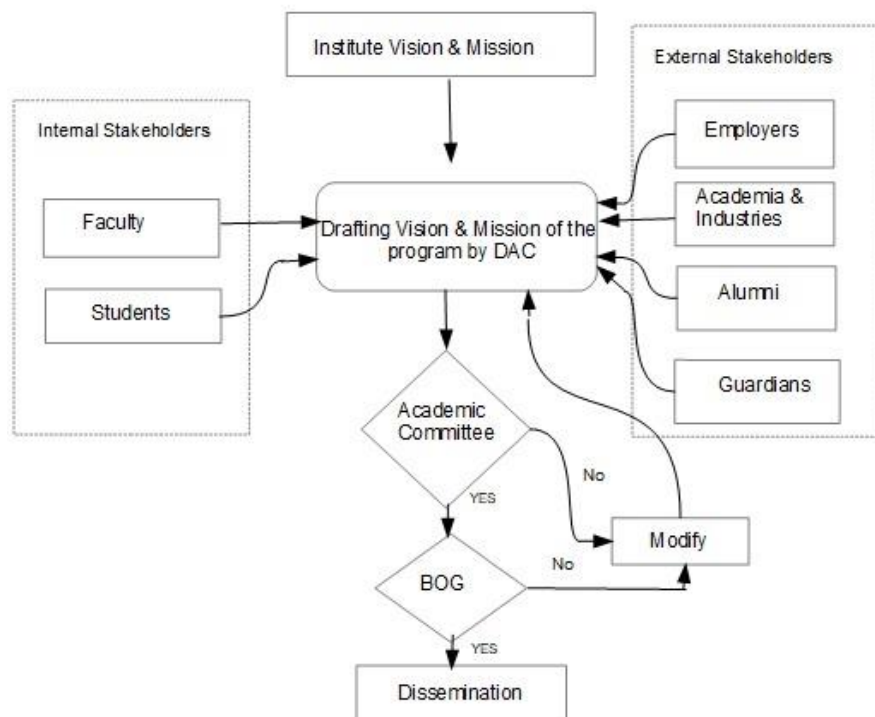


Fig.1.4.1:- Process of defining Vision and Mission of the Department.

1.4.B Description of process involved in defining the PEOs of the program

The PEOs are essentially a broad statement of the objectives for which the program is running. In the first place, these objectives should help in fulfilling the mission of the department. Secondly, the students graduating from the program are expected to lead a fruitful and meaningful life in the society. Thus, it is necessary that these objectives should comply to the extent possible, with the mission of the department and industry requirements. The industry

needs are gauged through the feedback, mostly verbal, received in the Training and Placement Office (TPO). In addition, the alumni who have gone to industry or to institutes of high reputation are able to reflect whether the objectives are adequate or not. The steps involved in defining the PEOs is depicted in **Fig.1.4.2** below.

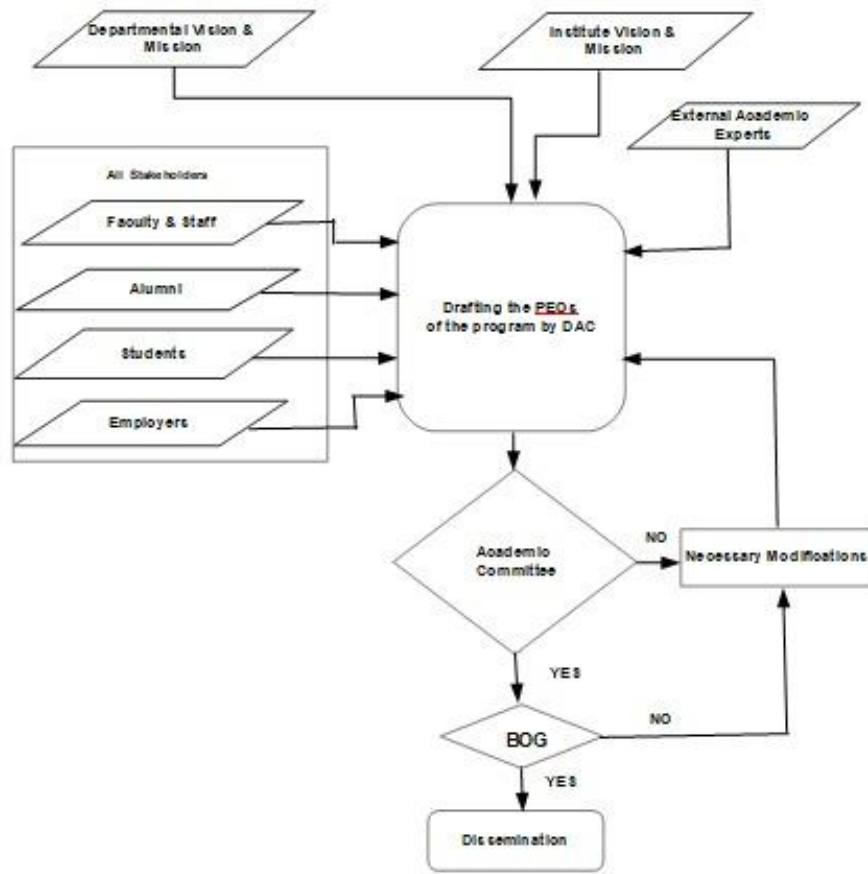


Fig.1.4.2:- Process of defining PEOs of the program

- The data related to the program from the brainstorming session conducted was collected by DAC.
- DAC also took the feedback from the college Training and Placement Office (TPO) to get more clarification regarding industry needs.
- All the information was collected, summarized, and the following most critical components for developing PEOs of the program were listed:

<ul style="list-style-type: none"> ✓ Employment <ul style="list-style-type: none"> ○ Private Sector Jobs <ul style="list-style-type: none"> ▪ Core Engineering Jobs ▪ Software Related Jobs ○ Government Jobs <ul style="list-style-type: none"> ▪ With/ without GATE Score card ▪ Through UPSC/State Service Commission. 	<ul style="list-style-type: none"> ✓ Higher education <ul style="list-style-type: none"> ○ M. Tech or Equivalent ○ MBA or equivalent ○ GRE & TOEFL ✓ Entrepreneurship ✓ Career Growth ✓ Lifelong learning ✓ Social and ethical Responsibilities
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- Armed with the information thus collected, DAC drafted the PEOs for the program.
- The drafted PEOs were then put to the Academic Committee (AC) for approval.
- Finally, after due consideration, PEOs for the program were established and were sent to BoG for ratification.

1.5. Establish consistency of PEOs with Mission of the Department (15)

1.5.A Preparation of a matrix of mapping PEOs and elements of Mission statements

The PEOs have been developed in line with mission of department. To establish consistency, the mapping of **PEOs** with **Mission of the Department (DM)** is shown on a weighted relationship in **Table 1.5.1**. The qualitative relevance is shown as Strong, Average, Low or No correlation. A numerical weight is assigned in accordance with the designated relevance and is shown along with the correlation. **Table 1.5.2** shows the keywords in PEOs and Mission statements that relate to each other while **Table 1.5.3** explains how the PEOs lead to success of the departmental mission.

Table 1.5.1 Correlations between PEO and Mission of the Department

PEOs	Mission of the Department		
	<i>DM-1</i>	<i>DM-2</i>	<i>DM-3</i>
PEO-1	3	3	2
PEO-2	3	2	3
PEO-3	3	3	3

Slight (Low)	1
Moderate (Medium)	2
Substantial (High)	3
No correlation -	

1.5.B Consistency/Justification of correlation parameters of the above matrix

Table 1.5.2 Keywords in PEOs and Departmental Mission that relate to each other

Program Educational Objectives (PEOs)	Departmental Mission
PEO1: Apply the knowledge acquired in the field of Computer Science and Engineering to provide solutions for various multidisciplinary engineering and societal challenges.	DM-1. To educate the students with state-of-the-art technologies to meet the current needs of the industry and society .
PEO2: Involve in life-long learning for sustainable development in the evolving technological domains .	DM-2. To inculcate ethical values, team spirit and leadership qualities among the students.
PEO3: Emerge as successful computer engineers, administrators, academicians and entrepreneurs through teamwork while maintaining ethical values .	DM-3. To create an environment that will encourage higher study and research .

Table 1.5.3 Explanation of how fulfillment of PEOs lead to success of Departmental Mission

PEOs	Mission of the Department		
	DM1	DM2	DM3
PEO1	Fulfilling PEO1 will indicate that DM1 is highly successful. This is because students will be able to apply the acquired knowledge if and only if they are educated with the state-of-the-art technologies.	Fulfilling PEO1 will indicate that DM2 is highly successful. This is because students will be able to undertake societal challenges if they have developed ethical values, team spirit and leadership qualities.	Fulfilling PEO1 will indicate that DM3 is successful. This is because students will be able to and acquire engineering knowledge if the department provides an environment to promote academic research.
PEO2	Fulfilling PEO2 will indicate that DM1 is highly successful. This is because students will be able to engage in life-long learning, if and only if they are educated with technologies that meet the current need of industry.	Fulfilling PEO2 will indicate that DM2 is successful. This is because students can continue self-development if they have ethics and team spirit while working in industry.	Fulfilling PEO2 will indicate that DM3 is highly successful. This is because students will be able to continue self-development if the department promotes higher study and academic research.
PEO3	Fulfilling PEO3 will indicate that DM1 is highly successful. This is because students can emerge as good engineers and academicians if they have the latest technological knowledge.	Fulfilling PEO3 will indicate that DM2 is highly successful. This is because students will be become good engineers and academicians if and only if there is an environment for higher study and research.	Fulfilling PEO3 will indicate that DM3 is highly successful. This is because students will become technically sound engineers and good academicians if the department promotes higher studies and research.

CRITERION 2

PROGRAM CURRICULUM AND

TEACHING LEARNING PROCESSES

2. PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES

(120)

2.1. Program Curriculum (20)

2.1.1. State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexure I. Also mention the identified curricular gaps, if any (10)

Program Outcomes as mentioned in Annexure I and the Program Specific Outcomes are listed below:-

List of Program Outcomes (POs)

PO-1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO-2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO-3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO-4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO-5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO-6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO-7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO-8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO-9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO-10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO-11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO-12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

List of Program Specific Outcomes (PSOs)

After the completion of B.Tech course in Computer Science and Engineering, the students will be able to:

PSO1: Attain the ability to design efficient algorithms for developing hardware and software based systems.

PSO2: Apply standard software engineering approach and be able to use modern tools for solving real life problems.

PSO3: Apply the acquired proficiency to become successful technocrats and entrepreneurs as well as engage in research work in emerging fields of Computer Science and Engineering.

2.1.1. A. Process used to identify extent of compliance of the University Curriculum for attaining the Program Outcomes (POs) and Program Specific Outcomes (PSOs).

Asansol Engineering College is affiliated to **Maulana Abul Kalam Azad University of Technology (MAKAUT)**, formerly known as *West Bengal University of Technology (WBUT)*. So our program curriculum is as per the syllabus of affiliated university. Usually the curriculum maintains the balance in the composition of Basic Science (BS), Humanities and Social Sciences including Management (HM), Engineering Science (ES), Professional Core Courses (PCC), Professional Elective Courses (PEC), Open Elective Courses (OEC), Mandatory Courses (MC) and Project Works, seminar and Internship (PROJ).

The university prescribed curriculum maintains the balance in the composition of various basic curricular components. However, it is necessary that the students' learning should be in accordance to the current

academic needs and industry. The University Syllabus (Old and New) which adheres to the AICTE model curriculum for this program is divided into the following broad curricular components and their credit percentage is shown below in Table 2.1.1.1:

Course Category Name	Course Category Code	MAKAUT NEW (2018-19 onwards)	MAKAUT OLD (Prior 2018)	AICTE MODEL
Humanities and Social Sciences including Management courses	HM	6.78%	8.37%	7.55%
Basic Science Courses	BS	13.56%	17.73%	15.09%
Engineering Science Courses	ES	14.69%	19.21%	18.24%
Professional core courses	PCC	39.55%	29.06%	30.82%
Professional Elective courses	PEC	10.17%	10.84%	11.32%
Open Elective courses	OEC	6.78%	4.93%	7.55%
Mandatory courses	MC	0.00%	0.49%	0.00%
Project Works, seminar and Internship	PROJ	8.47%	9.36%	9.43%

Table 2.1.1.1 curricular components and their credit percentage

Table 2.1.1.1 depicts that in the new syllabus of MAKAUT from the academic session 2018-2019, there is more emphasis on professional core courses and other courses are balanced with the AICTE model curriculum.

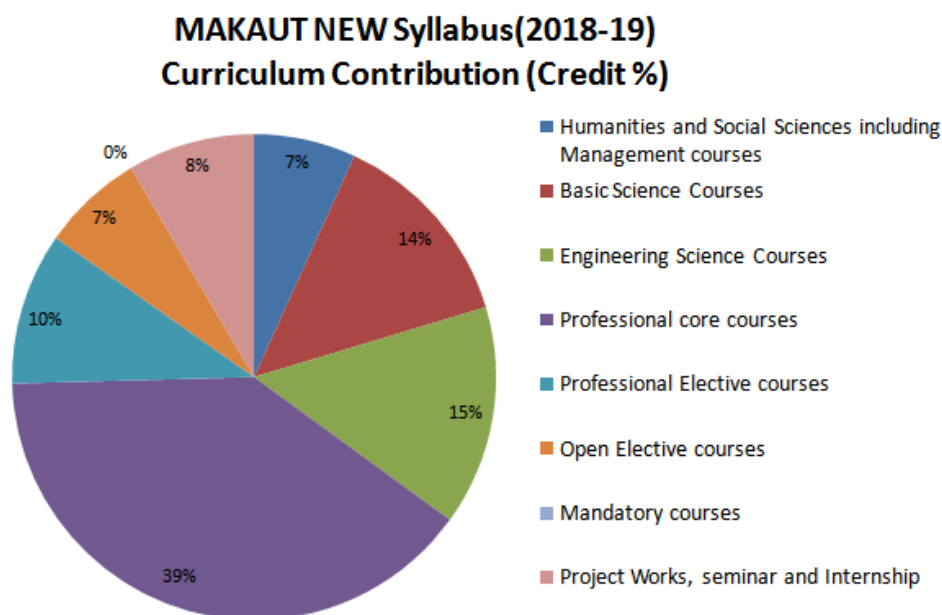


Fig. 2.1.1.1 Curriculum credit percentage of the various course categories for MAKAUT New Syllabus (2018-19 onwards).

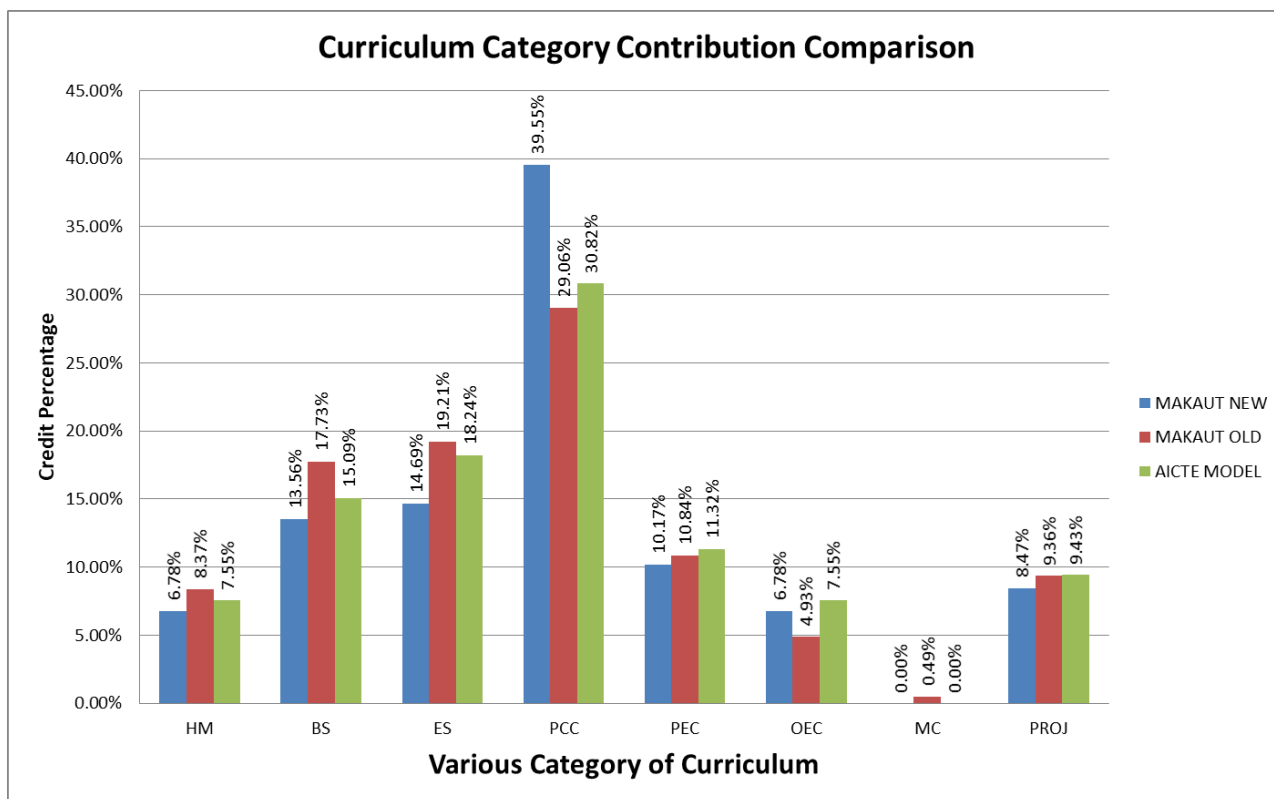


Fig 2.1.1.2 Credit percentage of the various course categories of MAKAUT (Old and New) Syllabus and AICTE Model Curriculum.

Fig 2.1.1.2 depicts the comparison of MAKAUT OLD Syllabus (before the academic session 2018-19), MAKAUT New Syllabus (Academic session 2018-19 onwards) and AICTE Model Curriculum in terms of credit percentage of the various course categories.

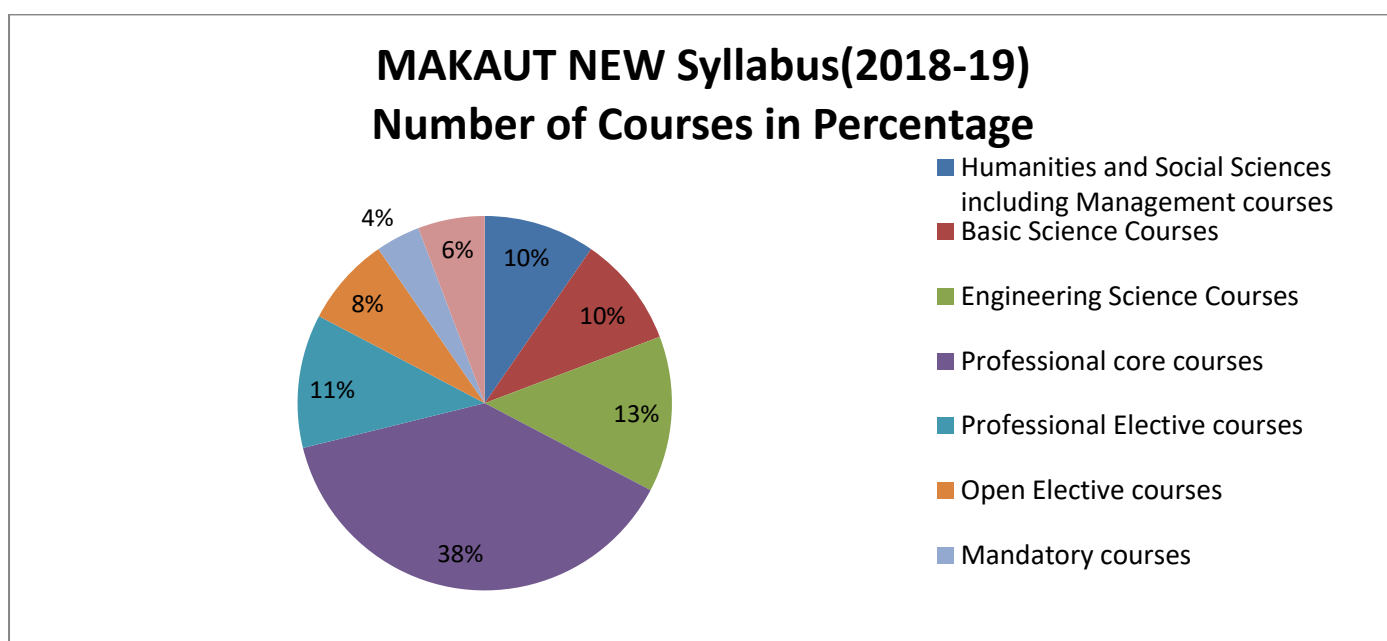


Fig 2.1.1.3. Number of courses belonging to various categorizing the New Syllabus of MAKAUT from academic year 2018-19.

Course Category Name	Category Code	No. of Courses
Humanities and Social Sciences including Management courses	HM	5
Basic Science Courses	BS	5
Engineering Science Courses	ES	7
Professional core courses	PCC	20
Professional Elective courses	PEC	6
Open Elective courses	OEC	4
Mandatory courses	MC	2
Project Works, seminar and Internship	PROJ	3

Table 2.1.1.2 Number of courses belonging to the various course categories in new syllabus of MAKAUT from academic year 2018-19.

Table 2.1.1.2 depicts the number of courses belonging to the various course categories in new syllabus of MAKAUT from academic year 2018-19.

Course Category Name	Number of Courses	POs and Pos
Basic Science	5	PO1, PO2 PSO1, PSO3
Engineering Science	7	PO1, PO2 PSO3
Professional Core	20	PO1, PO2, PO3, PO4, PO5, PO12 PSO1, PSO2, PSO3
Humanities and Social Sciences	5	PO6, PO7, PO8, PO9, PO10
Professional Elective courses	6	PO1, PO2, PO3, PO4, PO12 PSO1, PSO2, PSO3
Open Elective courses	4	PO1, PO2, PO3, PO4, PO11, PO12 PSO1, PSO2, PSO3
Project	3	PO1 to PO12 PSO1, PSO2, PSO3
Mandatory courses	2	PO6, PO7

Table 2.1.1.3. Relevance of the various course categories with POs and PSOs.

The relevance of the various course categories to the POs and PSOs is shown in Table 2.1.1.3. After finding the relevance of course categories with POs and PSOs, the strongly and weakly addressed POs and PSOs are shown in Figure 2.1.1.4 and Figure 2.1.1.5 respectively. Further considering the entire set of courses the compliance of the curriculum with the POs and PSOs are calculated and shown in the Table 2.1.1.4.

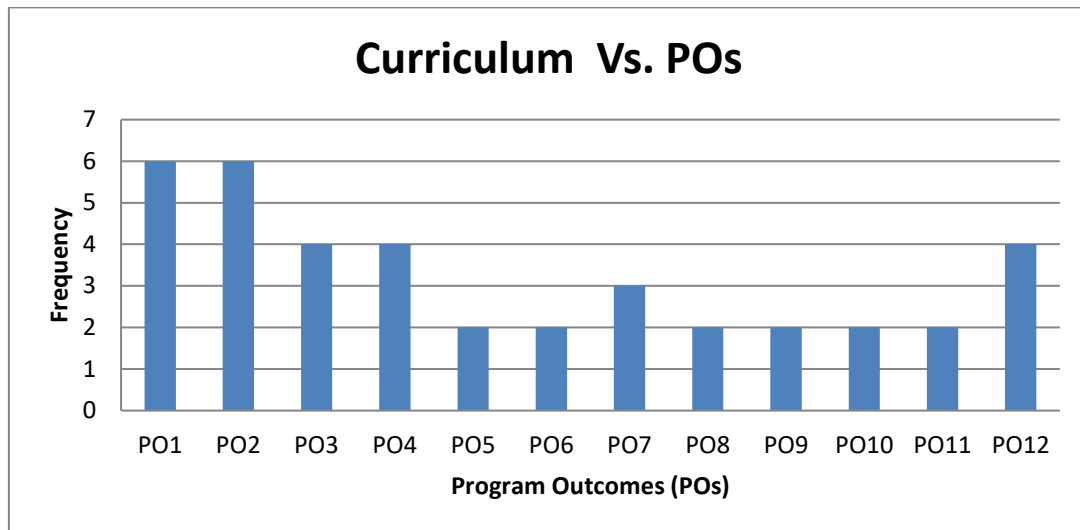


Fig 2.1.1.4. Strongly and weakly addressed POs.

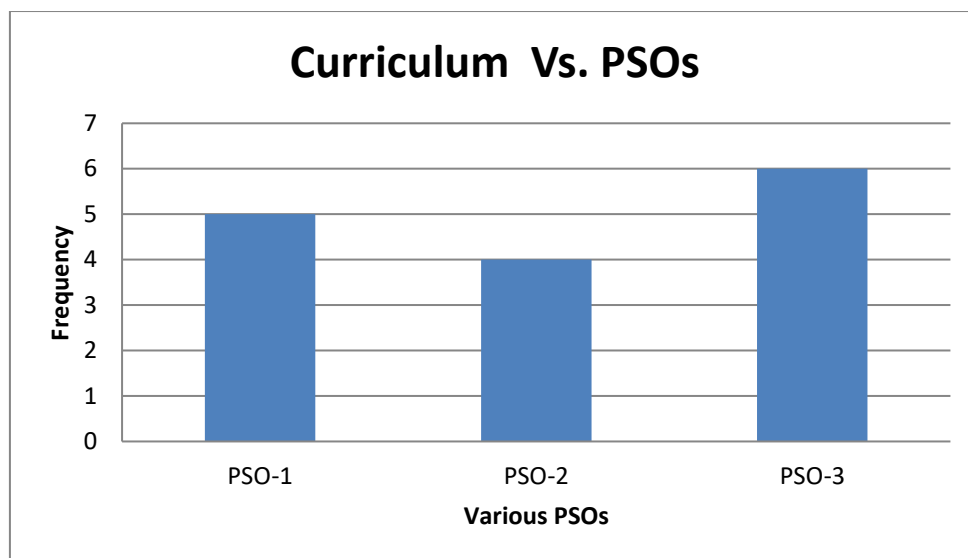


Fig 2.1.1.5. Strongly and weakly addressed PSOs.

PAPER CODE	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2	PSO 3
ES101	✓	✓	-	-	-	-	-	-	✓	✓	-	✓	-	-	-
ES191	✓	✓	-	-	-	-	-	✓	✓	✓	-	✓	✓	✓	✓
HU101	-	-	-	-	-	-	✓	✓	✓	✓	-	✓	-	-	-
HU181	-	-	-	-	-	-	-	-	✓	✓	-	✓	-	-	-
M101	✓	✓	-	-	-	-	-	-	-	✓	-	✓	✓	-	-
ME101	✓	✓	-	-	-	-	-	-	-	-	-	✓	-	-	-
ME192	✓	✓	-	-	-	-	-	-	✓	✓	-	✓	-	-	-
PH101	✓	✓	-	-	-	-	-	-	-	✓	-	✓	-	-	-
PH191	✓	✓	-	-	-	-	-	-	✓	✓	-	✓	-	-	-
XC181	-	-	-	-	-	✓	✓	✓	✓	✓	-	✓	-	-	✓
CH201	✓	✓	-	-	-	✓	-	-	-	✓	-	✓	-	-	-
CH291	✓	✓	-	-	-	-	✓	-	✓	✓	-	✓	-	-	-

CS201	✓	✓	✓	-	-	-	-	-	✓	✓	-	✓	✓	✓	✓
CS291	✓	✓	-	-	-	-	-	-	✓	✓	-	✓	✓	✓	✓
ES201	✓	✓	-	-	-	-	-	-	✓	✓	-	✓	-	-	-
ES291	✓	✓	-	-	-	-	-	-	✓	✓	-	✓	-	-	-
M201	✓	✓	-	-	-	-	-	-	-	✓	-	✓	✓	-	-
ME201	✓	✓	-	-	-	-	-	-	-	-	-	✓	-	-	-
ME291	✓	✓	-	-	✓	-	-	-	✓	✓	-	✓	-	-	-
CH-301	✓	✓	✓	✓	✓	-	-	-	-	✓	-	✓	-	-	-
CS-301	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CS-302	✓	✓	✓	-	-	-	-	-	✓	✓	-	-	✓	✓	✓
CS-303	✓	✓	✓	✓	-	-	-	-	✓	✓	-	✓	✓	✓	✓
CS-391	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CS-392	✓	✓	-	-	-	-	-	-	✓	✓	-	✓	✓	✓	✓
CS-393	✓	✓	✓	-	-	-	-	-	✓	✓	-	✓	✓	✓	✓
HU-301	-	-	✓	-	-	✓	✓	✓	✓	✓	-	✓	-	-	-
PH-301	✓	✓	-	-	-	-	-	-	-	✓	-	✓	-	-	-
PH-391	✓	✓	-	-	-	-	-	-	-	✓	-	✓	-	-	-
CS-401	✓	✓	✓	✓	-	-	-	-	-	✓	-	✓	✓	✓	✓
CS-402	✓	✓	✓	-	-	-	-	✓	✓	-	-	✓	✓	✓	✓
CS-403	✓	✓	-	✓	-	-	-	-	✓	✓	-	-	✓	✓	✓
CS-491	✓	✓	✓	✓	✓	✓	-	-	✓	-	✓	✓	✓	✓	✓
CS-492	✓	✓	✓	-	-	-	-	✓	-	-	✓	✓	✓	✓	✓
CS-493	✓	-	✓	-	✓	-	-	-	✓	✓	-	-	✓	✓	✓
HU-481	-	-	-	-	-	-	-	-	✓	✓	-	✓	-	-	-
M(CS)-491	✓	✓	✓	✓	✓	-	-	-	-	✓	-	✓	✓	✓	✓
M-401	✓	✓	✓	✓	✓	✓	-	-	-	✓	✓	✓	✓	✓	✓
MCS-401	✓	✓	✓	✓	✓	-	-	-	✓	✓	-	✓	✓	✓	✓
CS-501	✓	✓	✓	-	-	-	-	✓	✓	-	-	✓	✓	✓	✓
CS-502	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CS-503	✓	✓	✓	✓	✓	-	-	-	✓	✓	-	✓	✓	✓	✓
CS-504D	✓	✓	✓	-	-	-	-	-	✓	✓	-	✓	✓	✓	✓
CS-591	✓	✓	✓	-	-	-	-	✓	✓	-	✓	✓	✓	✓	✓
CS-592	✓	✓	✓	✓	✓	-	-	-	✓	✓	✓	✓	✓	✓	✓
CS-593	✓	✓	✓	✓	✓	-	-	-	-	✓	-	✓	✓	✓	✓
CS-594D	✓	✓	✓	-	✓	-	-	-	✓	✓	✓	✓	✓	✓	✓
HU-501	-	-	✓	✓	-	✓	-	-	✓	-	-	✓	-	-	-
CS-601	✓	✓	-	-	✓	-	-	-	✓	✓	-	-	✓	✓	✓
CS-602	✓	✓	✓	-	✓	✓	-	✓	-	-	-	✓	✓	✓	✓
CS-603	✓	✓	-	-	-	-	-	-	✓	✓	-	✓	✓	✓	✓
CS-604C	✓	✓	-	✓	-	-	-	-	-	-	-	✓	✓	✓	✓
CS-605A	✓	✓	✓	✓	✓	-	-	-	✓	✓	-	✓	✓	✓	✓
CS-681	-	-	-	-	-	-	-	✓	✓	✓	✓	-	-	-	✓
CS-691	✓	✓	-	-	-	-	-	-	✓	✓	-	✓	✓	✓	✓
CS-692	✓	✓	✓	-	-	-	-	-	✓	✓	-	✓	✓	✓	✓
CS-693	✓	-	-	✓	✓	-	-	-	✓	✓	-	✓	✓	✓	✓
HU-601	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CS-701	✓	✓	✓	-	-	-	-	✓	✓	-	✓	-	✓	✓	✓
CS-702	✓	-	✓	-	-	-	-	-	-	-	-	-	✓	✓	✓
CS-703C	✓	✓	✓	✓	✓	✓	✓	-	✓	-	✓	✓	✓	✓	✓

CS-704A	✓	-	-	-	-	✓	-	-	✓	✓	-	-	-	✓	✓
CS-705A	✓	✓	✓	-	✓	-	-	-	-	✓	-	✓	✓	✓	✓
CS-791	✓	✓	✓	-	-	-	-	✓	✓	-	✓	✓	✓	✓	✓
CS-792	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CS-793C	✓	✓	✓	-	-	-	-	✓	✓	-	-	✓	✓	✓	✓
CS-794	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CS-795A	✓	-	-	-	✓	✓	-	-	✓	✓	-	✓	✓	✓	✓
HU-781	-	-	-	-	-	-	-	-	✓	✓	-	✓	-	-	-
CS-801A	✓	✓	✓	-	-	-	-	-	✓	✓	-	✓	✓	✓	✓
CS-802E	✓	✓	-	-	✓	-	-	-	✓	✓	-	-	✓	✓	✓
CS-891	✓	✓	✓	-	✓	-	-	-	-	-	-	✓	✓	✓	✓
CS-892	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CS-893	✓	✓	✓	-	-	-	-	-	-	✓	-	✓	✓	✓	✓
HU-801A	-	-	-	-	-	-	-	-	✓	✓	-	✓	-	-	-
	66	61	41	22	27	17	12	20	55	59	17	66	51	50	52
Compliance %	88.0	81.3	54.6	29.3	36.0	22.6	16.0	26.6	73.3	78.6	22.6	88.0	68.0	66.6	69.3
	0	3	7	3	0	7	0	7	3	7	7	0	0	7	3

Table 2.1.1.4 Compliance of the curriculum for attaining the POs and PSOs.

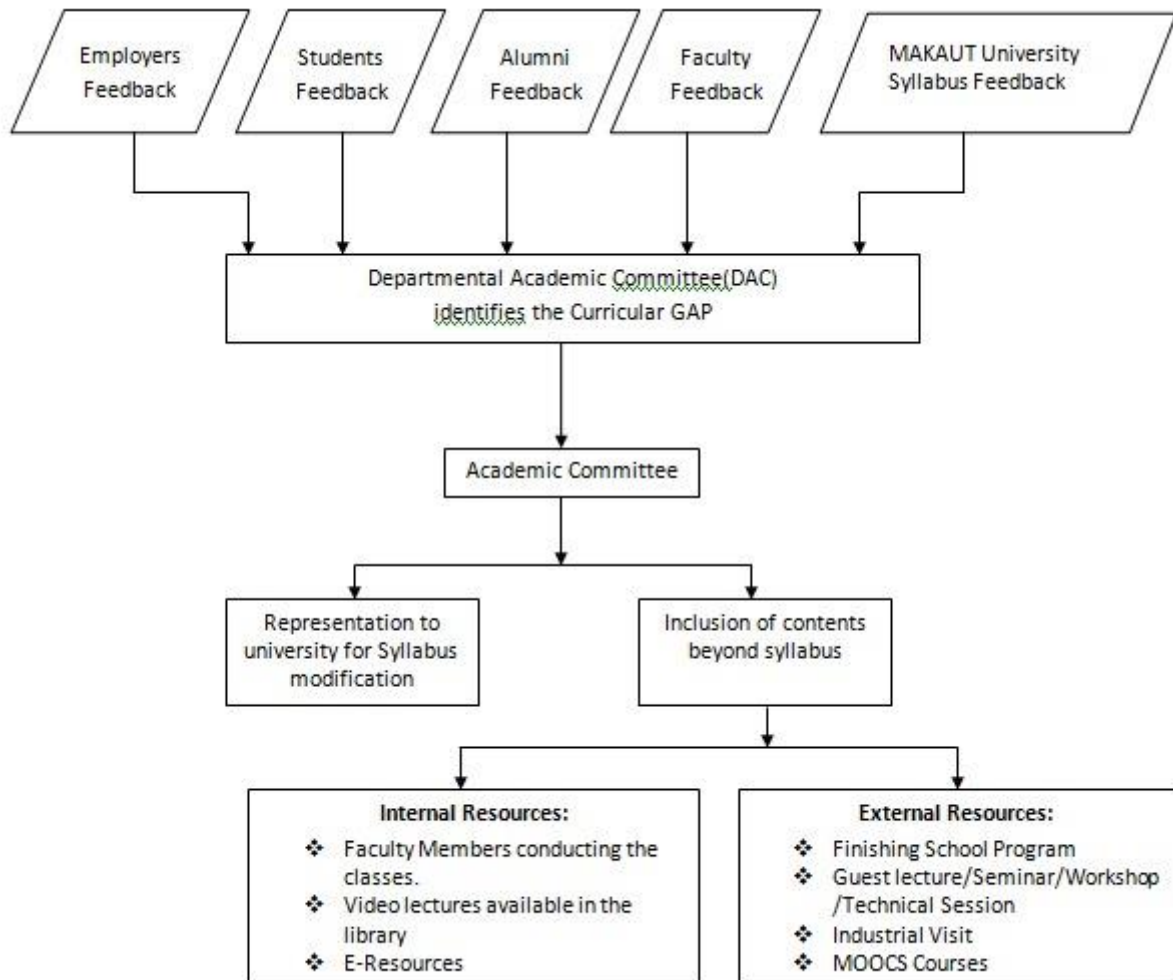
2.1.1.B. List the curricular gaps for the attainment of defined POs and PSOs:

If the prescribed courses in the syllabus address certain POs inadequately, then the Institute makes additional efforts to fulfill the gaps. This is done through “*GAP Analysis*” and covering topics which are “*Contents Beyond Syllabus*”.

Framework for Curricular GAP Identification Process: DAC analyzed the University prescribed syllabus for different courses for the curriculum gaps based on the following inputs:-

- 1. Inputs from the teachers:** - The teachers teaching the course may suggest some topics based on his/her expertise. The teacher may also include topics to make the syllabus at par with that of other Institutes of repute for fulfilling the curricular gaps.
- 2. Inputs from the Industry Expert / Employers:** - The Training and Placement Office (TPO) collects feedback from various employers and provides these inputs so that the curriculum is updated to meet these state-of-the-art requirements.
- 3. Inputs from the students:-** The students undertaking the program provide the course-exit feedback for each course which also provides required inputs for identifying the curricular gaps if any.
- 4. Input from the alumni:-** Alumni are ones who have undertaken the course and are now working in the industry/academia. So, their inputs for addition of contents in the syllabus are essential and hence their feedbacks also provide necessary inputs for identifying curricular gaps.

The following flowchart in Fig 2.1.4 depicts the process of identifying the extent of compliance of the curriculum for attaining the Program Outcomes and Program Specific Outcomes.



2.1.4 Process of identifying the extent of compliance of the curriculum for attaining the Program Outcomes and Program Specific Outcomes

Based on the feedback of different stakeholders the following actions are taken to identify the extent of compliance of the curriculum for attainment of the POs and PSOs:

- DAC evaluates the GAPS in the program curriculum and communicates it to the College Academic Committee. The College Academic Committee recommends the inclusion of certain topics beyond the curriculum and further communicates to the University syllabus committee for modification of the syllabus.
- DAC decides on topics to address the curricular gaps. The gaps are fulfilled through internal resources like lecture sessions by departmental faculty members, video lectures available in library and E-resources and external resources like skill enhancement trainings, guest lectures, seminars, workshops, technical sessions, industrial visits and MOOCS courses. Some of these processes are enlisted in Sub-Section 2.1.2.

✓ **Skill Enhancement Training (SET)** organized by the Training and Placement Cell of the college to the students from 1st year to final year which includes

- Training on soft skills.
- Training on technical skills.
- Courses suggested by industry.

✓ Arrangement of **Internships** for the students.

✓ Arrangement of **Industrial visits** for students.

✓ Arrangement of **technical grooming classes** for the students.

✓ Motivation for **MOOCs**.

2.1.2. C Mapping of content beyond syllabus with the POs and PSOs

Following are the identified curricular gaps based on the feedback from all stakeholders and the actions taken for the year CAYm1 (2020-2021):

S. No.	Curricular GAP	Action Taken (Technical grooming classes)	Date-Month-Year	Resource Person with Designation	Student Participation	Relevance to POs, PSOs
1	Software Engineering (CS701): More emphasis on Agile software development life cycle as it is widely adopted in the software industry.	Extra Classes taken by JILE qualified faculty member	03-09-2020 and 06-09-2020	Dr. Pintu Pal, Dept of CSE	78%	PO5, PO3, PO12 PSO2, PSO3
2	Artificial Intelligence (CS703C): Genetic Algorithm, Data visualization Techniques as they may be used for problem solving.	Extra Classes taken by concerned faculty member	06-09-2020 and 09-09-2020	Dr. Sandip Roy, Dept of CSE.	70%	PO1, PO3, PO5, PO12, PSO1, PSO3
4	Operating Systems (CS603): Fundamentals of Real Time Operating Systems.	Extra Classes taken by concerned faculty member	12-03-2021	Mrs. Lumbini Bhaumik, Dept of CSE	73%	PO3, PO12 PSO2, PSO3
5	Computer Organization (PCC-	Extra Classes	03-09-2020 and	Mr. Sabyasachi Mukherjee, Dept	71%	PO3, PO12

CS302): Introduction to Assembly Level Language.	taken by concerned faculty member	06-09- 2020	of CSE		PSO1, PSO3
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Following are the identified skills to be acquired by the students *beyond curriculum*. These were imparted *by conducting the following Skill Enhancement Training (SET) for the academic year CAYm1 (2020-2021)*.

Serial No	Topic of training	Training Dates (To-From)	Name of Trainers and their Organization	Semester	Number of students participated	PO/PSO
1	Advanced C	02.03.21 - 06.03.21	Mr. Arnab Chakraborty, TOTSOL Technologies	2nd year / 3rd Sem (2023 B.Tech)	35	PO1,PO2, PO3, PO4, PO8,PO9, PO12, PSO1, PSO2, PSO3.
2	Advanced Coding (TCS Digital Preparation)	12.06.21 - 20.06.21	Mr. Gyanendra, (Talentio Software Solutions.)	3rd Year / 6th Sem (2022 Batch)	120	PO1,PO2, PO3, PO4, PO8,PO9, PO12, PSO1, PSO2, PSO3.
3	Advanced Java Phase 1	27.01.21 - 02.02.21	Mr. Ayan Roy Mukherjee, (Micropro)	3rd Year / 5th Sem (2022 Batch)	33	PO1,PO2, PO3, PO4, PO8,PO9, PO12, PSO1, PSO2, PSO3.
4	Advanced Java Phase2	02.06.21 - 18.06.21	Mr. Ayan Roy Mukherjee, (Micropro)	3rd Year / 5th Sem (2022 Batch)	33	PO1,PO2, PO3, PO4, PO8,PO9, PO12, PSO1, PSO2, PSO3.
5	Competitive Coding	07.08.20 - 14.08.20	Mr. Ayan Roy Mukherjee, (Micropro)	Final Year/ 7th Sem (2021 Batch)	134	PO1,PO2, PO3, PO4, PO8,PO9, PO12, PSO1, PSO2, PSO3.
6	English Communication	28.06.21 - 30.06.21	Mrs. Arundhati Majumder & Md Shakir (Freelancer)	2nd year/3rd Sem (2024 batch)	183	PO8, PO9, PO10, PSO3
7	English Communication	12.04.21 - 20.04.21	Mrs Mahua Roy &Mrs Arundhati Majumder	3rd Year / 5th Sem (2022 Batch)	120	PO8, PO9, PO10, PSO3
8	Full Stack Development	12.04.21 - 01.05.21	Mr. Chandan Mukherjee (Totsol Technologies)	Final Year/ 7th & 8th Sem (2021 Batch)	129	PO1,PO2, PO3, PO4, PO8,PO9, PO12, PSO1, PSO2, PSO3.

9	Java Script Phase 1	27.01.21 - 02.02.21	Mr.Chandan Mukherjee, (TOTSOL Technologies)	3rd Year / 5th Sem (2022 Batch)	64	PO1,PO2, PO3, PO4, PO8,PO9, PO12, PSO1, PSO2, PSO3.
10	Java Script Phase2	19.04.21 - 30.04.21	Mr.Chandan Mukherjee, (TOTSOL Technologies)	3rd Year / 5th Sem (2022 Batch)	64	PO1,PO2, PO3, PO4, PO8,PO9, PO12, PSO1, PSO2, PSO3.
11	ML Using Python Phase 1	27.01.21 - 02.02.21	Mr. Arnab Chakraborty (TOTSOL Technologies)	3rd Year / 5th Sem (2022 Batch)	29	PO1,PO2, PO3, PO4, PO6, PO8,PO9, PO12, PSO1, PSO2, PSO3.
12	ML Using Python Phase2	19.04.21 - 30.04.21	Mr. Arnab Chakraborty, (TOTSOL Technologies)	3rd Year / 5th Sem (2022 Batch)	27	PO1,PO2, PO3, PO4, PO6, PO8,PO9, PO12, PSO1, PSO2, PSO3.
13	Python	02.03.21 - 06.03.21	Mr. Joyjit Guha Biswas, (ARDENT Computech Pvt. Ltd)	2nd year / 3rd Sem (2023 B.Tech)	48	PO1, PO3, PO5, PO9,PO11, PO12, PSO2, PSO3.

Following are the **MOOCs** attended by the students in **CA Ym1 (2020-2021)**.

COURSE ID	COURSE NAME	MAPPING WITH PO, PSO
noc21-cs21	Programming, Data Structures And Algorithms Using Python	PO1, PO3, PO5, PO9, PO12, PSO1, PSO2, PSO3
noc21-cs02	An Introduction to Programming through C++	PO1, PO3, PO9, PO12, PSO1, PSO2, PSO3
noc21-cs48	Advanced Graph Theory	PO1, PO3, PO9, PO12, PSO1, PSO2, PSO3
noc20-cs65	Cloud computing	PO1, PO3, PO9, PO12, PSO1, PSO2, PSO3

Fig.2.1.2.1 and Fig. 2.1.2.2 show the compliance of the SETs conducted beyond curriculum and the compliance of the MOOCs with the POs and PSOs. Some of the POs and PSOs which are not highly addressed by the curriculum are addressed through SETs and MOOCs.

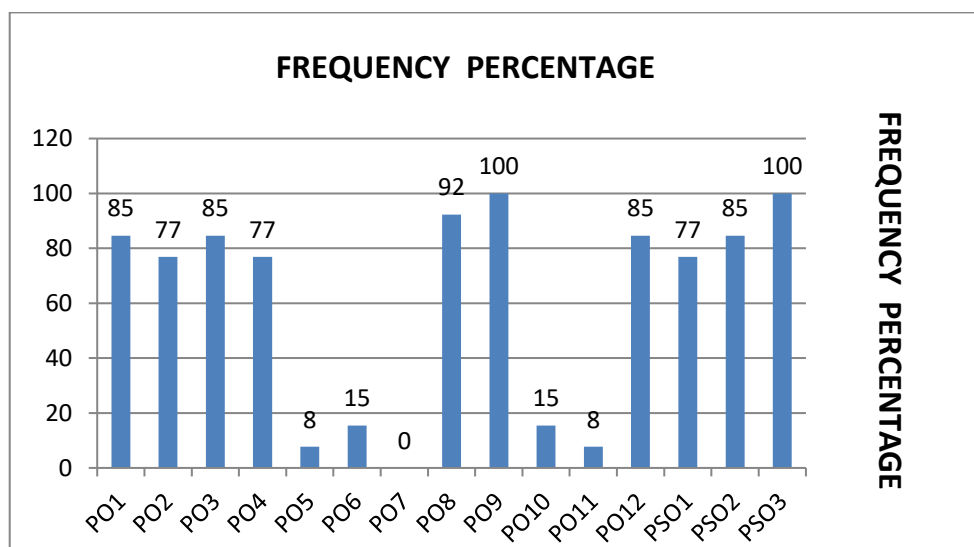


Fig. 2.1.2.1 Compliance of the SETs with POs and PSOs.

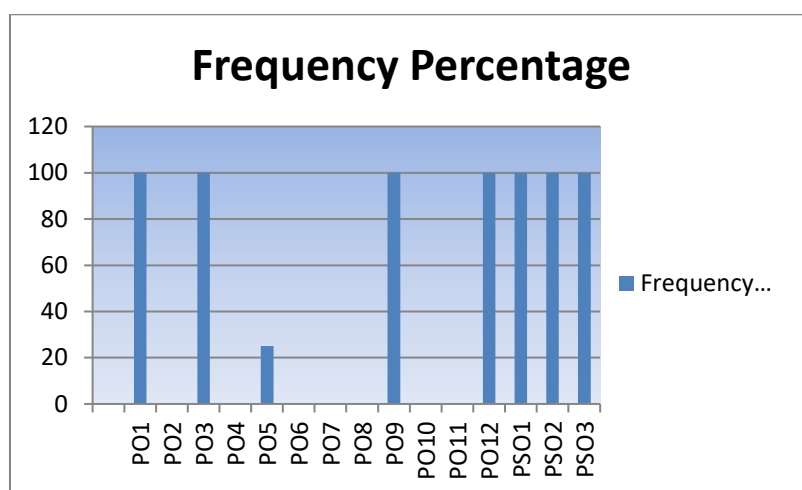


Fig. 2.1.2.2 Compliance of the MOOCs with POs and PSOs.

Following are the identified curricular gaps based on the feedback from all stakeholders and the actions taken for the year CAYm2 (2019-20):

S. No.	Curricular GAP	Action Taken (Technical grooming classes)	Date-Month-Year	Resource Person with Designation	Student Participation	Relevance to POs, PSOs
1	Software Engineering (CS701): More emphasis on Agile software development life cycle as it is widely adopted in the software industry.	Extra Classes taken by <i>JILE</i> qualified faculty member	03-09-2019 and 06-09-2019	Dr. Pintu Pal, Dept of CSE	78%	PO5, PO12 PSO2, PSO3
2	Artificial	Extra Classes	06-09-	Dr. Sandip	70%	PO2, PO5,

	Intelligence (CS703C): Genetic Algorithm, Data visualization Techniques as they may be used for problem solving.	taken by concerned faculty member	2019 and 09-09-2019	Roy, Dept of CSE.		PO12 PSO1, PSO2, PSO3
3	Object Oriented Programming (CS504D): Java Generics programming.	Extra Classes taken by concerned faculty member	09-09-2019 and 16-09-2019	Mr. Ujjwal Kumar Kamila, Dept of CSE	72%	PO2, PO12 PSO2, PSO3
4	Operating Systems (CS603): Fundamentals of Real Time Operating Systems.	Extra Classes taken by concerned faculty member	12-03-2020	Mrs. Lumbini Bhaumik, Dept of CSE	73%	PO6, PO12 PSO2, PSO3
5.	Database Management Systems (CS601): Fundamentals of Distributed Database Systems.	Extra Classes taken by concerned faculty member	12-04-2020 and 13-04-2020	Mrs. Shatabdi Saha, Dept of CSE	70%	PO1, PO12 PSO2, PSO3

Following are the identified skills to be acquired by the students *beyond curriculum*. These are imparted by conducting *Skill Enhancement Training (SET)* for the academic year CAYm2 (2019-20).

Serial No	Name of Training	Training Dates (To-From)	Name of Trainers and their Organization	Semester	Number of students participated	PO/PSO
1	ADVANCE CODING	05-11-2019-09-11-2019	40	3RD YEAR/6TH SEM	Ms. Priyanka, Talentio	PO1, PO2, PO3, PO8, PO9, PO12, PSO1, PSO2, PSO3.
2	ADVANCE CODING	17-06-2019 to 04-07-2019 & 08-07-2019 to 14-07-2019	45	3RD YEAR/6TH SEM	Mr. Gyanendra, Talentio	PO1, PO2, PO3, PO8, PO9, PO12, PSO1, PSO2, PSO3.

3	ADVANCE CODING	3/2/20 to 7/2/20	30	2ND YEAR/4TH SEM	Mr.Gyanendra, Telentio	PO1, PO2, PO3, PO8,PO9, PO12, PSO1, PSO2, PSO3.
4	ANDROID	17/2/20 to 21/2/20	43	4TH YEAR/8TH SEM	Mr.ArnabCkakraarty, Tosol Technologies.	PO1, PO3, PO5, PO9,PO11, PO12, PSO2, PSO3.
5	CLOUD COMPUTING	17-06-2019 to 22-06-2019 & 24-06-2019 to 29-06-2019 & 02-07-2019 to 04-07-2019 & 08-07-2019 & 12-07-2019 to 14-07-2019 & 16-07-2019 to 17-07-2019	25	3RD YEAR/6TH SEM	Mr.Avijit Aich (Ingram Micro)	PO1, PO3, PO5, PO9,PO11, PO12, PSO1, PSO2, PSO3
6	COMMUNICATION FOR BUSINESS NEEDS	15-07-2019-14-08-2019	126	2 nd YEAR/3rd SEM	Mr. Mohit Jain and Team (Freelancer)	PO8, PO9, PO10, PSO3
7	DATA MINING	17/2/20 to 21/2/20	41	3RD YEAR/6TH SEM	Debashis Sarbadhikary, Freelancer	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9,PO11, PO12, PSO2, PSO3.

8	PYTHON	05/11/19 to 9/11/19	40	3RD YEAR/5TH SEM	Mr. Gyanendra (Talentio) Mr.Mahendra Dutta (Ardent)	PO1, PO3, PO5, PO9,PO11, PO12, PSO2, PSO3.
9	PYTHON	3/2/20 to 7/2/20 And 10/2/20 to 14/2/20	61	2ND YEAR/4TH SEM	Mr.Mahendra Dutta,Ardent	PO1, PO3, PO5, PO9,PO11, PO12, PSO1, PSO2, PSO3
10	PYTHON(B1)	20/1/20 to 25/1/20	40	3RD YEAR/6TH SEM	Mr.Gyandra,Telentio	PO1, PO3, PO5, PO9,PO11, PO12, PSO1, PSO2, PSO3
11	PYTHON(B2)	20/1/20 to 25/1/20	40	3RD YEAR/6TH SEM	Mr.Mahendra Dutta,Ardent	PO1, PO3, PO5, PO9,PO11, PO12, PSO1, PSO2, PSO3

Following are the **MOOCs** attended by the students **in the academic year CAYm2 (2019-2020)**.

COURSE ID	COURSE NAME	MAPPING WITH PO,PSO
noc21-cs21	Programming, Data Structures And Algorithms Using Python	PO1, PO3, PO5, PO9, PO12, PSO1, PSO2, PSO3
noc21-cs02	An Introduction to Programming through C++	PO1, PO3, PO9, PO12, PSO1,PSO2, PSO3
noc21-cs48	Advanced Graph Theory	PO1, PO3, PO9, PO12,PSO1,PSO2, PSO3
noc20-cs65	Data Science for Engineers	PO1, PO3, PO9, PO5, PO12, PSO1, PSO2, PSO3
noc19-hs33	Soft skills - Online	PO8, PO9, PO10, PSO3

Fig.2.1.2.3 and Fig. 2.1.2.4 show the compliance of the SETs conducted beyond curriculum and the compliance of the MOOCs with the POs and PSOs. Some of the POs and PSOs which are not highly addressed by the curriculum are addressed through SETs and MOOCs.

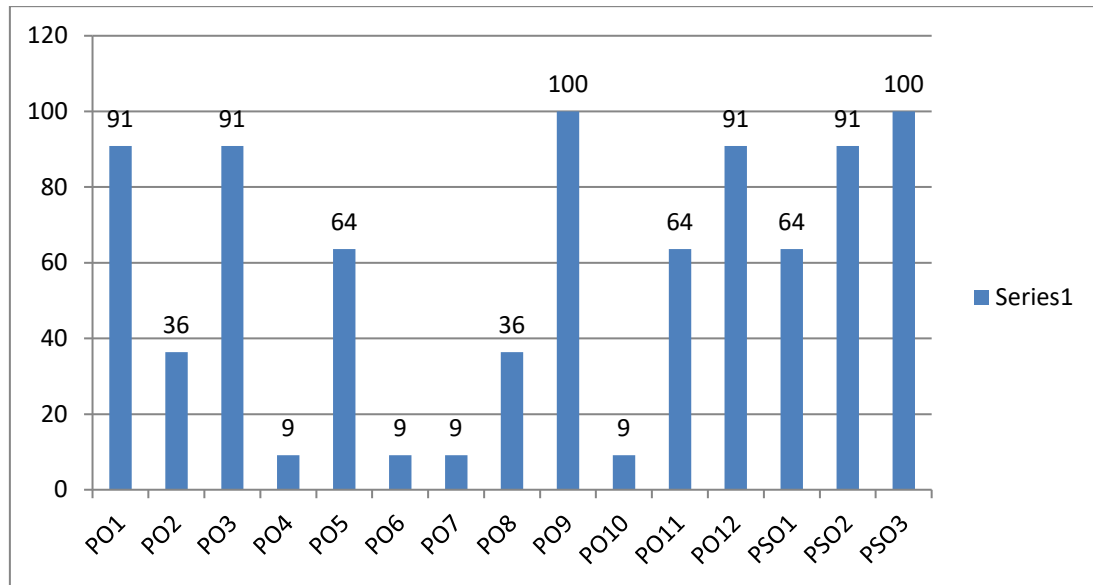


Fig. 2.1.2.3 Compliance of the SETs with POs and PSOs.

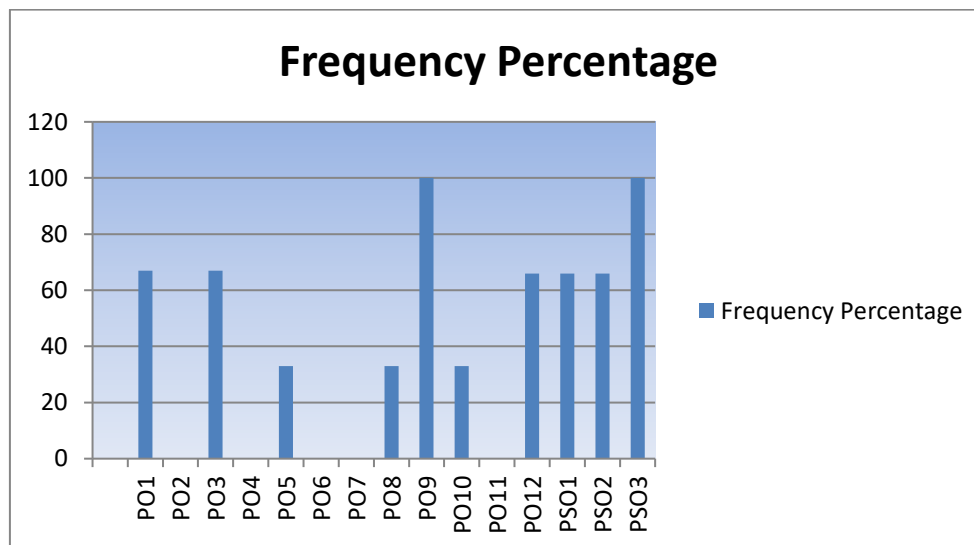


Fig. 2.1.2.4 Compliance of the MOOCs with POs and PSOs.

Following are the identified curricular gaps based on the feedback from all stakeholders and the actions taken for the year CAYm3 (2018-19).

S. No	GAP	Action Taken (Technical grooming)	Date-Month-Year	Resource Person	Student Participation	Relevance to POs, PSOs
.						

		class)				
1	Artificial Intelligence (CS703C): Genetic Algorithm, Data visualization Techniques as they may be used for problem solving.	Extra Classes taken by concerned faculty member	22/09/2018	Mr. Sandip Roy, Dept of CSE	70%	PO2, PO5, PO12 PSO1, PSO2, PSO3
2	Operating Systems(CS603) - Other Page replacement Algorithms - Second Chance(SC), Not Recently Used(NRU) algorithms.	Extra Classes taken by concerned faculty member	20-03-2019	Mrs. Lumbini Bhaumik, Dept of CSE	71%	PO4 PSO1, PSO2, PSO3
3	Database Management Systems (CS601): Fundamentals of Distributed Database Systems.	Extra Classes taken by concerned faculty member	10/04/2019	Mrs. Shatabdi Saha, Dept of CSE	70%	PO1, PO12 PSO2, PSO3

Following are the identified skills to be acquired by the students *beyond curriculum*. These are imparted *by conducting Skill Enhancement Training (SET) for the academic year CAYm2 (2018-19)*.

Serial No	Name of Training	Training Dates (To-From)	Name of Trainers and their Organization	Semester	Number of students participated	PO/PSO
1	Ruby on rails	25/07/18-27/07/18,30/07/18,31/07/18,01/08/18-02/08/18	Debashis Sarbadhikary, Freelancer	4th sem (B1)	36	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO11, PO12, PSO1, PSO2, PSO3

2	Ruby on rails	03/08/18-04/08/18,06/08/18-10/08/18	Debashis Sarbadhikary, Freelancer	4th sem (B3)	38	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9,PO11, PO12, PSO1, PSO2, PSO3
3	Ruby on rails	25/07/18-27/07/18,30/07/18,31/07/18,01/08/18-02/08/18	Mahendra Dutta,Ardent	4th sem (B2)	31	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9,PO11, PO12, PSO1, PSO2, PSO3
4	Ruby on rails	03/08/18 - 04/08/18,06/08/18 - 10/08/18	Mahendra Dutta,Ardent	4th sem(B4)	29	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9,PO11, PO12, PSO1, PSO2, PSO3
5	Advanced C	23/07/18-24/07/18	Mr.Chandan Mukherjee, Totsol Technologies	2nd sem	127	PO1, PO2, PO3, PO8,PO9, PO12, PSO1, PSO2, PSO3.
6	ADVANCE DATA STRUCTURE	14/1/19 to 19/1/19 and 28/1/19 to 2/2/19	Mr.Gyanendra, Talento	5th sem	65	PO1, PO2, PO3, PO4,PO8, PO9, PO12, PSO1, PSO2, PSO3
7	ADVANCE JAVA	14/1/19 to 19/1/19 and 28/1/19 to 2/2/19	Mr.Ayan Roy Mukherjee Miropro	7th sem	65	PO1, PO2, PO3, PO8,PO9,PO11, PO12, PSO1, PSO2, PSO3.
8	ADVANCE PYTHON	14/1/19 to 19/1/19 and 28/1/19 to 2/2/19	Mr.Suraj, Talento	7 th sem	60	PO1, PO2, PO3, PO4, PO9, PO11,PO1

						2, PSO2, PSO3.
9	WEB DEVELOPMENT USING AWS	18/4/19 to 28/4/19	Mr.Avijit Aich(Ingram Micro)	8 th sem	120	PO1, PO3, PO4, PO6, PO7, PO9,PO11, PO12, PSO1, PSO2, PSO3.
10	Cyber Security	23/4/19 to 27/4/19 and 2/5/2019 to 3/5/19	Mr.Chandan Mukherjee,Totsol Technologies	8 th sem	32	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9,PO11, PO12, PSO2, PSO3.

Following are the **MOOCs** attended by the students **in the academic year CAYm3 (2018-2019)**.

COURSE ID	COURSE NAME	MAPPING WITH PO,PSO
noc21-cs21	Programming, Data Structures And Algorithms Using Python	PO1, PO3, PO5, PO9, PO12, PSO1, PSO2, PSO3
noc21-cs02	An Introduction to Programming through C++	PO1, PO3, PO9, PO12, PSO1,PSO2, PSO3
noc19-cs31	Introduction to Internet of Things	PO1, PO3, PO9, PO5, PO12, PSO2, PSO3
noc20-cs65	Data Science for Engineers	PO1, PO3, PO9, PO5, PO12, PSO1, PSO2, PSO3
noc19-hs22	Enhancing Soft Skills and Personality	PO9, PO10, PSO3
noc19-hs32	Developing Soft Skills and Personality - Online	PO8, PO9, PO10, PSO3
noc19-hs21	Speaking Effectively	PO8, PO9, PO10, PSO3

Fig.2.1.2.5 and Fig. 2.1.2.6 show the compliance of the SETs conducted beyond curriculum and the compliance of the MOOCs with the POs and PSOs. Some of the POs and PSOs which are not highly addressed by the curriculum are addressed through SETs and MOOCs.

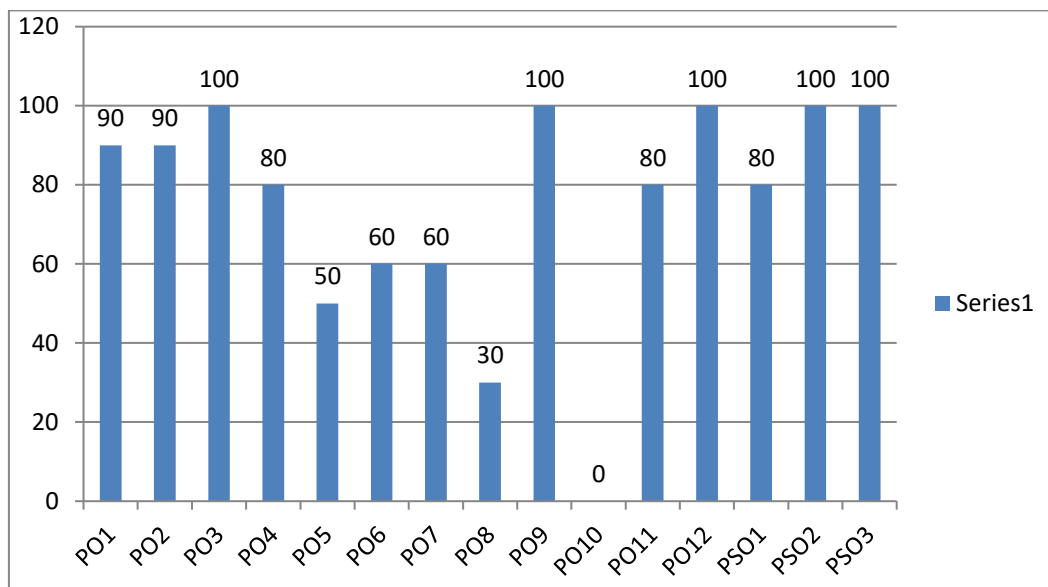


Fig. 2.1.2.5 Compliance of the SETs with POs and PSOs.

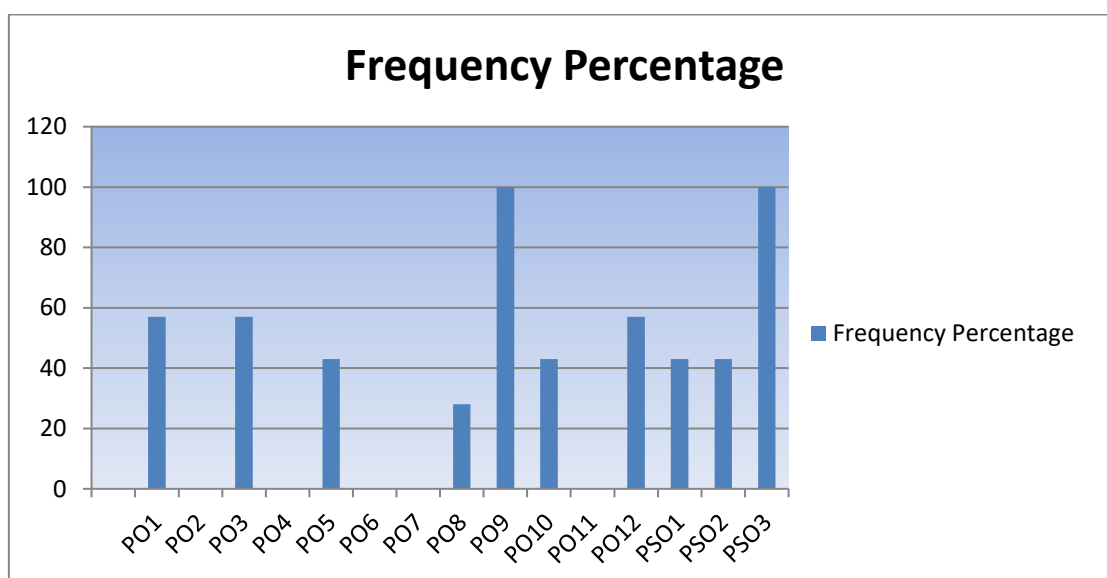


Fig. 2.1.2.6 Compliance of the SETs with POs and PSOs.

2.2. Teaching - Learning Processes (100)

2.2.1. Describe Processes followed to improve quality of Teaching & Learning (25)

The roadmap for Teaching and Learning Quality Improvement focus on following criteria:-

Academic Calendar:

The departmental academic calendar is prepared based on the institute academic calendar which is in adherence to the academic calendar prescribed by the University. The calendar of events includes enrollment of courses, internal tests, parent-teacher meet, webinars, various industrial visits, guest lectures, technical competitions and short term courses.

Timetable:

The time table is prepared by the time table coordinator. The academic calendar and time table are shared with the students.

Course File:

Faculty member prepares the course file of their assigned course containing the following documents:

- a. Vision and Mission of Institute.
- b. Vision and Mission of Department.
- c. Syllabus of the course.
- d. Course outcomes (COs).
- e. Program outcomes (POs).
- f. Program Specific Outcomes (PSOs).
- g. Program Educational Objectives (PEOs).
- h. CO-PO and CO-PSO mapping.
- i. Session Plan.
- j. Lecture Plan.
- k. Departmental Academic Calendar.
- l. Individual Time Table.
- m. Internal Question Papers.
- n. Assignments.
- o. University Question papers.
- p. Important lecture notes.
- q. Curriculum gap and action taken report.

2.2.1.A Adherence to Academic calendar (University, Institute and Department calendar):

Department normally adheres to the institute academic calendar which is prepared on the basis of University academic calendar. Lecture plan with course outcomes are prepared by the respective faculty member before the commencement of the semester, duly approved by the Head of the department and made available to the students.

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY

Academic Calendar 2019-20

Events		For Ensuring New Batch	For Continuing Batch
Odd Semester 2019-20			
1	Commencement of University Registration process online for newly admitted students	July 22, 2019	N.A.
2	Admission activities (<i>for ensuing new students</i>) to be completed by	July 31, 2019	N.A.
3	Commencement of Academic Programme	August 1, 2019	July 15, 2019
4	Registration activities (<i>for ensuing newly admitted students for the session 2019-20</i>) will be completed by	August 25, 2019	N.A.
5	Enrolment of students (for each semester)	August 14, 2019 to August 30, 2019	
6 (a)	Last date of continuous evaluation (Phase I)	August 31, 2019	
6 (b)	Last date of continuous evaluation (Phase II)	September 30, 2019	
6 (c)	Last date of continuous evaluation (Phase III)	October 31, 2019	
6 (d)	Last date of continuous evaluation (Phase IV)	November 30, 2019	
7 (a)	Practical Examinations & Viva-Voce	November 22 to 30, 2019	
7 (b)	Theory Examinations	December 4 to 21, 2019	
8	Inter Semester Break	December 22, 2019 to January 12, 2020	
9	Publication of Result	Results will be announced in the University website in February 2020	
10 (a)	Last date of reporting on Mentoring (Phase I)	30 th September 2019	
10 (b)	Last date of reporting on Mentoring (Phase II)	30 th December 2019	

Departmental calendar of ODD Semester 2019

Asansol Engineering College

ACADEMIC CALENDAR

Department of Computer Science and Engineering

Odd Semester 2019 [July to December]

Day	Month	Day	Routine Activity	Particulars
1	1 st July	Monday		Semester Break / Training
2	2 nd July	Tuesday		Semester Break / Training
3	3 rd July	Wednesday		Semester Break / Training
4	4 th July	Thursday		Semester Break / Training
5	5 th July	Friday		Semester Break / Training
6	6 th July	Saturday	Weekly off	
7	7 th July	Sunday	Weekly off	
8	8 th July	Monday	Teaching Day 01	Commencement of Ongoing Semester Students Training
9	9 th July	Tuesday	Teaching Day 02	Registration ongoing batch Students Training
10	10 th July	Wednesday	Teaching Day 03	Registration ongoing batch] Students Training Monthly Review Meeting for the month of June 2019
11	11 th July	Thursday	Teaching Day 04	Registration ongoing batch Students Training
12	12 th July	Friday	Teaching Day 05	Registration ongoing batch Students Training
13	13 th July	Saturday	Weekly off	

14	14 th July	Sunday	Weekly off	
				Announcement of End Semester Result (Even Semester-Jan to June 2019)
15	15 th July	Monday	Teaching Day 06	Registration ongoing batch Students Training Parent teacher meeting
16	16 th July	Tuesday	Teaching Day 07	Registration ongoing batch Students Training
17	17 th July	Wednesday	Teaching Day 08	Registration ongoing batch Students Training
18	18 th July	Thursday	Teaching Day 09	Students Training
19	19 th July	Friday	Teaching Day 10	Students Training
20	20 th July	Saturday	Weekly off	Students Training
21	21 st July	Sunday	Weekly off	
22	22 nd July	Monday	Teaching Day 11	
23	23 rd July	Tuesday	Teaching Day 12	
24	24 th July	Wednesday	Teaching Day 13	
25	25 th July	Thursday	Teaching Day 14	Distribution of project to students
26	26 th July	Friday	Teaching Day 15	Distribution of project to students
27	27 th July	Saturday	Weekly off	
28	28 th July	Sunday	Weekly off	
29	29 th July	Monday	Teaching Day 16	Commencement of Academic Session for New Batch Induction Program for New Batch
30	30 th July	Tuesday	Teaching Day 17	Induction Program for New Batch Monthly Report Submission

31	31 st July	Wednesday	Teaching Day 18	Induction Program for New Batch
32	1 st Aug	Thursday	Teaching Day 19	Induction Program for New Batch
33	2 nd Aug	Friday	Teaching Day 20	Induction Program for New Batch
34	3 rd Aug	Saturday	Weekly off	
35	4 th Aug	Sunday	Weekly off	
36	5 th Aug	Monday	Teaching Day 21	Induction Program for New Batch
37	6 th Aug	Tuesday	Teaching Day 22	Induction Program for New Batch Mentorship related Document Preparation as per MAKAUT
38	7 th Aug	Wednesday	Teaching Day 23	Induction Program for New Batch Monthly Review Meeting for the month of July 2019
39	8 th Aug	Thursday	Teaching Day 24	Induction Program for New Batch
40	9 th Aug	Friday	Teaching Day 25	Induction Program for New Batch
41	10 th Aug	Saturday	Weekly off	
42	11 th Aug	Sunday	Weekly off	
43	12 th Aug	Monday	Holiday	Id-Ul-Zoha
44	13 th Aug	Tuesday	Teaching Day 26	
45	14 th Aug	Wednesday	Teaching Day 27	
46	15 th Aug	Thursday	Holiday	Independence Day
47	16 th Aug	Friday	Teaching Day 28	
48	17 th Aug	Saturday	Weekly off	
49	18 th Aug	Sunday	Weekly off	
50	19 th Aug	Monday	Teaching Day 29	Initiative to open Student Wing of CSI
51	20 th Aug	Tuesday	Teaching Day 30	
52	21 st Aug	Wednesday	Teaching Day 31	
53	22 nd Aug	Thursday	Teaching Day 32	
54	23 rd Aug	Friday	Holiday	Janmashtami
55	24 th Aug	Saturday	Weekly off	
56	25 th Aug	Sunday	Weekly off	
57	26 th Aug	Monday	Teaching Day 33	Monthly Report Submission

58	27 th Aug	Tuesday	Teaching Day 34	[Distribution of Topic for Debate/ PPT/ GD]
59	28 th Aug	Wednesday	Teaching Day 35	
60	29 th Aug	Thursday	Teaching Day 36	
61	30 th Aug	Friday	Teaching Day 37	
62	31 st Aug	Saturday	Weekly off	Seminar –CSE
63	1 st Sept	Sunday	Weekly off	
64	2 nd Sept	Monday	Teaching Day 38	
65	3 rd Sept	Tuesday	Teaching Day 39	
66	4 th Sept	Wednesday	Teaching Day 40	
67	5 th Sept	Thursday	Teaching Day 41	Submission of Q paper-Unit Test 1] Distribution 1 st Project]
68	6 th Sept	Friday	Teaching Day 42	Submission of Q paper-Unit Test 1 Monthly Review Meeting for the month of Aug 2019
69	7 th Sept	Saturday	Weekly off	
70	8 th Sept	Sunday	Weekly off	
71	9 th Sept	Monday	Teaching Day 43	
72	10 th Sept	Tuesday	Holiday	Muhharam
73	11 th Sept	Wednesday	Teaching Day 44	University Subject Tagging
74	12 th Sept	Thursday	Teaching Day 45	1 st Unit Test
75	13 th Sept	Friday	Teaching Day 46	1 st Unit Test
76	14 th Sept	Saturday	Teaching Day 47	1 st Unit Test
77	15 th Sept	Sunday	Weekly off	
78	16 th Sept	Monday	Teaching Day 48	
79	17 th Sept	Tuesday	Holiday	Viswakarma Puja
80	18 th Sept	Wednesday	Teaching Day 49	
81	19 th Sept	Thursday	Teaching Day 50	

82	20 th Sept	Friday	Teaching Day 51	
83	21 st Sept	Saturday	Weekly off	
84	22 nd Sept	Sunday	Weekly off	
85	23 rd Sept	Monday	Teaching Day 52	Monthly Report Submission
86	24 th Sept	Tuesday	Teaching Day 53	[Distribution of Answer script- 1 st Unit Test]
87	25 th Sept	Wednesday	Teaching Day 54	[Distribution of Answer script- 1 st Unit Test]
88	26 th Sept	Thursday	Teaching Day 55	[Distribution of Answer script- 1 st Unit Test]
89	27 th Sept	Friday	Teaching Day 56	[1 st Unit Test Result] [1 st review of Project]
90	28 th Sept	Saturday	Holiday	Mahalaya
91	29 th Sept	Sunday	Weekly off	
92	30 th Sept	Monday	Teaching Day 57	[Innovative Idea Proposal Submission at Dept]
93	1 st Oct	Tuesday	Teaching Day 58	
94	2 nd Oct	Wednesday	Holiday	Birthday of Gandhiji
95	3 rd Oct	Thursday	Day off	Day off
96	4 th Oct	Friday	Holiday	Holiday
97	5 th Oct	Saturday	Holiday	Holiday
98	6 th Oct	Sunday	Holiday	Holiday
99	7 th Oct	Monday	Holiday	Holiday
100	8 th Oct	Tuesday	Holiday	Holiday
101	9 th Oct	Wednesday	Holiday	Holiday
102	10 th Oct	Thursday	Holiday	Holiday
103	11 th Oct	Friday	Holiday	Holiday
104	12 th Oct	Saturday	Holiday	Holiday
105	13 th Oct	Sunday	Holiday	Holiday
106	14 th Oct	Monday	Teaching Day 59	Monthly Review Meeting for the month of Sept. 2019
107	15 th Oct	Tuesday	Teaching Day 60	
108	16 th Oct	Wednesday	Teaching Day 61	
109	17 th Oct	Thursday	Teaching Day 62	
110	18 th Oct	Friday	Teaching Day 63	
111	19 th Oct	Saturday	Weekly off	[Parent-Teacher Meeting]

112	20 th Oct	Sunday	Weekly off	
113	21 st Oct	Monday	Teaching Day 64	
114	22 nd Oct	Tuesday	Teaching Day 65	Mentee tagging in MAKAUT WEBSITE
115	23 rd Oct	Wednesday	Teaching Day 66	
116	24 th Oct	Thursday	Teaching Day 67	
117	25 th Oct	Friday	Teaching Day 68	[Innovative Idea competition of all Dept]
118	26 th Oct	Saturday	Weekly off	
119	27 th Oct	Sunday	Holiday	Kali Puja/Diwali
120	28 th Oct	Monday	Holiday	Immersion of Goddess Kali
121	29 th Oct	Tuesday	Holiday	Bhatridwitiya
122	30 th Oct	Wednesday	Teaching Day 69	[Submission of 2 nd Project] [Final Evaluation of Innovative Idea competition]
123	31 st Oct	Thursday	Teaching Day 70	[Choice of Electives for next Sem]
124	1 st Nov	Friday	Teaching Day 71	[Submission of Requisition for Infrastructure and Manpower]
125	2 nd Nov	Saturday	Weekly off	
126	3 rd Nov	Sunday	Weekly off	
127	4 th Nov	Monday	Teaching Day 72	
128	5 th Nov	Tuesday	Teaching Day 73	
129	6 th Nov	Wednesday	Teaching Day 74	
130	7 th Nov	Thursday	Teaching Day 75	Monthly Review Meeting for the month of Oct. 2019
131	8 th Nov	Friday	Teaching Day 76	
132	9 th Nov	Saturday	Weekly off	
133	10 th Nov	Sunday	Weekly off	
134	11 th Nov	Monday	Teaching Day 77	
135	12 th Nov	Tuesday	Holiday	Guru Nanak's Birthday
136	13 th Nov	Wednesday	Teaching Day 78	[2nd Unit Test] [Collection of Student feedback]
137	14 th Nov	Thursday	Teaching Day 79	[2nd Unit Test]

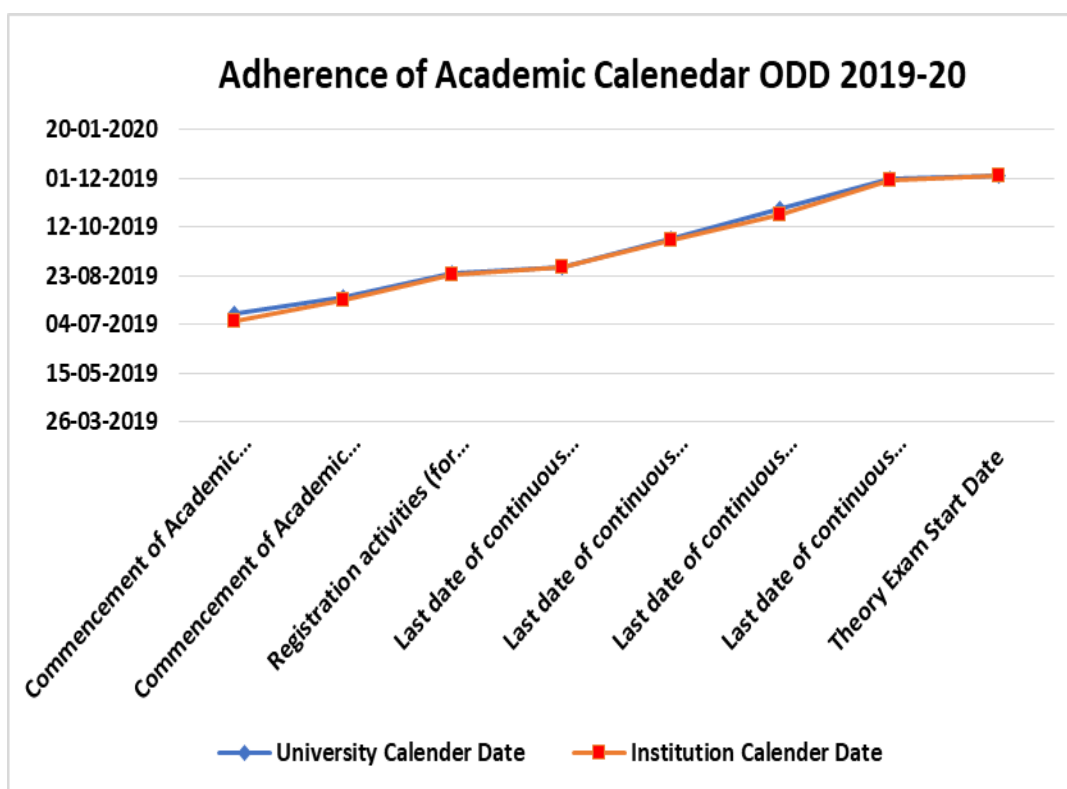
				[Collection of Student feedback]
138	15 th Nov	Friday	Teaching Day 80	[2nd Unit Test] [Collection of Student feedback] Semester Exam Form Filling up ends
139	16 th Nov	Saturday	Weekly off	
140	17 th Nov	Sunday	Weekly off	
141	18 th Nov	Monday	Teaching Day 81	Remedial Class
142	19 th Nov	Tuesday	Teaching Day 82	Remedial Class
143	20 th Nov	Wednesday	Teaching Day 83	Remedial Class
144	21 st Nov	Thursday	Teaching Day 84	Remedial Class
145	22 nd Nov	Friday	Teaching Day 85	Remedial Class
146	23 rd Nov	Saturday	Weekly off	Parent-Teacher Meeting - II]
147	24 th Nov	Sunday	Weekly off	
148	25 th Nov	Monday	Teaching Day 86	Remedial Class
149	26 th Nov	Tuesday	Teaching Day 87	Remedial Class [Distribution Answer script of 2 nd Unit Test]
150	27 th Nov	Wednesday	Teaching Day 88	Remedial Class [Distribution Answer script of 2 nd Unit Test]
151	28 th Nov	Thursday	Teaching Day 89	Remedial Class [Distribution Answer script of 2 nd Unit Test]
152	29 th Nov	Friday	Teaching Day 90	Remedial Class [Publication of 2 nd Unit Test Result]
153	30 th Nov	Saturday	Weekly off	
154	1 st Dec	Sunday	Weekly off	
155	2 nd Dec	Monday		[Theory Examination]
156	3 rd Dec	Tuesday		[Theory Examination]
157	4 th Dec	Wednesday		[Theory Examination]
158	5 th Dec	Thursday		[Theory Examination]
159	6 th Dec	Friday		[Theory Examination]

				Monthly Review Meeting for the month of Nov.2019
160	7 th Dec	Saturday		[Theory Examination] - If required
161	8 th Dec	Sunday	Weekly off	
162	9 th Dec	Monday		[Theory Examination]
163	10 th Dec	Tuesday		[Theory Examination]
164	11 th Dec	Wednesday		[Theory Examination]
165	12 th Dec	Thursday		[Theory Examination]
166	13 th Dec	Friday		[Theory Examination]
167	14 th Dec	Saturday		[Theory Examination]- If required
168	15 th Dec	Sunday	Weekly off	
169	16 th Dec	Monday		[Practical Examination & Viva Voce]
170	17 th Dec	Tuesday		[Practical Examination & Viva Voce]
171	18 th Dec	Wednesday		[Practical Examination & Viva Voce]
172	19 th Dec	Thursday		[Practical Examination & Viva Voce] Lesson Plan Submission for next semester Publication of time table for Even Sem 2020
173	20 th Dec	Friday		[Practical Examination & Viva Voce]
174	21 st Dec	Saturday	Weekly off	[Practical Examination & Viva Voce]- If required
175	22 nd Dec	Sunday	Weekly off	
176	23 rd Dec	Monday	Activities	[Practical Examination & Viva Voce]- If required
177	24 th Dec	Tuesday	Activities	Alumni Meet
178	25 th Dec	Wednesday	Holiday	Christmas Day
179	26 th Dec	Thursday		Semester Break
180	27 th Dec	Friday		Semester Break
181	28 th Dec	Saturday	Weekly off	Semester Break
182	29 th Dec	Sunday	Weekly off	Semester Break
183	30 th Dec	Monday		Semester Break

184	31 st Dec	Tuesday		Semester Break
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Adherence to academic calendar

Academic Activities (University)	University Calendar Date	Institution Calendar Date
Commencement of Academic Program (Continuing Batch)	15-07-2019	08-07-2019
Commencement of Academic Program (New Batch)	01-08-2019	29-07-2019
Registration activities (for ensuing newly admitted students for the session 2019-20) will be completed by	25-08-2019	24-08-2019
Last date of continuous evaluation (Phase I)	31-08-2019	31-08-2019
Last date of continuous evaluation (Phase II)	30-09-2019	29-09-2019
Last date of continuous evaluation (Phase III)	31-10-2019	25-10-2019
Last date of continuous evaluation (Phase IV)	30-11-2019	29-11-2019
Theory Exam Start Date	04-12-2019	04-12-2019



2.2.1.B Use of various Instructional Methods and Pedagogical initiatives

For Students:

AEC Academic Resources (Digital): All the students are provided with user-id and password to access digital resources such as video lectures/PPTs uploaded by faculty members.

The link of the above digital resources is given below:

http://112.133.209.26:82/Forms/frmLogin.aspx?branch_id=401

A snapshot of a video lecture is displayed below:

The screenshot shows a video player window titled "PCC-SS01_Lecture-17". The main content is a slide titled "Rules for computing FIRST".

Rules for computing FIRST
To compute $FIRST(X)$ for all grammar symbols X , apply the following rules until no more terminals or ϵ can be added to any $FIRST$ set.

1. If X is a terminal, then $FIRST(X) = \{X\}$.
2. If X is a nonterminal and $X \rightarrow Y_1 Y_2 \dots Y_k$ is a production for some $k \geq 1$, then place a in $FIRST(X)$ if for some i , a is in $FIRST(Y_i)$, and ϵ is in all of $FIRST(Y_1), \dots, FIRST(Y_{i-1})$; that is, $Y_1 \dots Y_{i-1} \Rightarrow \epsilon$. If ϵ is in $FIRST(Y_j)$ for all $j = 1, 2, \dots, k$, then add ϵ to $FIRST(X)$. For example, everything in $FIRST(Y_1)$ is surely in $FIRST(X)$. If Y_1 does not derive ϵ , then we add nothing more to $FIRST(X)$, but if $Y_1 \Rightarrow \epsilon$, then we add $FIRST(Y_2)$, and so on.
3. If $X \rightarrow \epsilon$ is a production, then add ϵ to $FIRST(X)$.

Now, we can compute $FIRST$ for any string $X_1 X_2 \dots X_n$ as follows. Add to $FIRST(X_1 X_2 \dots X_n)$ all non- ϵ symbols of $FIRST(X_1)$. Also add the non- ϵ symbols of $FIRST(X_2)$, if ϵ is in $FIRST(X_1)$; the non- ϵ symbols of $FIRST(X_3)$, if ϵ is in $FIRST(X_1)$ and $FIRST(X_2)$; and so on. Finally, add ϵ to $FIRST(X_1 X_2 \dots X_n)$ if, for all i , ϵ is in $FIRST(X_i)$.

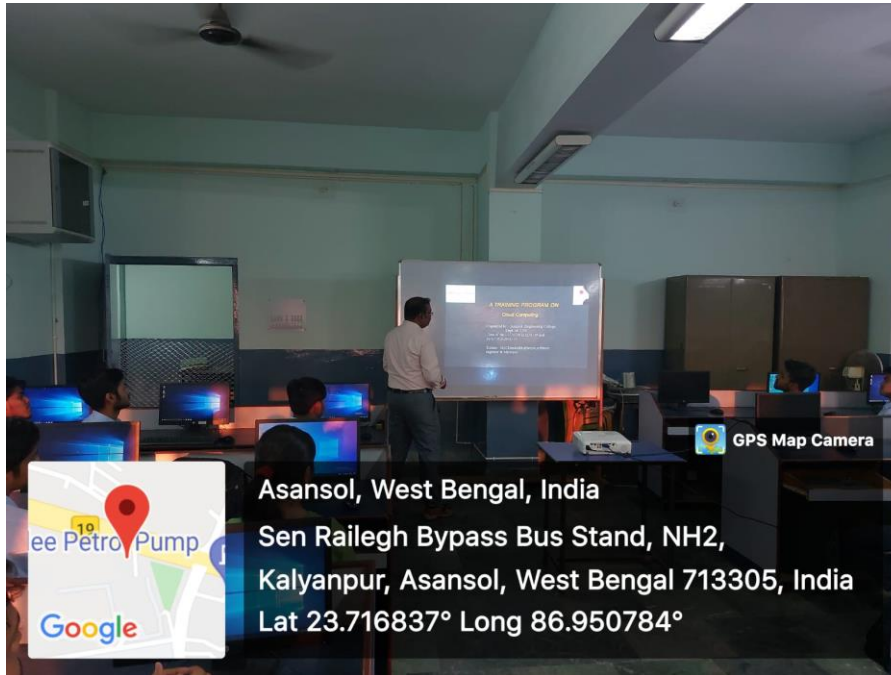
Example of FIRST computation
Let us consider the *non-left recursive* grammar shown alongside.

E	\rightarrow	$T E'$
E'	\rightarrow	$+ T E' \mid \epsilon$
T	\rightarrow	$F T'$
T'	\rightarrow	$* F T' \mid \epsilon$
	\rightarrow	$(E) \mid id$

1. $FIRST(F) = FIRST(T) = FIRST(E) = \{(, id), \dots\}$
2. $FIRST(E') = \{ \epsilon, \dots \}$ 3. $FIRST(T') = \{ \epsilon, \dots \}$

The video player interface includes a search bar, navigation controls, and a Windows taskbar at the bottom showing the time as 02:30 PM on 03-03-2022.

Skill Enhancement Training Organized by T&P: During the period of study in the program of Computer Science and Engineering, the students undergo various Skill Enhancement Trainings (SETs). These are conducted for acquiring technical skills beyond curriculum so that they can face interviews with confidence.



Innovative Projects: Some bright students undertake innovative projects under the supervision of faculty members.



Recent innovative project named “**Non-contact switching system**” developed by **Kamran Hassan**, student of CSE Department, 2019-23 batch under the guidance of Dr. Sandip Roy, Assoc. Prof. of CSE Department. The technology was transferred to Victor Engineering Company of Assam for 100,000 (one lakh only). The technology transfer letter is displayed below.



ASANSOL ENGINEERING COLLEGE

Kanyapur, Vivekananda Sarani, Asansol, Burdwan, PIN-713305
Phone : (0341) 225-3057, 225-2108 Telefax : 0341-225-6334
E mail : principal.aecwb@gmail.com Website : www.aecwb.edu.in

Date:- 20.08.2020

SUB : TECHNOLOGY TRANSFER CERTIFICATE OF NON-CONTACT SWITCHING SYSTEM TECHNOLOGY

THIS IS TO CERTIFY THAT, WE HAVE FAVOURED TECHNOLOGY TRANSFER AND TECHNICAL KNOW-HOW OF OUR NON-CONTACT SWITCHING SYSTEM TECHNOLOGY (TOUCH-LESS) SPECIALLY FOR DOMESTIC ELECTRICALS AND FOR VARIOUS DOMESTIC APPLIANCES WITH AUTOMATION SYSTEM TO –

M/S. VICTOR ENGINEERING CO.

A.T. ROAD, MAKUM JUNCTION, DIST. - TINSUKIA, ASSAM – 786170,


WHICH HAS BEEN DEVELOPED BY OUR

ASANSOL ENGINEERING COLLEGE, ASANSOL, (WEST BENGAL).

THE CERTIFICATE HAS BEEN ISSUED WITH EFFECT FROM 20-08-2020 & APPLICABLE IN INDIA & IT IS SOLELY GIVEN TO M/S. VICTOR ENGINEERING CO.


Mr. Sujit Kishor Chakraborty
IIP Cell, Chief Coordinator
Chief Co-ordinator, IIP Cell
Asansol Engineering College
Asansol-713305


Mr. Kamran Hassan
Project Consultant

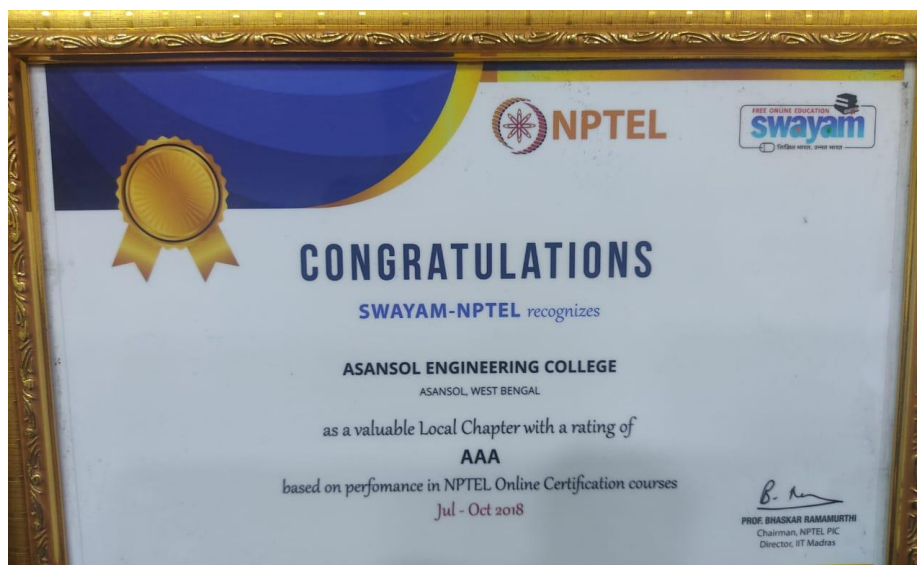

Mr. Soumen Sen
Project Head,
Coordinator Hard ware Club


Dr. (Prof) P. P. Bhattacharya
Principal
PRINCIPAL
Asansol Engineering College
Vivekananda Sarani
Asansol

CS Scanned with CamScanner

Online Courses and Certifications: Students are motivated to enroll for various online courses offered by NPTEL, Coursera etc. College provides requisite support system for the students participating in these courses to enhance their skills.

NPTEL local chapter started at Asansol Engineering College in 2017. After that initiative, semester wise good number of students have opted for these courses for upgrading themselves. The Institute has secured good ranking from IIT Madras. The rating certificate of the college is displayed below.



COURSERA courses for MOOCS started in Asansol Engineering College from September, 2021. It is mandatory for all B.Tech, Computer Science & Engineering students to complete one course in each semester. It is absolutely free for students.

In-house LMS(Bluowl):

A learning management system (LMS) is a software application that provides a large and indispensable set of features to support online educational activities. Asansol Engineering College has its own LMS “Bluowl”, which is used by the departmental faculty members to organize materials and conducting online classes.

For Faculty Members:

For enhancing the subject and technical knowledge of teachers, the following programs are arranged by the department: -

- Domain specific workshops/seminars
- Faculty development Program (FDP)
- Short term training program (STTP)

2.2.1.C Methodologies to support weak and bright students:

The department conducts formal evaluation through internal class tests and assignments. The results are published in the departmental notice board. Result analysis leads to the identification of weak and bright students. Students with less than 60% marks are categorized as weak and the rest are categorized as bright. The process for identification and the actions taken thereafter are shown in Figure 2.2.1.

Actions taken

For the weak students the following actions are taken:

- Peer teaching: The bright students are motivated to clear doubts of the weaker students.

- Mentoring: The mentors motivate the weaker students to do better in the future tests.
- Intimation to parents: The parents of the weaker students are intimated by the Department so that they are aware of their ward's poor performance
- Conducting extra classes: Individual subject teachers also take extra classes to clear the doubts of the weaker students.

For bright students, the following actions are taken:

- Motivate to participate in inter-college technical events.
- Motivate to take up research-based projects in final year.
- Motivate for higher studies.

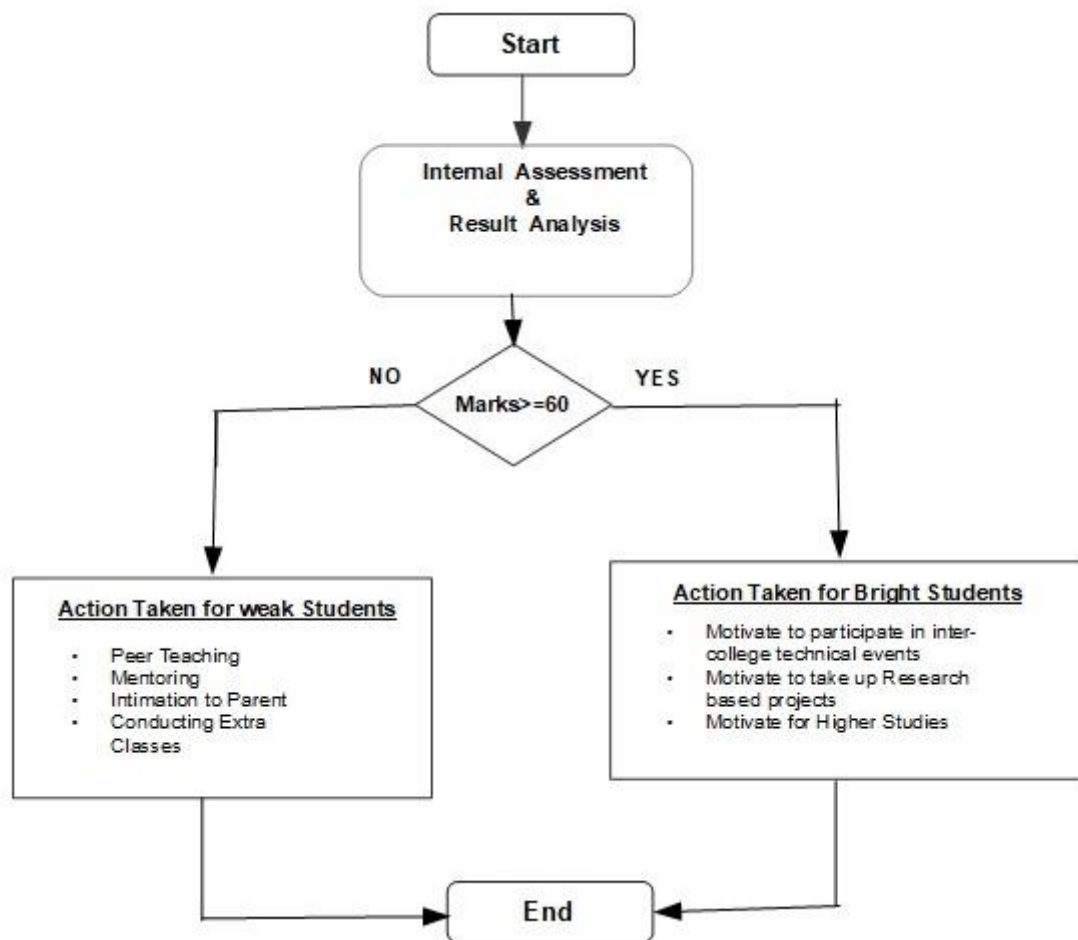


Figure 2.2.1 Process of identification of weak and bright students and actions taken.

2.2.1.D Quality of classroom teaching (Observation in a class)

The quality of classroom teaching is ensured by the following:

Quality of Teaching Delivery:

The most vital part of the quality teaching and learning is the instructional delivery. The following broad components contribute to the effective instructional delivery: -

Outcome based teaching-learning: The faculty members teaching every course (theory and laboratory) identifies the course outcomes and explain the same to the students. They prepare the lecture plan to achieve course outcomes. The course outcomes are prepared and mapped to the POs and PSOs of the program.

Academic Infrastructure: Institute offers modern, well equipped comfortable class rooms and laboratories. Arrangement is made to put students in smaller groups in the laboratory to make the learning process more effective.

Interactive Lecture Delivery: Students are encouraged to interact during the lecture hours to clarify their doubts. Further, the participation of students in the class is enhanced through pedagogical initiatives like quizzes, brain storming, assignments etc.

Fig. 2.2.1.1 shows the example of online class during the pandemic.

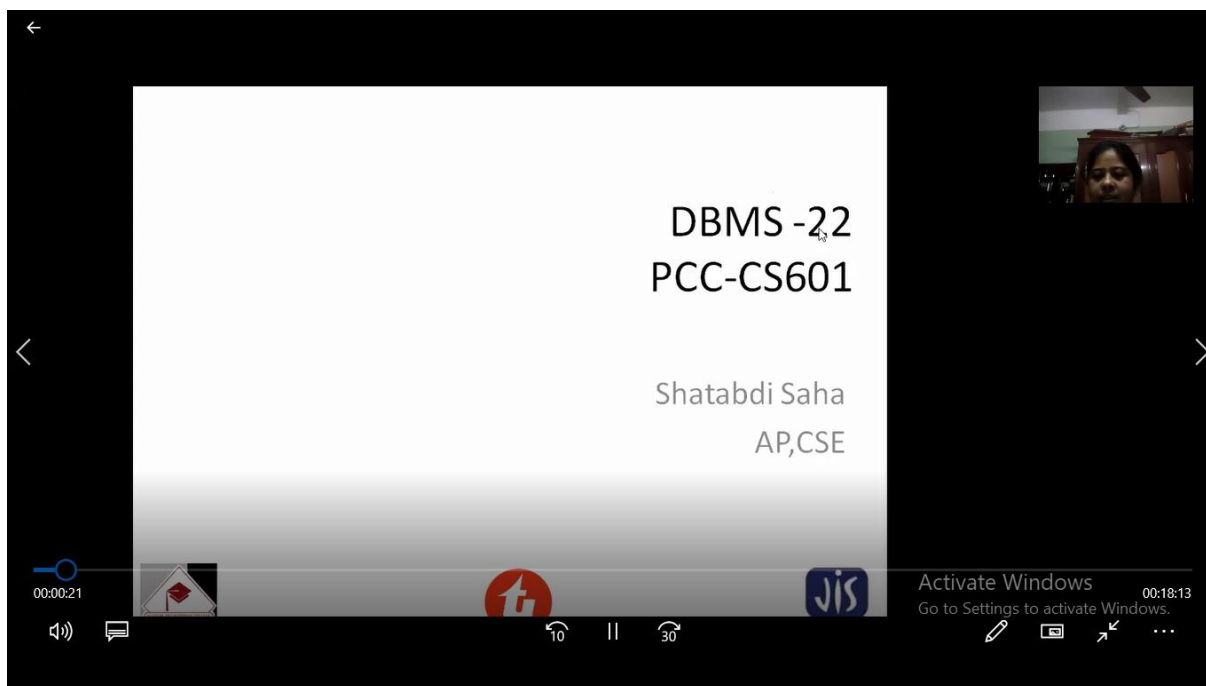


Fig. 2.2.1.1 online class during the pandemic.

2.2.1. E. Conduction of experiments (Observation in laboratory):

The quality of the laboratory classes are ensured through the following.

Experimental Setups for conducting the experiments: Curriculum stipulates lab courses from 2nd semester to 7th semester and project in 8th semester. Every lab course has its own manual. Lab assignments are given to students. The submitted lab files are checked by the faculty and the observations are recorded and

maintained. A faculty member and a technical staff conducted a practical classes is shown below in Fig.2.2.1.2.



Fig. 2.2.1.2 Faculty and Technical staff in a Laboratory Class.

2.2.1. F Continuous Assessment in laboratory: Each laboratory course has its own outcomes. Laboratory assignments are given to evaluate students on these outcomes. Continuous assessment is done with two laboratory assignments of 20 marks each. The assignments are evaluated on the basis of submission of laboratory records, understanding of the experiment through oral viva voce questions, participation in performing the experiments etc. The rubrics for evaluation is shown below.

1. Active participation in laboratory. (4 marks)
2. Timely completion of assignments. (4 marks)
3. Punctuality (4 marks)
3. Preparation of laboratory report. (4 marks)
4. Viva-voce (4 marks)

2.2.1. G. Student feedback of teaching learning process and actions taken: At the end of the semester, all the students are required to fill online feedback-form for apprising the faculty for both teaching course content in a scale of 1 to 10. The feedback is used for following purposes:

- Faculty uses the feedback to improve or strengthen the content delivery style and the instructional material related to the course.
- Used as an indirect assessment tool for evaluation of attainment of course outcome.

Fig: 2.2.3.shows Screen Shots of the Questions asked in student feedback of Teaching Learning Process

The image displays two side-by-side screenshots of a student feedback form titled "Feedback on Teaching learning process".

Left Screenshot:

- Title: Feedback on Teaching learning process
- User: svl.chiranjib@gmail.com Switch account
- * Required
- Email * (Your email)
- You are a * (Choose dropdown)
- This is a required question
- Name * (Your answer)
- Quality of classroom teaching * (Radio buttons: Poor, Average, Good, Very good, Excellent)
- Request edit access button

Right Screenshot:

- Is any pedagogical methods used in class? * (Radio buttons: Yes, No)
- Quality of student projects. * (Radio buttons: Poor, Average, Good, Very good, Excellent)
- Infrastructure of laboratory. * (Radio buttons: Poor, Average, Good, Very good, Excellent)
- Are teachers giving attention to weak students? * (Radio buttons: Yes, No)
- Request edit access button

Fig: 2.2.3 Screen Shots of the Questions asked in student feedback of Teaching Learning Process

Actions taken after obtaining students feedback:

The following actions are taken by the HOD to improve the teaching learning process after obtaining the students’ feedback.

- Counselling of those faculty members by HOD who scored low and received negative comments (if any) in the feedback. This motivates them to improve their skills and abilities.
- Faculties with good feedback are recognized by special awards from the Institute. The Fig. 2.2.4 and Fig. 2.2.5 shows such awards.



Fig.2.2.4 Award for Faculty



Fig.2.2.5 Award for Faculty

2.2.2. Quality of internal semester Question papers, Assignments and Evaluation (20)

2.2.2. A Process for internal semester question paper setting, evaluation and effective process implementation

Course Assessment Process:

The academic performance of the students is a tool for assessment of the teaching and learning process adopted by the program. The performance evaluation may be both informal and formal.

Informal evaluation is done through student interaction, observation and feedback through mentorship etc. However these tools are subjective and may vary person to person.

Formal Evaluation is done through university guidelines. As per the guidelines the course evaluation has two components namely, internal/continuous assessment and semester/terminal assessment with a ratio of 30:70 (for theory) and 40:60 (for laboratories) on a scale of 100. Continuous assessment of sessional papers is done for 100 marks.

The internal/continuous assessment includes

- Internal Class Test (Two Centrally by college and two by concern faculty member)
- Assignments (Four by concern faculty member)
- Quiz
- Attendance of the students

The external evaluation consists of a written examination at the end of the semester.

Quality & Frequency of Internal Evaluations and Format for Question Papers:

The question paper of various formal evaluation methods are formulated as per university guideline and is elaborated as follows:-

❖ **Internal Class Test:** Two internal class tests are centrally conducted by the institute for all the courses. In addition to that concerned faculty members organize an additional two test/assignment/quiz for students. Continuous Assessment (CA) evaluated based on the class test/ assignment/quiz taken by centrally and individual faculty member.

Course outcomes are followed while setting the internal exam question papers where the following strategy is applied. The internal test consists of 30 Marks of subjective questions and objective question.

Multiple Choice questions ($1 \times 5 = 5$ marks)

Short Answer Type Questions ($2 \times 5 = 10$ marks)

Long Short Answer Type Questions ($1 \times 15 = 15$ marks)

Sample Class Test Question

Asansol Engineering College
SUB: DATABASE MANAGEMENT SYSTEM (CS601)

2018-19

1st Class Test

Time:1hr

F.M – 30

Answer the following questions

(5x1)=5

1. DML is a language that allows:
a. To define data b. to define the relationships c. to add new rows d. All
[CO2/BT-II]
2. In the relational model ,the number of attributes in a table is termed as
a. Cardinality b. degree c. domain d. none of these
[CO1/BT-I]
3. In ER model , a multi valued attribute is represented using:
a. Ellipse b. double diamond c. double rectangle d. double ellipse
[CO1/BT-II]
4. A relation can be logically connected to another relation by defining a
a. Foreign Key b. Common field c. primary key d. Hyperlink
[CO2/BT-II]
5. Relational Algebra is a
a. Procedural language b. non-procedural language c. commercial language d. All
[CO3/BT-I]

Answer any two (either 6 & 7 OR 8 & 9)

(2x5)=10

6. Make an E-R diagram for a Banking business scenario with the given assumptions: There are multiple banks and each bank has many branches. Each branch has multiple customers. Customers have various types of accounts. Some Customers also had taken different types of loans from these bank branches. One customer can have multiple accounts and Loans.
[CO1/BT-II]
7. Explain Generalization and Specialization with example.
[CO2/BT-II]
8. Summarize the advantages of DBMS over File System.
[CO1/BT-II]
9. Explain the concept of aggregation with example. Define candidate key, primary key and foreign key.
[CO2/BT-III]

Answer the following:

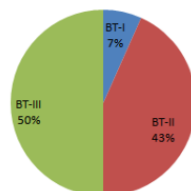
(5x3)=15

10. Write the equivalent **relation algebra and SQL** statement for the given queries with the following relational schemas.
[CO3/BT-III]

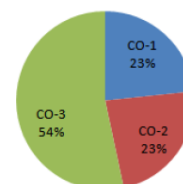
Employee (person_name, street, city)
Works (person_name, company_name, salary)
Company (company_name, city)

- a. Give all employees of TCS a 10% salary raise.
- b. Find the total salary of the employee's for each company.
- c. Find all employees who do not work for TCS and earning salary more than 25000.
- d. Find the names of all employees who live in the same city as the company for which they work.
- e. Modify the database so that SAURAV now lives in DELHI.
- f. Find all employees who are not working in any company, then delete their corresponding records from Employee relation.

Class Test-1
BT level wise Marks distribution



Class Test-1
CO wise Marks Distribution



2nd Class Test

F.M – 30

1. **Answer the following questions:** (5x1)=5
 I. A normal form in which every determinant is a key is: [CO4/BT-III]
 a. 2NF b. 3NF c. BCNF d. 4NF
 II. Which one of the following is a trivial dependency? [CO4/BT-III]
 a. $AB \rightarrow A$ b. $A \rightarrow A$ c. Both of these d. None of these
 III. Serializability of concurrent transactions are ensured by [CO5/BT-IV]
 a. Locking b. Time stamping c. both of these d. none of these
 IV. PJNF is also called [CO4/BT-III]
 a. 3NF b. BCNF c. 5NF d. 4NF
 V. Every BCNF is in [CO4/BT-III]
 a. 1NF b. 2NF c. 3NF d. all of these

2. **Answer the following :** (5x2)=10
 a. The following functional dependencies holds for the relational scheme R (W , X , Y , Z)
 $X \rightarrow W, WZ \rightarrow XY, Y \rightarrow WXZ$
 Find the equivalent canonical cover. [CO4/BT-III]

OR

Given a relational schema $R = \{ SSN, ENAME, PNUMBER, PNAME, PLOCATION, HOURS \}$ and the decomposed table $R1 = \{ ENAME, PLOCATION \}$ and $R2 = \{ SSN, PNUMBER, HOURS, PNAME, PLOCATION \}$ and $FD = \{ SSN \rightarrow ENAME, PNUMBER \rightarrow \{ PNAME, PLOCATION \}, \{ SSN, PNUMBER \} \rightarrow HOURS \}$. Demonstrate whether the given decomposition R1 and R2 is lossless or lossy decomposition?

- b. Construct a trigger to perform on EMP table that no updating will be held on any Sunday. [CO6/BT-III]

3. **Answer the following question:** (6+9)=15
 a) Consider the relation schema R (A, B, C, D, E, F, G, H, I, J) with the following FDs- $AB \rightarrow C, A \rightarrow DE, B \rightarrow F, F \rightarrow GH, D \rightarrow IJ$ [CO4/BT-III]
 Find all keys of R?

Is the relation in 2NF? Justify, If no, convert it into 2NF and then 3NF.

Give an example of a relation which is in 3NF but not in BCNF.

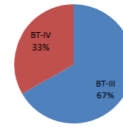
- b) (4+5=9) [CO5/BT-IV]
 i) T1: read (P) ; T2: read (Q) ;
 read (Q) ; read (P) ;
 if P = 0 then Q := Q + 1 ; if Q = 0 then P := P + 1 ;
 write (Q) ; write (P) ;

Analyze what type of schedule this is?

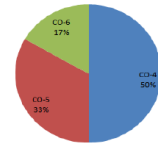
ii) Analyze whether the given schedule S is conflict serializable and recoverable or not-

T1	T2	T3	T4
	R(X)		
W(X) Commit		W(X) Commit	
	W(Y) R(Z) Commit		
			R(X) R(Y) Commit

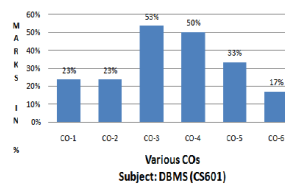
Class Test-2
BT level wise Marks distribution



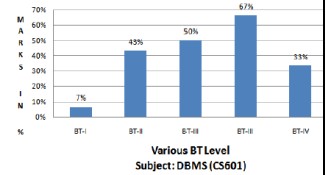
Class Test-2
CO wise Marks Distribution



CO wise Internal marks distribution
Class Test (2018-19)



BT Level wise Internal marks distribution
Class Test (2018-19)



Sample Assignments

Assignment#1

F.M – 30

Q1. Summarize the advantages of DBMS over file management system? (3) [CO1/BT-II]

Q2. Explain the three level architecture for a database system. (3) [CO1/BT-II]

Q3. Convert any of the following into Entity Relationship Diagram (ERD) : (4) [CO1/BT-II]

- Library management system
- College management system
- Employee management system
- Hospital management System

Q4. Explain each operator used in Relational Algebra (RA) (5) [CO2/BT-II]

Q5. Express into relational algebra and relational calculus for finding all employees names those who are working in the department of CSE. (Consider the Emp and Dept table as usual) (3) [CO2/BT-II]

Q6. Produce the equivalent relation SQL statement for the given queries with the following relational schemas. (6x2=12) [CO3/BT-III]

Employee (person_name, street, city)

Works (person_name, company_name, salary)

Company (company_name, city)

- Find the name of all employees who live in Asansol.
- Display all company names.
- List the name and city of the employee who are getting salary more than 20000.
- Find the name of the employee getting highest salary in each company.
- Find the name of the employees whose city is same as company city.

Assignment#2

F.M – 30

Q1. Suppose you are given a relation R with four attributes A, B, C, D. For each of the following sets of FDs, do the following: (5x3=15) [CO4/BT-III]

- Discover all the candidate key(s) for R.
- Choose the best normal form that R satisfies (1NF, 2NF, 3NF or BCNF).
- If R is not in BCNF, decompose it into a set of BCNF relations that preserve the dependencies.
 - C->D, C->A, B->C
 - A->B, BC->D, A->C
 - AB->C, AB->D, C->A, D->B

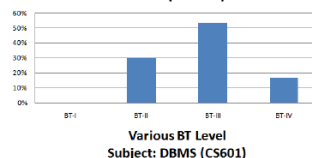
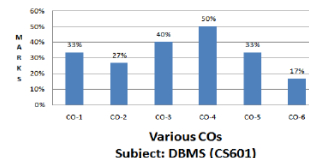
Q2. Differentiate any Two of the following: (5x2=10) [CO5/BT-IV]

- Conflict and View Serializability
- Two-phase and Timestamp protocol
- Consider the following schedule for transactions T1, T2 and T3:

T1	T2	T3
Read (X)		
	Read (Y)	
	Write (Y)	Read (Y)
Write (X)		
		Write (X)
	Read (X)	
	Write (X)	

Express the correct order of the serializability.

Q3. Show by a suitable example how B+tree helps in indexing. (5) [CO6/BT-III]

BT Level wise Internal marks distribution
Class Test (2018-19)Various BT Level
Subject: DBMS (CS601)CO wise Internal marks distribution
Assignment (2018-19)Various COs
Subject: DBMS (CS601)

Mechanism of internal assessment

Institute is affiliated to MAKAUT, the rules and regulations for evaluation process are laid down by the affiliating University and are communicated to students through syllabus copies supplied in the beginning of first year of their academic program. At the college level, an Examination Cell, comprising of a senior teacher as in charge and other teaching and non-teaching staff as members, is constituted to handle the issues regarding examination and evaluation process. The schedules of internal assessments are communicated to students and faculty in the beginning of the semester through institute academic calendar.

- Schedule for end semester examinations are communicated during the semester as and when schedule is released by the University.
- The internal assessment evaluation process is communicated to students by the respective faculty and also during orientation program for first year students.
- Students are given general instructions regarding the evaluation methods of University answer scripts. The periodic instructions issued by the university are promptly communicated to the students. Such instructions are read in the classrooms and the copy of the same is displayed on the students' notice board.

- The faculty members are entrusted with the duty of providing awareness among the students regarding this.
- Appropriate schedule and syllabus for internal assessment is communicated to students well in advance (minimum 21 days before the commencement of examination).
- Question papers are set based on Course Outcomes by the course coordination team and are approved after thorough verification by the departmental quality cell.
- Verified question papers are sent to examination cell for conduction of class test.
- Evaluation of answer scripts is based on scheme prescribed by the university and solution by the faculty.
- After evaluation of the Answer Scripts the test results are published (within 7 days).
- The answer scripts are given to students after the completion of evaluation for verification of the marks.

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

Internal Assessment: The institute adheres to its academic calendar for declaration of internal assessment marks and consequent display of answer script to the students. If there is any clarification needed, the student can approach the concerned faculty within one week after display of marks. However, if a grievance cannot be addressed by the course faculty, the student has the option to take it up with the Head of the Department through his/ her Section Coordinator. Head of the Department may order, re-evaluation of the answers script of any other teacher in the presence of student concerned, course teacher and Program Coordinator.

External Assessment: As per University norms.

The faculty members prepare question papers in such a way that all the course outcomes are considered and mapped adequately. Mapping of COs with the question papers helps to evaluate the attainment of COs and hence the POs & PSOs.

❖ **Class Assignments:-**After the completion of each unit or module, assignment questions are given to the students to be submitted within a stipulated time. Assignment questions are mapped with respective COs. The assignment question papers are formulated in such a way that

- It prepares the students for university and semester examinations.
- It measures the learning outcome of the students on the recent completed topics.
- It reflects the implications of the recently learned topics on the society.
- It analyses the applicability of ongoing topics for solution of real-life problems.

❖ **Laboratory Course Evaluation:** -As per the University guidelines the distribution of marks for laboratory courses is 40 (internal assessment) and 60 (external assessment) respectively.

- The rubric based continuous evaluation includes

- Test of laboratory skill on continuous basis,
- Ability of data collection and analysis
- Interpretation of data for reaching a conclusion
- Oral written communication skills

❖ **Semester Examination:** -Semester examinations are conducted by the University. The faculty members of affiliating colleges are deputed by the University for preparing question papers. A competent Professor deputed by the University acts as a moderator for finalization of such semester end question papers. Most of the faculty members participate in this process of preparation of question paper. The question paper generally consists of

Multiple Choice questions (**1 x 10 = 10 marks**)

Short Answer Type Questions (**5 x 3 = 15 marks**)

Long Short Answer Type Questions (**15 x 3 = 45 marks**)

University sample Question paper:

2.2.3 Quality of student projects (25)

As per university curriculum each student has to complete a project during 4th year. Process related to project allotment and monitoring are described here.

2.2.3.A. Identification of projects and allocation methodology to faculty

- Every faculty member identifies 3-4 projects and submits them to the project coordinator providing a short description of the work to be done.
- Students are notified to form groups of 4, select a project topic, collect the allotment sheet from the lab in-charge (technician) and approach the corresponding faculty member.
- The guide then puts his/her signature in the allotment sheet which the students submit back to the technician to complete the allocation process.
- The projects are allocated first-come-first basis.
- Each group is allotted one computer in the project laboratory.
- The project coordinator monitors the entire process.
- Once the allotment is complete, the project coordinator collects these details and displays the list on the notice board.

2.2.3.B Types and relevance of the projects and their contribution towards attainment of PO's and PSOs

The projects offered to the students fall under one of the following two categories:

Category No.	Category Name
1	Research Oriented
2.	Application Oriented

Relevance of the projects and their contribution towards attainment of PO's:- Various POs and PSOs are attained throughout the project tenure as elaborated below. Apart from these commonly addressed POs, project work also leads to attainment of POs 1 to 5 and also PSOs 1 to 3 as shown in Table 2.2.3.2 depending on the area and type of work.

Before proceeding with the project, the students are informed by their guides about:-

- Current societal needs
- Current research trends
- Appropriate technology, the knowledge of which may be necessary for sustainability and self-development

Relevant for PO-6 and 7(*The engineer and society; Environment and sustainability*)

After explaining the work to be done, the following points related to project methodology are discussed and explained by project guide: -

- Current regulations regarding patent and copy-rights
- Plagiarism and methods to test and avoid it
- History and literature review which will help the students to understand the need of lifelong learning.

Relevant for PO-8 and 12(*Ethics; Life-long learning*)

During the project, the students are encouraged to get completely involved in the assigned work through:-

- Teamwork:-Active participation of every member of the project group.

- Utilization of individuals ability:- Utilize one’s communication, technical, documentation skills to contribute effectively for the work assigned to the group.
- Leadership:-Take leadership role whenever possible to initiate, innovate and execute for completion of the Project in time.
- Project management and finance: - Learn how to manage a project by noting the activities completed on weekly basis (Table 2.2.3.1) and at the same time learn to manage the allocated fund no matter how small scale they are during the project.

Relevant for PO-9, 10 and 11 (*Individual and team work; Project management and finance*)

After completion of the project, the work done is evaluated. The students display and present their completed work and demonstrate their communication skills through: -

- Written Communication: - final report writing
- Verbal Communication: -dissertation defense and model demonstration.

Both Verbal & Written: - participation in project exhibitions and competitions and publication in conferences and journals.

Successful completion of the project work leads to attainment of most of the Program Outcomes (POs) and Program Specific Outcomes (PSOs).

All the students are made aware of certain unethical practices by their supervisors like violation of copyrights, indulgence in plagiarism etc., so that they never indulge themselves into such malpractices neither during their project work nor during report writing. This exercise takes care of PO-8 on ethics.

2.2.3. C. Process for monitoring and evaluation

The projects are monitored and evaluated as per the schedule shown in Table 2.2.3.1. Project Coordinator, who is a member of the Departmental Academic Committee is assigned the responsibility of preparing the project monitoring and evaluation schedule to be followed by project guides.

Table 2.2.3.1B. Tech Final year project monitoring and evaluation process

Week	Activity
Week 1	Formation of project groups and allocation of guide. Guide briefs students about the work to be done, related theories and models.
Week 2	Survey of literature related to the work and/or study of related theories.

Week 3	Writing the project synopsis and getting it verified by the guide. If the guide is satisfied prepare a power point presentation of the work to be done.
Week 4	If the guide is satisfied with the presentation, start the design phase of the project. Get the design verified by the guide and start converting design to implementation.
Week 5 - Week 11	Project implementation with verification of the outputs and if necessary introduce necessary changes in implementation.
Week 12	Make the minor project report and get it verified by the Guide.
Week 13	If the guide is satisfied, prepare a power point presentation of the work and show it to the Guide.
Week 14	Submission of the minor project report & presentation in presence of project evaluation committee & viva voce

2.2.3. D Process to assess individual and team performance:-The project evaluation process includes the university terminal evaluation and the internal continuous evaluation. The university terminal examination is as per the scheme prescribed by the university. The internal evaluation of the project progress is done based on following three rubrics to assess the individual and team performance throughout the duration of project:

RUBRIC-1:-Problem analysis & design to asses

- Team Work.
- Contribution.
- Domain knowledge.

RUBRIC-2:-Implementation and Documentation Rubric to assess

- Team work
- Contribution
- Content and creativity

RUBRIC-3:-Demonstration and Final Presentation to asses

- Team Work
- Content and creativity
- Coherence and organization
- Communication skills and participation

The Course Outcomes of the final year project shown below actually relates to the above rubrics.

Serial No	Course Outcomes	Marks
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CO1	Analyze the given problem in a team by reviewing existing literature.	10
CO2	Design solutions for the given problem with due consideration to environmental, societal and cultural issues.	30
CO3	Apply appropriate tools and techniques for implementation by maintaining professional ethics.	30
CO4	Demonstrate presentation skills by communicating effectively as a team.	20
CO5	Prepare a report by documenting each aspect of the work effectively.	10

2.2.3. E Quality of completed projects/working prototypes: Some of the projects completed by the students of the department is included in Table 2.2.3.2.

Academic year	Project Title	Category No.	Relevant to PO
2020-2021	Customer Relationship Manager for cable TV Dealer	2	PO1-PO3, PO5-PO12 and PSO1-3
	Medical Image Quality Enhancement using Image De-noising	1	PO1-PO12, PSO1-PSO3
	IOT based waste Management System using Aurdino.	1	PO1-PO12, PSO1-PSO3
	Security issues of Cloud based Storage	1	PO1-PO12, PSO1-PSO3
	Smart Offline examination conduction system	2	PO1-PO3, PO5-PO12 and PSO1-PSO3
2019-2020	Video Image Processing for vehicle detection and counting.	1	PO1-PO12, PSO1-PSO3
	A new paradigm of machine learning for bioinformatics.	1	PO1-PO12, PSO1-PSO3
	Secure Electronic Fund Transfer Over Internet Using AES	2	PO1-PO3, PO5-PO12 and PSO1-PSO3
	IOT Based Vehicular Activity Monitoring System.	2	PO1-PO3, PO5-PO12 and PSO1-PSO3
2018-2019	E-Authentication Using OTP	2	PO1-PO3, PO5-PO12 and PSO1-PSO3
	Hybrid Heuristic Algorithm to finding the Solution of Real World Engineering Optimization Problems.	1	PO1- PO12, PSO1-PSO3
	Resource Reservation Policy in Cloud.	2	PO1-PO3, PO5-PO12 and

Table 2.2.3.2. Some of the projects completed by the students of the department

2.2.3.F Papers published/awards received by projects

1. M. Dey, A. Das, A. Banerjee, U. Kamila and S. Chattopadhyay, "Construction of Efficient Wireless Sensor Networks for Energy Minimization using a modified ACO algorithm", in International Journal of Sensors, Wireless Communications and Control, Bentham Science, Vol.11, issue 9, 2021, pages 928-950.
2. S. Hazra, S. Ghosh, S. Bala and D. Chakraborty, "An SVM Approach for Pixel Identification of Multi-spectral Remotely Sensed Data", IEEE Proc of 2nd International Conference for Emerging Technology (INCET) 2021, Karnataka, India.

2.2.4. Initiatives related to industry interaction (15)**A. Industry supported laboratories**

Industry Supported Laboratory		
SL. NO.	NAME OF LABORATORY	NAME OF IMPORTANT EQUIPMENTS
1	BOT Laboratory	Intel Core i3 4160@3.60 GHz, 8 GB RAM, 500 GB HDD, 18.9 Inch Monitor

**2.2.4.B Industry involvement in the program design and partial delivery of any regular courses for students**

The table below shows the executive council of the University, MAKAUT involved in the program design. However the Department of CSE always strives to strengthen industry involvement in either partial delivery of courses or delivering contents beyond curriculum.

THE EXECUTIVE COUNCIL, MAKAUT

Prof. Saikat Maitra, Vice-Chancellor, MAKAUT, WB.	Chairman
Vacant, Pro-Vice Chancellor, MAKAUT, WB	Vice-Chairman
Sri Siladitya Basuray, Special Secretary, University Branch & IT Cell, Govt. of WB-Nominee of Secretary, Higher Education Dept. Govt. of WB.	Member
Sri Bidyut Kumar Nandi, Financial Advisor, HED, Sc& Tech & Biotech, Nominee of Secretary, Finance Dept. Govt. of WB.	Member
Sri Pranabesh Das, Director of Technical Education.	Member
Nominee of Chairman, W.B. State Council of Higher Education.	Member
Prof. Debashis De, Director, School of Computational Science	Member
Prof. Raja Banerjee, Director, School of Biological Science	Member
Dr. Indranil Mukherjee, Director, School of Management Science	Member
Prof. Sriyankar Acharya, Prof. Dept. of CSE, MAKAUT, WB	Member
Dr. Madhumita Das Sarkar ,Asso. Prof.	Member
Dr. Soumen Kumar Pati, Asso. Prof. Dept. of Bioinformatics	Member
Dr. Sankar Prasad Mondal, Asst. Prof. Dept. of Applied Science	Member
Dr. Smarajit Das, Asst. Prof. Dept. of Biotechnology	Member
Prof. K. Chakraborty, Principal Govt. College of Engg. & Ceramic Technology	Member
Prof. Amitava Ray, Principal Jalpaiguri Govt. Engg. College.	Member

Dr. Bibek Chakraborty, Principal, Purulia Government Engineering College	Member
Prof. Pranay Chaudhuri, Principal, Heritage Institute of Technology	Member
Dr. Sutapa Mukherjee, Principal, B. P. Poddar Institute of Management & Technology	Member
Dr. Goutam Mukherjee, Associate Professor, Govt. College of Engineering & Leather Technology	Member
Dr. Sukhendu Sekher Mondal, Assistant Professor, Cooch Behar Govt. Engineering College	Member
Dr. Biswarup Neogi, Asso. Prof, Dept. of CSE, JIS Engineering College	Member
Dr. Satyajit Chakrabarti, Director, Institute of Engineering & Management	Member
Dr. Pranabesh Chakraborty, Director, Bengal School of Technology (Pharmacy)	Member
Dr. Saurabh Dutta, Professor, Dr. B. C. Roy Engineering College (MCA)	Member
Prof. Kusum Sudhakar Reddy, HoD Dept. of Civil Engg., IIT KGP. Chancellors Nominee	Member
Prof. Gairik Das, Head MRM and Business Analytics, IISWBM, Kolkata. Chancellors Nominee	Member
Sri Kallol Dutta, Ex-Chairman & Managing Director, Andrew Yule & Company, Nominee of State Govt.	Member
Sri Asish Kar, Retired Executive, Andrew Yule & Company Ltd. Nominee of State Govt.	Member
Dr. Abhijit Majumder, Assistant Professor, IEST, Shibpur, Howrah. Nominee of State Government	Member

Department is constantly looking forward to strengthen interaction with industries. This has been done to emphasize on:

- Internship
- Imparting “Contents Beyond Syllabus”
- Student Specific Training
- Faculty Development Programs

Some of the steps taken in this regard include:-

Finishing School Program: It is a unique program developed for the students from first to final year for their soft skill development. It puts emphasis on development of communication skills, team work and technical skills in collaboration with various industry experts.

Industry offered courses: College also provides opportunity to our students to attend various industry offered courses (like Agile and Jile Certification Course, offered by TCS) in the college premises itself.

Various Industry collaborated events (workshops, seminars, industrial visits etc.) organized by the department/college during the last three academic years are listed in Table 2.2.4.1.

Table 2.2.4.1 Industry collaborated events

S. No.	EVENTS	Event Type	Date-Month-Year	Resource Person with designation	No of students / Faculty	Relevance to POs, PSOs
1	Data Science	AIP Workshop	11-Jan-19	Mr. Jayanta Adhikary , Corporate Trainer	Student-40	PO1,PO5,PO8 PO9,PO10,PO12
2	Getting a Headstart Talk by TCS iON, Business Unit Head	Webinar	07-Feb-19	Mr. Krishnan CA ,Corporate Trainer	Teacher 2 Students : 45	PO1,PO8,PO9 ,PO10,PO12
3	Blockchain Webinar Series TCS Leadership Talks	Webinar	28-Feb-19	Mr. Lakshminarasimhan Srinivasan, Corporate Trainer.	Teacher 2 Students : 55	PO1,PO5,PO8 PO9,PO10,PO12
4	MATLAB Digest Academic Edition - February 2019	Webinar	26-Feb-19	Mathworks India Pvt.Ltd,Mr. Vinod Thomas Sr. Training Engg.	Teacher 2 Students : 42	PO1,PO5,PO8 PO9,PO10,PO12
5	Amdocs Webinar Invitation : Clearing the picture of Data Science around AI/ML - 6th March 2019	Webinar	06-Mar-19	Mr.Mohit Kumar,Corporate Trainer	Teacher 2 Students : 133	PO1,PO5,PO8 PO9,PO10,PO12
6	Gurucool Webinar Series - Understan	Webinar	12&19-mar-2019	Prof.Yashavant Kanetkar	Teacher 2 Students : 47	PO1,PO2,PO8 PO9,PO10,PO12

	ding Pointers In C - 12th Mar2019 (Asansol Engineering College)					
7	Amdocs Webinar Invitation : Kafka & Spark streaming for Real Time data processing - 28th March 2019	Webinar	28-Mar-19	Mr.Poorab Joshi,Technology Architect	Teacher 2 Students : 55	PO1,PO5,PO8 PO9,PO10,PO 12
8	Webinar on Facility for "Low Carbon Technology Deployme nt - Second Cycle- 2019 _Innovatio n Challenge" by UNIDO and CII	Webinar	3&10-july-2019	Mr. Vinod Reddy,Corporate Trainer	Teacher 2 Students : 87	PO1,PO8,PO9 ,PO10,PO12
9	Develop Cognitive Bots Driven by AI & ML,(IQ Bot)	Automation Anywhere	5-8-Aug-2019	Mr. Nitesh Corporate Trainer	Student: 10, Faculty: 3	PO1,PO5,PO8 PO9,PO10,PO 12
10	Introductio n to Robotic Process Automatio n	Automation Anywhere	5-8-Aug-2019	Mr. Nitesh Corporate Trainer	Student: 10, Faculty: 3	PO1,PO5,PO8 PO9,PO10,PO 12
11	Bentley 2019 Student Design Challenge - India	Webinar	31-aug-2019,14-sep- 2019	Sankalp Sarkar, Senior Programs Manager at Bentley Systems	Teacher 2 Students : 75	PO1,PO8,PO9 ,PO10,PO12
12	Advance training on JAVA and Software	Epam	21&28-Jan-2020, 04,11,18 & 25-Feb- 2020, 03,10,17 & 24- Mar-2020, 7-apr-	1. Mr. Rajesh Gannamani 2. Mrs. SaitejKuralla 3. Raja Sekhar Tadeipalli , All	Teacher 2 Students : 8	PO1,PO5,PO8 PO9,PO10,PO 12

	Engineering		2020, 16&23-Jun-2020	Corporate Trainer		
13	Webinar on Teaching in Digital Era	Webinar	25-Apr-20	Veguswamy Ramaswamy global head TCS ION and DR. P.R.Neran, Prof sastra deemed university	Teacher 2 Students : 34	PO8,PO9,PO10,PO12
14	IT-ITeS Sector Skills Council NASSCOM Webinar : Learn How to Ace Virtual Interviews, Apr 30, 2020	Webinar	30-Apr-20	Sujith Kumar, Associate vice president	Teacher 2 Students : 41	PO10,PO8,PO12
15	AI Workspace Webinar CSE, ECE, IT (2021 batch) 27th April 2020 12:00 Noon	Webinar	27-Apr-20	Dr.Amlan Chakraborty, prof. and Dy.AKCSIT, University of Calcutta	Teacher 1, bstudent-15	PO1,PO5,PO8 PO9,PO10,PO12
16	Invitation for Webinar on Machine Learning using Regression	Webinar	30-Apr-20	Dr.Amlan Chakraborty, prof. and Dy.AKCSIT, University of Calcutta	Teacher 2 Students : 55	PO1,PO5,PO8 PO9,PO10,PO12
17	Webinar Link Ingram Micro Webinar CSE, ECE, IT (2021 batch) 30th April 2020 11:30 AM pOst Covid 19 & challenges	Webinar	30-Apr-20	Mr Indrasis Ghosh, Sr Manager Technology	Teacher 2 Students : 43	PO7,PO8,PO10,PO12

18	Invitation for DevOps Webinar Transformation of software Development	Webinar	02-May-20	Devops	Teacher 2 Students : 75	PO1,PO2,PO3 ,PO5,PO8.PO 9,PO10,PO12
19	Webinar Registration 2nd May ,2020 Steps to get job in Cloud Computing	Webinar	02-May-20	Mr. Aravind R,AWS certified Sol. Architect	Teacher 2 Students : 55	PO8.PO9,PO1 0,PO12
20	Webinar on Machine Learning using Regression - 30th April 4 PM	Webinar	30-Apr-20	Dr.Amlan Chakraborty, prof. and Dy.AKCSIT,University of Calcutta	Teacher 2 Students : 65	PO1,PO5,PO9 ,PO10,PO12
21	Webinar on Machine Learning on 4th May , Time-4 pm IST	Webinar	04-May-20	Expert of Amazon Web Service	Teacher 2 Students : 35	PO1,PO5,PO9 ,PO10,PO12
22	Webinar on Virtual Reality	Webinar	08-May-20	Vivek Sharma Founder & CEO Kingster636 Games	Teacher 2 Students : 57	PO9,PO10,PO 12
23	KCCP Webinar for the students - 2021/22/23 Passout Batch - B.Tech-CSE, IT, BCA & MCA	Webinar	14-May-20	Kovair Campus Connect Program - KCCP	Teacher 2 Students : 21	PO9,PO10,PO 12
24	Webinar on "BEST FIT FRESHER CANDIDATE POST COVID	Webinar	30-May-20	Mr. Rabindra Chaubal,Head Hr,Hind Rectifiers,Mr. Khalid Raza,Talent Acquisition Lead-EY,	Teacher 2 Students : 45	PO9,PO10,PO 12

	'19"					
25	Webinar on Education for Authentic Performance: The Essence of Future - Readiness CSE, IT, ECE, AEIE, EE, ME, CE, BCA & MCA (2021 Passout Batch)	Webinar	06-Jun-20	Mr.PravasDutta,Sr Vice President ,YES Bank LTD,MrPromit Kumar Ghosh,Sr Branch Head,IDBI Life Insurance Co Ltd	Teacher 2 Students : 35	PO9,PO10,PO 12
26	Webinar for CSE, IT, ECE, AEIE, EE, ME, CE, BCA & MCA (2021 Passout Batch) 9th June 2020 11.00 am – 12.30 pm Thinks We wish we new before Graduation	Webinar	09-Jun-20	Praveen Baheti founder and Managing MD of Alien Brains Pvt LTD	Teacher 2 Students : 57	PO9,PO10,PO 12
27	REGISTRATION FOR A WEBINAR, WILL BE HELD ON 21.06.2020 , 11 AM TOPIC: EVOLUTION OF SDET ROLE IN IT INDUSTRY LAST	Webinar	21-Jun-20	Naveen Kumar Dy of Probits technology	Teacher 2 Students : 57	PO1,PO3,PO5 ,PO9,PO10,P O12

	DATE OF REGISTR ATION: 20.06.2020 , 12 Noon					
28	Webinar for CSE, IT, ECE, AEIE, EE, ME, CE, BBA, BCA & MCA (2021 Passout Batch) 20th June 2020 6:00 pm - “Market Scenario after Covid 19 phase”	Webinar	20-Jun-20	Mr. Sanjay Mishra global partner Executive ,CiSCO,UK;Mr. Arnab Singh System Development Engineer Amazon	Teacher 2 Students : 58	PO9,PO10,PO 12
29	NASSCO M Webinar: Sales and Marketing: Technolog y & Data Integration – The key steps towards ROI driven Marketing Jun 26, 2020 5:30 PM IST	Webinar	26-Jun-20	Mitul Das, cofounder @Urs Digitally	Teacher 2 Students : 59	PO9,PO10,PO 12
30	WEBINA R FOR 2021 PASSOUT BATCH TOPIC: CAREER & SKILLS REQUIRE D TO EXCEL IN THE NEW NORMAL 27TH JUNE 2020,	Webinar	27-Jun-20	Mr. Parameswar Das, Corporate Trainer	Teacher 2 Students : 68	PO9,PO10,PO 12

	6:00PM					
31	29th Dec'20 @ 11 am - Career Recropedia - Live webinar - Emerging Technology Trends Persistent	Webinar	29-Dec-20	R. Venkateswaran, CIO, Persistent	Teacher 2 Students : 21	PO10,PO8,PO12
32	A Placement Oriented Webinar on "Get placed in your dream company" 13th Sept. 2020 11:30 AM 2021 & 2022 Batch	Webinar	13-Sep-20	Mr. Kuntal Ghosh, Freelancer	Teacher 2 Students : 45	PO1,PO5,PO8 PO9,PO10,PO12
33	BYJU'S Profile Building webinar for Placement 2021 Batch	Webinar	12th Sept 2020	Mr. Prasanna (IIMB Alumnus)	Teacher 2 Students : 35	PO1,PO5,PO8 PO9,PO10,PO12
34	Career Recropedia by Persistent - Webinar Session 2 'The Changing Workplace Paradigm' by Sameer Bendre	Webinar	07th Aug 2020	Mr. Sameer Bendre Chief Human Resources Officer	Teacher 2 Students : 57	PO7,PO8,PO10,PO12
35	BYJU'S CareerLabs Webinar on Profile Building for Higher Education	Webinar	17th July 2020	BYJU'S – CareerLabs Personnel	Teacher 2 Students : 57	PO1,PO2,PO3,PO5,PO8,PO9,PO10,PO12

	& Placement s 2020, 2021 & 2022 passout batch students 17th July 2020, 2:00 PM - 3:00 PM					
36	Webinar on “Introspection for setting up goals during worldwide pandemic 18.07.2020 , 06:00 PM 2021 passout batch students	Webinar	18th july 2020	Prashant Sinha(Independent Consultant, Former Director, ERNST & YOUNG), Sayantan Mukhopadhyay(Product Manager, Pinterest, El Carrito, California),Soumyadeep Ghatak(Area Human Resource Head, Reliance Jio)	Teacher 2 Students : 58	PO8,PO9,PO10,PO12
37	WEBINAR BY CAREER LABS 2020 and 2021 passout batch students 10th July 2020 (Friday), 4:00 PM	Webinar	10th july 2020	BYJU'S – CareerLabs Personnel	Teacher 2 Students : 59	PO1,PO5,PO9,PO10,PO12
38	Webinar for CSE, ECE, EE, ME & CE (2021 Passout Batch) 20th June 2020 6:00 pm	Webinar	20th june 2020	Mr. Sanjay Mitra(Global Patnet Executive Cisco), Mr. Arnab singh(System Development Engineer Amazon Development Center), Mr. Khalid Fazzlullah(Delivery Head CloudKaptar Consultancy Service)	Teacher 2 Students : 68	PO1,PO5,PO9,PO10,PO12
39	Webinar on Landscape of Tech Companies CSE, IT, ECE (2021	Webinar	1st June 2020	Mr. Vaibhav Vahishtha (Technologist Digital Transformation AL ML)	Teacher 2 Students : 55	PO9,PO10,PO12

	Passout Batch) Scheduled on Monday, 1st June 2020 between 5 pm – 6 pm					
40	Webinar update - Additional session on Machine Learning using Regression on 4th May at 7 PM	Webinar	4th May 2020	Dr. Amlan Chakrabarti, Professor & Director, AKCSIT, University of Calcutta	Teacher 2 Students : 75	PO9,PO10,PO12
41	Career Recropedi a TechFlix Webinar Series - 'Towards Bridging AI skills gap between Industry and Academia - A Session by Anibha Athalye - Practice Head - Data Practice	webinar	7th may 2021	Anibha Athalye Practice Head – Data Practice	Teacher 2 Students : 35	PO1,PO5,PO8 PO9,PO10,PO12
42	LIVE ENTERPRISE: THE OPERATING MODEL FOR THE POST-COVID WORLD	webinar	20th Feb 2021	Nandan Nilekani, Jeff Kavanaugh, Rafee Tarafdar	Teacher 2 Students : 57	PO7,PO8,PO10,PO12
43	Come witness The Live Enterprise Virtual Book Launch!	webinar	20th Feb 2021	Nandan Nilekani Infosys Co-founder & Chairman of the Board; Jeff Kavanaugh Vice President & Global Head of the Infosys Knowledge Institute	Teacher 2 Students : 68	PO1,PO2,PO3,PO5,PO8,PO9,PO10,PO12

	__ Infosys Webinar is on 20th Feb at 5 PM			& Rafee Tarafdar Senior Vice President & Chief Technology Officer of the Strategic Technology Group at Infosys		
44	Fw_ Invitation – Exclusive webinar by Infosys on InfyTQ, Infosys Certification, and HackWith Infy	webinar	19th March 2021	Rajat Rawat, Senior Associate Lead - Talent Acquisition	Teacher 2 Students : 55	PO8,PO9,PO10,PO12
45	NASSCOM Webinar on Data Science: Current Trends and Opportunities	webinar	22-Jan-21	Ravi Kothari Chief Data Scientist, Icertis, Raghu Mehra, VP Emerging Areas, SLK Global Solution Data Science - Divya Gupta, FutureSkills Murthy NVS, Lead Strategy, Naresh i Technologies	Teacher 2 Students : 43	PO1,PO5,PO9,PO10,PO12
46	Fw_ NASSCOM Webinar_ Cyber Security Landscape in WFH scenario	webinar	25th Feb 2021	Meghan Nandgaonkar, Mannan Godil, Bhargav Pendse, Sanil Nadkarni, Viney Kumar, Mahesh Saptarshi, Shital Diwate Director IT (CIO), Fujitsu Consulting India	Teacher 2 Students : 75	PO9,PO10,PO12
47	Career Recropedia Webinar Presents TechFlix Series - on the Topic Salesforce _ the future is here	webinar	26-Feb-21	Shailesh Wadhankar, Associate Vice President “Engineering	Teacher 2 Students : 45	PO9,PO10,PO12
48	Salesforce The Future is Here!	webinar	26th Feb 2021	Mr. Shailesh Wadhankar AVP Engineering Persistent Systems	Teacher 2 Students : 35	PO9,PO10,PO12
49	Career Recropedia presents a session on	webinar	26th March 2021	Animesh Singh Global Delivery Head BFSI	Teacher 2 Students : 57	PO9,PO10,PO12

	Software led Transformation in BFSI					
50	How do you Communicate Effectively in an Interview?	webinar	22nd May 2021	A Persistent Campus Connect Initiative by Guest Speaker Anibha Athalye Practice Head – Data Practice	Teacher 2 Students : 57	PO9,PO10,PO 12

2.2.4.C Impact Analysis of industry institute interaction and actions taken thereof.

- The effectiveness of this practice can be gauged by the great response of the participants of the courses being offered by the college.
- Students picked up what they learnt at the workshops to implement their final year projects.
- Students gained from this exposure to incorporate an entrepreneurial spirit and project based thinking.

2.2.5. Initiatives related to industry internship/summer training (15)

2.2.5.A Industrial training/tour for students

The number of IT companies in and nearby Asansol is very less. So for industrial tours, the students go to nearby organizations like SAIL Burnpur, Hydel plant Maithon to learn how ERP systems are implemented and maintained in such large organizations to develop an understanding for the design and implementation of such ERP systems.



Industry visited: SAIL, Burnpur

Date : 20th April 2018
Transportation : College Bus
Students : Total 30 students of 5th Semester (20 BOYS+10 GIRLS)
Program Coordinator- Mr. Abhishek Banerjee, Dept of CSE



Industry Visited : MAITHON, HYDEL PLANT, MYTHON
Date : 11th April, 2019
Transportation : College Bus
Students : Total 55 students of 6th Semester (36BOYS+ 19GIRLS)
Program Coordinator- Sandip Roy, Dept of CSE

2.2.5.B Industrial/Internship/Summer training of more than two weeks and post training assessment

As per the university regulation, for the partial fulfillment of the requirements of the program, the students undergo compulsorily one month vocational training in different industries in and outside the state during the semester breaks.

The College has dedicated Training and Placement (T&P) Offices at two locations, Kolkata and Asansol. The office acts as an effective Industry - Institute interface to provide adequate Industry interface to the students. The Training and Placement Officers (TPO) also visits Companies regularly to know about recruitment possibilities and also the scope of industrial training and internship. The whole process of industrial training may be summarized as follows.

- Initiation of training related negotiations with Industries through formal or informal communication

followed by a formal request cum no objection certificate.

- Options are invited from the students to opt from the list of industries negotiated with. Further, the students who can arrange the industrial training or internship of their own are encouraged and they are provided all the necessary assistance by the T & P team.
- The students are encouraged to take up internship programs during their semester break. Faculty members provide the details such as guidelines, suggestions, scope and contact details of an internship. They also help the students by communicating with the industrial experts, providing the students recommendation letters and other necessary supports. The alumni coordinator constantly interacts with the alumni who are working in the industries and requests them to provide necessary guidelines and support for the students internship.
- During the training period, the Departmental T & P representatives stay in constant touch with the students to assess their progress and sort out any difficulty (if any).
- After completion of the training, the students need to submit a release letter or a completion certificate provided by competent authority to the Departmental T & P representatives.

The list of organizations which conducted **summer training** for the students are shown next. These are shown in the following tables for the year 2019-2020, 2018-1019 and 2017-2018.

INDUSTRIAL TRAINING 2019-20

Sl	Name of Training	Training Dates (To-From)	Name of the Trainers and their Organization	Semester	Number of students participated	PO/PSO
1	PYTHON	18-07-2019 to 20-07-2019, 22-07-2019 to 27-07-2019,29-07-2019	Arnab Chakraborty, Totsol Technologies	6th	25	PO1,PO2,P03,PO4,PO5,PO12,PS01,PSO2,P SO3
2	CYBER SECURITY	18-07-2019 to 20-07-2019, 22-07-2019 to 27-07-2019,29-07-2019	Joydeep Nath, Micropro	6th	23	PO1,PO2,P03,PO4,PO5,PO6,PO12
3	IOT	18-07-2019 to 20-07-2019, 22-07-2019 to 27-07-2019,29-07-2019	Joyjit Guha, Ardent Computech Pvt Ltd	6th	28	PO1,PO2,P03,PO4,PO5,PO12,PS01,PSO2,P SO3
4	ADV JAVA	18-07-2019 to 20-07-2019, 22-07-2019 to 27-07-2019,29-07-2019	Saikat Chakraborty, Didactics/ Freelancer	6th	55	PO1,PO2,P03,PO4,PO5,PO12,PS01,PSO2,P SO3

INDUSTRIAL TRAINING 2018-19

Sl	Name of Training	Training Dates (To-From)	Name of the Trainers and their Organization	Semester	Number of students participated	PO/PSO
1	IOT	07-06-2018 TO 09-06-2018, 11-06-2018 TO 16-06-2018, 18-06-2018	Joyjit Guha, Ardent Computech pvt ltd	6th	20	PO1, PO2, PO3, PO4, PO5, PO12, PSO1, PSO2, PSO3
2	CYBER SECURITY	08-06-2018 TO 09-06-2018, 11-06-2018 TO 15-06-2018, 18-06-2018 TO 20-06-2018	Chandan Mukherjee, Totsol Technologies	6th	20	PO1, PO2, PO3, PO4, PO5, PO6, PO12
3	ADV JAVA	07-06-2018 TO 10-06-2018, 14-06-2018 TO 16-06-2018, 21-06-2018 TO 23-06-2018	Ayan Roy Mukherjee, Micropro	6th	62	PO1, PO2, PO3, PO4, PO5, PO12, PSO1, PSO2, PSO3
4	DATA MINING WITH HADOOP	06-06-2018 TO 09-06-2018, 11-06-2018 TO 16-06-2018	Debasish Sarbadhikari, Didactics IT Solutions/ Freelancer	6th	32	PO1, PO2, PO3, PO4, PO5, PO12, PSO1, PSO2, PSO3

INDUSTRIAL TRAINING 2017-18

Sl	Name of Training	Training Dates (To-From)	Name of the Trainers and their Organization	Semester	Number of students participated	PO/PSO
1	ADVANCE JAVA	3-07-2017 to 6-07-2017, 10-07-2017 to 13-07-2017 & 17-07-2017 to 18-07-2017	Ayan Roy Mukherjee, Micropro	6th	40	PO1, PO2, PO3, PO4, PO5, PO12, PSO1, PSO2, PSO3
2	PYTHON	3-07-2017 to 6-07-2017, 10-07-2017 to 13-07-2017 & 17-07-	Debojyoti Majumder, Ardent Computech pvt ltd	6th	27	PO1, PO2, PO3, PO4, PO5, PO12, PSO1, PSO2, PSO3

		2017 to 18-07-2017				
3	CYBER SECURITY	3-07-2017 to 6-07-2017, 10-07-2017 to 13-07-2017 & 17-07-2017 to 18-07-2017	Arnab Chakraborty, Totsol Technologies	6th	35	PO1,PO2,P03,PO4,PO5,PO12,PO6
4	.NET	3-07-2017 to 6-07-2017, 10-07-2017 to 13-07-2017 & 17-07-2017 to 18-07-2017	Debasish Sarbadhikari, Didactics IT Solutions/Freelancer	6th	31	PO1,PO2,P03,PO4,PO5,PO12,PS01,PSO2,P03

The list of some of the industries where students were selected for **internship** is shown in the following tables for 3 batches 2017-2021, 2016-2020 and 2015-2019.

2017-2021 batch			
Serial No	Roll	Name of student	Company
1	10800117014	USNISH CHATTORAJ	Ardent
2	10800117015	TANU SINHA	Ardent
3	10800117016	TAMAL MAJUMDAR	Cognizant
4	10800117017	SUYASH BURNWAL	Ardent
5	10800117018	SURAJ SHARMA	TCS
6	10800117020	SUDIP NAG	Ardent
7	10800117025	SOUVIK LAHIRI	Ardent
8	10800117027	SOURAV PAL	Ardent
9	10800117032	SOHINI BANERJEE	Cognizant
10	10800117041	SANSKRITI	Totsol
11	10800117042	SANJUKTA BOSE	Totsol
12	10800117043	SANJEEV SINGH	Totsol
13	10800117044	SANDEEP CHAKRABORTY	Totsol
14	10800117045	SAMAR YADAV	Totsol
15	10800117046	SAKET SINGH	Totsol
16	10800117050	RITIKA MANDHYAN	Nagarro
17	10800117051	RISHAV KHEMKA	Micropro
18	10800117053	RESHAB DUTTA	Cognizant
19	10800117058	RABI SHANKAR CHAKRABORTY	CBNITS
20	10800117062	PRAGYA RATHORE	Cognizant

21	10800117074	MILAN MONDAL	Wipro
22	10800117076	MD SHADMAN	TCS
23	10800117080	MANISH KUMAR	TCS
24	10800117083	KUSHAL KAR	Micropro
25	10800117084	KIRTI	Micropro
26	10800117085	KEDAR NATH CHOUDHARY	Micropro
27	10800117086	JAYESH ARYAN	Micropro
28	10800117087	HIMANSHU TIWARY	Micropro
29	10800117098	BHARATI GUPTA	ACCENTURE
30	10800117107	ANUKUL OJHA	Persistent
31	10800117109	ANKITA GUHA	Wipro
32	10800117111	ANKIT SHARMA	Accolite Digital
33	10800117114	ANAND KUMAR BHARTI	Wipro
34	10800117115	AMIT KUMAR KESHRI	Cognizant
35	10800117117	AMIT DAS	Wipro
36	10800118006	MUSKAN KUMARI	ACCENTURE
37	10800118007	DANISH ALAM	ACCENTURE

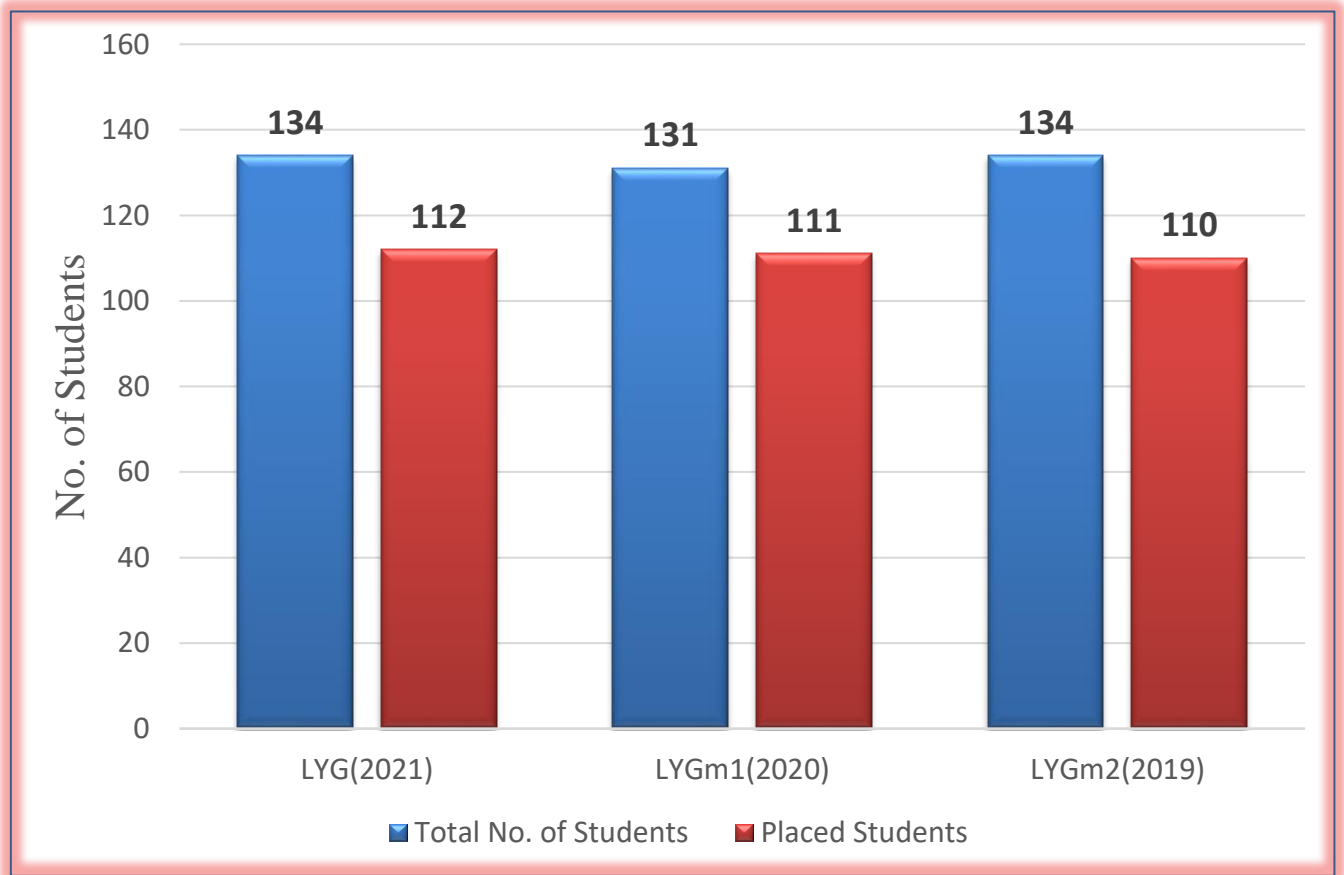
2016-2020-batch			
SI No.	Roll	Name of student	Company
1	10800116012	VISHAL KEDIA	Ardent
2	10800116015	VIKASH KUMAR	Ardent
3	10800116017	VARTIKA KEDIA	Informatica
4	10800116018	UJJAWAL KUMAR	Xenon stack_SOFT
5	10800116019	TRIPTI VERMA	Ardent
6	10800116022	SWETA GUPTA	Ardent
7	10800116023	SUNNY KUMAR	Xenon stack_SOFT
8	10800116024	SUMIT KUMAR MAJEE	Ardent
9	10800116028	SUDHANSHU RANJAN	Xenon stack_Business
10	10800116033	SOURAV KUMAR PASWAN	Xenon stack_Business
11	10800116043	SHUBHAM KUMAR	Totsol
12	10800116044	SHREYASI MONDAL	Totsol
13	10800116046	SHIVANI KUMARI	Totsol
14	10800116047	SHIVAM	Totsol
15	10800116054	SANU KUMAR	Xenon stack_SOFT
16	10800116062	ROHAN KUMAR SINGH	Keysight-Internship
17	10800116068	RAMARCH KUMAR	Xenon stack_SOFT
18	10800116069	RAJAT SINGH	Nineleaps
19	10800116070	RAJAN KUMAR	Xenon stack_SOFT
20	10800116076	QUREE KUMARI	Nineleaps
21	10800116085	NEHA SINGH	Micropro
22	10800116086	NAINA KUMARI	Micropro
23	10800116087	MONOJIT DEY	Micropro
24	10800116088	MONIDEEPA DEY	Micropro
25	10800116089	MD MINHAIJ KHAN	Micropro

26	10800116102	FAROOQ ANSARI	Keysight-Internship
27	10800116109	ARIJIT NANDI	Informatica
28	10800116115	ANKIT AGARWAL	MAQ
29	10800116122	AMEETA SOM	Keysight-Internship
30	10800116126	AKASH BHADANI	Nineleaps
31	10800116132	ABHIRUP CHATTERJEE	Keysight-Internship
32	10800117008	ANKITA TIWARI	eRevMax

2015-2019 batch			
Sl No	Roll	Name of student	Company
1	10800115006	ABHISHEK MISHRA	Tek systems
2	10800115008	ADARSHA SHAH	Pega
3	10800115017	ANANNA MUKHERJEE	Pega
4	10800115025	BARSHA KUSHWAHA	Wipro
5	10800115026	BAYVAO VERMA	Pega
6	10800115029	BISWAJIT BANERJEE	virtusa
7	10800115044	HONEY KUMARI	Totsol
8	10800115045	JAHANVI NAAZ	Totsol
9	10800115046	KANKANA MUKHERJEE	Totsol
10	10800115047	KAUSHIK KUMAR GUPTA	Totsol
11	10800115048	KHUSHBOO KUMARI	Totsol
12	10800115049	KISHLAY KUMAR RANJAN	Totsol
13	10800115051	KRISHN PRIYA	virtusa
14	10800115059	MD YASIR IRFAN	Virtusa
15	10800115070	NIVEDITA SONAM	Pega
16	10800115081	PRATIBHA KUMARI	Micropro
17	10800115082	PRIYANKA SUPRIYA	CTS
18	10800115084	RAJAN PRASAD	Micropro
19	10800115086	RANI GUPTA	Micropro
20	10800115086	RANI GUPTA	CTS
21	10800115087	RANJEET KUMAR RANJAN	Micropro
22	10800115089	RISHABH KUMAR	CTS
23	10800115092	ROHIT SINGH	Wipro
24	10800115095	RUCHI KUMARI	TCS
25	10800115097	RUPA MUKHERJEE	Pega
26	10800115101	SANJUKTA CHAKRABORTY	Pega
27	10800115102	SANJUKTA SARKAR	Virtusa
28	10800115121	VISHAL NARAYAN SINGH	Virtusa
29	10800116001	TUSHAR BANERJEE	Pega
30	10800116003	SATYAM KR KURMI	Pega
31	10800116004	NISHANT KUMAR SANTORIA	Pega
32	10801615086	SALMAN SABIR	Pega
33	10801615086	SALMAN SABIR	TCS
34	10801615120	TRISHITA DUTTA	Ingram Micro

2.2.5.C Impact analysis of industrial training

The impact of the industrial training is reflected in the number of placements achieved in different academic years shown in figure below and details given in Criteria 4.



2.2.5. C Impact of industrial training

CRITERION 3

COURSE OUTCOMES AND PROGRAM OUTCOMES

3. COURSE OUTCOMES AND PROGRAM OUTCOMES (120)

The complete process of definition of PEOs, PSOs and COs, mapping for correlation and assessment is summarized through a flow chart as depicted in Fig.3.0.1 and is elaborated upon in subsequent sections

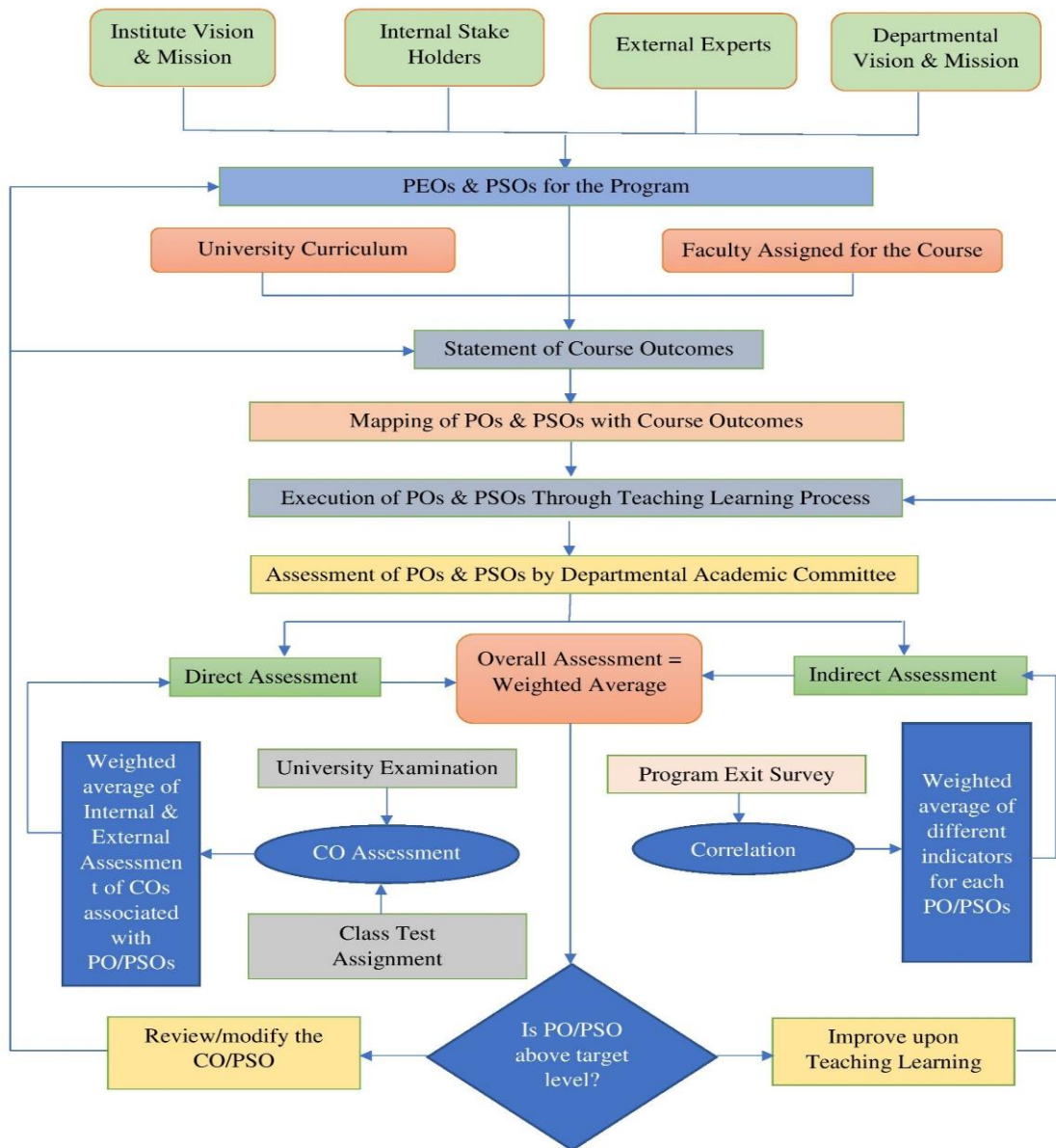


Figure 3.0.1- Definition and Assessment Process

3.1 Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (20)

(Program Outcomes as mentioned in Annexure I and Program Specific Outcomes as defined by the Program)

Program Outcomes (PO)

PO-1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO-2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO-3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO-4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO-5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO-6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO-7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO-8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO-9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO-10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO-11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO-12. Life-long Learning: Recognize the need for, and have the preparation and ability to engage in

independent and life-long learning in the broadest context of technological change.

PSO-Program Specific Outcomes

PSO-1: Attain the ability to design efficient algorithms for developing hardware and software based systems.

PSO2: Apply standard software engineering approach and be able to use modern tools for solving real life problems.

PSO3: Apply the acquired proficiency to become successful technocrats and entrepreneurs as well as engage in research work in emerging fields of Computer Science and Engineering.

3.1.1. Course Outcomes (COs) (SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked) (05)

Sample Course Outcomes (COs) of one course from each semester from 1st to 8th of the following courses is detailed below: -

TABLE 3.1.1.1 Course Outcomes (COs) for Selected outcomes	
Batch: 2016-2020	
Course Code	Course Outcome
Instructor Name: Mrs. Ranjita Sinha Course Name: Engineering Physics Course Code: PH-101. After successful completion of the course students will be able to	
PH-101.1	Describe the theory of different type of vibrational motion like SHM, damped vibration and forced vibration and its application in electrical circuit.
PH101.2	Explain the theory and applications of interference, diffraction and polarization of electromagnetic waves.
PH101.3	State the basic principles of LASER and construction of Ruby LASER , He-Ne LASER and Holography.
PH101.4	Interpret the explanation of some phenomena like black body radiation, Compton scattering using the concept of quantum nature of electromagnetic wave and know the wave-particle duality of matter.
PH101.5	Classify the different types of crystal structure.
PH101.6	Discuss the origin and characteristics of x-ray .
Instructor Name: Sabyasachi Mukherjee Course Name: Basic Computation and Principles of Computer Programming Course Code: CS 201. After successful completion of the course students will be able to	
CS 201.1	Apply the knowledge of fundamentals of computer system to solve different Engineering problems.
CS 201.2	Design the basic concepts of algorithm, flowchart to various engineering problem.

CS 201.3	Apply the concept of decision making, loops, array, function, pointer, structure and file handling to solve different Engineering problems.
CS 201.4	Analyze the efficiency of various searching and sorting algorithms.
CS 201.5	Formulate algorithms and programs for different real life concepts.
Instructor Name: Mr. Biplab Mondal Course Name: Data Structure and Algorithm Course Code: CS-302. After successful completion of the course students will be able to	
CS-302.1	Examine different linear and non-linear data structures and recognize their needs for various applications.
CS-302.2	Apply appropriate data structure as applied to specified problem definition.
CS-302.2	Apply different operations like searching, insertion and deletion, traversing mechanism etc., on various data structures.
CS-302.4	Apply the concept of graph, trees and heap to solve problem.
CS-302.5	Analyze best case, average case and worst-case time complexity of algorithms using asymptotic notations.
CS-302.6	Design different no-linear data structures like AVL tree, B tree and Graph related problems.
Instructor Name: Mr. Pranabes Ganguly Course Name: Computer Architecture Course Code: CS403. After successful completion of the course students will be able to	
CS-403.1	Ability to Apply the concept of various mapping techniques for a given scenario
CS-403.2	Examining the concept of parallel processing and pipelining
CS-403.3	Examining different hazards and various techniques for handling hazards in pipelined execution.
CS-403.4	Ability to Analyze the collision free execution of non-linear dynamic pipelined processor.
CS-403.5	Ability to Investigate the performance of non-linear dynamic pipelined processor.
CS-403.6	Examining concepts and techniques of ILP, superscalar, super-pipelined and VLIW processor architectures, array and vector processors.
Instructor Name: Mr. Ujjwal Kumar Kamila Course Name: Object Oriented Programming Course Code: CS504D. After successful completion of the course students will be able to	
CS504D.1	Apply the concepts of object-oriented programming, and differentiate with conventional procedural programming
CS504D.2	Apply the reusability features using Inheritance, Interface and Package.
CS504D.3	Apply the Object-Oriented Programming Concepts to handle strings
CS504D.4	Analyze advantage and disadvantage of exception handling
CS504D.5	Analyze interthread communication using concept of multithreading
CS504D.6	Design interactive application using applet
Instructor Name: Mr. Uddalok Sen Course Name: Computer Networks Course Code: CS 602. After successful completion of the course students will be able to	
CS-602.1	Explain Data Communication system and functionalities of the layered network architecture

CS-602.2	Identify the solutions of error and flow control problems
CS-602.2	Implement an IP addressing scheme to meet network requirements in a medium size branch office enterprise
CS-602.4	Interpret the working principal of different routing algorithms used in modern Internet.
CS-602.5	Analyzed the functionalities of different transport layer protocols and Quality of Service.
CS-602.6	Understand different application layer protocols widely used in modern internet, security related challenges faced by modern society.
Instructor Name: Mr. Sujoy Kumar Basu Course Name: Software Engineering Course Code: CS701. After successful completion of the course students will be able to	
CS701.1	Analyze the different software engineering life cycle models and project planning methodologies
CS701.2	Design software using functional and objected oriented approaches.
CS701.3	Apply the concept of coding and documentation
CS701.4	Test the software using different software testing mechanisms
CS701.5	Analyze various concepts of software quality and assurance
Instructor Name: Mr. Sabyasachi Mukherjee Course Name: Advance Computer Architecture Course Code: CS801A. After successful completion of the course students will be able to	
CS 801A.1	Analyze the fundamental of Computer design and performance.
CS 801A.2	Analyze the concepts of parallel processing architecture like SISD, SIMD, MISD and MIMD
CS 801A.3	Apply the concept of pipelining and vector processing.
CS 801A.4	Create the efficiency among various network topology
CS 801A.5	Design the various memory architecture.

3.1.2 CO-PO Matrices Of Courses Selected In 3.1.1

(Six matrices to be mentioned: one per semester from third to eight semester) (05)

The CO-PO mapping has been done with correlation levels "1", "2", "3" and "-" for no correlation and defined as

- No Correlation
- 1 Slightly (Low)
- 2 Moderately (Medium) and
- 3 Substantially (High).

Hence all six CO-PO-PSO matrices are developed, one per semester from 3rd to 8th semester.

Table 3.1.2.1: Correlation between CO-PO and CO-PSO

THIRD SEMESTER

Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS-302.1	3	-	-	-	-	-	-	-	2	2	-	-	-	3	-
CS-302.2	3	-	-	-	-	-	-	-	2	2	-	-	-	3	-
CS-302.3	3	-	-	-	-	-	-	-	2	2	-	-	-	3	2
CS-302.4	3	-	-	-	-	-	-	-	2	2	-	-	-	3	-

CS-302.5	-	3	-	-	-	-	-	-	2	2	-	-	-	3	2
CS-302.6	-	-	3	-	-	-	-	-	2	2	-	-	3	-	-
CS-302	3	3	3	-	-	-	-	-	2	2	-	-	3	3	2
FOURTH SEMESTER															
Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS-403.1	3	-	-	-	-	-	-	-	-	-	-	-	2	3	-
CS-403.2	3	-	-	-	-	-	-	-	-	-	-	-	2	3	-
CS-403.3	3	-	-	-	-	-	-	-	-	-	-	-	2	3	-
CS-403.4	-	3	-	-	-	-	-	-	2	2	-	-	2	3	2
CS-403.5	-	-	-	3	-	-	-	-	2	2	-	-	2	3	2
CS-403.6	3	-	-	-	-	-	-	-	-	-	-	-	2	3	-
CS-403	3	3	-	3	-	-	-	-	2	2	-	-	2	3	2
FIFTH SEMESTER															
Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS-504D.1	3	-	-	-	-	-	-	-	1	1	-	1	-	2	2
CS-504D.2	3	-	-	-	-	-	-	-	1	1	-	-	-	1	-
CS-504D.3	3	-	-	-	-	-	-	-	1	1	-	-	-	1	2
CS-504D.4	-	2	-	-	-	-	-	-	1	1	-	1	-	2	1
CS-504D.5	-	2	-	-	-	-	-	-	1	1	-	1	-	3	2
CS-504D.6	-	-	2	-	-	-	-	-	1	1	-	-	1	2	2
CS-504D	3	2	2	-	-	-	-	-	1	1	-	1	1	2	2
SIXTH SEMESTER															
Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS602.1	2	-	-	-	-	-	-	-	-	-	-	-	3	-	-
CS602.2	-	3	-	-	-	-	-	-	-	-	-	-	3	2	1
CS602.3	-	-	3	-	1	-	-	-	-	-	-	2	3	2	2
CS602.4	2	3	-	-	1	-	-	-	-	-	-	-	3	2	2
CS602.5	-	3	2	-	-	-	-	-	-	-	-	-	3	2	2
CS602.6	-	2	-	-	-	2	-	1	-	-	-	2	3	2	2
CS-602	2	3	3	-	1	2	-	1	-	-	-	2	3	2	2
SEVENTH SEMESTER															
Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS-701.1	2	3	-	-	-	-	-	2	1	-	2	-	2	3	3
CS-701.2	2	2	3	-	-	-	-	2	1	-	2	-	2	3	3
CS-701.3	3	-	-	-	-	-	-	2	1	-	2	-	2	3	3
CS-701.4	2	2	3	-	-	-	-	2	1	-	2	-	2	3	3
CS-701.5	2	3	-	-	-	-	-	2	1	-	2	-	2	3	3
CS-701	2	3	3	-	-	-	-	2	1	-	2	-	2	3	3
EIGHTH SEMESTER															
Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS-801A.1	-	3	-	-	-	-	-	-	-	-	-	1	2	1	1
CS-801A.2	-	3	-	-	-	-	-	-	1	1	-	1	1	1	1
CS-801A.3	3	-	-	-	-	-	-	-	1	1	-	1	1	1	1

CS-801A.4	-	-	3	-	-	-	-	-	1	1	-	1	1	2	1
CS-801A.5	-	-	3	-	-	-	-	-	1	1	-	1	1	3	1
CS-801A	3	3	3	-	-	-	-	-	1	1	-	1	1	2	1

3.1.3 Program level Course-PO matrix of all courses INCLUDING first year courses (10)

A correlation has been developed between course outcome of all courses (from 1st Semester to 8th Semester) with Program Outcome (POs) and Program Specific Outcome (PSOs) is shown in Table 3.1.3.1. The average value of CO-PO and CO-PSO mapping has been rounded up to two decimal places.

Table 3.1.3.1 CO-PO and CO-PSO mapping of All Courses of Batch (2016-20)

COURSE CODE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
ES101	3	2	-	-	-	-	-	-	1	2	-	3	-	-	-
ES191	2	2	-	-	-	-	-	2	2	1	-	2	3	3	1
HU101	-	-	-	-	-	-	2	2	3	3	-	3	-	-	-
HU181	-	-	-	-	-	-	-	-	3	3	-	3	-	-	-
M101	3	2	-	-	-	-	-	-	-	1	-	3	2	-	-
ME101	3	2	-	-	-	-	-	-	-	-	-	2	-	-	-
ME192	2	2	-	-	-	-	-	-	3	1	-	2	-	-	-
PH101	3	2	-	-	-	-	-	-	-	2	-	2	-	-	-
PH191	3	2	-	-	-	-	-	-	3	2	-	2	-	-	-
XC181	-	-	-	-	-	3	3	3	3	3	-	3	-	-	2
CH201	3	2	-	-	-	3	-	-	-	2	-	2	-	-	-
CH291	3	2	-	-	-	-	2	-	2	2	-	3	-	-	-
CS201	3	3	3	-	-	-	-	-	1	1	-	1	2	2	1
CS291	3	3	-	-	-	-	-	-	1	1	-	1	2	1	2
ES201	2	3	-	-	-	-	-	-	2	2	-	2	-	-	-
ES291	2	2	-	-	-	-	-	-	2	1	-	2	-	-	-
M201	3	2	-	-	-	-	-	-	-	1	-	3	2	-	-
ME201	3	2	-	-	-	-	-	-	-	-	-	2	-	-	-
ME291	3	3	-	-	3	-	-	-	3	2	-	2	-	-	-
CH-301	3	3	2	2	1	-	-	-	-	1	-	2	-	-	-
CS-301	3	2	3	2	1	1	1	1	2	1	2	3	2	1	1
CS-302	3	3	3	-	-	-	-	-	2	2	-	-	3	3	2
CS-303	2	3	3	2	-	-	-	-	1	1	-	1	2	2	1
CS-391	3	3	3	1	1	2	2	2	2	3	2	2	3	3	1
CS-392	3	3	-	-	-	-	-	-	2	3	-	1	1	1	1
CS-393	2	2	2	-	-	-	-	-	1	1	-	1	2	2	1
HU-301	-	-	2	-	-	3	3	3	2	2	-	3	-	-	-
PH-301	3	2	-	-	-	-	-	-	-	2	-	2	-	-	-
PH-391	3	2	-	-	-	-	-	-	-	2	-	2	-	-	-
CS-401	3	3	2	2	-	-	-	-	-	2	-	2	3	3	2
CS-402	3	3	3	-	-	-	-	2	1	-	-	1	3	2	2
CS-403	3	3	-	3	-	-	-	-	2	2	-	-	2	3	2

CS-491	3	2	2	2	2	3	-	-	2	-	2	2	3	2	1
CS-492	2	2	3	-	-	-	-	1	-	-	1	2	2	3	3
CS-493	2	-	2	-	3	-	-	-	2	2	-	-	2	2	2
HU-481	-	-	-	-	-	-	-	-	3	3	-	3	-	-	-
M(CS)-491	2	2	2	2	3	-	-	-	-	2	-	2	2	2	1
M-401	2	3	3	1	2	2	-	-	-	2	1	2	2	3	2
MCS-401	3	3	3	1	1	-	-	-	1	1	-	2	2	1	1
CS-501	3	3	3	-	-	-	-	2	1	-	-	1	2	3	3
CS-502	3	3	3	1	2	2	1	2	2	2	1	2	3	2	2
CS-503	3	3	3	1	1	-	-	-	1	1	-	2	2	1	1
CS-504D	3	2	2	-	-	-	-	-	1	1	-	1	1	2	2
CS-591	2	2	3	-	-	-	-	2	1	-	1	1	3	2	2
CS-592	3	2	2	2	3	-	-	-	2	1	1	2	2	1	1
CS-593	3	3	2	2	3	-	-	-	-	2	-	2	3	2	2
CS-594D	2	3	2	-	1	-	-	-	1	1	1	2	2	3	2
HU-501	-	-	2	3	-	3	-	-	2	-	-	3	-	-	-
CS-601	3	3	-	-	1	-	-	-	1	1	-	-	1	3	2
CS-602	2	3	3	-	1	2	-	1	-	-	-	2	3	2	2
CS-603	3	2	-	-	-	-	-	-	2	1	-	1	3	2	2
CS-604C	2	2	-	2	-	-	-	-	-	-	-	1	1	2	1
CS-605A	3	3	3	1	1	-	-	-	1	1	-	2	2	1	1
CS-681	-	-	-	-	-	-	-	3	3	3	2	-	-	-	2
CS-691	2	3	-	-	-	-	-	-	2	2	-	1.5	2	3	2
CS-692	3	3	3	-	-	-	-	-	3	2	-	2	3	2	3
CS-693	3	-	-	2	2	-	-	-	3	2	-	1	2	3	1
HU-601	1	1	2	1	2	2	2	2	3	3	3	3	2	2	3
CS-701	2	3	3	-	-	-	-	2	1	-	2	-	2	3	3
CS-702	3	-	3	-	-	-	-	-	-	-	-	-	3	3	3
CS-703C	2	2	2	2	3	2	2	-	1	-	2	2	2	1	1
CS-704A	3	-	-	-	-	2	-	-	2	2	-	-	-	3	2
CS-705A	3	3	3	-	2	-	-	-	-	1	-	1	1	2	2
CS-791	2	2	3	-	-	-	-	1	2	-	2	2	2	3	3
CS-792	3	2	3	-	3	2	2	3	3	3	3	3	2	3	3
CS-793C	2	2	3	-	-	-	-	1	2	-	-	2	2	2	3
CS-794	2	3	3	3	3	3	3	2	3	1	3	3	3	3	2
CS-795A	2	-	-	-	1	3	-	-	2	1	-	1	2	2	2
HU-781	-	-	-	-	-	-	-	-	3	3	-	3	-	-	-
CS-801A	3	3	3	-	-	-	-	-	1	1	-	1	1	2	1
CS-802E	3	2	-	-	2	-	-	-	1	1	-	-	1	2	2
CS-891	2	2	3	-	1	-	-	-	-	-	-	1	3	2	3
CS-892	2	3	3	3	3	3	3	2	3	1	3	3	3	3	2
CS-893	2	3	3	-	-	-	-	-	-	3	-	3	2	2	3
HU-801A	-	-	-	-	-	-	-	-	3	3	-	3	-	-	-
2016-2020 CO-PO-PSO	2.61	2.47	2.63	1.88	1.89	2.35	2.19	1.90	1.96	1.79	1.90	2.00	2.16	2.18	1.88

3.2 Attainment of Course Outcomes

(50)

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based

(10)

A. Course Outcome Assessment Process

The CO assessment tools used to measure the attainment levels may be in terms of student's performance in internal assessments such as tutorials, assignments, laboratory tests, project evaluation, project presentations, oral examinations, etc. and student's performance in University examination.

All the courses prescribed by the University for the Program under consideration may be divided into three broad categories viz. Theory Courses, Laboratory Courses and Project/Sessional Courses for the evaluation. The overall percentage distribution of marks for direct assessment methods is shown in **Table 3.2.1.1**.

Table 3.2.1.1: Course Outcome (CO) Attainment Evaluation Process				
Course Type	Assessment Type	Evaluation Through	Target Level	Distribution of Marks
Direct Assessment				
Theory	Internal	Class Test	Students above 60% marks	30
		Assignment	Students above 60% marks	
	External	University Exam. Score	Students above 60% marks	70
Laboratory	Internal	Viva-voce	Students above 80% marks	40
		Lab. Report	Students above 80% marks	
	External	University Exam. Score	Students above 80% marks	60
Project/Sessional	Internal	Rubrics	Students above 80% marks	100
			Students above 80% marks	

B. Data Acquisition Process for CO Assessment

The assessment process for the courses are not just limited to measurement as indicated in the table above and may include some non-measurable parameters like value judgment. The data required for the assessment of attainment level of each CO is indicated **Table 3.2.1.1**. The data acquisition frequency and process is presented in **Table 3.2.1.2**.

Table 3.2.1.2: Data acquisition process for CO Assessment

Assessment Tool	Data Collection Frequency
Class Test	Twice Every Semester (Till Session 2019 Even)
	Four times in a Semester (From Session 2019-Odd)
Assignment	Twice Every Semester (Till Session 2019 Even)
	Four times in a Semester (From Session 2019-Odd)
Viva-voce	Twice Every Semester
Laboratory Report	Continuous
University Examination	Semester wise

C. Data Acquisition Guidelines

For effective evaluation of the Course Outcomes, department has created a robust system of data collections and analysis through a structure. The whole program is administered through a Program coordinator assisted by four-year wise coordinators under the guidance of head of the department. Various responsibilities of the coordinators, faculty members, technical assistants and students is as follows

B. Tech Program Coordinator

- Summarization of all CO attainments for assessment of POs and PSOs.
- Collection of data related to placements and higher studies etc.
- Attainment level Evaluation of POs & PSOs through direct & indirect methods.
- Recommendation of the corrective measures if any.

Year wise Coordinator

- Collection and summarization of data from departmental and non-department faculty members for the course for the assigned year of the program.
- Monitoring of continuous progress and student attendance.
- Enforcement of academic discipline.

Faculty and Technical Assistants

- Familiarization with Course objectives and course outcomes (along with their relevance of different POs and PSOs) before commencement of the class.
- Preparation of Lecture plan, question papers and evaluation of answer scripts.
- Summarization of data from direct assessment method relevant for each CO.

3.2.2 Record the attainment of Course Outcomes of all courses with respect to set attainment levels (40)

The attainment level of each course outcome is measured through percentage students getting marks above target level is shown in Table 3.2.2.1.

Table 3.2.2.1: Attainment level of Course Outcome through various assessment tools	
Attainment Level (AL)	Criteria
1	60% of students scoring above Target level
2	70% of students scoring above Target level
3	80% of students scoring above Target level

The sample CO attainment assessment process of CS-504D is shown below. The detailed evaluation for attainment of the CO through Internal assessment and University examination is shown below.

SUBJECT: OBJECT ORIENTED PROGRAMING								
PAPER CODE: CS-504D SESSION: 2018 ODD SEMESTER:5TH YEAR: 3RD								
A1: 60% OF STUDENTS SCORING MORE THAN 60% MARKS								
A2: 70% OF STUDENTS SCORING MORE THAN 60% MARKS								
A3: 80% OF STUDENTS SCORING MORE THAN 60% MARKS								
INTERNAL ASSEMENT								
TABLE 1: CLASS TEST DATA								
SL NO	ROLL NO	STUDENT NAME	CLASS TEST 1(30)			CLASS TEST 2(30)		
			CO1	CO2	CO3	CO4	CO5	CO6
CONTRIBUTION OF EACH CO IN QUESTION PAPER			7	12	11	12	10	8
1	10800116010	YASH PRAKASH	6	11	11	12	10	8
2	10800116011	YADIR KALAM	5	7	8	10	7	5
3	10800116012	VISHAL KEDIA	5	10	9	11	9	8
4	10800116013	VISHAL GUPTA	7	10	9	12	10	8
5	10800116014	VIKASH KUMAR	7	10	9	12	10	8
6	10800116015	VIKASH KUMAR	5	8	9	11	7	6
7	10800116016	VED PRAKASH	4	9	9	9	7	6
8	10800116017	VARTIKA KEDIA	7	9	8	11	8	7
9	10800116018	UJJAWAL KUMAR	4	6	6	7	5	4
10	10800116019	TRIPTI VERMA	5	10	9	11	9	6
11	10800116020	SYED NUR A FERDOUS	6	11	11	12	10	8
12	10800116021	SWETA KUMARI	7	9	8	11	7	6
13	10800116022	SWETA GUPTA	6	9	9	11	8	7
14	10800116023	SUNNY KUMAR	4	8	6	8	6	4
15	10800116024	SUMIT KUMAR MAJEE	5	11	10	11	9	8
16	10800116025	SUKHWINDER SINGH	6	11	9	12	10	8
17	10800116026	SUDIP DAS	6	11	9	12	9	7
18	10800116027	SUDHANYA GANDHI	6	11	11	12	10	8
19	10800116028	SUDHANSHU RANJAN	5	7	8	7	7	6
20	10800116029	SUBHO CHOWDHURY	6	9	9	11	9	6
21	10800116030	SUBHAM KUMAR MISHRA	4	8	8	8	8	6
22	10800116031	SUBHAM DEY	5	7	8	8	7	5

23	10800116032	SUBHADIP BHAKTA	4	6	6	7	7	6
24	10800116033	SOURAV KUMAR PASWAN	5	8	7	7	7	6
25	10800116034	SOURAV KESHRI	3	8	7	8	6	6
26	10800116035	SOURAV ACHERJEE	6	10	10	12	10	8
27	10800116036	SOUMEN GORAIN	5	7	6	9	6	5
28	10800116037	SOMNATH DAWN	7	11	10	12	10	8
29	10800116038	SNEHA KUMARI	4	9	9	8	8	6
30	10800116039	SIMRAN SINHA	4	8	6	7	6	5
31	10800116040	SIMRAN	6	7	7	7	7	6
32	10800116041	SHUBHAM KUMAR GUPTA	4	7	7	9	6	5
33	10800116042	SHUBHAM KUMAR AGARWAL	4	7	7	7	7	6
34	10800116043	SHUBHAM KUMAR	4	6	6	6	6	4
35	10800116044	SHREYASI MONDAL	5	9	8	10	7	7
36	10800116046	SHIVANI KUMARI	6	8	8	8	8	6
37	10800116047	SHIVAM	5	10	9	10	7	7
38	10800116048	SAYANTAN CHATTERJEE	5	9	8	9	8	7
39	10800116049	SAYAN CHAKRABORTY	6	10	8	9	8	7
40	10800116050	SAYAN BANIK	5	10	9	11	9	6
41	10800116051	SAYAM SUBHRA DAS	4	6	6	7	5	4
42	10800116052	SAURAV KUMAR JHA	5	7	6	7	6	5
43	10800116053	SATYA SACHIN MAHATO	4	8	8	10	7	5
44	10800116054	SANU KUMAR	6	10	8	10	9	7
45	10800116055	SANDIP PAUL	6	11	11	12	10	8
46	10800116056	SAIF ALI	5	7	6	8	6	4
47	10800116057	SAHID RAJA	7	10	9	12	9	7
48	10800116058	RUPAM KUMARI	6	10	8	11	9	8
49	10800116059	ROUNAK BISWAS	6	10	8	9	8	7
50	10800116060	ROSHAN KUMAR GUPTA	4	8	8	9	8	5
51	10800116061	ROHIT KUMAR MAJEE	6	9	9	12	8	6
52	10800116062	ROHAN KUMAR SINGH	6	10	10	11	9	8
53	10800116063	RITESH SINGH	6	7	7	8	6	6
54	10800116064	RITESH PRASAD	6	9	9	10	7	7
55	10800116065	RASHMI KUMARI	5	10	9	12	8	6
56	10800116066	RANDHIR KUMAR	5	8	7	9	7	6
57	10800116067	RANDHIR KUMAR	6	10	8	11	8	7
58	10800116068	RAMARCH KUMAR	6	7	7	8	7	5
59	10800116069	RAJAT SINGH	5	7	8	8	7	5
60	10800116070	RAJAN KUMAR	5	7	8	9	8	7
61	10800116071	RAJ KISHAN	4	9	9	10	8	6
62	10800116072	RAHUL ROY	5	10	9	10	9	7
63	10800116073	RAHUL RAI	4	6	6	9	5	4
64	10800116074	RAHUL KUMAR CHATURBEDI	5	7	6	8	7	5
65	10800116075	RAHUL KUMAR	6	11	11	12	10	8
66	10800116076	QUREE KUMARI	6	11	9	12	10	8
67	10800116077	PRERNA SHARMA	4	9	9	9	7	6
68	10800116078	PRASUN SARKAR	6	7	7	8	6	6
69	10800116079	PRABHAT KUMAR	6	8	8	9	7	6
70	10800116080	POULAMI BHATTACHARJEE	6	7	7	8	7	5
71	10800116081	PIYALI BOSE	6	8	8	12	8	6
72	10800116082	NILESH KUMAR	6	11	9	12	10	8

73	10800116083	NILANJAN SAMADDAR	5	8	7	10	7	5
74	10800116084	NIKHIL KUMAR	3	8	7	9	5	4
75	10800116085	NEHA SINGH	4	8	8	9	8	5
76	10800116086	NAINA KUMARI	5	7	8	10	7	5
77	10800116087	MONOJIT DEY	7	11	10	12	10	8
78	10800116088	MONIDEEPA DEY	4	8	8	8	7	5
79	10800116089	MD MINHAI KHAN	7	9	8	11	7	6
80	10800116090	MD FARAZ AHMAD	4	6	6	5	6	5
81	10800116091	MANISH KUMAR MEHTA	4	7	7	9	6	5
82	10800116092	MANAS KUMAR	6	9	9	10	7	7
83	10800116093	KUSH KUMAR	6	8	8	11	8	7
84	10800116094	KUNAL GAURAV	5	8	7	9	7	6
85	10800116095	KUMARI SANGEETA	6	11	9	12	10	8
86	10800116096	KUMARI MEGHA	6	8	8	12	8	6
87	10800116097	KOMAL KUMARI	7	9	8	11	8	7
88	10800116098	KISHAN KUSWAHA	4	8	8	9	8	5
89	10800116099	KIRTI	5	7	8	9	6	5
90	10800116100	KAUSHAL TIWARI	7	11	10	12	10	8
91	10800116101	GUDDU KUMAR	6	11	11	12	10	8
92	10800116102	FAROOQ ANSARI	7	10	9	11	9	6
93	10800116103	DIPESH KUMAR	6	9	9	11	9	6
94	10800116104	DEBDULAL	6	10	8	12	9	7
95	10800116105	CHANDAN KUMAR SINGH	5	6	5	7	7	6
96	10800116106	ARUN KUMAR PATEL	5	6	5	6	6	4
97	10800116107	ARNAB DAS	7	11	10	12	10	8
98	10800116108	ARKADEEP BAGAL	5	9	8	9	8	7
99	10800116109	ARIJIT NANDI	6	10	8	12	8	6
100	10800116111	ANUPAM GHOSH	7	10	9	12	10	8
101	10800116112	ANUJ KUMAR KESHRI	5	11	10	11	9	8
102	10800116113	ANMOL JALAN	6	11	9	12	10	8
103	10800116115	ANKIT AGARWAL	7	10	9	11	9	6
104	10800116116	ANKAN SHARMA	5	9	8	9	7	6
105	10800116117	ANJALI KUMARI	7	10	9	12	10	8
106	10800116118	ANIRBAN MANDAL	5	8	9	11	9	6
107	10800116119	ANIRBAN BANERJEE	6	10	10	11	8	7
108	10800116120	AMRITA SHREE	6	11	9	12	10	8
109	10800116122	AMEETA SOM	6	11	11	12	10	8
110	10800116123	AKASH SINGH	5	11	10	12	10	8
111	10800116124	AKASH SHAW	6	11	11	12	10	8
112	10800116125	AKASH CHOUDHARY	5	10	9	10	8	6
113	10800116126	AKASH BHADANI	5	8	7	9	8	5
114	10800116127	AKASH	6	11	9	12	9	7
115	10800116129	ABHISHEK KUMAR	5	9	8	10	9	7
116	10800116130	ABHISHEK DAS	5	8	9	10	8	6
117	10800116131	ABHISEK SAH	6	11	9	12	10	8
118	10800116132	ABHIRUP CHATTERJEE	5	11	10	12	9	7
119	10800116133	ABHINESH SINGH	7	9	8	12	8	6
120	10800116134	ABHIJIT KUMAR	7	10	9	12	10	8
121	10800116135	ABHIJIT KUMAR	5	6	5	6	5	5
122	10800117001	Sujit Roy	7	11	10	12	10	8
123	10800117003	Samrat Mitra	6	9	9	11	7	6

124	10800117004	Rajiv Ghanty	6	10	10	12	10	8
125	10800117005	Rahul Singh	4	8	6	8	6	4
126	10800117006	Nitesh Kumar Yadav	7	11	10	12	10	8
127	10800117007	Chandan Ghosh	4	8	8	9	6	5
128	10800117008	Ankita Tiwari	2	6	6	6	5	3
129	10800117009	Ankit Prasad	4	8	8	9	7	6
130	10800117010	Ankana Ghosh	6	11	9	12	10	8
131	10800117011	Amar Sinha	4	8	8	8	7	5
% OF STUDENTS ABOVE TARGET OF 60%			78.63	77.86	87.02	88.55	95.42	92.37

TABLE 2 ASSIGNMENT DATA

SL NO	ROLL NO	STUDENT NAME	ASSIGNMENT 1			ASSIGNMENT 2		
			CO1	CO2	CO3	CO4	CO5	CO6
CONTRIBUTION OF EACH CO IN ASSIGNMENT			10	12	8	15	10	5
1	10800116010	YASH PRAKASH	10	12	8	11	10	3
2	10800116011	YADIR KALAM	8	10	6	11	7	3
3	10800116012	VISHAL KEDIA	10	10	7	11	9	4
4	10800116013	VISHAL GUPTA	10	12	8	12	8	4
5	10800116014	VIKASH KUMAR	10	12	8	11	10	3
6	10800116015	VIKASH KUMAR	7	11	6	10	8	3
7	10800116016	VED PRAKASH	8	10	6	11	6	4
8	10800116017	VARTIKA KEDIA	9	11	7	11	7	3
9	10800116018	UJJAWAL KUMAR	5	9	4	9	6	3
10	10800116019	TRIPTI VERMA	6	12	6	10	8	3
11	10800116020	SYED NUR A FERDOUS	10	12	8	15	10	5
12	10800116021	SWETA KUMARI	8	10	6	10	7	4
13	10800116022	SWETA GUPTA	10	10	7	12	8	4
14	10800116023	SUNNY KUMAR	7	9	5	8	7	3
15	10800116024	SUMIT KUMAR MAJEE	10	10	7	12	9	3
16	10800116025	SUKHWINDER SINGH	10	12	8	12	8	4
17	10800116026	SUDIP DAS	10	10	7	12	8	4
18	10800116027	SUDHANYA GANDHI	10	12	8	15	7	5
19	10800116028	SUDHANSHU RANJAN	6	10	5	9	6	3
20	10800116029	SUBHO CHOWDHURY	6	12	6	11	10	3
21	10800116030	SUBHAM KUMAR MISHRA	7	11	6	11	7	3
22	10800116031	SUBHAM DEY	5	10	6	8	7	3
23	10800116032	SUBHADIP BHAKTA	7	8	6	8	8	2
24	10800116033	SOURAV KUMAR PASWAN	8	10	6	11	7	3
25	10800116034	SOURAV KESHRI	7	8	6	8	8	2
26	10800116035	SOURAV ACHERJEE	9	10	8	11	10	3
27	10800116036	SOUMEN GORAIN	7	9	5	9	6	3
28	10800116037	SOMNATH DAWN	10	12	8	15	10	5
29	10800116038	SNEHA KUMARI	8	9	7	11	6	4
30	10800116039	SIMRAN SINHA	6	10	5	8	8	2
31	10800116040	SIMRAN	6	9	6	10	8	3
32	10800116041	SHUBHAM KUMAR GUPTA	5	10	6	8	7	3
33	10800116042	SHUBHAM KUMAR AGARWAL	7	8	6	8	7	3
34	10800116043	SHUBHAM KUMAR	5	8	5	9	6	3
35	10800116044	SHREYASI MONDAL	8	9	7	11	6	4
36	10800116046	SHIVANI KUMARI	7	11	6	11	6	4
37	10800116047	SHIVAM	8	9	7	11	6	4
38	10800116048	SAYANTAN CHATTERJEE	7	11	6	11	6	4
39	10800116049	SAYAN CHAKRABORTY	7	10	7	11	7	3
40	10800116050	SAYAN BANIK	7	10	7	12	9	3

41	10800116051	SAYAM SUBHRA DAS	6	10	5	8	7	3
42	10800116052	SAURAV KUMAR JHA	5	10	6	9	6	3
43	10800116053	SATYA SACHIN MAHATO	7	11	6	11	7	3
44	10800116054	SANU KUMAR	7	10	7	11	7	3
45	10800116055	SANDIP PAUL	10	12	8	15	8	4
46	10800116056	SAIF ALI	6	10	5	8	7	3
47	10800116057	SAHID RAJA	10	9	8	12	8	4
48	10800116058	RUPAM KUMARI	9	10	8	11	9	4
49	10800116059	ROUNAK BISWAS	7	11	6	11	6	4
50	10800116060	ROSHAN KUMAR GUPTA	8	9	7	10	7	4
51	10800116061	ROHIT KUMAR MAJEE	10	9	8	12	8	4
52	10800116062	ROHAN KUMAR SINGH	9	10	8	12	9	3
53	10800116063	RITESH SINGH	7	11	6	10	7	4
54	10800116064	RITESH PRASAD	8	9	7	11	7	3
55	10800116065	RASHMI KUMARI	8	9	7	11	6	4
56	10800116066	RANDHIR KUMAR	5	10	6	11	7	3
57	10800116067	RANDHIR KUMAR	7	11	6	12	8	4
58	10800116068	RAMARCH KUMAR	6	12	6	11	6	4
59	10800116069	RAJAT SINGH	6	10	5	8	7	3
60	10800116070	RAJAN KUMAR	6	12	6	10	7	4
61	10800116071	RAJ KISHAN	7	11	6	10	8	3
62	10800116072	RAHUL ROY	8	12	7	11	7	3
63	10800116073	RAHUL RAI	6	10	5	8	7	3
64	10800116074	RAHUL KUMAR CHATURBEDI	5	11	5	9	6	3
65	10800116075	RAHUL KUMAR	10	12	8	15	10	5
66	10800116076	QUREE KUMARI	10	12	8	15	7	5
67	10800116077	PRERNA SHARMA	8	9	7	10	8	3
68	10800116078	PRASUN SARKAR	5	10	6	11	6	4
69	10800116079	PRABHAT KUMAR	7	10	7	10	8	3
70	10800116080	POULAMI BHATTACHARJEE	7	9	5	10	8	3
71	10800116081	PIYALI BOSE	7	10	7	11	7	3
72	10800116082	NILESH KUMAR	10	12	8	15	8	4
73	10800116083	NILANJAN SAMADDAR	8	9	7	11	7	3
74	10800116084	NIKHIL KUMAR	7	8	6	9	6	3
75	10800116085	NEHA SINGH	8	9	7	10	7	4
76	10800116086	NAINA KUMARI	5	11	5	10	7	4
77	10800116087	MONOJIT DEY	10	12	8	15	10	5
78	10800116088	MONIDEEPA DEY	7	9	5	10	8	3
79	10800116089	MD MINHAI KHAN	7	11	6	11	7	3
80	10800116090	MD FARAZ AHMAD	5	11	5	9	7	2
81	10800116091	MANISH KUMAR MEHTA	7	8	6	10	8	3
82	10800116092	MANAS KUMAR	7	11	6	10	7	4
83	10800116093	KUSH KUMAR	8	9	7	10	8	3
84	10800116094	KUNAL GAURAV	7	9	5	11	6	4
85	10800116095	KUMARI SANGEETA	10	9	8	11	10	3
86	10800116096	KUMARI MEGHA	7	11	6	11	7	3
87	10800116097	KOMAL KUMARI	7	10	7	12	8	4
88	10800116098	KISHAN KUSWAHA	6	9	6	10	7	4
89	10800116099	KIRTI	6	10	5	10	7	4
90	10800116100	KAUSHAL TIWARI	10	12	8	12	8	4
91	10800116101	GUDDU KUMAR	10	12	8	11	10	3
92	10800116102	FAROOQ ANSARI	8	11	8	11	9	4
93	10800116103	DIPESH KUMAR	10	10	7	11	7	3
94	10800116104	DEBDULAL	8	12	7	11	10	3

95	10800116105	CHANDAN KUMAR SINGH	7	9	5	8	8	2
96	10800116106	ARUN KUMAR PATEL	6	7	5	7	6	2
97	10800116107	ARNAB DAS	10	12	8	15	7	5
98	10800116108	ARKADEEP BAGAL	6	12	6	11	6	4
99	10800116109	ARIJIT NANDI	7	10	7	11	6	4
100	10800116111	ANUPAM GHOSH	10	12	8	15	7	5
101	10800116112	ANUJ KUMAR KESHRI	10	10	7	11	10	3
102	10800116113	ANMOL JALAN	7	12	8	11	10	3
103	10800116115	ANKIT AGARWAL	10	9	8	12	8	4
104	10800116116	ANKAN SHARMA	7	11	6	11	6	4
105	10800116117	ANJALI KUMARI	10	12	8	15	7	5
106	10800116118	ANIRBAN MANDAL	7	11	6	11	6	4
107	10800116119	ANIRBAN BANERJEE	10	10	7	11	9	4
108	10800116120	AMRITA SHREE	7	12	8	12	8	4
109	10800116122	AMEETA SOM	10	12	8	15	10	5
110	10800116123	AKASH SINGH	10	12	8	15	7	5
111	10800116124	AKASH SHAW	10	12	8	11	10	3
112	10800116125	AKASH CHOUDHARY	8	9	7	11	6	4
113	10800116126	AKASH BHADANI	8	10	6	11	7	3
114	10800116127	AKASH	10	12	8	12	8	4
115	10800116129	ABHISHEK KUMAR	8	9	7	11	7	3
116	10800116130	ABHISHEK DAS	8	10	6	10	8	3
117	10800116131	ABHISEK SAH	10	12	8	12	8	4
118	10800116132	ABHIRUP CHATTERJEE	10	12	8	11	9	4
119	10800116133	ABHINESH SINGH	10	9	8	12	9	3
120	10800116134	ABHIJIT KUMAR	10	12	8	15	7	5
121	10800116135	ABHIJIT KUMAR	6	10	5	9	6	3
122	10800117001	Sujit Roy	10	12	8	15	10	5
123	10800117003	Samrat Mitra	7	10	7	10	7	4
124	10800117004	Rajiv Ghanty	10	12	8	12	9	3
125	10800117005	Rahul Singh	7	9	5	8	7	3
126	10800117006	Nitesh Kumar Yadav	10	12	8	15	10	5
127	10800117007	Chandan Ghosh	8	9	7	10	8	3
128	10800117008	Ankita Tiwari	4	10	4	8	5	2
129	10800117009	Ankit Prasad	7	11	6	11	7	3
130	10800117010	Ankana Ghosh	10	12	8	11	9	4
131	10800117011	Amar Sinha	7	11	6	11	7	3

% OF STUDENTS ABOVE TARGET OF 60%	91.60	99.24	98.47	88.55	99.24	94.66
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TABLE 3. CO ATTAINMENT CALCULATION INTERNAL ASSESSMENT

Internal Assessment Contribution	CO1	CO2	CO3	CO4	CO5	CO6
% above target in class test (CT From Table 1)	78.63	77.86	87.02	88.55	95.42	92.37
% above target in assignment (AT From Table 2)	91.60	99.24	98.47	88.55	99.24	94.66
Weighted Avg (CT*0.6 + AT*0.4)	83.81679	86.41221	91.60305	88.54962	96.94656	93.28244
Attainment level for each CO (AL)	3	3	3	3	3	3

EXTERNAL ASSESSMENT DATA FOR CS-504D

TABLE 4: DATA OF UNIVERSITY SEMESTER EXAMINATION

SL NO	STUDENT NAME	ROLL NO	GRADE	AVERAGE MARKS	INTERNAL MARKS	EXTERNAL MARKS
1	10800116010	YASH PRAKASH	A(32.0)	75	28	47
2	10800116011	YADIR KALAM	B(28.0)	65	22	43
3	10800116012	VISHAL KEDIA	E(36.0)	85	25	60
4	10800116013	VISHAL GUPTA	E(36.0)	85	27	58

5	10800116014	VIKASH KUMAR	A(32.0)	75	27	48
6	10800116015	VIKASH KUMAR	A(32.0)	75	23	52
7	10800116016	VED PRAKASH	B(28.0)	65	23	42
8	10800116017	VARTIKA KEDIA	E(36.0)	85	25	60
9	10800116018	UJJAWAL KUMAR	C(24.0)	55	18	37
10	10800116019	TRIPTI VERMA	A(32.0)	75	24	51
11	10800116020	SYED NUR A FERDOUS	A(32.0)	75	28	47
12	10800116021	SWETA KUMARI	A(32.0)	75	24	51
13	10800116022	SWETA GUPTA	E(36.0)	85	25	60
14	10800116023	SUNNY KUMAR	B(28.0)	65	20	45
15	10800116024	SUMIT KUMAR MAJEE	O(40.0)	95	26	69
16	10800116025	SUKHWINDER SINGH	A(32.0)	75	27	48
17	10800116026	SUDIP DAS	A(32.0)	75	26	49
18	10800116027	SUDHANYA GANDHI	A(32.0)	75	28	47
19	10800116028	SUDHANSHU RANJAN	C(24.0)	55	21	34
20	10800116029	SUBHO CHOWDHURY	A(32.0)	75	24	51
21	10800116030	SUBHAM KUMAR MISHRA	B(28.0)	65	22	43
22	10800116031	SUBHAM DEY	D(20.0)	45	21	24
23	10800116032	SUBHADIP BHAKTA	C(24.0)	55	19	36
24	10800116033	SOURAV KUMAR PASWAN	C(24.0)	55	22	33
25	10800116034	SOURAV KESHRI	B(28.0)	65	20	45
26	10800116035	SOURAV ACHERJEE	A(32.0)	75	26	49
27	10800116036	SOUMEN GORAIN	B(28.0)	65	20	45
28	10800116037	SOMNATH DAWN	E(36.0)	85	28	57
29	10800116038	SNEHA KUMARI	B(28.0)	65	23	42
30	10800116039	SIMRAN SINHA	C(24.0)	55	20	35
31	10800116040	SIMRAN	C(24.0)	55	21	34
32	10800116041	SHUBHAM KUMAR GUPTA	C(24.0)	55	20	35
33	10800116042	SHUBHAM KUMAR AGARWAL	B(28.0)	65	20	45
34	10800116043	SHUBHAM KUMAR	C(24.0)	55	18	37
35	10800116044	SHREYASI MONDAL	B(28.0)	65	23	42
36	10800116046	SHIVANI KUMARI	B(28.0)	65	23	42
37	10800116047	SHIVAM	B(28.0)	65	24	41
38	10800116048	SAYANTAN CHATTERJEE	A(32.0)	75	23	52
39	10800116049	SAYAN CHAKRABORTY	A(32.0)	75	24	51
40	10800116050	SAYAN BANIK	A(32.0)	75	24	51
41	10800116051	SAYAM SUBHRA DAS	C(24.0)	55	19	36
42	10800116052	SAURAV KUMAR JHA	C(24.0)	55	20	35
43	10800116053	SATYA SACHIN MAHATO	D(20.0)	45	22	23
44	10800116054	SANU KUMAR	B(28.0)	65	24	41
45	10800116055	SANDIP PAUL	A(32.0)	75	28	47

46	10800116056	SAIF ALI	D(20.0)	45	20	25
47	10800116057	SAHID RAJA	A(32.0)	75	26	49
48	10800116058	RUPAM KUMARI	E(36.0)	85	25	60
49	10800116059	ROUNAK BISWAS	A(32.0)	75	24	51
50	10800116060	ROSHAN KUMAR GUPTA	D(20.0)	45	22	23
51	10800116061	ROHIT KUMAR MAJEE	A(32.0)	75	25	50
52	10800116062	ROHAN KUMAR SINGH	E(36.0)	85	26	59
53	10800116063	RITESH SINGH	C(24.0)	55	22	33
54	10800116064	RITESH PRASAD	A(32.0)	75	24	51
55	10800116065	RASHMI KUMARI	A(32.0)	75	24	51
56	10800116066	RANDHIR KUMAR	B(28.0)	65	21	44
57	10800116067	RANDHIR KUMAR	A(32.0)	75	24	51
58	10800116068	RAMARCH KUMAR	B(28.0)	65	22	43
59	10800116069	RAJAT SINGH	B(28.0)	65	21	44
60	10800116070	RAJAN KUMAR	D(20.0)	45	22	23
61	10800116071	RAJ KISHAN	B(28.0)	65	23	42
62	10800116072	RAHUL ROY	A(32.0)	75	25	50
63	10800116073	RAHUL RAI	F(8.0)	39	19	20
64	10800116074	RAHUL KUMAR CHATURBEDI	D(20.0)	45	20	25
65	10800116075	RAHUL KUMAR	A(32.0)	75	28	47
66	10800116076	QUREE KUMARI	A(32.0)	75	27	48
67	10800116077	PRERNA SHARMA	B(28.0)	65	23	42
68	10800116078	PRASUN SARKAR	F(8.0)	39	21	18
69	10800116079	PRABHAT KUMAR	B(28.0)	65	23	42
70	10800116080	POULAMI BHATTACHARJEE	B(28.0)	65	21	44
71	10800116081	PIYALI BOSE	B(28.0)	65	23	42
72	10800116082	NILESH KUMAR	A(32.0)	75	27	48
73	10800116083	NILANJAN SAMADDAR	F(8.0)	39	22	17
74	10800116084	NIKHIL KUMAR	B(28.0)	65	20	45
75	10800116085	NEHA SINGH	C(24.0)	55	22	33
76	10800116086	NAINA KUMARI	B(28.0)	65	21	44
77	10800116087	MONOJIT DEY	A(32.0)	75	28	47
78	10800116088	MONIDEEPA DEY	C(24.0)	55	21	34
79	10800116089	MD MINHAJ KHAN	B(28.0)	65	24	41
80	10800116090	MD FARAZ AHMAD	C(24.0)	55	19	36
81	10800116091	MANISH KUMAR MEHTA	B(28.0)	65	20	45
82	10800116092	MANAS KUMAR	A(32.0)	75	24	51
83	10800116093	KUSH KUMAR	B(28.0)	65	23	42
84	10800116094	KUNAL GAURAV	B(28.0)	65	21	44
85	10800116095	KUMARI SANGEETA	A(32.0)	75	26	49
86	10800116096	KUMARI MEGHA	A(32.0)	75	23	52
87	10800116097	KOMAL KUMARI	A(32.0)	75	24	51
88	10800116098	KISHAN KUSWAHA	D(20.0)	45	21	24
89	10800116099	KIRTI	B(28.0)	65	21	44

90	10800116100	KAUSHAL TIWARI	A(32.0)	75	28	47
91	10800116101	GUDDU KUMAR	A(32.0)	75	28	47
92	10800116102	FAROOQ ANSARI	E(36.0)	85	26	59
93	10800116103	DIPESH KUMAR	A(32.0)	75	25	50
94	10800116104	DEBDULAL	E(36.0)	85	25	60
95	10800116105	CHANDAN KUMAR SINGH	C(24.0)	55	19	36
96	10800116106	ARUN KUMAR PATEL	C(24.0)	55	18	37
97	10800116107	ARNAB DAS	A(32.0)	75	28	47
98	10800116108	ARKADEEP BAGAL	B(28.0)	65	23	42
99	10800116109	ARIJIT NANDI	A(32.0)	75	24	51
100	10800116111	ANUPAM GHOSH	A(32.0)	75	27	48
101	10800116112	ANUJ KUMAR KESHRI	A(32.0)	75	26	49
102	10800116113	ANMOL JALAN	E(36.0)	85	26	59
103	10800116115	ANKIT AGARWAL	E(36.0)	85	26	59
104	10800116116	ANKAN SHARMA	B(28.0)	65	23	42
105	10800116117	ANJALI KUMARI	A(32.0)	75	27	48
106	10800116118	ANIRBAN MANDAL	A(32.0)	75	23	52
107	10800116119	ANIRBAN BANERJEE	A(32.0)	75	26	49
108	10800116120	AMRITA SHREE	E(36.0)	85	26	59
109	10800116122	AMEETA SOM	E(36.0)	85	28	57
110	10800116123	AKASH SINGH	E(36.0)	85	27	58
111	10800116124	AKASH SHAW	E(36.0)	85	28	57
112	10800116125	AKASH CHOUDHARY	A(32.0)	75	24	51
113	10800116126	AKASH BHADANI	B(28.0)	65	22	43
114	10800116127	AKASH	E(36.0)	85	27	58
115	10800116129	ABHISHEK KUMAR	A(32.0)	75	23	52
116	10800116130	ABHISHEK DAS	A(32.0)	75	23	52
117	10800116131	ABHISEK SAH	A(32.0)	75	27	48
118	10800116132	ABHIRUP CHATTERJEE	E(36.0)	85	27	58
119	10800116133	ABHINESH SINGH	A(32.0)	75	25	50
120	10800116134	ABHIJIT KUMAR	E(36.0)	85	27	58
121	10800116135	ABHIJIT KUMAR	C(24.0)	55	19	36
122	10800117001	Sujit Roy	A(32.0)	75	28	47
123	10800117003	Samrat Mitra	A(32.0)	75	24	51
124	10800117004	Rajiv Ghanty	A(32.0)	75	27	48
125	10800117005	Rahul Singh	B(28.0)	65	20	45
126	10800117006	Nitesh Kumar Yadav	A(32.0)	75	28	47
127	10800117007	Chandan Ghosh	D(20.0)	45	22	23
128	10800117008	Ankita Tiwari	C(24.0)	55	17	38
129	10800117009	Ankit Prasad	C(24.0)	55	22	33
130	10800117010	Ankana Ghosh	A(32.0)	75	27	48
131	10800117011	Amar Sinha	D(20.0)	45	22	23
PERCENTAGE OF STUDENTS ABOVE 60% MARKS						74
ATTAINMENT LEVEL						2

TABLE 5.OVERALL CO ATTAINMENT LEVEL CALCULATION

INTERNAL ATTAINMENT CONTRIBUTION	CO1	CO2	CO3	CO4	CO5	CO6
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Attainment of each CO in University Exam	2	2	2	2	2	2
Attainment of each CO in Internal Assessment	3	3	3	3	3	3
Weighted Avg (Ext*0.7 + Int*0.3)	2.3	2.3	2.3	2.3	2.3	2.3

Course Attainment for one course of each semester (3rd to 8th Semester) is shown in table 3.2.2.2

Table 3.2.2.2: Course Outcome Attainment for one course of each semester (data from Result Analysis)

	Course Outcomes →	CO1	CO2	CO3	CO4	CO5	CO6
	CS-302	% above target level in class test	86.61	72.44	83.46	92.91	73.23
% above target level in assignment		87.40	96.06	96.06	87.40	91.34	84.25
Weighted Avg (CT*0.6 + AT*0.4)		86.92913	81.88976	88.50394	90.70866	80.47244	88.0315
Attainment level for each CO (AL)		3	3	3	3	3	3
Attainment Level for each CO through University Examination (Y)		1	1	1	1	1	1
Overall Attainment Level for each (Z) = (0.3*X+0.7*Y)		1.6	1.6	1.6	1.6	1.6	1.6
CS-403		Course Outcomes →	CO1	CO2	CO3	CO4	CO5
	% above target level in class test	95.12	86.99	86.99	95.12	94.31	91.87
	% above target level in assignment	94.31	100.00	98.37	91.06	100.00	85.37
	Weighted Avg (CT*0.6 + AT*0.4)	94.79675	92.19512	91.54472	93.49593	96.58537	89.26829
	Attainment level for each CO	3	3	3	3	3	3
	Attainment Level for each CO through University Examination (Y)	2	2	2	2	2	2
	Overall Attainment Level for each (Z) = (0.3*X+0.7*Y)	2.3	2.3	2.3	2.3	2.3	2.3
CS-504D	Course Outcomes →	CO1	CO2	CO3	CO4	CO5	CO6
	% above target level in class test	78.63	77.86	87.02	88.55	95.42	92.37
	% above target level in assignment	91.60	99.24	98.47	88.55	99.24	94.66
	Weighted Avg (CT*0.6 + AT*0.4)	83.81679	86.41221	91.60305	88.54962	96.94656	93.28244
	Attainment level for each CO (AL)	3	3	3	3	3	3
	Attainment Level for each CO through University Examination (Y)	2	2	2	2	2	2
	Overall Attainment Level for each (Z) = (0.3*X+0.7*Y)	2.3	2.3	2.3	2.3	2.3	2.3
CS-602	Course Outcomes →	CO1	CO2	CO3	CO4	CO5	CO6
	% above target level in class test	90.40	96.80	94.40	96.80	100.00	100.00
	% above target level in assignment	98.40	100.00	100.00	99.20	99.20	85.60
	Weighted Avg (CT*0.6 + AT*0.4)	93.6	98.08	96.64	97.76	99.68	94.24
	Attainment level for each CO (AL)	3	3	3	3	3	3
	Attainment Level for each CO through University Examination (Y)	2	2	2	2	2	2
	Overall Attainment Level for each (Z) = (0.3*X+0.7*Y)	2.3	2.3	2.3	2.3	2.3	2.3
CS-701	Course Outcomes →	CO1	CO2	CO3	CO4	CO5	CO6
	% above target level in class test	87.20	95.20	84.00	85.60	97.60	
	% above target level in assignment	100.00	100.00	99.20	100.00	98.40	
	Weighted Avg (CT*0.6 + AT*0.4)	92.32	97.12	90.08	91.36	97.92	
	Attainment level for each CO (AL)	3	3	3	3	3	
	Attainment Level for each CO through University Examination (Y)	3	3	3	3	3	
	Overall Attainment Level for each (Z) = (0.3*X+0.7*Y)	3	3	3	3	3	
CS	Course Outcomes →	CO1	CO2	CO3	CO4	CO5	CO6

% above target level in class test	100.00	100.00	100.00	100.00	100.00	
% above target level in assignment	100.00	100.00	100.00	100.00	100.00	
Weighted Avg (CT*0.6 + AT*0.4)	100	100	100	100	100	
Attainment level for each CO (AL)	3	3	3	3	3	
Attainment Level for each CO through University Examination (Y)	3	3	3	3	3	
Overall Attainment Level for each (Z) = (0.3*X+0.7*Y)	3	3	3	3	3	

Attainment of the Course Outcome of all Courses including first Semester is shown in Table 3.2.2.3

Table 3.2.2.3 Course Outcome Attainment Record of Batch (2016-2020)

Attainment of Course Outcome of all 1st Semester Courses						
Course Code	CO1	CO2	CO3	CO4	CO5	CO6
ES101	1	1	1	1	1	1
ES191	3	3	3	3	3	3
HU101	3	2.7	3	3	3	3
HU181	3	3	3	3	3	-
M101	1.6	1.6	1.6	1.6	1.6	1.6
ME101	2.3	2.3	2.3	2.3	2.3	-
ME192	0.6	0.6	1.4	1.8	1.8	-
PH101	1.6	1.3	1.3	1.6	1.6	1.3
PH191	2	2	1.6	2.4	2.4	2
XC181	3	3	3	3	3	3
Attainment of Course Outcome of all 2nd Semester Courses						
Course Code	CO1	CO2	CO3	CO4	CO5	CO6
CH201	2.3	2.3	2.3	2.3	2.3	2.3
CH291	2.4	2.4	2.1	2.7	2.7	2.4
CS201	2.3	2.3	2.3	2.3	2	-
CS291	1.2	2	1.6	2	-	-
ES201	1.3	1	1	1.6	1	1.3
ES291	2.6	3	2.6	2.6	2.6	2.6
M201	1.6	1.3	1.3	1.6	1.6	1.3
ME201	3	3	2.7	3	2.7	-
ME291	1.6	1.6	2.4	2.4	1.6	-
Attainment of Course Outcome of all 3rd Semester Courses						

Course Code	CO1	CO2	CO3	CO4	CO5	CO6
CH-301	1.6	1.3	1.3	1.6	1.6	1.6
CS-301	1.7	2	1.7	1.7	-	-
CS-302	1.6	1.6	1.6	1.6	1.6	1.6
CS-303	0.9	0.9	0.9	0.9	0.3	-
CS-391	3	3	3	3	-	-
CS-392	2	2	2	2	-	-
CS-393	3	2.6	2.2	3	-	-
HU-301	3	3	3	3	3	3
PH-301	2.3	2.3	2	2.3	2.3	2.3
PH-391	2.6	2.6	2.2	3	2.6	2.2

Attainment of Course Outcome of all 4th Semester Courses

Course Code	CO1	CO2	CO3	CO4	CO5	CO6
CS-401	2.3	2.3	2.3	2.3	2.3	2
CS-402	1.6	1.6	1.6	1.6	1.3	-
CS-403	2.3	2.3	2.3	2.3	2.3	2.3
CS-491	2	2	2	2.4	-	-
CS-492	3	2.6	2.2	2.6	-	-
CS-493	2.6	2.6	3	3	-	-
HU-481	3	3	3	3	3	-
M(CS)-491	2.7	3	2.7	3	3	3
M-401	1.6	1.6	1.6	1.6	1.6	1.6
MCS-401	3	3	3	3	3	3

Attainment of Course Outcome of all 5th Semester Courses

Course Code	CO1	CO2	CO3	CO4	CO5	CO6
CS-501	3	3	3	3	3	-
CS-502	1.3	1.3	1.6	1.6	-	-
CS-503	2.3	2.3	2.3	2.3	2.3	2.3
CS-504D	2.3	2.3	2.3	2.3	2.3	2.3
CS-591	2	1.2	1.2	2	-	-
CS-592	2.6	3	2.6	2.6	-	-

CS-593	3	3	3	3	1	1
CS-594D	2.2	2.2	1.8	2.6	2.2	-
HU-501	2.3	2.3	2.3	2.3	2.3	2.3

Attainment of Course Outcome of all 6th Semester Courses

Course Code	CO1	CO2	CO3	CO4	CO5	CO6
CS-601	3	3	3	3	3	3
CS-602	2.3	2.3	2.3	2.3	2.3	2.3
CS-603	2.3	2.3	2.3	2.3	2	-
CS-604C	3	3	3	3	3	-
CS-605A	2.3	2.3	2.3	2.3	2.3	2.3
CS-681	1	3	2	1	-	-
CS-691	3	3	3	3	-	-
CS-692	3	2.6	2.2	3	-	-
CS-693	3	2.2	2.2	3	-	-
HU-601	2.3	2.3	2.3	2.3	2.3	2.3

Attainment of Course Outcome of all 7th Semester Courses

Course Code	CO1	CO2	CO3	CO4	CO5	CO6
CS-701	3	3	3	3	3	-
CS-702	3	3	3	3	3	-
CS-703C	3	3	3	3	3	3
CS-704A	2.3	2.3	2.3	2.3	2.3	2.3
CS-705A	2.3	2.3	2.3	2.3	2.3	2.3
CS-791	1.6	1.6	1.6	1.6	-	-
CS-792	2	3	2	3	3	
CS-793C	2.2	3	3	3	-	-
CS-794	3	3	3	3	3	-
CS-795A	1.8	3	2.6	2.6	-	-
HU-781	3	3	3	3	3	-

Attainment of Course Outcome of all 8th Semester

Course Code	CO1	CO2	CO3	CO4	CO5	CO6
CS-801A	3	3	3	3	3	-

CS-802E	3	3	3	3	3	-
CS-891	2.6	2.6	2.2	3	2.6	-
CS-892	3	3	3	3	3	-
CS-893	2	0	2	1	3	-
HU-801A	3	3	3	3	3	3

3.3 Attainment of Program Outcomes and Program Specific Outcomes (50)

3.3.1 Describe assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes (10)

Various tools used to ascertain the said **Program Outcomes (POs)** and **Program Specific Outcomes (PSOs)** may be classified into to broad categories as direct and indirect assessment tools. Various data collection methodology, collection cycle etc. are elaborated in the Table 3.3.1.1 below:

Table 3.3.1.1: Program Outcome (POs) and Program Specific Outcome (PSO) Attainment Evaluation Process					
	Course Type	Assessment Type	Evaluation Through	Target Level	Distribution of Marks
Direct Assessment					
Direct	Theory	Internal	Class Test	Students above 60% marks	30
			Assignment	Students above 60% marks	
		External	University Exam. Score	Students above 60% marks	
	Laboratory	Internal	Viva-voce	Students above 80% marks	40
			Lab. Report	Students above 80% marks	
		External	University Exam. Score	Students above 80% marks	
	Project/Sessional	Internal	Rubrics	Students above 80% marks	100
				Students above 80% marks	

Process for Indirect Assessment of Attainment of POs and PSOs

The assessment methods used for indirect attainment of POs are:

Program Exit Survey: The survey is undertaken by the 8th semester students annually.


Process for Assessment

The attainment level of POs through Program exit Survey is obtained by taking the average of the attainment level rated by the student in the form as:

Student Assessment	Attainment Level	Student Assessment	Attainment Level
Poor	0	Good	2
Satisfactory	1	Excellent	3

Attainment of **PO-i** through Program exit Survey is calculated as all the scores given by the survey participants against the said PO.

Snapshot of Program Exit Survey is shown below



ASANSOL ENGINEERING COLLEGE
Vivekananda Sarani, Kanyapur, Asansol, West Bengal 713305
Affiliation: Maulana Abul Kalam Azad University of Technology, West Bengal
(Formerly Known as West Bengal University of Technology)
Approved by AICTE

PROGRAM EXIT SURVEY FORM
(To be filled up by Final Year Student Enrolled in any Program at Asansol Engineering College)

Dear Students,
At Asansol Engineering College we are dedicated to the continuous improvement of undergraduate engineering programs. The information that you provide through this survey will be very helpful in this process. We appreciate your contribution and support in filling out this survey.

Regards
Sd/-
Principal

Name: S. Uthkha Kedia Year of Graduation: 2020 Gender: Male
Univ. Roll No.: 1080016017 Program: CSE

Please Tick the appropriate block


I intend to work in the government sector I intend to work in the private sector.
 I intend to go for higher studies. I intend to start my own business.
 I intend to do other things (please specify): _____

Assessment of Abilities, Skills and Attributes Acquired at Asansol Engineering College

Rate each of the following skills, abilities or attributes in terms of how well Asansol Engineering College has prepared you. (Please Tick the appropriate block)

Sl.	Skills, abilities and attributes	Level of preparation			
		Excellent (3)	Good (2)	Satisfactory (1)	Poor (0)
1.	Knowledge of mathematics, physics and engineering	<input checked="" type="checkbox"/>			
2.	Ability of Problem Analysis	<input checked="" type="checkbox"/>			
3.	Complex Engineering Problem Investigation	<input checked="" type="checkbox"/>			
4.	Design of process, system or component to meet desired industrial needs	<input checked="" type="checkbox"/>			
5.	Usage of state of the art techniques and tools in engineering practice	<input checked="" type="checkbox"/>			
6.	Recognizes the societal and environment impact of his/her work	<input checked="" type="checkbox"/>			
7.	Awareness of health, safety, legal and other contemporary issues	<input checked="" type="checkbox"/>			
8.	Professional and ethical responsibilities	<input checked="" type="checkbox"/>			
9.	Team work & Leadership abilities	<input checked="" type="checkbox"/>			
10.	Skill sets needed to work in multidisciplinary domain	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
11.	Communicate Skills	<input checked="" type="checkbox"/>			
12.	Project management and Finance	<input checked="" type="checkbox"/>			
13.	Ability to design efficient algorithms	<input checked="" type="checkbox"/>			
14.	Ability to apply standard software engineering approach and modern tools for software development	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
15.	Ability to apply acquired proficiency to become successful technocrats and engage in research	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		

Rate each of the following Teaching Learning Facilities at Anand Engineering College
(Please tick the appropriate box)

Sl. No.	Teaching Learning Facilities	Level of preparation			
		Excellent (E)	Good (G)	Satisfactory (S)	Poor (P)
A. Quality of instruction and support for learning provided by the faculty members:-					
1.	Streams (Mathematics, Physics, Chemistry)	<input checked="" type="checkbox"/>			
2.	Computer (Programming and usage of software and apps)	<input checked="" type="checkbox"/>			
3.	Humanities and Management	<input checked="" type="checkbox"/>			
4.	Departmental Engineering subjects	<input checked="" type="checkbox"/>			
B. Quality of instruction and support for learning given by technical assistants					
C. Quality of the facilities:					
1.	Classrooms	<input checked="" type="checkbox"/>			
2.	Science & Engineering Laboratories	<input checked="" type="checkbox"/>			
3.	Computing facilities	<input checked="" type="checkbox"/>			
4.	Library	<input checked="" type="checkbox"/>			
Assessment of support Services					
Rate each of the following Support Services at Anand Engineering College (Please tick the appropriate box)					
Sl. No.	Skills, abilities, and attributes	Level of preparation			
		Excellent (E)	Good (G)	Satisfactory (S)	Poor (P)
1.	Academic Services (Registrar's Office, Staff's Office)	<input checked="" type="checkbox"/>			
2.	Training and Placement Office	<input checked="" type="checkbox"/>			
3.	Administrative Services (Maintenance/Enginetrainers)	<input checked="" type="checkbox"/>			
4.	Recreation and athletics	<input checked="" type="checkbox"/>			
General Assessment (Please answer the following questions)					
1. List some very important skills that you think you had learned in the engineering program.					
2. Please list some very important or useful skills that you did not get them to learn while taking engineering courses at Anand Engineering College.					
3. Please write down any comments or suggestions that you think will improve the engineering programs of Anand Engineering College.					
 Signature of the Student					
***** Thanks for your kind Cooperation and Support *****					

The overall Attainment process of POs and PSOs are shown in Table 3.3.1.2

Table 3.3.1.2 Overall Attainment Process of each POs and PSOs			
Type of Assessment	Assessment Tool	Assessment Criteria	Data Collection frequency
Direct (80%)	Internal and External Assessment	Average of attainment of COs with PO/PSO.	Once every semester
Indirect (20%)	Program Exit Survey	Program Exit Survey	Annually

Attainment process of POs and PSOs of course Object Oriented Programming, course code CS-504D of Batch: 2016-2020 is shown below.

Attainment process of course CS504D

Correlation between CO and PO for CS-504D

Course	COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS-504D	CS-504D.1	3	-	-	-	-	-	-	-	1	1	-	1	-	2	2
	CS-504D.2	3	-	-	-	-	-	-	-	1	1	-	-	-	1	-
	CS-504D.3	3	-	-	-	-	-	-	-	1	1	-	-	-	1	2
	CS-504D.4	-	2	-	-	-	-	-	-	1	1	-	1	-	2	1
	CS-504D.5	-	2	-	-	-	-	-	-	1	1	-	1	-	3	2
	CS-504D.6	-	-	2	-	-	-	-	-	1	1	-	-	1	2	2
	CS-504D.1	3	2	2	-	-	-	-	-	1	1	-	1	1	2	2

Course Outcomes →	CS-504D.1	CS-504D.2	CS-504D.3	CS-504D.4	CS-504D.5	CS-504D.6
% of students above 60% marks of question contribution for each CO in Class Test (P)	78.63	77.86	87.02	88.55	95.42	92.37
% of students above 60% marks of question contribution for each CO in Assignment (Q)	91.60	99.24	98.47	88.55	99.24	94.66
% Attainment of each CO through Internal Assessment (R)=(0.6*P+0.4*Q)	83.81679	86.41221	91.60305	88.54962	96.94656	93.28244
Attainment Level for each CO through Internal Assessment (X)	3	3	3	3	3	3
Attainment Level for each CO through University Examination (Y)	2	2	2	2	2	2
Overall Attainment Level for each Z = (0.7*X+0.3*Y)	2.3	2.3	2.3	2.3	2.3	2.3

Attainment of the PO1 for CS – 504D. 1 is 2.3 = $\frac{3(\text{Weight of CO CS-504D.1 for PO-1}) \times 2 (\text{Attainment Level of CS-504D.1})}{3(\text{maximum attainment level})}$

Course	Attainment of Cos	Pos														
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CS-504D	CS-504D.1	2.3	2.30	-	-	-	-	-	-	0.77	0.77	-	0.77	-	1.53	1.53
	CS-504D.2	2.3	2.30	-	-	-	-	-	-	0.77	0.77	-	-	-	0.77	-
	CS-504D.3	2.3	2.30	-	-	-	-	-	-	0.77	0.77	-	-	-	0.77	1.53
	CS-504D.4	2.3	-	1.53	-	-	-	-	-	0.77	0.77	-	0.77	-	1.53	0.77
	CS-504D.5	2.3	-	1.53	-	-	-	-	-	0.77	0.77	-	0.77	-	2.30	1.53
	CS-504D.6	2.3	-	-	1.53	-	-	-	-	0.77	0.77	-	-	0.77	1.53	1.53
	CS-504D Attainment		2.30	1.53	1.53	-	-	-	-	0.77	0.77	-	0.77	0.77	1.41	1.38

3.3.2 Result results of evaluation of each PO and PSO

PO and PSO attainment through direct assessment for all the courses (i.e. theory, laboratory and project/sessional) for Batch 2016-2020 has been calculated and is summarized in Table 3.3.2.1

Table 3.3.2.1 PO-PSO Assessment by Direct Attainment for all the Courses

COURSE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
ES101	0.89	0.78	-	-	-	-	-	-	0.5	0.78	-	0.89	-	-	-
ES191	2.0	2.0	-	-	-	-	-	2.0	2.0	1.0	-	2.0	3.0	3.0	1.0
HU101	-	-	-	-	-	-	1.97	1.97	2.95	2.95	-	2.95	-	-	-
HU181	-	-	-	-	-	-	-	-	3	3	-	3	-	-	-
M101	1.60	1.07	-	-	-	-	-	-	-	0.53	-	1.60	1.07	-	-
ME101	2.30	1.53	-	-	-	-	-	-	-	-	-	1.53	-	-	-
ME192	0.99	0.87	-	-	-	-	-	-	1.20	0.41	-	0.83	-	-	-
PH101	1.45	0.97	-	-	-	-	-	-	-	0.97	-	0.97	-	-	-
PH191	2.07	1.38	-	-	-	-	-	-	2.07	1.38	-	1.38	-	-	-
XC181	-	-	-	-	-	3	3	3	3	3	-	3	-	-	2
CH201	2.3	1.53	-	-	-	2.3	-	-	-	1.53	-	1.53	-	-	-
CH291	2.45	1.63	-	-	-	-	1.63	-	1.63	1.63	-	2.45	-	-	-
CS201	2.30	2.15	2.30	-	-	-	-	-	0.74	0.74	-	0.75	1.49	1.21	0.73
CS291	2.00	1.60	-	-	-	-	-	-	0.57	0.57	-	0.57	1.13	0.62	1.03
ES201	0.91	0.97	-	-	-	-	-	-	0.54	0.57	-	0.8	-	-	-
ES291	2.07	1.92	-	-	-	-	-	-	1.78	0.9	-	1.32	-	-	-
M201	1.38	0.97	-	-	-	-	-	-	-	0.48	-	0.97	0.97	-	-
ME201	2.88	1.92	-	-	-	-	-	-	-	-	-	1.92	-	-	-
ME291	1.71	1.71	-	-	1.60	-	-	-	1.92	1.28	-	1.17	-	-	-
CH-301	1.5	1.5	1	1	0.5	-	-	-	-	0.5	-	1	-	-	-
CS-301	1.15	0.85	0.98	0.85	0.38	0.38	0.38	0.13	0.68	0.38	0.85	0.93	0.55	0.38	0.38
CS-302	1.6	1.6	1.6	-	-	-	-	-	1.1	1.1	-	-	1.6	1.6	1.1
CS-303	0.53	0.90	0.60	0.40	-	-	-	-	0.26	0.26	-	0.26	0.64	0.36	0.33
CS-391	3	2.75	2.75	1	1	1.75	2	2	2	2.75	2	2	3	2.75	1
CS-392	2.00	2.00	-	-	-	-	-	-	1.33	2.00	-	0.67	0.67	0.67	0.67
CS-393	1.73	1.73	1.87	-	-	-	-	-	0.90	0.90	-	0.90	1.80	1.62	0.96
HU-301	-	-	2.00	-	-	3.00	3.00	3.00	2.00	2.00	-	3.00	-	-	-
PH-301	2.08	1.38	-	-	-	-	-	-	-	1.38	-	1.38	-	-	-
PH-391	2.53	1.69	-	-	-	-	-	-	-	1.69	-	s	-	-	-
CS-401	2.3	2.3	1.53	1.15	-	-	-	-	-	1.66	-	1.53	2.3	2.3	1.53
CS-402	1.54	1.50	1.50	-	-	-	-	1.03	0.51	-	-	0.51	1.33	1.24	1.24
CS-403	2.30	2.30	-	2.30	-	-	-	-	1.53	1.53	-	-	1.53	2.30	1.53
CS-491	2.10	1.40	1.40	1.40	1.40	2.10	-	-	1.40	-	1.40	1.40	2.10	1.40	0.70
CS-492	1.98	1.64	2.47	-	-	-	-	0.87	-	-	0.87	1.73	1.70	2.60	2.35
CS-493	2.07	-	2.00	-	2.30	-	-	0.00	1.87	1.87	-	-	1.87	1.87	1.87
HU-481	-	-	-	-	-	-	-	-	3	3	-	3	-	-	-
M(CS)-491	1.93	1.93	1.93	1.93	2.9	-	-	-	-	1.93	-	1.93	1.93	0.97	0.97
M-401	1.07	1.6	1.6	0.53	1.07	1.07	-	-	-	1.07	0.53	1.07	1.07	1.6	1.07
MCS-401	3	3	3	1	1	-	-	-	1	1	-	2	2	1	1
CS-501	2.60	2.50	3.00	-	-	-	-	2.00	1.00	-	-	1.00	2.40	2.60	2.60
CS-502	1.45	1.32	1.21	0.68	1.10	0.86	0.59	0.75	0.90	1.10	0.62	0.75	1.31	0.97	0.73

CS-503	2.30	2.30	2.30	1.23	0.77	-	-	-	0.77	0.77	-	1.53	1.53	0.77	0.77
CS-504D	2.30	1.53	1.53	-	-	-	-	-	0.77	0.77	-	0.77	0.77	1.41	1.38
CS-591	1.23	1.20	1.20	-	-	-	-	1.07	0.53	-	0.53	0.53	1.27	1.23	1.23
CS-592	2.10	1.41	1.41	1.41	2.10	-	-	-	1.40	0.70	0.70	1.40	1.33	0.67	0.70
CS-593	2.73	2.73	1.82	1.82	2.73	-	-	-	-	1.82	-	1.82	2.42	1.82	1.82
CS-594D	1.47	2.20	1.47	-	0.73	-	-	-	0.73	0.73	0.73	1.47	1.47	2.20	1.47
HU-501	-	-	1.53	2.3	-	2.3	-	-	1.53	-	-	2.3	-	-	-
CS-601	3.00	3.00	-	-	1.00	-	-	-	1.33	1.00	-	-	1.00	3.00	2.00
CS-602	1.53	2.11	1.92	-	0.77	1.53	-	0.77	-	-	-	1.53	2.30	1.53	1.38
CS-603	2.30	1.70	-	-	-	-	-	-	1.67	0.75	-	0.75	1.95	1.34	1.24
CS-604C	2.00	2.00	-	2.00	-	-	-	-	-	-	-	1.40	1.00	1.50	1.40
CS-605A	2.3	2.3	2.3	1.23	0.77	-	-	-	0.77	0.77	-	1.53	1.53	0.77	0.77
CS-681	-	-	-	-	-	-	-	3.00	1.00	2.00	0.67	-	-	-	1.17
CS-691	2.00	3.00	-	-	-	-	-	-	2.00	2.00	-	1.50	2.00	3.00	2.00
CS-692	2.40	3.00	3.00	-	-	-	-	-	2.45	1.80	-	1.80	2.70	1.48	2.20
CS-693	2.47	-	-	2.00	1.30	-	-	-	2.60	1.73	-	0.87	1.64	2.10	0.87
HU-601	0.8	1.0	1.5	0.8	1.4	1.5	1.5	1.5	2.0	2.3	2.3	2.3	1.5	1.5	2.3
CS-701	2.20	2.50	3.00	-	-	-	-	2.00	1.00	-	2.00	-	2.00	3.00	3.00
CS-702	3	-	3	-	-	-	-	-	-	-	-	-	3	3	3
CS-703C	1.8	1.7	2.2	2.0	2.5	1.5	2.0	-	1.0	-	1.3	1.6	2.0	1.0	1.0
CS-704A	2.17	-	-	-	-	1.53	-	-	1.53	1.53	-	-	-	2.30	1.53
CS-705A	2.11	2.30	2.30	-	1.53	-	-	-	-	0.77	-	0.77	0.77	1.41	1.38
CS-791	1.20	1.24	1.60	-	-	-	-	0.53	1.07	-	1.07	1.07	1.07	1.60	1.60
CS-792	2.00	2.00	3.00	-	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	1.87	2.40	2.60
CS-793C	2.05	2.00	3.00	-	-	-	-	0.93	1.87	-	-	1.87	1.87	1.87	2.80
CS-794	2.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	1.00	3.00	3.00	3.00	3.00	2.00
CS-795A	1.67	-	-	-	0.60	1.90	-	-	1.60	0.87	-	0.60	1.20	1.30	1.45
HU-781	-	-	-	-	-	-	-	-	3	3	-	3	-	-	-
CS-801A	3.00	3.00	3.00	-	-	-	-	-	1.00	1.00	-	1.00	1.00	1.60	1.00
CS-802E	2.75	2.00	-	-	2.00	-	-	-	1.00	1.00	-	-	1.00	1.80	1.75
CS-891	1.73	1.73	2.60	-	0.87	-	-	-	-	-	-	0.87	2.60	1.73	2.60
CS-892	2.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	1.00	3.00	3.00	3.00	3.00	2.00
CS-893	1.33	1.17	2.00	-	-	-	-	-	-	1.00	-	3.00	1.11	1.11	1.80
HU-801A	-	-	-	-	-	-	-	-	3	3	-	3	-	-	-
2016-2020 (Batch) Direct Attainment	1.97	1.84	2.06	1.50	1.49	1.93	2.01	1.60	1.56	1.39	1.45	1.57	1.67	1.71	1.48

Direct Attainment of POs & PSOs has been obtained for the Batch (s) 2014-2018, 2015-2019 and 2016-2020 is shown in Table 3.3.2.2

<i>Table 3.3.2.2 Average PO/PSO Assessment by Direct Attainment of all the courses</i>															
Batch	POs												PSOS		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12	PSO 1	PSO2	PSO3
2016-2020	1.97	1.84	2.06	1.50	1.49	1.93	2.01	1.60	1.56	1.39	1.45	1.57	1.67	1.71	1.48
2015-2019	1.96	1.84	1.94	1.48	1.62	2.03	1.85	1.59	1.63	1.42	1.37	1.58	1.66	1.60	1.42
2014-2018	1.90	1.80	1.89	1.42	1.53	1.79	1.68	1.50	1.61	1.35	1.35	1.54	1.66	1.64	1.39

Indirect Attainment of POs & PSOs has been obtained for the Batch (s) 2014-2018, 2015-2019 and 2016-2020 is shown in Table 3.3.2.2

<i>Table 3.3.2.3 Average PO/PSO Assessment by Indirect Attainment of all the courses</i>															
Batch	POs												PSOS		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12	PSO1	PSO2	PSO3
2016-2020	2.90	2.90	2.60	2.80	2.90	2.70	2.80	2.60	2.70	2.90	2.70	2.70	2.70	2.80	2.70
2015-2019	2.60	2.70	2.60	2.70	2.30	2.60	2.60	2.70	2.60	2.60	2.70	2.70	2.60	2.70	2.70
2014-2018	2.50	2.50	2.60	2.70	2.50	2.60	2.60	2.50	2.60	2.70	2.70	2.70	2.40	2.50	2.70

Overall attainment of POs and PSOs

With a weightage of 80% and 20% overall attainment for PO and PSO through direct and indirect method of assessments are presented below.

Overall Attainment of POs & PSOs has been obtained for the academic year (s) 2014-2018, 2015-2019 and 2016-2020.

Table 3.3.2.4: PO/PSO Overall Assessment for Batch 2016-20, 2015-19, 2014-18

Attainment through		POs												PSOs		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
2016-20	Direct Assessment	1.97	1.84	2.06	1.50	1.49	1.93	2.01	1.60	1.56	1.39	1.45	1.57	1.67	1.71	1.48
	Indirect Assessment	2.9	2.9	2.6	2.8	2.9	2.7	2.8	2.6	2.7	2.9	2.7	2.7	2.7	2.8	2.7
	Weighted Average	2.15	2.04	2.17	1.76	1.77	2.09	2.17	1.80	1.79	1.68	1.69	1.80	1.88	1.93	1.72
2015-19	Direct Assessment	1.96	1.84	1.94	1.48	1.62	2.03	1.85	1.59	1.63	1.42	1.37	1.58	1.66	1.60	1.42
	Indirect Assessment	2.6	2.7	2.6	2.7	2.3	2.6	2.6	2.7	2.6	2.6	2.7	2.7	2.6	2.7	2.7
	Weighted Average	2.09	2.01	2.07	1.73	1.76	2.14	2.01	1.82	1.81	1.65	1.62	1.79	1.84	1.82	1.67
2014-18	Direct Assessment	1.90	1.80	1.89	1.42	1.53	1.79	1.68	1.50	1.61	1.35	1.35	1.54	1.66	1.64	1.39
	Indirect Assessment	2.5	2.5	2.6	2.7	2.5	2.6	2.6	2.5	2.6	2.7	2.7	2.7	2.4	2.5	2.7
	Weighted Average	2.02	1.94	2.03	1.67	1.72	1.95	1.87	1.70	1.81	1.62	1.61	1.77	1.81	1.81	1.65

Overall Attainment level of POs & PSOs is shown in Figure 3.3.2.1

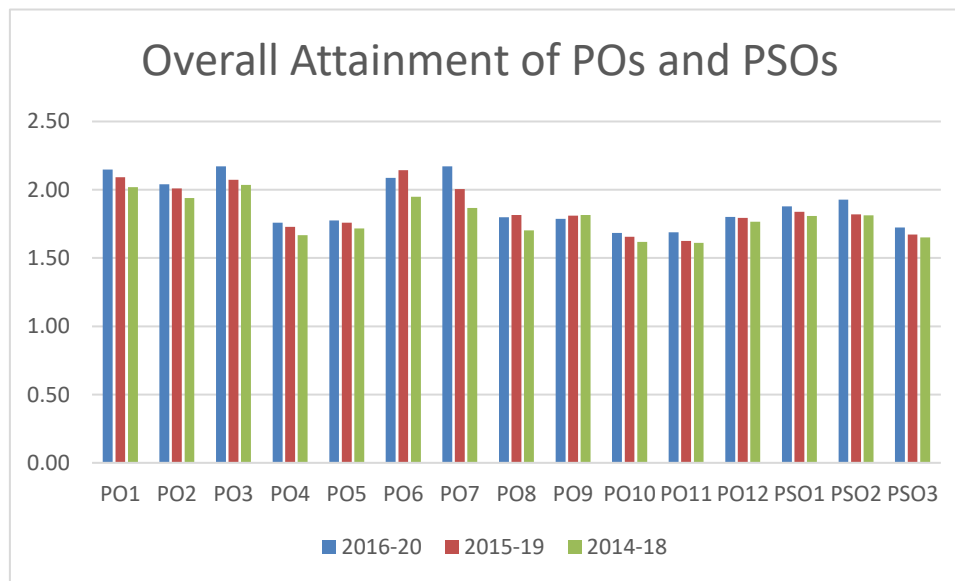


Figure 3.3.2.1: Overall Attainment level of POs and PSOs of Batch 2016-20, 2015-19, 2014-18

CRITERION 4
STUDENTS' PERFORMANCE

4. STUDENTS' PERFORMANCE (150)

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2021-2022(CAY)	2020-2021(CAYm1)	2019-2020(CAYm2)
Sanctioned intake of the program(N)	180	180	120
Total number of students admitted in first year minus number of students migrated to other programs/ institutions plus No. of students migrated to this program (N1)	189	183	127
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	NA	15	12
Separate division students, If applicable (N3)	0	0	0
Total number of students admitted in the program (N1+N2+N3)	189	198	139

Table B.4a

2021-2022: N1 = Regular students enrolled (189) - Students left after enrollment (0) + Migrated (0) = 189
 2020-2021: N1 = Regular students enrolled (185) - Students left after enrollment (2) + Migrated (0) = 183
 2019-2020: N1 = Regular students enrolled (124) - Students left after enrollment (0) + Migrated (3) = 127
 2018-2019: N1 = Regular students enrolled (126) - Students left after enrollment (0) + Migrated (1) = 127
 2017-2018: N1 = Regular students enrolled (126) - Students left after enrollment (0) + Migrated (0) = 126
 2016-2017: N1 = Regular students enrolled (126) - Students left after enrollment (1) + Migrated (0) = 125
 2015-2016: N1 = Regular students enrolled (126) - Students left after enrollment (1) + Migrated (2) = 127

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated without backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I year	II year	III year	IV year
2021-2022(CAY)	189+NA+0				
2020-2021(CAYm1)	183+15+0	183			
2019-2020(CAYm2)	127+12+0	111	126		
2018-2019 (CAYm3)	127+12+0	107	110	110	
2017-2018(CAYm4, LYG)	126+11+0	115	118	112	112
2016-2015(CAYm5, LYGm1)	125+11+0	112	111	111	111
2015-2016(CAYm6, LYGm2)	127+09+0	104	110	109	109

Table B.4b

Year of entry	Total No of students admitted in the program(N1+N2+N3)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2021-2022(CAY)	189+NA+0				
2020-2021(CAYm1)	183+15+0	183			
2019-2020(CAYm2)	127+12+0	124	139		
2018-2019 (CAYm3)	127+12+0	120	133	133	
2017-2018(CAYm4, LYG)	126+11+0	125	135	134	132
2016-2015(CAYm5, LYGm1)	125+11+0	123	131	131	131
2015-2016(CAYm6, LYGm2)	127+09+0	125	135	134	134

Table B.4c

CAY – Current Academic Year

CAYm1- Current Academic Year minus1= Current Assessment Year

CAYm2 - Current Academic Year minus2=Current Assessment Year minus 1

LYG – Last Year Graduate minus 1

LYGm1 – Last Year Graduate minus 1

LYGm2 – Last Year Graduate minus 2

4.1 Enrolment Ratio(20)

	N(FromTable4.1)	N1(FromTable4.1)	Enrollment Ratio [(N1/N)*100]
2021-2022(CAY)	180	189	105
2020-2021(CAYm1)	180	183	102
2019-2020(CAYm2)	120	127	106

Table B.4.1

Average[(ER1 + ER2+ ER3) / 3]:104.33

Assessment:20.00

4.2 Success Rate in the stipulated period of the program(40)

4.2.1 Success rate without backlogs in any semester / year of study(25)

SI= (Number of students who have graduated from the program without backlog)/ (Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable)

Average SI = Mean of Success Index (SI) for past three batches

Success rate without backlogs in any year of study = 25 × Average SI

Item	Last Year of Graduate, LYG (CAYm4) (2017-18)	Last Year of Graduate minus 1, LYGm1 (CAYm5) (2016-17)	Last Year of Graduate minus 2, LYGm2 (CAYm6) (2015-16)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and separated division, if applicable	137	136	136
Y Number of students who have graduated without backlogs in the stipulated period	112	111	109
Success Index [$SI = Y / X$]	0.82	0.81	0.80

Table B.4.2.1

Average SI [(SI1 + SI2 + SI3) / 3]: 0.81

Assessment [25 * Average SI]: 20.25

4.2.2 Success rate in stipulated period(15)

SI= (Number of students who graduated from the program in the stipulated period of course duration)/ (Number of students admitted in the first year of that batch and actual admitted in 2nd year via lateral entry and separate division, if applicable)

Average SI = mean of Success Index (SI) for past three batches

Success rate = 15 × Average SI

Item	Last Year of Graduate, LYG (CAYm4) (2017-18)	Last Year of Graduate minus 1, LYGm1 (CAYm5) (2016-17)	Last Year of Graduate minus 2, LYGm2 (CAYm6) (2015-16)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and separated division, if applicable	137	136	136
Y Number of students who have graduated in the stipulated period	132	131	134
Success Index [$SI = Y / X$]	0.96	0.96	0.98

Table B.4.2.2

Average SI [(SI1 + SI2 + SI3) / 3]: 0.97

Assessment [15 * Average SI]: 14.55

Note: If 100% students clear without any back log then also total marks scored will be 40 as both 4.2.1 & 4.2.2 will be applicable simultaneously.

4.3 Academic Performance in Third Year(15)

Academic Performance = 1.5 * Average API (Academic Performance Index)

API = ((Mean of 3rd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Third Year/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the final year

Academic Performance	CAYm1(Admission Yr=2018)	CAYm2 (Admission Yr=2017)	CAYm3 (Admission Yr=2016)
Mean of CGPA or mean percentage of all successful students(X)	9.55	8.66	7.68
Total number of successful students(Y)	133	134	131
Total number of students appeared in the examination(Z)	133	134	131
API [X*(Y/Z)]:	9.55	8.66	7.68

Table B.4.3

Average API [(AP1 +AP2 + AP3)/3]:8.63

Assessment[1.5*Average API]: 12.94

4.4 Academic Performance in Second Year(15)

Academic Performance Level = 1.5 * Average API (Academic Performance Index)

API = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the Third year.

Academic Performance	CAYm1 (Admission Yr=2019)	CAYm2(Admission on Yr=2018)	CAYm3 (Admission Yr=2017)
Mean of CGPA or mean percentage of all successful students(X)	9.51	8.77	7.56
Total number of successful students(Y)	139	133	135
Total number of students appeared in the examination(Z)	139	133	135
API [X * (Y/Z)]	9.51	8.77	7.56

Table B.4.4

Average API [(AP1 +AP2 + AP3)/3]: 8.61

Assessment[1.5*Average API]:12.92

4.5 Placement, Higher Studies and Entrepreneurship(40)

Item	LYG(2021)	LYGm1(2020)	LYGm2(2019)
Total No of Final Year Students(N)	134	131	134
No of students placed in the companies or government sector(X)	112	111	110
No of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	6	6	7
No of students turned entrepreneur in engineering/technology (Z)	2	0	0
$x + y + z =$	120	117	117
Placement Index $[(X+Y+Z)/N]$:	0.89	0.89	0.87

Table B.4.5

Average Placement $[(P1 + P2 + P3)/3]$: 0.88

Assessment $[40 * \text{Average Placement}]$: 35.2

4.5a. Provide the placement data in the below mentioned format with the name of the program and the assessment year:

Computer Science and Engineering: Assessment Year 2021				
S No	Name of the student placed	Enrollment no.	Name of the Employer	Appointment letter reference no. with date
1	UTKARSH KUMAR	10800117013	Cognizant	Id-15003278,27/08/2021
2	USNISHCHATTORAJ	10800117014	Atos	Reference no not available in offer letter,30/08/2021
3	TANU SINHA	10800117015	TCS Ninja Through Digital	TCSL/CT20192684913/KOL,29/10/2020
4	TAMAL MAJUMDAR	10800117016	Cognizant	Id-14797754,27/04/2021
5	SUYASHBURNWAL	10800117017	Cognizant	Id-15003566,28/04/2021
6	SURAJ SHARMA	10800117018	TCS Digital	TCSL/CT20192961367/KOL,17/12/2020
7	SUDIPTA MAJI	10800117019	ITC Infotech	Reference no not available in offer letter,01/09/2021
8	SUDIP NAG	10800117020	Cognizant	Id-15003292,17/08/2021
9	SUDEEP KUMAR	10800117021	TCS Digital	TCSL/CT20203303305/KOL,17/04/2021
10	SUBHAM RAJ SHARMA	10800117022	Cognizant	Id-15003233,19/08/2021
11	SUBHADEEPCHAKRABORTY	10800117023	TCS Digital	TCSL/DT20184511843/KOL,29/10/2020
12	SRISHTI KUMARI	10800117024	cloudKaptan	Reference no not available in offer letter,24/01/2021
13	SOUVIK LAHIRI	10800117025	Cognizant	Id-15003358,23/03/2021
14	SOURAV SAGAR	10800117026	cloudKaptan	CKE0000102,08/09/2021
15	SOURAV PAL	10800117027	Cognizant	Id-15003218,23/08/2021
16	SONAM BHARDWAJ	10800117030	IBM	Reference no not available in offer letter,04/11/2021
17	SONALIKA CHATTOPADHYAY	10800117031	Cognizant	Id-15003252,28/04/2021
18	SOHINI BANERJEE	10800117032	Cognizant	Id-15003482,22/03/2021

19	SNEHA CHAKRABORTY	10800117033	accenture	C9762985,15/07/2021
20	SIMRAN KUMARI	10800117034	SopraSteria	Id-702109,24/08/2021
21	SHUBHAM KUMAR	10800117035	Cognizant	Id-15003295,23/03/2021
22	SHIVAMKUMARJHA	10800117036	LTI-ICC	LTI/HR/CAPUS/EN6/2021,31/05/2021
23	SHARON DEEP BARA	10800117037	TCS DIGITAL	TCSL/CT20192682681/KOL,29/10/2020
24	SAYAN ROY CHOUDHURY	10800117038	Cognizant	Id-15003254,28/08/2021
25	SAURAV RANJAN	10800117039	TCS Digital	TCSL/DT20207206988/KOL,17/04/2021
26	SAURABH KUMAR	10800117040	PWC	Reference no not available in offer letter,11/08/2021
27	SANSKRITI	10800117041	DXC Tech	Reference no not available in offer letter,27/06/2021
28	SANJUKTABOSE	10800117042	accenture	C9861797,06/08/2021
29	SANDEEP CHAKRABORTY	10800117044	Cognizant	Id-15003378,25/08/2021
30	SAMAR YADAV	10800117045	Capgemini	4898958/926897,09/08/2021
31	SAKET SINGH	10800117046	Microland	Reference no not available in offer letter,08/09/2021
32	ROHIT SRIVASTAVA	10800117047	TCS Ninja	TCSL/CT20203456172/AHMEDABAD,25/01/2021
33	ROHIT RAJ	10800117048	Knoldus Software	Reference no not available in offer letter,18/07/2021
34	ROHIT KUMAR SHARMA	10800117049	CBNITS	Reference no not available in offer letter,01/07/2021
35	RITIKA MANDHYAN	10800117050	accenture	C9646016,17/06/2021
36	RISHAV KHEMKA	10800117051	TCS DIGITAL	TCSL/CT20192688232/KOL,17/12/2020
37	RICHIK MAJUMDER	10800117052	Persistant	Persistant/campus/972679/3.0,03/05/2021
38	RESHAB DUTTA	10800117053	Cognizant	Id-14753133,23/03/2021
39	RAJAT KUMAR PATEL	10800117054	Infosys	HRD/3T/1002393255/21-22,08/09/2021
40	RAJARSHI DEY	10800117055	upgrad	Reference no not available in offer letter,05/08/2021
41	RAHUL YADAV	10800117056	SopraSteria	Id-701453,15/07/2021
42	RAFAT PARVEEN	10800117057	Nagaroo	Reference no not available in offer letter,01/02/2021
43	RABI SHANKAR CHAKRABORTY	10800117058	CBNITS	Reference no not available in offer letter,12/12/2020
44	PRIYA SINGH	10800117059	accenture	C9923463,25/08/2021
45	PREM KUMAR CHOUDHARY	10800117060	Cognizant	Id-15003266,23/03/2021
46	PRANAV PRIYADARSHI	10800117061	TCS Ninja	TCSL/CT20203302469/KOL,17/12/2020
47	PRAGYA RATHORE	10800117062	Cognizant	Id-15003451,22/03/2021
48	PALLAVI	10800117064	TCS Ninja	TCSL/DT20206647159, 17/12/2020
49	NITESH KUMAR SARATHI	10800117065	ZS Associates	Reference no not available in offer letter,28/06/2021
50	NISHANT KUMAR SRIVASTAVA	10800117066	Amdocs	Reference no not available in offer letter,25/01/2021
51	NISHAN AGARWAL	10800117067	TCS Ninja	TCSL/DT20195233244/KOL,17/12/2020
52	NILANJAN GUHA	10800117069	Nagarro	Reference no not available in offer letter,10/03/2021
53	MUSKAN	10800117070	Amdocs	Reference no not available in offer letter,25/01/2021
54	MUSHKAN RAO	10800117071	DXC Tech	Reference no not available in offer letter,25/11/2020

55	MRINAL MISHRA	10800117072	Sagarsoft (India) Limited	Reference no not available in offer letter,28/08/2021
56	MOUMITA DEY	10800117073	TCS Ninja	TCSL/CT20192681261/KOL,17/12/2020
57	MILAN MONDAL	10800117074	WIPRO Elite National Talent Hunt	Reference no not available in offer letter,04/06/2021
58	MD SHADMAN	10800117076	TCS DIGITAL	TCSL/DT20184511616/KOL,29/10/2020
59	MAYUK BAIRAGYA	10800117078	Instabase	Reference no not available in offer letter,03/05/2021
60	MANSI KUMARI	10800117079	TCS	TCSL/CT20182580551/CHENNAI,07/12/2021
61	MANISH KUMAR	10800117080	TCS DIGITAL	TCSL/CT20192683653/KOL,29/10/2020
62	MALINI MALLICK	10800117081	TCS Ninja	TCSL/CT20192622749/KOL,17/12/2020
63	MAHPARA	10800117082	SopraSteria	Id-701566,15/07/2021
64	KUSHAL KAR	10800117083	TCS Ninja	TCSL/DT20195232838/KOL,17/12/2020
65	KIRTI	10800117084	TCS Ninja	TCSL/DT20195233794/KOL,17/12/2020
66	KEDAR NATH CHOUDHARY	10800117085	upgrad	Reference no not available in offer letter,27/07/2021
67	JAYESH ARYAN	10800117086	Hanu software	Reference no not available in offer letter,23/12/2020
68	HIMANSHU TIWARY	10800117087	Cognizant	Id-15003434,22/03/2021
69	DHEEMAN DAS	10800117091	Accenture	C7484616,28/06/2021
70	CHANDAN KUMAR	10800117093	TCS	TCSL/CT20192693402/MUMBAI,11/08/2021
71	BISWAJYOTI BISWAS	10800117094	upgrad	Reference no not available in offer letter,02/09/2021
72	BISHNU NATH	10800117095	TCS DIGITAL	TCSL/DT20195232836/KOL,29/10/2020
73	BIPIN KUMAR	10800117096	Nagaroo	Reference no not available in offer letter,01/02/2021
74	BHARATI GUPTA	10800117098	Accenture	C96665010,21/06/2021
75	ASHWINI KUMAR	10800117099	TCS Ninja	TCSL/CT20192682831/KOL
76	ASHRAF ALI ANSARI	10800117101	Cognizant	Id-14803986,27/04/2021
77	ASHESH KUMAR	10800117103	TCS Ninja	TCSL/CT20192683977/KOL
78	ARIJIT BABU	10800117104	TCS	TCSL/DT20195251178/Delhi, 3/11/2021
79	ARIJEETPARAMANIK	10800117105	MindTree	Reference no not available in offer letter,14/12/2021
80	ANURADHA BANERJEE	10800117106	TCS Ninja	TCSL/CT20192682577/KOL,17/12/2020
81	ANUKUL OJHA	10800117107	TCS DIGITAL	TCSL/DT20184511506/KOL,29/10/2020
82	ANKUSH BURNWAL	10800117108	Subex	Reference no not available in offer letter,23/07/2021
83	ANKITA GUHA	10800117109	WIPRO Elite National Talent Hunt	Reference no not available in offer letter,08/06/2021
84	ANKIT SRIVASTAVA	10800117110	TCS DIGITAL	TCSL/CT20203223927/KOL,17/04/2021
85	ANKIT SHARMA	10800117111	Accolite	Reference no not available in offer letter,05/07/2021
86	ANKIT KUMAR PANDEY	10800117112	Nagarro	Reference no not available in offer letter,26/10/2021
87	ANKIT KUMAR	10800117113	TCS Ninja	TCSL/DT202067720218/KOL,17/12/2020
88	ANAND KUMAR BHARTI	10800117114	WIPRO Elite National Talent Hunt	Reference no not available in offer letter,08/06/2021

89	AMIT KUMAR KESHRI	10800117115	Cognizant	Id-15003300,27/04/2021
90	AMIT DAS	10800117117	WIPRO Elite National Talent Hunt	Reference no not available in offer letter,04/06/2021
91	AMAN SHARMA	10800117118	TCS DIGITAL	TCSL/CT20203313204/KOL,29/10/2020
92	ALOK KUMAR	10800117120	TCS Ninja	TCSL/DT20195275898/KOL,17/12/2020
93	ALAPAN CHATTERJEE	10800117121	Accenture	C9984616,26/06/2021
94	AKASH KUMAR GOND	10800117122	ACCENTURE	C9895990,13/08/2021
95	AISWARYA GHOSH	10800117125	Amdocs	Reference no not available in offer letter,25/01/2021
96	AFSANAAAZMI	10800117126	Amdocs	Reference no not available in offer letter,25/01/2021
97	ADITI ARYA	10800117127	Evosys Global	ESPL/HRD/LOA/0120201001,03/03/2021
98	ADARSH VERMA	10800117128	TCS Ninja	TCSL/CT20192684001/KOL,17/12/2020
99	ABIR BANERJEE	10800117129	CloudKaptan	Reference no not available in offer letter,24/01/2021
100	ABHISHEK KUMAR	10800117130	ITC	APPT/I3L/CAMPUS/095/2021-22,22/08/2021
101	ABHINEET GUPTA	10800117131	Cloudkaptan	Reference no not available in offer letter,03/10/2020
102	AADARSH SHRIVASTAVA	10800117133	TCS Ninja	TCSL/CT20192682893/KOL,17/12/2020
103	VIVEK SHANDILYA	10800117134	Hays	Linkedin
104	VIKASH KUMAR SINGH	10800117135	Kuliza	Reference no not available in offer letter,02/07/2021
105	RAUSHAN KUMAR JHA	10800117136	Wipro	Reference no not available in offer letter,30/09/2021
106	ABHINAV SAURABH	10800117137	ACCENTURE	C6477616,05/08/2021
107	SOURAV CHAKRABORTY	10800118002	ACCENTURE	C9994616,05/08/2021
108	SHALINI KANNAN	10800118004	MAQ SOFTWARE	Reference no not available in offer letter,13/10/2021
109	RAKTIMA BISWAS	10800118005	ACCENTURE	C9674616,24/06/2021
110	MUSKAN KUMARI	10800118006	ACCENTURE	C8984616,22/06/2021
111	DANISH ALAM	10800118007	ACCENTURE	C8754616,14/06/2021
112	ARKO PROVO SINHA	10800118009	Wipro	Reference no not available in offer letter,03/09/2021

Computer Science and Engineering: Assessment Year 2020

S No	Name of the student placed	Enrollment no.	Name of the Employer	Appointment letter reference no. with date
1	YASH PRAKASH	10800116010	DXC Tech	Reference no not available in offer letter,23 Dec, 2020
2	YADIR KALAM	10800116011	Infosys	HRD/3T/1001874733/21-22,09 june 2021
3	VISHAL KEDIA	10800116012	Amdox	2020-12-DVCI-P-M418818-1,04 dec 2020
4	VISHAL GUPTA	10800116013	Accolite	Reference no not available in offer letter,31 aug 2020
5	VIKASH KUMAR	10800116014	TCS Ninja	TCSL/CT20182514707/Kolkata,12/09/2019
6	VED PRAKASH	10800116016	kerros	Reference no not available in offer letter,March31,2020

7	VARTIKAKEDIA	10800116017	Informatica	Reference no not available in offer letter,15 july 2019
8	UJJAWAL KUMAR	10800116018	Xenon stack_SOFT	Reference number is not available,02-06-2021
9	TRIPTI VERMA	10800116019	Cerner	Reference number is not available,10-06-2021
10	SYED NUR A FERDOUS	10800116020	TCS Ninja	TCSL/CT20182424032/Kolkata12-09-2019
11	SWETA KUMARI	10800116021	TCS Ninza(Digital)	TCSL/CT20182519530/Kolkata,12/09/2019
12	SWETAGUPTA	10800116022	Accenture	C9276750, 11march 2021
13	SUNNY KUMAR	10800116023	Xenon stack_SOFT	Reference number is not available,02-06-2021
14	SUMIT KUMAR MAJEE	10800116024	TCS Ninja	TCSL/CT20182360410/Kolkata
15	SUKHWINDER SINGH	10800116025	ITC	Appt/I3L/Campus/195/2020-21,01 Jan 2021
16	SUDIP DAS	10800116026	TCS Ninza(Digital)	TCSL/CT20182519185/Kolkata,12/09/2019
17	SUDHANYA GANDHI	10800116027	LTI	LTI/HR/GET(1)/T0023716,July 30, 2020
18	SUDHANSHU RANJAN	10800116028	xenon stack_Business	Reference number is not available,02-06-2021
19	SUBHO CHOWDHURY	10800116029	TCS Ninza(Digital)	TCSL/CT20182424034/Kolkata,18/09/2019
20	SUBHAM KUMAR MISHRA	10800116030	Accenture	C9276751,11 mar-2021
21	SUBHADIP BHAKTA	10800116032	Infosys	HRD/3B/20-21/1000516319
22	SOURAV KUMAR PASWAN	10800116033	xenon stack_Business	Reference number is not available,2 june,2021
23	SOURAV KESHRI	10800116034	Dxc Tech	Reference no not available in offer letter,19aug 2020
24	SOURAV ACHERJEE	10800116035	TCS ninja (code vita)	TCSL/CT20182441020/Kolkata, 17/09/2019
25	SOUMENGORAIN	10800116036	TCS Ninja	TCSL/CT20182360332/Kolkata, 12/09/2019
26	SOMNATH DAWN	10800116037	TCS Ninja	TCSL/CT20182610206/Kolkata,12/09/2019
27	SNEHA KUMARI	10800116038	TCS Ninza (Digital)	TCSL/CT20192621131/Kolkata,12/09/2019
28	SIMRAN	10800116040	Off camping IBM	IN_152_263330BR_4397764,28jan 2021
29	SHUBHAM KUMAR GUPTA	10800116041	cognizant	18576429,5-jan-2020
30	SHUBHAM KUMAR AGARWAL	10800116042	LTI	LTI/HR/GET(I)/T0023724,July 30, 2020
31	SHUBHAM KUMAR	10800116043	DXC Tech	Reference no not available in offer letter,24 Dec, 2020
32	SHIVANIKUMARI	10800116046	HCL Technologies	Reference no not available in offer letter,19 feb,2021
33	SHIVAM	10800116047	Capgemini	3406390/752951,18-04-2021
34	SAYANTAN CHATTERJEE	10800116048	Cognizant	144229030,6/29/2020
35	SAYAN CHAKRABORTY	10800116049	Wipro	9308248,16 Jun, 2020
36	SAYANBANIK	10800116050	TCS Ninja	TCSL/CT20182519712/Kolkata,12/09/2019

37	SAYAMSUBHRA DAS	10800116051	Deloitte India	Reference no not available in offer letter,05-07-2021
38	SAURAV KUMAR JHA	10800116052	Tech mahindra	PT/1889476/jun-21
39	SATYA SACHIN MAHATO	10800116053	cognizant	15426593,29-Dec-2019
40	SANU KUMAR	10800116054	Xenon stack_SOFT	Reference number is not available,2 june,2021
41	SANDIP PAUL	10800116055	PCS GLOBAL PVT. LTD.	Confirmed by mail,04-07-20
42	SAHID RAJA	10800116057	TCS Ninja	TCSL/CT20182610185/Kolkata,17/09/2019
43	RUPAM KUMARI	10800116058	ITC	Appt/I3L/Campus/60/2020-21,05 Oct 2020
44	ROSHAN KUMAR GUPTA	10800116060	Prodapt Solutions	26 feb,2021
45	ROHIT KUMAR MAJEE	10800116061	Mindtree	TN/80011828/19,29-10-2019
46	ROHAN KUMAR SINGH	10800116062	keysight	U51505DL2014FTC264929,July 27, 2020
47	RITESH SINGH	10800116063	Capgemini	3836145 /733014
48	RITESH PRASAD	10800116064	Wipro	Confirmed by mail,9dec 2019
49	RASHMI KUMARI	10800116065	ITC	Reference no not available in offer letter,27/07/19
50	RANDHIR KUMAR	10800116066	CGI	Reference no not available in offer letter,23nov 2020
51	RANDHIR KUMAR	10800116067	Capgemini	4802501/929557,29/092021
52	RAMARCH KUMAR	10800116068	Xenon stack_SOFT	02,june 2021
53	RAJAT SINGH	10800116069	nineleaps	HRD/10-201920/396,29 th October 2019
54	RAJAN KUMAR	10800116070	Xenon stack_SOFT	02,june 2021
55	RAJ KISHAN	10800116071	Amdocs	Reference no not available in offer letter,28/01/20
56	RAHUL ROY	10800116072	TCS Ninja	TCSL/CT20182519364/Kolkata,12/09/2019
57	RAHUL KUMAR	10800116075	Amdocs	Reference no not available in offer letter,28/01/20
58	QUREEKUMARI	10800116076	nineleaps	HRD/10-201920/379,29th octobor,2019
59	PRERNA SHARMA	10800116077	TCS Ninja	TCSL/CT20192625934/Kolkata, 12/09/2019
60	PRABHAT KUMAR	10800116079	TCS Ninja	TCSL/CT20192768684/Kolkata, 12/09/2019
61	POULAMI BHATTACHARJEE	10800116080	DXC Tech	Reference no not available in offer letter,13 Aug, 2020
62	PIYALI BOSE	10800116081	Gyansys	Reference no not available in offer letter,9/26/2019
63	NILESH KUMAR	10800116082	LTI	LTI/HR/Campus/2020, August 21, 2019
64	NIKHIL KUMAR	10800116084	TCS Ninja	TCSL/CT20182491415/Kolkata,12/09/2019
65	NEHA SINGH	10800116085	DXC Tech	Reference no not available in offer letter,13 Aug, 2020
66	NAINA KUMARI	10800116086	kerros	Reference no not available in offer letter,26-03-2019
67	MONOJIT DEY	10800116087	infosys	HRD/3B/20-21/1000517279 ,September 16, 2020
68	MD MINHAJ KHAN	10800116089	CTS	Candidate ID – 13935981,17-Dec-2019
69	MD FARAZ AHMAD	10800116090	cognizant	14535989,15-Dec-2019

70	MANISH KUMAR MEHTA	10800116091	Mphasis	RH6736249/215034/Bangalore,25/01/2021
71	MANAS KUMAR	10800116092	TCS Ninja	TCSL/CT20192670188/Kolkata,18/09/2019
72	KUSH KUMAR	10800116093	sopra	11 January 2021 HRES_J_02/VK
73	KUNAL GAURAV	10800116094	TCS Ninja	TCSL/CT20182519721/Kolkata,12 sep 2019
74	KUMARI SANGEETA	10800116095	TCS Ninja(code vita)	TCSL/CT20182520120/1292269/Kolkata,16 July 2020
75	KUMARI MEGHA	10800116096	Gyansys	Reference no not available in offer letter,31 july,2019
76	KOMAL KUMARI	10800116097	TCS Ninja (code vita)	TCSLICT20182520125/Kolkata,12/09/2019
77	KAUSHAL TIWARI	10800116100	Persistent System	Persistent/Campus/DA00109712/3.0
78	GUDDUKUMAR	10800116101	Wipro	9230272,03 Jun, 2020
79	FAROOQ ANSARI	10800116102	keysight	CIN-U51505DL2014FTC264929,27 july 2020
80	DIPESH KUMAR	10800116103	cognizant	31546829,28-jan-2020
81	DEBDULAL	10800116104	DXC Tech	Confirmed by mail,30-04-2020
82	CHANDAN KUMAR SINGH	10800116105	TCS Ninja	TCSL/CT20192754387/Kolkata,12/09/2019
83	ARUN KUMAR PATEL	10800116106	CTS	13935985,17-Dec-2019
84	ARNAB DAS	10800116107	infosys	HRD/3B/20-21/1001287760
85	ARKADEEP BAGAL	10800116108	LTI	LTI/HR/GET(II)-New/T0023730,September 2, 2020
86	ARIJIT NANDI	10800116109	Informatica	Reference no not available in offer letter,15-06-2019
87	ANUPAM GHOSH	10800116111	cognizant	20156478,07-jan-2020
88	ANUJ KUMARKESHRI	10800116112	cognizant	21456878,25-jan-2020
89	ANMOL JALAN	10800116113	LTI	LTI/HR/CAMPUS/2020,21/8/19
90	ANKIT AGARWAL	10800116115	MAQ	Reference no not available in offer letter,19-01-2020
91	ANKAN SHARMA	10800116116	Infosys	HRD/3B/20-21/1000512053
92	ANJALI KUMARI	10800116117	TCS Ninja	TCSL/CT20172213159/Kolkata,12/09/2019
93	ANIRBAN MANDAL	10800116118	TCS Ninja	TCSL/CT20192621304/Kolkata,12/09/2019
94	ANIRBAN BANERJEE	10800116119	ACCENTURE	C9276749,11-03-2021
95	AMEETA SOM	10800116122	INFOSYS	HRD/3B/20-21/1000442487
96	AKASH SHAW	10800116124	TCS ninja(code vita)	TCSL/CT20192686357/Kolkata,12/09/2019
97	AKASH CHOUDHARY	10800116125	ITC	Appt/I3L/Campus/70/2020-21,05 Oct 2020
98	AKASH BHADANI	10800116126	nineleaps	HRD/10-201920/385,29 th October 2019
99	AKASH	10800116127	TCS Ninja	TCSL/CT20192665097/Kolkata,12/09/2019
100	ABHISHEK KUMAR	10800116129	Amdocs	Reference no not available in offer letter.28-Jan-2020
101	ABHISHEK DAS	10800116130	DXC Tech	Reference no not available in offer letter,30-04-2020
102	ABHISEKSAH	10800116131	Deloitte	Reference no not available in offer letter,16-03-2021
103	ABHIRUP CHATTERJEE	10800116132	TCS Ninja	TCSL/CT20182429713/Kolkata,12/09/2019
104	ABHINESH SINGH	10800116133	TCS Ninja	TCSL/CT20192683061/Kolkata, 12/09/2019
105	ABHIJIT KUMAR	10800116134	TCS Ninja	TCSL/CT20182513603/Kolkata,12/09/2019

106	SUJIT ROY	10800117001	TCS Ninja	TCSL/CT20182519909/Kolkata,12/09/2019
107	SAMRAT MITRA	10800117003	Cognizant	14229097,19-Feb-2020
108	RAJIV GHANTY	10800117004	ECL	KAJ/PERS/C-6/35/2021/1559
109	NITESH KUMAR YADAV	10800117006	CGI	Reference no not available in offer letter,23-11-2020
110	ANKITA TIWARI	10800117008	eRevMax	Reference no not available in offer letter,15-07-2021
111	ANKANA GHOSH	10800117010	cognizant	20562478,15-jan-2020

Table B.4.5a_placement_2020

Computer Science and Engineering : Assessment Year 2019				
S No	Name of the student placed	Enrollment no.	Name of the Employer	Appointment letter reference no. with date
1	ABHILASHA SISODIA	10800115002	TCS Ninja	TCSL/CT20162042080/Kolkata,12/9/2018
2	ABHISHEK KUMAR	10800115004	TCS	TCSL/CT20162031272/Kolkata,21/06/2019
3	ABHISHEK KUMAR	10800115005	wipro	8284190,09/05/2019
4	ABHISHEK MISHRA	10800115006	Tek system	HYD/C/2019/OFE-032
5	ABINASH CHOURASIA	10800115007	CTS	12984216,07/08/2019
6	ADARSHA SHAH	10800115008	persistent	DA00124120/3.0/20-03-2019
7	ADITI HAZRA	10800115009	Wipro	8288663,9/05/2019
8	AJIT KUMAR SINGH	10800115010	Tiger Analytics	Ref. Id is not available in offer letter,26/10/2021
9	AKANKSHA GUPTA	10800115011	TCS Ninja	TCSL/CT20162066510/Kolkata
10	AKASH AGARWALA	10800115012	TCS	TCSL/CT20172157539/Kolkata, 30/08/2018
11	AKASH GUPTA	10800115013	CGI	CIN: U72200KA1990PTC019256
12	ALANKAR MUKHERJEE	10800115014	LTI	LTI/HR/Campus/2019,11-03-2019
13	AMIT KUMAR	10800115015	wipro	8287352,9/05/2019
14	AMIT KUMAR	10800115016	Infosys	HRD/3B/19-20/100041724
15	ANANNA MUKHERJEE	10800115017	CTS	13054978,27/04/2019
16	ANKIT KUMAR	10800115018	Accenture	C9834525
17	ANKITA PRIYA	10800115019	CTS	12961672,07/08/2019
18	APARNA SRIVASTAVA	10800115020	TCS Ninja	TCSL/CT20172158069/Kolkata, 12/09/2018
19	ASHISH RANJAN	10800115021	TCS Ninja	TCSL/CT20172149983/Kolkata, 12/09/2018
20	ATUL KASHYAP	10800115023	CGI	CIN: U72200KA1990PTC019311
21	BABLU KUMAR	10800115024	LTI	LTI/HR/Campus/2019,11-03-2019
22	BARSHA KUSHWAHA	10800115025	Wipro	8281530,9/05/2019
23	BAYVAO VERMA	10800115026	CTS	13055082,27/04/2019
24	BHANU PRATAP	10800115027	Mindtree	Ref. Id is not available in offer letter,12/12/2019

25	BHASKAR BASU ROY	10800115028	LTI	LTI/HR/Campus/2019,11-03-2019
26	BISWAJIT BANERJEE	10800115029	synopsys	Ref. Id is not available in offer letter,26/06/2020
27	BISWAJIT SINGH	10800115030	CTS	12055081,27/09/2019
28	BISWARUP GHOSH	10800115031	Tcscoddevita	TCSL/CT20172207398/Chennai
29	C R ANJALI	10800115032	CGI	CIN:U72200KA1990PTC019138
30	CHANDNI KUMARI	10800115033	TCS Ninja	TCSL/CT 20182357557/Kolkata, 30/08/2018
31	CHIRANTAN CHOUDHURI	10800115034	TCS Ninja	TCSL/CT20172166023/Kolkata, 30/08/2018
32	DEBAJIT SARKAR	10800115035	TCS Ninja	TCSL/CT20182553113/Kolkata, 12/09/2018
33	DEBASMITA DUTTA	10800115036	Infosys	HRD/3B/19-20/100041368
34	DEEP SHIKHA	10800115037	TCS Ninja	TCSL/CT20162045496/Kolkata, 09/10/2018
35	DEVYANI SINGH	10800115038	TCS Ninja	TCSL/CT20162042336/Kolkata, 30/08/2018
36	DIVYA DUBEY	10800115040	NTTDATA	Ref. Id is not available in offer letter,29/11/2019
37	GOURAB TEWARY	10800115041	CTS	13055080,27/04/2019
38	GYANCHAND AGRAWAL	10800115042	Accenture	C8332193,31/10/2019
39	HARSHIT RAJ	10800115043	TCS Ninja	TCSL/CT20172201667/Kolkata, 12/09/2018
40	HONEY KUMARI	10800115044	TCS Codevita	TCSL/CT20162031354/Kolkata, 30/08/2018
41	JAHANVI NAAZ	10800115045	TCS Ninja	TCSL/CT20172153138/Kolkata
42	KANKANA MUKHERJEE	10800115046	TCS Ninja	TCSL/CT20162046908/Kolkata, 12/09/2018
43	KAUSHIK KUMAR GUPTA	10800115047	TCS	TCSL/CT20172210449/Kolkata,07/11/2018
44	KHUSHBOO KUMARI	10800115048	CTS	13055090,27/04/2019
45	KISHLAY KUMAR RANJAN	10800115049	TCS Ninja	TCSL/CT20182372172/Kolkata, 12/09/2018
46	KOUSIK MISHRA	10800115050	Wipro	8282133
47	KRISHN PRIYA	10800115051	Infosys	HRD/3B/19-20/100041984
48	KUNDAN KUMAR RAI	10800115052	Virtusa	Ref. Id is not available in offer letter,05/08/2019
49	MAITRI MOSHAN	10800115053	LTI	LTI/HR/Campus/2019,11/03/2019
50	MAMTA KUMARI	10800115054	CTS	12962014,07/08/2019
51	MANISHA KUMARI	10800115055	CTS	13055101,27/04/2019
52	MD YASIR IRFAN	10800115059	Virtusa	Ref. Id is not available in offer letter,28/06/2019
53	MOHINI CHOWDHARY	10800115061	TCS Ninja	TCSL/CT20161892947/Kolkata, 12/09/2018
54	MOUMITA BASU	10800115062	TCS Ninja	TCSL/CT20172154601/Kolkata, 12/09/2018
55	NEHA KUMARI	10800115066	TCS Ninja	TCSL/CT20172202927/Kolkata, 12/09/2018
56	NIHAL BHARDWAJ	10800115068	Accenture	C9834319
57	NISHANT KUMAR SINGH	10800115069	Accenture	C8332567,31/10/2019
58	NIVEDITA SONAM	10800115070	Areteans	Ref. Id is not available in offer letter,24/05/2019
59	NOOR AYESHA	10800115071	TCS Ninja	TCSL/CT20172228684/Kolkata, 12/09/2018
60	PALLAWI KUMARI	10800115073	Wipro	8282102
61	PANKAJ KUMAR DEY	10800115074	TCS Ninja	TCSL/CT20172157566/Kolkata, 12/09/2018
62	PINKI MONDAL	10800115075	wipro	8284122,9/05/2019
63	POULAMI SHYAM	10800115077	Amazon	Ref. Id is not available in offer letter,11/11/2019
64	PRACHI	10800115078	CTS	12985521,27/04/2019

65	PRASENJIT KUMAR MANDAL	10800115079	Etramarks	E9333,19/08/2019
66	PRATIBHA KUMARI	10800115081	Tiger Analytics	Ref. Id is not available in offer letter,26/10/2021
67	PRIYANKA SUPRIYA	10800115082	CTS	12961672,12/08/2019
68	RANI GUPTA	10800115086	CTS	12985502,27/04/2019
69	RANJEET KUMAR RANJAN	10800115087	CGI	CIN:U72200KA1990PTC019126
70	RAVI BHUSHAN KUMAR	10800115088	AMDOCS	Ref. Id is not available in offer letter,15/05/2019
71	RISHABH KUMAR	10800115089	CTS	13056129,27/04/2019
72	RISHIKESH KUMAR	10800115090	TCS Ninja	TCSL/CT20172157563/Kolkata, 12/09/2018
73	ROHIT KUMAR MISHRA	10800115091	TCS Ninja	TCSL/CT20182553109/Kolkata, 12/09/2018
74	ROHIT SINGH	10800115092	Wipro	8281429,9/05/2019
75	ROMAN RASHID	10800115093	Tech Mahindra	Offer letter not available,03-04-2020
76	RUCHI KUMARI	10800115095	TCS Codevita	TCSL/CT20162046020/Kolkata,30/08/2018
77	RUPA MUKHERJEE	10800115097	TCS Ninja	TCSL/CT20182372167/Kolkata,12/09/2018
78	SAIF SALIM ANSARI	10800115098	TCS (Pega)	TCSL/CT20172210095/Kolkata, 31/08/2018
79	SANDIP HAZRA	10800115099	NatIt Solve	Ref. Id is not available in offer letter,11/05/2019
80	SANDIP SINGH	10800115100	Mphasis	Ref. Id is not available in offer letter,11/10/2020
81	SANJUKTA CHAKRABORTY	10800115101	CTS(Cognizant)	13217470,17/06/2019
82	SANJUKTA SARKAR	10800115102	virtusa	Ref. Id is not available in offer letter,05/08/2019
83	SATYAM KUMAR	10800115103	Wipro	9124535,12/08/2019
84	SAUMEN MAZUMDAR	10800115104	CTS	12995582,26/04/2019
85	SHIVAM	10800115105	CTS	13055075,27/04/2019
86	SHRIJA SINGH	10800115106	TCS (Pega)	TCSL/CT20172202924/Kolkata, 31/08/2018
87	SHUBHAM CHOUDHARY	10800115108	Sriram Groups	CAN050097,01/04/2019
88	SHUBHAM KUMAR	10800115109	Accenture	C8333396,31/10/2019
89	SHUBHAM KUMAR SINGH	10800115110	TCS Ninja	TCSL/CT20172157556/Kolkata, 12/09/2018
90	SHUBHAM SAURABH ALOK	10800115111	Amazon	Ref. Id is not available in offer letter,05/12/2019
91	SHWETA KUMARI	10800115112	wipro/Virtusa	Ref. Id is not available in offer letter,05/08/2019
92	SONAL CHANDRA	10800115113	TCS Ninja	TCSL/CT20162047130/Kolkata, 12/09/2018
93	SOURAV VISHWAKARMA	10800115114	TCS Ninja	TCSL/CT20162046501/Kolkata, 12/09/2018

94	SUDHAKAR	10800115115	TCS Ninja	TCSL/CT20172227701/Kolkata, 30/08/2018
95	SUPRATICK DEY	10800115116	NatIt Solve	Ref. Id is not available in offer letter,10/06/2019
96	SUVODEEP GUPTA	10800115117	Shyamsteel	SFLLP/HR-AP/AD?JUNE/11/33,11/06/2019
97	SWATILEKHA DAS	10800115119	LTI	LTI/HR/Campus/2019,11/03/2019
98	TAMAL BANERJEE	10800115120	persistent	DA00123888/3.0,20/03/2019
99	VISHAL NARAYAN SINGH	10800115121	virtusa	Ref. Id is not available in offer letter
100	VISHAL RAJ	10800115122	Deccan	Ref. Id is not available in offer letter,01/08/2020
101	VISHAL SHARMA	10800115123	TCS Codevita	TCSL/CT20172157551/Kolkata, 30/08/2018
102	VISHWAJEET BHARDWAJ	10800115125	TCS Ninja	TCSL/CT20182552005/Kolkata, 12/09/2018
103	TUSHAR BANERJEE	10800116001	TCS (Pega)	TCSL/CT20172157537/Kolkata, 30/08/2018
104	SOUMADIP MAJUMDAR	10800116002	wipro	8516862,13/05/2019
105	NISHANT KUMAR SANTORIA	10800116004	TCS Ninja	TCSL/CT20182372253/Kolkata, 12/09/2018
106	MOUMITA BHAYA	10800116005	Infosys	HRD/3T/1002890347/21-22
107	DHIMAN KARMAKAR	10800116006	Wipro	9124234,12/08/2019
108	ANGSHUMAN DEY	10800116009	CTS	12995502,26/04/2019
109	SALMAN SABIR	10801615086	TCS Codevita/CTS Pega	12995593,26/02/2019
110	TRISHITA DUTTA	10801615120	Ingram Micro	Ref. Id is not available in offer letter,20/11/2018

Table B.4.5a placement 2019

Higher Studies

2019 Passout Higher Study					
1	2015-2019	PALLAV KUMAR	10800115072	M.Tech	ID Card Narula Institute of Technology
2	2015-2019	NALIN AGGARWAL	10800115065	MBA	LinkedIn
3	2015-2019	POULAMI BHUNIA	10800115076	MS	LinkedIn
4	2015-2019	Abhijit singh	10800115001	MBA	ID card of UEM

5	2015-2019	ASIF PARWEJ	10800115022	M.Tech	ID Card Narula Institute of Technology
6	2015-2019	Manisha Kumari Yadav	10800115056	M.Tech	ID card of UEM
7	2015-2019	VISHAL VIKRAM	10800115124	M.Tech	ID Card College of Engineering , Pune
2020 Passout Higher Study					
1	2016-2020	Saif Ali	10800116056	M.Tech	ID Card Narula Institute of Technology
2	2016-2020	AMAR SINHA	10800117011	M.Tech	Bonafide Certificate of Central University Of Rajasthan
3	2016-2020	MONIDEEPA DEY	10800116088	MBA	NSHM Business School Congratulation Letter
4	2016-2020	ROUNAK BISWAS	10800116059	Master of Science	Admission Letter of Rochester Institute of Technology
5	2016-2020	Ritesh Singh	10800116063	M.Tech	ID Card Narula Institute of Technology
6	2016-2020	Sumana Acharyya	10800118001	PGDM	Admission Letter of New Delhi Institute of Management
2021 Passout Higher Study					
1	2017-2021	DEBAPRIYA SARKAR	10800117092	M.Tech	Admission Letter of National Institute of Technology Durgapur
2	2017-2021	SOURAV NANDI	10800117028	M.Tech	1st Year Admission Letter Available
3	2017-2021	PANKAJ GHATAK	10800117063	M.Tech	ID Card Narula Institute of Technology
4	2017-2021	Arijit Pramanik	10800117105	M.Tech	ID Card B.C.Roy college
5	2017-2021	HARSH RAJ	10800117088	MBA	ID Card Netaji Subhas Engineering College
6	2017-2021	NIRAJ KUMAR	10800117068	M.Tech	ID Card Narula Institute of Technology

Table B.4.5a_Higher Studies

4.6 Professional Activities (20)

4.6.1 Professional societies/ chapters and organizing engineering events (5)

List of Professional Societies/Chapters

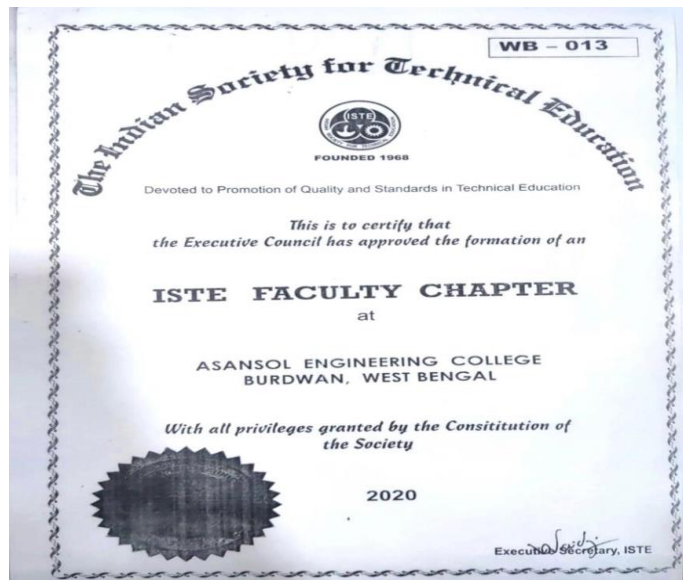
The college is an Institutional member of Computer Society of India (CSI) and has the largest student wing of CSI in Eastern India. The CSI Student Wing of Asansol Engineering College, Vivekananda Sarani, Asansol – 713305, West Bengal was inaugurated on 11 November 2019. A large number of students had applied and paid the fees for Student Membership. The student branch of AEC was opened with a total of 676 memberships. The details are as follows.

1. A total of 109 students from 1 year from the Dept. of CSE have taken the membership for a period of 3 (three) years resulting in $109 \times 3 = 327$ memberships.
2. A total of 117 students from 2 year from the Dept. of CSE have taken the membership for a period of 2 (two) years resulting in $117 \times 2 = 234$ memberships.
3. A total of 115 students from 3 year from the Dept. of CSE have taken the membership for a period of 1 (one) year resulting in $115 \times 1 = 115$ memberships. A seminar on “IoT and Machine Learning” was also organized by the Dept of CSE on 11.11.2019.

CSI student branch organizes different kind of activities for CSE students to take care of different aspects of the program outcomes like modern tools uses through webinar and workshops, individual and team work, by conducting project and coding competitions, software project management by developing project for the competition, communication skill development by presenting technical paper presentation and project presentation, professional ethics by participating in different competitions.

List of Professional Societies/ Chapters

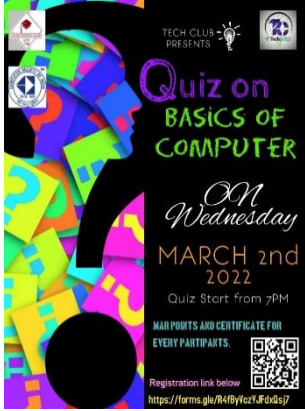
SL NO	Professional Societies/Chapters	Outcome
1.	Computer Society of India (CSI)	Running since 2019
2.	The Indian Society for Technical Education (ISTE)	Running since 2020





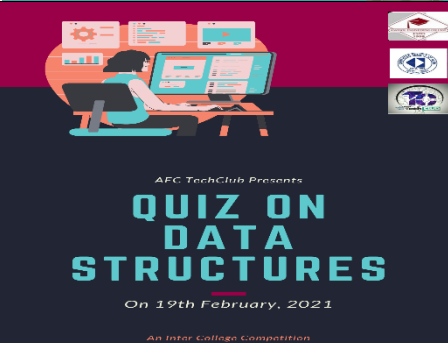
Organizing Engineering Events in CAY (2021-22)



Sl. No	Organized by	Event Nam	Inter/ Intra College/ National	Date	Picture

1	CSE	'C' Quiz	Intra College	13 th August, 2021	 <p>Test Your C language By Qualifying this Quiz</p> <p>By:- CSE Dept Tech Club,AEC 13 Aug,2021</p>
2	CSE	TECHNOVA	Vivekananda Hall/ State level Inter College	19 th December 2021	 <p>Technova 2021 - State Level Inter College Tech Competition</p> <p>• Keynote Speaker Prizes for each Event: LINK FOR REGISTRATION Last Date for Registration is 20th Dec 2021</p> <p>19th December, 2021</p>
3	CSE	Quiz on AI and Robotics	Intra College	21 st December 2021	 <p>Tech. Club of CSE Department and CST Student Chapter of AEC together Organizing</p> <p>QUIZ ON AI & ROBOTICS</p> <p>Fast Track Technical Knowledge</p> <p>21st December 2021</p>
4	CSE	Quiz On Data Structure	Intra College	18 th January, 2022	 <p>DATA STRUCTURE QUIZ!</p> <p>HURRY UP</p> <p>DATE: 18th JANUARY 2022</p> <p>SHOWCASE YOUR SKILLS</p>



5	CSE	Quiz On Basics Of Computers	Inter College	2 nd March, 2022	
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Organizing Engineering Events in CAYm1 (2020-21)

Sl. No	Organized by	Event Name	Inter/ Intra College/ National	Date	Picture
1	CSE	CSI STATE STUDENT CONVENTION (1. Technical Paper Presentation, 2. Project Competition and Exhibition)	State Level Inter College	5 th December, 2020	
2	CSE	Top Coder - C Language Contest	Inter College	24 th December, 2020	
3	CSE	Quiz on Data Structure	Inter College	19 th February, 2021	

4	CSE	DBMS Quiz	Inter College	5 th April, 2021	 AEC TechClub presents DBMS QUIZ An Inter College Competition ON 5TH APRIL, 2021
5	CSE	Poster Making Competition	Intra College	5 th June, 2021	 Tech Club of CSE dept. and CSI student chapter of AEC together celebrating WORLD ENVIRONMENT DAY with POSTER MAKING COMPETITION Let your creativity fly! REGISTRATION LINK: https://forms.gle/ZZxtUA7bbUQz2R7M6 SUBMISSION AT: techclub5officialaese98@gmail.com

Organizing Engineering Events in CAYm2 (2019-20)

Sl. No	Organized by	Event Nam	Inter/ Intra College/ National	Date	Picture
1	CSE	Inauguration event of Student's Wing of Computer Society Of India at CSE Dept., Asansol Engineering College.	Intra College	11 NOV, 2019	 A group of men in white shirts and dark trousers are standing on a stage, participating in an inauguration ceremony. They are gathered around a table with a white cloth, and a yellow garland is visible.
2	CSE	One Day seminar on of ML and IOT by Dr. Anirban Mukhopadhyay Professor Department of Computer Science and Engineering University of Kalyani. Kalyani, West Bengal. Dr. Somnath Mukhopadhyay Assistant Professor, Department of Computer Science & Engineering Assam University (A Central University) ,Silchar	Intra College	11 NOV, 2019	 STUDENT WING INAUGURATION OF COMPUTER SOCIETY OF INDIA OF ASANSOL ENGINEERING COLLEGE SEMINAR ON IoT & MACHINE LEARNING 11 th NOVEMBER, 2019 VIVEKANANDA SEMINAR HALL

		788011, Assam, India Regional Student Coordinator, Region II, Computer Society of India. Mr. HrishavBakul Barua Embedded Systems and Robotics Research Group Tata Research & Innovation Labs, Kolkata			
3	CSE	Hands on training on Efficient Project Presentation	Intra College	2 nd March,2020	
4	CSE	Awareness Program for 1 st Year CSE	Intra College	8 th March, 2020	
5	CSE	Certificate & Membership Card Distribution of CSI to 1st Year Students, Dept. of CSE	Intra College	8 th March,2020	
6	CSE	Quiz competition on "C" for 1st Year CSE Students	Intra College	15 th April,2020	

7	CSE	Poster making competition	Intra College	26 th April, 2020	 A poster for a 'Poster Making Competition' presented by the Tech Club of CSE Dept & CSI Student Chapter of AEC. The poster features a blue background with yellow and white text. It includes the date 'April 26, 2020 10 AM onwards' and the submission email 'csi.workshop.aec@gmail.com'. Logos for JIS and AEC are also visible.
8	CSE	“Quizzards 2020”	Intra College	3 rd May, 2020	 A poster for 'Quizzards' held on May 3, 10 AM. The poster is white with various icons related to quizzes and data structures. It mentions 'Data Structure TEST YOUR SKILLS' and 'Certificate For The WINNERS'. It is organized by the Tech Club of CSE Dept and CSI Student Branch of AEC. A Facebook link is provided: https://www.facebook.com/AECTechClub.
9	CSE	Coders Combat	Intra College	17 th May, 2020	 A poster for 'CODER COMBAT! PYTHON QUIZ'. The poster is colorful with a large yellow question mark and a lightbulb. It specifies the event is on 'SUNDAY 17TH MAY 5:00 P.M.' and lasts for '45 MINUTES'. It also states 'CERTIFICATES FOR THE TOP RANKERS' and 'LETS TEST YOUR SKILLS'. Logos for the organizing bodies are present.

NPTELREPORT

Academic Year: 2020-21

S.no	Course Id	Course Name	Name	Certificate Type
1	noc21-cs04	Data Base Management System	Anushka Arya	Successfully completed
2	noc21-cs04	Data Base Management System	Shreyasee Ghosh	Successfully completed
3	noc21-cs21	Programming, Data Structures And Algorithms Using Python	Md Adil	Elite
4	noc21-cs21	Programming, Data Structures And Algorithms Using Python	ANJALI KEWAT	Elite
5	noc21-cs21	Programming, Data Structures And Algorithms Using Python	Pritam Chanda	Elite
6	noc21-cs21	Programming, Data Structures And Algorithms Using Python	Sarbananda Maji	Elite
7	noc21-cs21	Programming, Data Structures And Algorithms Using Python	SAYAK PAL	Elite

8	noc21-cs22	Design and analysis of algorithms	APARNA MAHATO	Successfully completed
9	noc21-cs38	An Introduction to Programming through C++	ASHMITA BHATTACHARYYA	Successfully completed
10	noc21-cs38	An Introduction to Programming through C++	Anurag Sharma	Elite+Silver
11	noc21-cs48	Advanced Graph Theory	Somesh Gorai	Elite
12	noc21-cs38	An Introduction to Programming through C++	Alok Kumar	Elite+Silver
13	noc21-cs38	An Introduction to Programming through C++	SAYAK PAL	Elite+Silver
14	noc21-cs38	An Introduction to Programming through C++	Sarbananda Maji	Elite+Silver
15	noc21-cs34	Discrete Mathematics - IIT Ropar	Keshav Kumar Jha	Successfully completed

Academic Year: 2019-20

S.no	Course Id	Course Name	Name	Certificate Type
1	noc19-cs40	Programming, Data Structures And Algorithms Using Python	VIKASH KUMAR SINGH	Elite+Silver
2	noc19-cs40	Programming, Data Structures And Algorithms Using Python	SOURAV SAGAR	Elite
3	noc19-cs40	Programming, Data Structures And Algorithms Using Python	ANKIT SHARMA	Elite+Silver
4	noc19-cs40	Programming, Data Structures And Algorithms Using Python	ASHRAF ALI ANSARI	Elite+Silver
5	noc19-hs33	Soft skills - Online	ANSHU GUPTA	Elite
6	noc19-cs43	Problem Solving through Programming in C - Online	SRISHTI KUMARI	Elite
7	noc19-cs43	Problem Solving through Programming in C - Online	TANU SINHA	Elite+Silver
8	noc19-hs33	Soft skills - Online	ANIKET SINGH	Elite
9	noc19-cs84	Programming In Java - Online	SHIVAM KUMAR CHOURASIA	Elite+Silver
10	noc19-cs59	Python for Data Science - Online	RAHUL SINGH	Successfully completed
11	noc19-hs33	Soft skills - Online	SHUBHAM	Elite
12	noc19-cs64	Cloud Computing - Online	AMIT KUMAR GUPTA	Elite
13	noc19-hs33	Soft skills - Online	KISHAN KUMAR	Elite
14	noc19-hs33	Soft skills - Online	KESHAV KUMAR GUPTA	Elite
15	noc19-hs33	Soft skills - Online	SUMONA MONDAL	Successfully completed
16	noc19-hs33	Soft skills - Online	SUSMIT SHAW	Elite
17	noc19-hs33	Soft skills - Online	SHRISTI SAGAR	Elite
18	noc19-hs33	Soft skills - Online	JANHABI MUKHERJEE	Elite+Silver
19	noc19-hs33	Soft skills - Online	KARANVEER SINGH	Elite+Silver
20	noc19-hs33	Soft skills - Online	DEBJIT MAJI	Elite

21	noc19-hs33	Soft skills - Online	AKASH KUMBHAKAR	Elite
22	noc19-hs33	Soft skills - Online	MD SAIF IQBAL	Successfully completed
23	noc19-hs33	Soft skills - Online	PRATIK JHUNJHUNWALA	Elite
24	noc19-hs33	Soft skills - Online	SASWATA CHATTERJEE	Elite
25	noc19-hs33	Soft skills - Online	SOUMEN KARMAKAR	Elite
26	noc19-hs33	Soft skills - Online	SAYAK PAL	Successfully completed
27	noc19-hs33	Soft skills - Online	DEBJIT RAY	Elite
28	noc19-hs33	Soft skills - Online	SHUBHAM KUMAR	Elite
29	noc19-hs33	Soft skills - Online	RUPA KUMARI YADAV	Elite
30	noc19-hs33	Soft skills - Online	SUBHADEEP MAJI	Elite
31	noc19-hs33	Soft skills - Online	ANUSHKA BANDOPADHYAY	Successfully completed
32	noc19-hs33	Soft skills - Online	SHIBU SINGH	Elite
33	noc19-hs33	Soft skills - Online	SHRESTHA THAKUR	Successfully completed
34	noc19-hs33	Soft skills - Online	ANSU DALMIA	Elite
35	noc19-hs33	Soft skills - Online	VIVEK VERMA	Elite
36	noc19-hs33	Soft skills - Online	SHREYASI BALL	Elite
37	noc19-hs33	Soft skills - Online	SNEHA MUKHERJEE	Elite
38	noc19-hs33	Soft skills - Online	ABHISHEK RAKSHIT	Successfully completed
39	noc19-hs33	Soft skills - Online	PRITAM CHANDA	Elite
40	noc19-hs33	Soft skills - Online	AYUSH DUTTA	Elite
41	noc19-hs33	Soft skills - Online	ADITI GHOSAL	Successfully completed
42	noc19-hs33	Soft skills - Online	ARITRA BANERJEE	Elite
43	noc19-hs33	Soft skills - Online	HIMANSHU NANDAN	Elite
44	noc19-hs33	Soft skills - Online	KAMRAN HASSAN	Elite
45	noc19-hs33	Soft skills - Online	SOUVIK GHOSAL	Successfully completed
46	noc19-hs33	Soft skills - Online	APURVA SRIVASTAVA	Elite
47	noc19-hs33	Soft skills - Online	RAJAT KUMAR CHANDRA	Elite
48	noc19-hs33	Soft skills - Online	AYUSH KUMAR SHARMA	Elite
49	noc19-hs33	Soft skills - Online	ABHINAV MISHRA	Elite
50	noc19-hs33	Soft skills - Online	ROSHNI BOSE	Successfully completed

Academic Year: 2018-19

S.no	Course Id	Course Name	Name	Certificate Type
1	noc18-cs31	Problem Solving through	SAMAR YADAV	Successfully completed

		Programming in C		
2	noc18-cs31	Problem Solving through Programming in C	SAYAM SUBHRA DAS	Successfully completed
3	noc18-cs31	Problem Solving through Programming in C	SOURAV SAGAR	Elite
4	noc18-cs31	Problem Solving through Programming in C	NIKHIL KUMAR	Elite
5	noc18-cs31	Problem Solving through Programming in C	RAHUL YADAV	Successfully completed
6	noc18-cs31	Problem Solving through Programming in C	SATYA SACHIN MAHATO	Successfully completed
7	noc18-cs31	Problem Solving through Programming in C	SIMRAN	Successfully completed
8	noc18-cs31	Problem Solving through Programming in C	MANISH KUMAR	Elite
9	noc18-cs31	Problem Solving through Programming in C	ANKIT SRIVASTAVA	Successfully completed
10	noc18-cs31	Problem Solving through Programming in C	RAFAT PARVEEN	Elite
11	noc18-cs31	Problem Solving through Programming in C	RICHIK MAJUMDER	Elite+Silver
12	noc18-cs31	Problem Solving through Programming in C	MOUMITA DEY	Successfully completed
13	noc18-cs31	Problem Solving through Programming in C	KUSH KUMAR	Elite
14	noc18-cs31	Problem Solving through Programming in C	NEHA SINGH	Successfully completed
15	noc18-cs31	Problem Solving through Programming in C	KUMARI MEGHA	Elite+Silver
16	noc18-cs31	Problem Solving through Programming in C	DHEEMAN DAS	Successfully completed
17	noc18-cs31	Problem Solving through Programming in C	RABI SHANKAR CHAKRABORTY	Elite
18	noc18-cs31	Problem Solving through Programming in C	ROHIT KUMAR SHARMA	Elite+Silver
19	noc18-cs31	Problem Solving through Programming in C	VIKASH KUMAR	Successfully completed
20	noc18-cs31	Problem Solving through Programming in C	ANJALI KUMARI	Elite
21	noc18-cs31	Problem Solving through Programming in C	AMRITA SHREE	Elite
22	noc18-cs31	Problem Solving through Programming in C	ANKUSH BURNWAL	Elite
23	noc18-cs31	Problem Solving through Programming in C	JAHANVI NAAZ	Elite+Silver
24	noc18-cs31	Problem Solving through Programming in C	ABHINEET GUPTA	Elite
25	noc18-cs31	Problem Solving through Programming in C	DEBDULAL	Elite
26	noc18-cs31	Problem Solving through Programming in C	SHIVAM	Successfully completed
27	noc18-cs31	Problem Solving through Programming in C	MUSHKAN RAO	Elite
28	noc18-cs31	Problem Solving through	DIPESH KUMAR	Successfully completed

		Programming in C		
29	noc18-cs31	Problem Solving through Programming in C	AADARSH SHRIVASTAVA	Successfully completed
30	noc18-cs31	Problem Solving through Programming in C	NILESH KUMAR	Elite+Silver
31	noc18-cs31	Problem Solving through Programming in C	SAYAN ROY CHOUDHURY	Successfully completed
32	noc18-cs31	Problem Solving through Programming in C	SHUBHAM KUMAR	Successfully completed
33	noc18-cs31	Problem Solving through Programming in C	SOURAV NANDI	Successfully completed
34	noc18-cs31	Problem Solving through Programming in C	PRAGYA RATHORE	Successfully completed
35	noc18-cs31	Problem Solving through Programming in C	HONEY KUMARI	Elite
36	noc18-cs31	Problem Solving through Programming in C	SURAJ SHARMA	Elite
37	noc18-cs31	Problem Solving through Programming in C	ANURADHA BANERJEE	Successfully completed
38	noc18-cs31	Problem Solving through Programming in C	PREM KUMAR CHOUDHARY	Elite
39	noc18-cs31	Problem Solving through Programming in C	VIKASH KUMAR SINGH	Elite+Silver
40	noc18-cs31	Problem Solving through Programming in C	PRIYA SINGH	Elite
41	noc18-cs31	Problem Solving through Programming in C	MAHPARA	Successfully completed
42	noc18-cs31	Problem Solving through Programming in C	AKASH KUMAR	Successfully completed
43	noc18-cs31	Problem Solving through Programming in C	ARIJIT BABU	Successfully completed
44	noc18-cs31	Problem Solving through Programming in C	RAUSHAN KUMAR JHA	Successfully completed
45	noc18-cs31	Problem Solving through Programming in C	AMAN RAJ	Successfully completed
46	noc18-cs31	Problem Solving through Programming in C	RUPAM KUMARI	Elite
47	noc18-cs31	Problem Solving through Programming in C	SHUBHAM KUMAR AGARWAL	Elite
48	noc18-cs31	Problem Solving through Programming in C	SAURAV KUMAR JHA	Successfully completed
49	noc18-cs31	Problem Solving through Programming in C	RITESH SINGH	Successfully completed
50	noc18-cs31	Problem Solving through Programming in C	TAMAL MAJUMDAR	Elite

4.6.2 Publication of technical magazines, newsletters, etc. (5)

Name of Periodicals (Newsletter)	Frequency of Publications	Name of the Editors	Publisher
CSE-NEWS	Half Yearly	Dr. Monish Chatterjee	Asansol Engineering College

**VER 6
DECEMBER
2020**

**ASANSOL ENGINEERING COLLEGE
COMPUTER SCIENCE AND
ENGINEERING DEPT. PRESENTS**

CSE NEWS

COMMITTEE

TEACHERS

DR. MONISH CHATTERJEE
DR. ABHISHEK BANDYOPADHYAY

STUDENTS

Muskan Kumari
Ayush Kumar Sharma
Sushmita Dutta
Sneha Mukherjee
Saurav Mukherjee

CONTENT

STUDENT'S WRITINGS
TECHNICAL TOPIC BY TEACHERS
QUIZES
ACHIEVEMENTS
ABOUT THE DEPT

Student List for Newsletter Ver 6 October 2020:

Student Editor : Saurav Mukherjee CSE, 1st Year

Graphic Designer : Upama Mukhopadhyay CSE, 1st Year

Technical ContentScrutinizers: : Sourav Kairi, CSE,3rd year
Aayush Kumar Sharma, CSE, 2nd year
Shruti Chakraborty, CSE,3rd year

Technical Topicsubmitted bystudents:

Sayan Roy Choudhary, CSE, 4th year
Aayush kumar Sharma, CSE, 2nd year
Anukul Ojha, CSE,4th year
Trithankar Roy Choudhary CSE, 4th year
SubhamBouri CSE,2nd year
Janhabi Mukherjee CSE,2nd year
Sushmita Dutta CSE,2nd year
Ankit Kumar CSE,3rd year
Sarbananda Maji CSE,2nd year
Suprio Mondal CSE,2nd year
Jyoti Rani CSE,2nd year
Aman Kumar CSE,2nd year
Muskan Kumari CSE,3rd year

Students Involvedin newslettercirculation:

Saptaparnikundu, CSE, 2nd year
ShreshthaThakur,CSE,2nd Year
Mirza KousherBaig, CSE, 1st year
Sushmita Dutta,CSE, 3rd year

Students working committee:

Muskan Kumari, CSE, 3rd Year
Ayush Kumar Sharma,CSE, 2nd Year
Sushmita Dutta,CSE, 2nd Year
Sneha Mukherjee,CSE, 2nd Year
Sourav Mukherjee,CSE, 1st Year

Name of Periodicals (Magazine)	Frequency of Publications	Name of the Editors	Publisher
VISION INFINITY	Yearly	Dr. Monish Chatterjee	Asansol Engineering College

**VER 2
DECEMBER
2019**

ASANSOL ENGINEERING COLLEGE

COMPUTER SCIENCE AND ENGINEERING DEPT. PRESENTS VISION INFINITY

THE INDIAN AWAZ

COMMITTEE TEACHERS	STUDENTS
DR. MONISH CHATTERJEE	Saptarni Kundu
MR. ABHISHEK BANDYOPADHYAY	Shrestha Thakur
CONTENT	Sourav Kairi
STUDENT'S WRITINGS	Souvin Dey
TECHNICAL TOPIC BY TEACHERS	Reshav Khemka
QUIZES	Ankul Ojha
ACHIEVEMENTS	MD Shadman
ABOUT THE DEPT	Richik Majumdar

Subham Raj
- Founder Webingo

Student List for Magazine 2019:

Student Editor : SaptaparniKundu,CSE,1st Year
Graphic Designer : Shruti Chakroborty,CSE, 2nd Year
Technical Content Scrutinizers :
Prerna Sharma, CSE,3rd year
Alankar Mukherjee, CSE, 4th year
Ashish Ranjan, CSE,4th year

Technical Topic submitted by students:
Shrestha Thakur, CSE, 1st year
Sneha Mukherjee, CSE, 1st year
Ayush Kumar, CSE,1st year
Kundan Roy, CSE,1st year
Sushmita Dutta,CSE,1st Year
Akanksha Gupta,CSE,4th year
SudhanyaGandhi,CSE,3rd year
Shreyasi Mondal, CSE,3rd year
Satya SachinMahato, CSE,3rd year
Md Faraz Ahmad, CSE,3rd year
Manish Kumar Mehta, CSE,3rd year
Komal Kumari, CSE,3rd year

Students Involved in news letter circulation:
Manish Kumar, CSE, 3rd year
Sourav Kairi,2nd Year
Samrat Lahiri, CSE, 2nd year
Niraj Sharma,CSE, 3rd year

Students working committee:
Saptaparni Kundu, CSE, 1st Year
Shrestha Thakur, CSE, 1st Year
Sourav Kairi, CSE, 2nd Year
Souvin Dey, CSE, 1st Year
Reshav Khemka, CSE, 3rd Year
Ankul Ojha, CSE, 3rd Year
Md. Shadman, CSE, 3rd Year
Richik Majumdar, CSE, 3rd Year

Students of CSE are actively participate to publish News Letters and Magazines under the guidance of teachers by performing different responsibilities like contributing technical articles, contain writing, editing, graphics designing and circulation process which supports the different aspects of program outcomes like communication skills, modern tools used, individual and team work and professional ethics.

4.6.3 Participation in inter-institute events by students of the program of study (10)

Participation in Inter-Institute events by students in CAYm1 (2020-21)

Participation in Event within State

Serial No.	Student Name	Roll No.	Date	Event	Venue
1	Sreeja Ghosh	10800119040	08.05.2021	Webinar and Virtual Training on Cloud Tech and Big Data Analytics	MSIT, Kolkata
2	Manish Kumar	10800120077	04.06.2021	Workshop on Cyber Forensics, Technology	Ardent Computech Pvt. Ltd., Kolkata
3	Sreeja Ghosh	10800119040	10.10.2020	One Day Workshop on “Technical Writing: Tips, Tricks and Tools”	JIS University, Kolkata
4	Shakil Ahmed	10800120046	30.05.2021	Break the Code	BPPIMT, Kolkata
5	Siddhartha Chakraborty	10800120047	08.06.2021	Webinar on Inauguration the Internet TV of MAKAUT	MAKAUT, West Bengal
6	Deepak Kumar Jha	10800120057	05.06.2021	Online Student Research Article Presentations	MAKAUT, West Bengal
7	Sanjana Kumari	10800120061	09.12.2020	Workshop on Entrepreneurship Development Phases in the Next Model	GNIT, Kolkata

Table 4.6.3.A CAYm1 (2020-21) Event within State

Participation in Event Outside State

Serial No.	Student Name	Roll No.	Date	Event	Venue
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1.	Shivam Roy	10800120041	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODARAGUJRAT
2.	Abhineet Gupta	10800117131	20.03.2021	D2C Online Hackathon Festival Season 2	BITS,Pilani
3.	Pragya Rathore	10800117062	25.07.2020 - 29.07.2020	Artificial Intelligence and Deep Learning	IIT, Roorkee
4.	Swarnendu Zaminder	10800120007	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODARAGUJRAT
5.	Debankush Sarkar	10800120031	02.10.2020	International Level Webinar on Manage Your Over thinking by Music Therapy	VIDYANKUR EDUCATION
6.	Debankush Sarkar	10800120031	02.06.2021	National Level Online Quiz on Engineering Workshop	Bharat Institute of Engineering and Technology, Hyderabad
7.	Debankush Sarkar	10800120031	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODARAGUJRAT
8.	Md. Samir	10800120039	02.10.2020	International Level Webinar on Manage Your Over thinking by Music Therapy	VIDYANKUR EDUCATION
9.	Md. Samir	10800120039	02.06.2021	National Level Online Quiz on Engineering Workshop	Bharat Institute of Engineering and Technology, Hyderabad
10	Sapar Kumar	10800120161	12.06.2021	Integrate and Encourage Yoga through Life	Ministry of Ayush
11	Ashish Kumar Rajak	10800120161	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODARAGUJRAT
12	Arshi Anjum	10800120185	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON	SIGMA INSTITUTE OF ENGINEERING

				PROGRAMMING	VADODARAGUJRAT
13	Janhabi Mukherjee	10800119059	26.07.2020	QUIZ	PARUL UNIVERSITY,GUJARAT
14	Jyoti Rani	10800119017	26.07.2020	QUIZ	PARUL UNIVERSITY,GUJARAT
15	Jyoti Rani	10800119017	09.11.2020	QUIZ	PARUL UNIVERSITY,GUJARAT
16	Ashutosh Amartya	10800119019	15.12.2020	QUIZ	PARUL UNIVERSITY,GUJARAT
17	Ashutosh Amartya	10800119019	09.11.2020	QUIZ	PARUL UNIVERSITY,GUJARAT
18	Gulshan Kumar	10800119101	12.06.2021	Online Quiz	J.K.K. Nattaraja College of Pharmacy,T.Nadu
19	Gulshan Kumar	10800119101	05.06.2021	Environmental Awareness Quiz	B.M.S. Institute of Technology and Management , Bengaluru
20	UshnishChattoraj	10800117014	10.08.2020	National Level Online Quiz on Angular JS	SRNMN College of Applied Sciences
21	UshnishChattoraj	10800117014	22.07.2020	International Level Smart-Up Quiz Competition	PARUL UNIVERSITY, GUJARAT
22	UshnishChattoraj	10800117014	21.07.2020	Power Systems Online Quiz	Aar Mahaveer Engineering College, Hyderabad
23	UshnishChattoraj	10800117014	10.08.2020 - 14.08.2020	Five days Online Workshop on Software Engineering Using Advanced	DYPCoE, Pune

				Technologies	
24	UshnishCh attoraj	10800117014	04.07.2020	One Day International Webinar on Remote Sensing: Latest Trends and Perspectives	Assam University, Silchar
25	UshnishCh attoraj	10800117014	July 2020	National level Online quiz	SreeAnanthaPadma nabhaArts,Science and Commerce College, Telangana
26	UshnishCh attoraj	10800117014	02.12.2020	Online Programming language Competition using HTML and Javascript	PARUL UNIVERSITY, GUJARAT
27	UshnishCh attoraj	10800117014	04.09.2020	Webinar on Mental Awareness on Gentle Well Being	IEEE WIE Affinity Group College of Engineering, Karunagappally
28	Deepak Kumar	10800119102	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODARA, GUJRAT
29	Tanu Sinha	10800117015	15.12.2020	QUIZ	PARUL UNIVERSITY, GUJARAT
30	Aditi Singh	10800120015	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODARA, GUJARAT
31	Arnab Mukherjee	10800120036	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODARAGUJRAT
32	Rishika	10800120040	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODARAGUJRAT
33	Shivam Pandey	10800120041	30.05.2021	PYTHON QUIZ FOR BEGINNERS-2	RAJKIYA ENGINEERING COLLEGE,UP
34	AnkanBan dopadhyay	10800120062	12.06.2021	PYTHON QUIZ FOR BEGINNERS-2	RAJKIYA ENGINEERING

					COLLEGE,UP
35	Snehajeet Das	10800120073	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODARA, GUJRAT
36	Aishani Ghosh	10800120138	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODARA, GUJRAT
37	Nikita Kumari	10800120146	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODARA, GUJRAT
38	Prem Kumar Paul	10800118079	14.06.2021	Integrate and Encourage Yoga through Life	Ministry of Ayush
39	Pooja Kumari	10800118086	14.06.2021	Integrate and Encourage Yoga through Life	Ministry of Ayush
40	Komal Singh	10800118093	14.06.2021	Integrate and Encourage Yoga through Life	Ministry of Ayush
41	Kirity Kumari	10800118094	14.06.2021	Integrate and Encourage Yoga through Life	Ministry of Ayush
42	Pranav Kumar	10800118083	02.08.2020	PYTHON (BASIC)	CTO, HackerRank
43	Saswika	10800120010	13.06.2021	Integrate and Encourage Yoga through Life	Ministry of Ayush
44	Danish Haidar	10800120012	12.06.2021	Integrate and Encourage Yoga through Life	Ministry of Ayush
45	Sreeja Ghosh	10800119040	25.04.2021	AI for India Event	GUVI
46	Sreeja Ghosh	10800119040	22.12.2020	Live Webinar on Digital Marketing	Foursteps Training Solutions, Chennai
47	Sreeja Ghosh	10800119040	19.12.2020	Live Webinar on Artificial Intelligence	Foursteps Training Solutions, Chennai
48	Pratik Jhunjhunwala	10800119042	12.06.2021	Integrate and Encourage Yoga	Ministry of Ayush

				through Life	
49	Vaishnavi Ranjan	10800119088	09.11.2020	QUIZ	PARUL UNIVERSITY, GUJARAT
50	Vaishnavi Ranjan	10800119088	16.05.2021	NATIONAL LEVEL QUIZ ON PYTHON PROGRAMMING	SIGMA INSTITUTE OF ENGINEERING VADODAR GUJARAT
51	Vaishnavi Ranjan	10800119088	28.05.2021	HACKOMANIA	VIT
52	Ryan Ray	10800119036	13.06.2021	NATIONAL LEVEL E-QUIZ	YOGI VEMANA UNIVERSITY, AP

Table 4.6.3.B CAYm1 (2020-21) Event outside State

CAYm1 (2020-21) Awards Received

Serial No.	Student Name	Roll No.	Date	Event	Venue	Awards
1.	Varun Sanwaria	10800118014	28.02.2021	Speech Competition	Central University of Haryana, Mahendragarh	3 rd
2.	Soutam Maji	10800118030	28.02.2021	Speech Competition	Central University of Haryana, Mahendragarh	2 nd

Table 4.6.3.C CAYm1 (2020-21) awards Received

Participation in Inter-Institute events by students in CAYm2 (2019-20)

Participation in Event within State

Serial No.	Student Name	Roll No.	Date	Event	Venue
1	PushprajPriy	10800118076	18.04.2020	NATIONAL LEVEL ONLINE CODING CHALLENGE	JIS College of Engineering, Kalyani West Bengal
2	KritikMohanka	10800118092	18.04.2020	NATIONAL LEVEL ONLINE CODING CHALLENGE	JIS College of Engineering, Kalyani West Bengal
3	Sandip Mondal	10800118058	03.11.2019 - 04.11.2019	WAC 2019	NIT DURGAPUR

4	Siddhartha Pal	10800119075	18.04.2020	National level Online Coding Challenge.	JIS College of Engineering, Kalyani
5	Akash Kumbhakar	10800119076	07.02.2020 - 10.02.2020	Aarohan 2020	The Annual Techno Management Fest of NIT Durgapur
6	Abhinav Misra	10800119116	18.04.2020	National level Coding Challenge	JIS College of Engineering, Kalyani
7	Abhiraj Verma	10800119113	18.04.2020	National level Coding Challenge	JIS College of Engineering, Kalyani
8	Aniket Singh	10800119121	07.02.2020 - 10.02.2020	AAROHAN 2020	The Annual Techno Management Fest of NIT Durgapur
9	Abir Banerjee	10800117129	18.04.2020	National level Coding Challenge	JIS College of Engineering, Kalyani
10	Karanveer Singh	10800119016	17.01.2020 - 19.01.2020	KSHITIJ 2020	IIT KHARAGPUR
11	Sreeja Ghosh	10800119040	07.02.2020 - 10.02.2020	AAROHAN 2020	NIT DURGAPUR
12	Subham Das	10800119013	07.02.2020 - 10.02.2020	AAROHAN 2020	NIT DURGAPUR
13	Subhamoy Banerjee	10800119044	4 th -5 th January, 20 20	SPRING FEST	IIT KHARAGPUR
14	Suprio Mondal	10800119009	07.02.2020 - 10.02.2020	AAROHAN 2020	NIT DURGAPUR
15	Sushmita Dutta	10800119050	07.02.2020 - 10.02.2020	AAROHAN 2020	NIT DURGAPUR
16	Swarup Bit	10800119008	08.02.2020 - 09.02.2020	AAROHAN 2020	NIT DURGAPUR
17	Vikash Kumar Singh	10800117035	18.04.2020	National level Coding Challenge	JIS College of Engineering, Kalyani
18	Anurag Sharma	10800119018	01-11- 2019-03- 11-2019	National Student's Space Challenge - Lift Off	IIT Kharagpur
19	Satprit Singh Makkar	10800118054	29-05-2020	NATIONAL LEVEL QUIZ	JIS UNIVERSITY
20	Varun Sanwaria	10800118014	25.07.2020	ESCodeR-2020	SNU, Kolkata
21	Randhir Kumar	10800116066	03.02.2020	Voluntary Blood Donation	State Blood Transfusion Council, West Bengal
22	Rahul Kumar	10800116075	18.04.2020	National level Coding Challenge	JIS College of Engineering, Kalyani
23	Pramita Khan	10800119133	27/05/20	QUIZ	BIDHAN CHANDRA KRISHI VIDYALAYA
24	Pramita Khan	10800119133	08/06/20	QUIZ	PARUL UNIVERSITY

25	Yadir Kalam	10800116011	08.11.2019 - 10.11.2019	Vajra 19	BIT-Mesra
26	Apurva Shrivastava	10800119012	15.06.2020	Webinar On Digital Communications: Learnings and Applications	MAKAUT, West Bengal
27	Suraj Sharma	10800117018	18.04.2020	National level Coding Challenge	JIS College of Engineering, Kalyani
28	UshnishChattoraj	10800117014	12.08.2019	KSHITIJ 2019	IIT KHARAGPUR

Table 4.6.3.A CAYm2 (2019-20) Event within State

Participation in Event Outside State

Serial No.	Student Name	Roll No.	Date	Event	Venue
1	PratyushSahu	10800118080	25.08.2019	BLOOD DONATION CAMP 2019	IIT(ISM),Dhanbad
2	Pallavi	10800117064	23.12.2019	Real Time Challenges and their solutions in IT industry and Microsoft Services(Webinar)	Kanpur Institute of Technology
3	Pragya Rathore	10800117062	23.06.2020	INDUSTRIAL ARTIFICIAL INTF''JGENCE	Jyothi Engineering College, Trissur
4	Siddhartha Pal	10800119075	15.06.2020	TECH-PRO (National level online project competition.)	Maharashtra Institute of Technology, Aurangabad
5	Suryadeep Sen	10800119004	15.06.2020	TECH-PRO (National level online project competition.)	Maharashtra Institute of Technology, Aurangabad
6	Sarbananda Maji	10800119052	12.07.2020	National level Online quiz on Cyber security	B V Raju Institute of Technology,Narsapur
7	Sayak Pal	10800119107	06.02.2020	C Programming Quiz, National level quiz competition.	Geetanjali Institute of Technical Studies, Udaipur
8	Saswata Chatterjee	10800119066	06.02.2020	C Programming Quiz, National level quiz competition.	Geetanjali Institute of Technical Studies, Udaipur
9	Abir Banerjee	10800117129	22.06.2020	Online coding competition	Venkateshwara Padmavathy Engineering College, Chennai

10	Abir Banerjee	10800117129	18.04.2020	National level Coding Challenge	JIS College of Engineering, Kalyani
11	Aiswarya Ghosh	10800117125	22.06.2020	Online coding competition	Venkateshwara Padmavathy Engineering College, Chennai
12	Akash Kumar	10800117123	22.06.2020	Online coding competition	Venkateshwara Padmavathy Engineering College, Chennai
13	Ankit Kumar	10800117113	22.06.2020	Online coding competition	Venkateshwara Padmavathy Engineering College, Chennai
14	Amit Kumar Gupta	10800117116	08.05.2020-11.05.2020	Amity Mega Mind quiz	Amity University, UP
15	Amit Kumar Gupta	10800117116	30.05.2020	International Web Conference on Impact of Covid-19 on Education System	Dr.Babasaheb Ambedkar Marathwada University, Aurangabad, MS, India
16	Sourav Ghoshal	10800117029	22.06.2020	National level Coding Competition	PRINCE Shri Venkateshwara Padamavathy Engineering College, Chennai
17	Abhineet Gupta	10800117131	20.04.2020-22.04.2020	Webinar on Emerging Trends	Vidyalankar Institute of Technology
18	Ramarch Kumar	10800116068	19.07.2020	Health Emergencies Programme	WHO
19	Queree Kumari	10800116076	21.05.2020	Competitive Programming	Vanya BK
20	Nitesh Kumar Yadav	10800117006	01-04-20120	QUIZ FEST	IIT KANPUR
21	Nitesh Kumar Yadav	10800117006	22-04-2020	WEBINAR ON EMERGING TRENDS	VIT
22	Pramita Khan	10800119133	08/06/20	QUIZ	PARUL UNIVERSITY
23	Yadir Kalam	10800116011	08.11.2019-10.11.2019	Vajra 19	BIT-Mesra
24	Suraj Sharma	10800117018	03.05.2020	National Level Python Quiz Contest-PQC 2020	Maruti Venkata Subba Rao Engineering College, Hyderabad
25	Md. Meeraj Ansari	10800118091	08.06.2020	QUIZ	PARUL UNIVERSITY
26	Nilakshi Roy	10800118087	08.06.2020	QUIZ	PARUL UNIVERSITY
27	Shibodas Mallick	10800119129	08.06.2020	QUIZ	PARUL UNIVERSITY

Table 4.6.3.BCAYm2 (2019-20) Event Outside State

CAYm2 (2019-20) Awards Received

Serial No.	Student Name	Roll No.	Date	Event	Venue	Awards
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1	Prem Kumar Choudhury	10800117060	19.10.2019	TECHNO-MANAGEMENT FEST	IIT(ISM),Dhanbad	3 rd
2	Roshni Bose	10800119099 (Group)	31.01.2020 - 03.02.2020	Halla Bol (Street Drama)	ISM Dhanbad	1 st Runner Up
3	VartikaKedia	10800116017	15.04.2020 - 17.04.2020	Conquer Covid-19 Hackathon	Narula Institute of Technology	2 nd Prize
4	Ved Prakash	10800116016	15.04.2020 - 17.04.2020	Conquer Covid-19 Hackathon	Narula Institute of Technology	3 rd Prize

Table 4.6.3.CCAYm2 (2019-20) Awards Received

Participation in Inter-Institute events by students in CAYm3 (2018-19)

Participation in Event within State

Serial No.	Student Name	Roll No.	Date	Event	Venue
1	Rahul Prashad	10800118074	18.01.2019-20.01.2019	KOLKATA ROBOTICS WORKSHOP, KSHITIJ, 2019	IIT KGP
2	Devyani Singh	10800115038	24.01.2019 - 27.01.2019	SPRING FEST	IIT,KGP
3	Shrabani Ghosh	10800118042	18.01.2019-20.01.2019	KSHITIJ, 2019	IIT KGP
4	Shrabani Ghosh	10800118042	18.01.2019-20.01.2019	Kolkata Robotics Workshop, KSHITIJ, 2019	IIT KGP
5	Amit Kumar Gupta	10800117116	12.10.2018	Quantam Knowledge Worshop 2018	Biswa Bangla Convention Centre, Newtown
6	Rajan Kumar	10800116070	07.02.2019-10.02.2019	AAROHAN 2019	TECH FEST , NIT DURGAPUR
7	Rahul Kumar	10800116075	07.02.2019-10.02.2019	AAROHAN 2019	TECH FEST , NIT DURGAPUR

Table 4.6.3.ACAYm3 (2018-19)Event within State

Participation in Event Outside State

Serial No.	Student Name	Roll No.	Date	Event	Venue
1	Rahul Kumar	10800118075	05.04.2019-07.04.2019	OJASS'19 ANNUAL TECHNO-	NIT Jamshedpur

				MANAGEMENT FEST	
2	PushprajPriy	10800118076	05.04.2019-07.04.2019	OJASS'19 ANNUAL TECHNO-MANAGEMENT FEST	NIT Jamshedpur
3	Prem Kumar Paul	10800118079	05.04.2019-07.04.2019	OJASS'19 ANNUAL TECHNO-MANAGEMENT FEST	NIT Jamshedpur
4	Prashant Kumar	10800118081	05.04.2019-07.04.2019	OJASS'19 ANNUAL TECHNO-MANAGEMENT FEST	NIT Jamshedpur
5	Utkarsh Kumar	10800117013	28.10.2018	CONCETTO 2018	IIT(ISM),Dhanbad
6	Tamal Mazumdar	10800117016	31.08.2018-02.09.2018	CODE FEST 2018	IIT(BHU),Varanasi
7	Tamal Mazumdar	10800117016	28.10.2018	CONCETTO 2018	IIT(ISM),Dhanbad
8	Sudeep Kumar	10800117021	31.08.2018-02.09.2018	CODE FEST 2018	IIT(BHU),Varanasi
9	Adarsh Verma	10800117128	28.10.2018	CONCETTO 2018	IIT(ISM),Dhanbad
10	Biswajit Singh	10800115030	02.11.2018-04.11.2018	Vajra 18	BIT-Mesra
11	Ritika Mandhyan	10800117050	25.05.2019	KAAMCUBE SERVICES PVT. LTD.	Gurugram
12	Pragya Rathore	10800117062	02.02.2018	Blood Donation Camp	IIT(ISM) Dhanbad
13	Pallav Kumar	10800115072	02.11.2018-04.11.2018	VAJRA 2018	BIT,Mesra
14	Queree Kumari	10800116076	24.02.2019	Indian Engineering Olympiad	Amrita School of Engineering,Karntak a
15	Srishti Kumari	10800117024	31.08.2018-02.09.2018	CODE FEST 2018	IIT(BHU),Varanasi
16	Tanu Sinha	10800117015	31.08.2018-02.09.2018	CODE FEST 2018	IIT(BHU),Varanasi

Table 4.6.3.BCA Ym3 (2018-19) Event Outside State

CAYm3 (2018-19) Awards Received

Serial No.	Student Name	Roll No.	Date	Event	Venue	Awards
1	MayukBairagi	10800117078	01.11.2018 - 04.11.2018	FreeMex,Aavishkar 2.0	NIT, DGP	3rd
2	Sushmita Dutta	10800118018	28.02.2019	Speech Competetion	Central University of Haryana,Mahendraragharh	3 rd
3	Anukul Ojha	10800117107	01.11.2018 - 04.11.2018	Royal League,Aavishkar 2.0	NIT, DGP	1st

Table 4.6.3.C CAYm3 (2018-19) Awards Received

CRITERION 5
FACULTY INFORMATION AND CONTRIBUTIONS

Criterion 5: Faculty Information and Contributions (200)

CAY (2021-2022)

Sl. No.	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving (In case Currently Associated is (" No")	Nature of Association (Regular/Contract)
		Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
1	DEBASIS CHAKRABORTY	PhD	JU	2015	Regular	Professor	02/01/2020	02/01/2020	CSE	Machine Learning	1	1	0	Y	Regular
2	MONISH CHATTERJEE	PhD	JU	2012	Regular	Professor	01/01/2018	06/08/2004	CSE	Optical Networks	3	3	1	Y	Regular
3	PINTU PAL	PhD	JU	2012	Regular	Professor	01/01/2018	01/06/2012	CSE	Genetic Algorithms	0	0	0	Y	Regular
4	SANDIP ROY	PhD	JU	2019	Regular	Associate Professor	01-08-2019	12-01-2004	CSE	Cryptography	1	0	0	Y	Regular
5	ABHISHEK BANDYOPADHYAY	PhD	IEST Shibpur	2020	Regular	Associate Professor	01-11-2020	01-10-2012	CSE	Optical Networks	0	0	0	Y	Regular
6	SUBHENDU BARAT	PhD	NIT Durgapur	2019	Regular	Associate Professor	05-01-21	05-01-21	CSE	Optical Networks	0	0	0	Y	Regular
7	KHUSBU CHANDRAKAR	PhD	NIT Durgapur	2020	Regular	Assistant Professor	NA	05-01-21	CSE	VLSI	0	0	0	Y	Regular
8	UJJWAL KUMAR KAMILA	M.TECH	WBUT	2010	Regular	Assistant Professor	NA	30-08-2005	CSE		1	NA	0	Y	Regular
9	KINGSHUK BANERJEE	M.TECH	NIT, Durgapur	2013	Regular	Assistant Professor	NA	14-08-2014	CSE		0	NA	0	Y	Regular
10	VEDATRAYE CHATTERJEE	M.TECH	WBUT	2008	Regular	Assistant Professor	NA	16-07-2008	CSE		0	NA	0	Y	Regular

						sor									
11	UDDALOK SEN	M.TECH	NIT, Durgapur	2011	Regular	Assistant Professor	NA	01-08-2006	CSE		1	NA	0	Y	Regular
12	TAPAN KUMAR DAS	M.TECH	WBUT	2011	Regular	Assistant Professor	NA	22.12.2005	CSE		0	NA	0	Y	Regular
13	SUJOY KUMAR BASU	M.TECH	JU	2009	Regular	Assistant Professor	NA	09.09.2005	CSE		0	NA	0	Y	Regular
14	SUBHAS CHANDRA NATH	M.TECH	NIT, Durgapur	2009	Regular	Assistant Professor	NA	07-07-2005	CSE		0	NA	0	Y	Regular
15	SIMANTA HAZRA	M.TECH	NIT, Durgapur	2012	Regular	Assistant Professor	NA	12-02-2001	CSE		0	NA	0	Y	Regular
16	SHIBSANKAR BALA	M.TECH	BIT, Mesra	2002	Regular	Assistant Professor	NA	07-12-2005	CSE		0	NA	0	Y	Regular
17	SHATABDI SAHA	M.TECH	Kalyani University	2007	Regular	Assistant Professor	NA	10-09-2007	CSE		0	NA	0	Y	Regular
18	SABYASACHI MUKHERJEE	M.TECH	WBUT	2007	Regular	Assistant Professor	NA	16-01-2017	CSE		0	NA	0	Y	Regular
19	PRANABES GANGOPADHAYAY	M.TECH	BESU	2008	Regular	Assistant Professor	NA	18-07-2008	CSE		0	NA	0	Y	Regular
20	LUMBINI BHAUMIK	M.TECH	WBUT	2008	Regular	Assistant Professor	NA	23-07-2008	CSE		0	NA	0	Y	Regular
21	BIPLAB KUMAR MANDAL	M.TECH	CU	2007	Regular	Assistant Professor	NA	09.08.2007	CSE		0	NA	0	Y	Regular
22	DEBEBRATA MAITY	M.TECH	CU	2007	Regular	Assistant Professor	NA	28.08.2006	CSE		0	NA	0	Y	Regular
23	RINKU DUTTA RAKSHIT	Ph. D	NIT DGP	2021	Regular	Associate Professor	NA	19.12.2011	CSE	Image Processing	6	0	0	Y	Regular

CAYm1 (2020-2021)

Sl. No.	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving (In case Currently Associated is (" No")	Nature of Association (Regular/Contract)
		Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
1	DEBASIS CHAKRABORTY	PhD	JU	2015	Regular	Professor	02/01/2020	02/01/2020	CSE	Machine Learning	0	1	1	Y	Regular
2	MONISH CHATTERJEE	PhD	JU	2012	Regular	Professor	01/01/2018	06/08/2004	CSE	Optical Networks	1	3	2	Y	Regular
3	PINTU PAL	PhD	JU	2012	Regular	Professor	01/01/2018	01/06/2012	CSE	Genetic Algorithms	0	0	0	Y	Regular
4	ANUP KUMAR MUKHOPADHYAY	PhD	IIT-ISM Dhanbad.	2019	Regular	Associate Professor	01/05/2019	29/03/2004	CSE	Solid Mechanics	0	0	0	Y	Regular
5	SANDIP ROY	PhD	JU	2019	Regular	Associate Professor	01-08-2019	12-01-2004	CSE	Cryptography	0	1	0	Y	Regular
6	ABHISHEK BANDYOPADHYAY	PhD	IIST Shibpur	2020	Regular	Associate Professor	01-11-2020	01-10-2012	CSE	Optical Networks	0	0	0	Y	Regular
7	ABHISHEK BANERJEE	PhD	JU	2019	Regular	Associate Professor	01-10-2019	01.06.2005	CSE	Reliability Optimization	0	1	0	Y	Regular
8	UJJWAL KUMAR KAMILA	M.TECH	WBUT	2010	Regular	Assistant Professor	NA	30-08-2005	CSE		1	NA	0	Y	Regular
9	KINGSHUK BANERJEE	M.TECH	NIT, Durgapur	2013	Regular	Assistant Professor	NA	14-08-2014	CSE		0	NA	0	Y	Regular
10	VEDATRAYE CHATTERJEE	M.TECH	WBUT	2008	Regular	Assistant Professor	NA	16-07-2008	CSE		0	NA	0	Y	Regular
	UDDALOK	M.TECH	NIT,	2011	Regular	Assist	NA	01-08-	CSE		1	NA	0	Y	Regular

11	SEN	CH	Durgapur		ar	ant Professor		2006							
12	TAPAN KUMAR DAS	M.TECH	WBUT	2011	Regular	Assistant Professor	NA	22.12.2005	CSE		0	NA	0	Y	Regular
13	SUJOY KUMAR BASU	M.TECH	JU	2009	Regular	Assistant Professor	NA	09.09.2005	CSE		0	NA	0	Y	Regular
14	SUBHAS CHANDRA NATH	M.TECH	NIT, Durgapur	2009	Regular	Assistant Professor	NA	07-07-2005	CSE		0	NA	0	Y	Regular
15	SIMANTA HAZRA	M.TECH	NIT, Durgapur	2012	Regular	Assistant Professor	NA	12-02-2001	CSE		0	NA	0	Y	Regular
16	SHIBSANKAR BALA	M.TECH	BIT, Mesra	2002	Regular	Assistant Professor	NA	07-12-2005	CSE		0	NA	0	Y	Regular
17	SHATABDI SAHA	M.TECH	Kalyani University	2007	Regular	Assistant Professor	NA	10-09-2007	CSE		0	NA	0	Y	Regular
18	SABYASACHI MUKHERJEE	M.TECH	WBUT	2007	Regular	Assistant Professor	NA	16-01-2017	CSE		0	NA	0	Y	Regular
19	PRANABES GANGOPADHYAY	M.TECH	BESU	2008	Regular	Assistant Professor	NA	18-07-2008	CSE		0	NA	0	Y	Regular
20	LUMBINI BHAUMIK	M.TECH	WBUT	2008	Regular	Assistant Professor	NA	23-07-2008	CSE		0	NA	0	Y	Regular
21	BIPLAB KUMAR MANDAL	M.TECH	CU	2007	Regular	Assistant Professor	NA	09.08.2007	CSE		0	NA	0	Y	Regular
22	DEBEBRATA MAITY	M.TECH	CU	2007	Regular	Assistant Professor	NA	28.08.2006	CSE		0	NA	0	Y	Regular
23	RINKU DUTTA RAKSHIT	Ph. D	NIT DGP	2021	Regular	Assistant Professor	NA	19.12.2011	CSE	Image Processing	6	0	0	Y	Regular

CAYm2 (2019-2020)

Sl. No.	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving (In case Currently Associated is (" No")	Nature of Association (Regular/Contract)
		Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
1	MONISH CHATTERJEE	PhD	JU	2012	Regular	Professor	01/01/2018	06/08/2004	CSE	Optical Networks	5	3	0	Y	Regular
2	PINTU PAL	PhD	JU	2012	Regular	Professor	01/01/2018	01/06/2012	CSE	Genetic Algorithms	0	0	0	Y	Regular
3	ANUP KUMAR MUKHOPADHYAY	PhD	IIT-ISM Dhanbad.	2019	Regular	Associate Professor	01/05/2019	29/03/2004	CSE	Solid Mechanics	0	0	0	Y	Regular
4	SANDIP ROY	PhD	JU	2019	Regular	Associate Professor	01-08-2019	12-01-2004	CSE	Cryptography	3	0	0	Y	Regular
5	ABHISHEK BANDYOPADHYAY	Ph.D	IIST Shibpur	2020	Regular	Assistant Professor	NA	01-10-2012	CSE	Optical Networks	0	0	0	Y	Regular
6	ABHISHEK BANERJEE	PhD	JU	2019	Regular	Associate Professor	01-10-2019	01.06.2005	CSE	Reliability Optimization	0	0	0	Y	Regular
7	UJJWAL KUMAR KAMILA	M.TECH	WBUT	2010	Regular	Assistant Professor	NA	30-08-2005	CSE		0	NA	0	Y	Regular
8	KINGSHUK BANERJEE	M.TECH	NIT, Durgapur	2013	Regular	Assistant Professor	NA	14-08-2014	CSE		0	NA	0	Y	Regular
9	VEDATRAYER CHATTERJEE	M.TECH	WBUT	2008	Regular	Assistant Professor	NA	16-07-2008	CSE		0	NA	0	Y	Regular
10	UDDALOK SEN	M.TECH	NIT, Durgapur	2011	Regular	Assistant Professor	NA	01-08-2006	CSE		0	NA	0	Y	Regular

11	TAPAN KUMAR DAS	M.TECH	WBUT	2011	Regular	Assistant Professor	NA	22.12.2005	CSE		0	NA	0	Y	Regular
12	SUJOY KUMAR BASU	M.TECH	JU	2009	Regular	Assistant Professor	NA	09.09.2005	CSE		0	NA	0	Y	Regular
13	SUBHAS CHANDRA NATH	M.TECH	NIT, Durgapur	2009	Regular	Assistant Professor	NA	07-07-2005	CSE		0	NA	0	Y	Regular
14	SIMANTA HAZRA	M.TECH	NIT, Durgapur	2012	Regular	Assistant Professor	NA	12-02-2001	CSE		0	NA	0	Y	Regular
15	SHIBSANKAR BALA	M.TECH	BIT, Mesra	2002	Regular	Assistant Professor	NA	07-12-2005	CSE		0	NA	0	Y	Regular
16	SHATABDI SAHA	M.TECH	Kalyani University	2007	Regular	Assistant Professor	NA	10-09-2007	CSE		0	NA	0	Y	Regular
17	SABYASACHI MUKHERJEE	M.TECH	WBUT	2007	Regular	Assistant Professor	NA	16-01-2017	CSE		0	NA	0	Y	Regular
18	PRANABES GANGOPADHYAY	M.TECH	BESU	2008	Regular	Assistant Professor	NA	18-07-2008	CSE		0	NA	0	Y	Regular
19	LUMBINI BHAUMIK	M.TECH	WBUT	2008	Regular	Assistant Professor	NA	23-07-2008	CSE		0	NA	0	Y	Regular
20	BIPLAB KUMAR MANDAL	M.TECH	CU	2007	Regular	Assistant Professor	NA	09.08.2007	CSE		0	NA	0	Y	Regular
21	DEBEBRATA MAITY	M.TECH	CU	2007	Regular	Assistant Professor	NA	28.08.2006	CSE		0	NA	0	Y	Regular
22	RINKU DUTTA RAKSHIT	M. Tech	NITTER	2011	Regular	Assistant Professor	NA	19.12.2011	CSE	Image Processing	0	NA	0	Y	Regular

5.1 Student Faculty Ratio (20)

UG : No. of UG programs in the department: 01

Year	CAY (2021-22)		CAYm1 (2020-21)		CAYm2(2019-20)	
	Sanction Intake	Actual admitted through lateral entry	Sanction Intake	Actual admitted through lateral entry	Sanction Intake	Actual admitted through lateral entry
2nd Year	180	15	120	12	120	12
3rd Year	120	12	120	12	120	11
4th Year	120	12	120	11	120	11
Sub-total	420	39	360	35	360	34
Total	459		395		394	

Year of Study	CAY(2021-22)	CAYm1(2020-21)	CAYm2(2019-20)	Year of Study
Total No. of Students	459	395	394	Total No. of Students
Total No. of Faculty	23	23	22	Total No. of Faculty
Student Faculty Ratio (SFR)	19.96	17.17	17.91	Student Faculty Ratio (SFR)
Average SFR	$(\text{SFR}_1 + \text{SFR}_2 + \text{SFR}_3) / 3 = 18.35$			
F=Total No. of Faculty.				

5.1.1 Provide the information about the regular and contractual faculty as per the format mentioned below:

Academic Year	Total no. of regular faculty in the department	Total no. of contractual faculty in the department
CAY(2021-22)	23	0
CAYm1 (2020-21)	23	0
CAYm2 (2019-20)	22	0

Average SFR for three assessment years: 18.35

5.2 Faculty Cadre Ratio (25)

Year	Professor		Associate Professor		Assistant Professor	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2021-2022)	2.0	3.0	5.0	4.0	16	16
CAYm1(2020-2021)	2.0	3.0	4.0	4.0	14	16
CAYm2(2019-2020)	2.0	2.0	4.0	3.0	14	17
Average	2.0	2.67	4.33	3.67	14.67	16.33

$(\text{AF}_1/\text{RF}_1) + [\text{AF}_2/\text{RF}_2 * 0.6] + [\text{AF}_3/\text{RF}_3 * 0.4] * 12.5$

$$= (1.335*1.0 + 0.848*0.6 + 1.11*0.4)*12.5 = 29.63$$

5.3 Faculty Qualification (25)

Academic Year	X	Y	F	$FQ=2.5*[(10X+4Y)/F]$
CAY(2021-2022)	8	15	22	15.91
CAYm1(2020-2021)	7	16	19	17.63
CAYm2(2019-2020)	5	17	19	15.53

Average Assessment: 16.36

5.4 Faculty Retention: (25)

Description	2019-20	2020-21	2021-22
No. Faculty Retained	22	22	21
Total no. of Faculty	22	23	23
% of Faculty Retained	100	100	95

Average: 98

5.5 Innovations by the Faculty in Teaching and Learning (20)

The objective is to establish quality and effective teaching learning system and so, the practices followed have two components e.g. conventional and innovative ones.

Innovations by the faculty in teaching and learning are summarized below with the conventional ones.

A. Learning Materials:

Conventional: Text books, reference books, journal papers, e-learning materials (NPTEL etc.).

Innovative:

(a) **Learning Outcome based Lecture Plan-** Lecture plans are prepared to comply with course outcomes. These are made available to the students so that the level of learning outcome of each topic is understood by them.

(b) **Course-ware-** Designing the courseware and making it available through website and/or through digital library of the Institute for use by the students.

Review Process;-The learning materials are reviewed periodically (not less than once in a semester) internally by experienced teachers taking into account student feedback and assessment results.

B. Instruction Delivery: Use of teaching aids.

Conventional: Class room lectures using black / white board, handouts, PPT.



Innovative:

(a) Digital board (Smart Class Room):- Using video projection of the writing of the instructions on paper instead of writing on the black board. This improves the quality of lecture (as the teacher is more relaxed) and improves the class room ambiance.

(b) Project-based learning:-Project-based learning uses real-world scenarios, challenges, and problems to engage students in critical thinking, problem solving, teamwork, and self-management. Once students solve the problem, they present

their solutions.

C. Instructional Methods:

Conventional: Class room lectures using conventional or modern teaching aides.

Innovative:

(a) Coordination between theory and practice:- Coordination between theory and practice: - Emphasis is on putting theory into practice as much as possible. Effective teaching learning of engineering problems require clear understanding of the issues, what needs to be solved and how to solve. This requires application of the fundamental concepts learned during the theory class through designing algorithms and flowcharts. In some cases knowledge of tools and equipment needed to solve the problem may also play a critical role. In such cases the coordination between the theory learned and its applications during the practical classes can be more effective for developing a complete knowledge of how to solve an engineering problem. Implementing algorithms in programming languages like C, Java etc. can boost students 'confidence. Also selecting and using the appropriate data structures in programs can give them a real time experience. Also emphasis on practical classes can improve their knowledge of using and learning about Operating Systems, Communication Networks and Databases. Further implementing programs in different languages will enhance their skills for the industry. Students understand the concept of circuits using gates through the paper Computer Organization and Architecture.

(b) In-house Training:- Students are imparted in-house training from industry experts for enhancing their professional skills as per the requirements of the industry.

D. Class room Interaction:

Conventional: Quizzes, question answers.

Innovative:

(a) Learn while teaching- the students are invited to volunteer for delivery of topics / sub topics related to the course in consultation with the teacher, who helps the student with relevant learning materials. At the end of the delivery of the topic by the student, the teacher along with other students discuss the essential points, if any, the speaker has missed. Such experience develops the self-learning capacity of a student as well as ability for communication.

- (b) Incentive based class room interaction- Quizzes and question answer sessions are arranged to make them competitive between different groups in the class. The subject / topic are announced beforehand. It makes student to develop team work as well as self-learning capacity. To make it more interesting the questions may be framed by the competitive groups for the opponent groups.
- (c) Interaction during Laboratory Classes- The students are asked to come prepared with the flow chart and objective of the experiment. The interaction with the student(s) starts from the beginning and at every stage discussions are held for assessment as well as for explanation of the experiment. At the end of the experiment, discussions on the output are encouraged.



Review Process: Departmental Seniors, student feedback (oral).

E. Assessment and Evaluation:

Conventional: Unit tests, continuous evaluation tools like quizzes, tutorials, assignments.

Innovative: Modern Technical Education demands learning outcome based assessment. To achieve the objective, assessment and evaluation methods are introduced as given below:-

- a. Open Book Examination- One of the unit tests, preferably the last one is an open book examination. This test is so designed that it can assess attitude for research, for solving complex problems, analytical skill and self-learning capacity.
- b. Modified format for MCQ questions- To avoid ticking the distracters at random, 50% marks are allotted to a brief “justification” for the choice of the distracter.
- c. Designing CO (Course Outcome) based assessment tools:- The Class test question papers are set as per University norms by external experts. Hence to achieve the above objective three unit tests, tutorial sheets, assignments are arranged in an order that addresses the course outcomes. Evaluation of the question papers, tutorials, assignments question wise vis-à-vis CO wise is a measure of attainment in specific CO.

Display Mode:-Announcement to students before examinations.

Review Process:- Internally by departmental committee and student performance.

F. Need Based Classrooms:

Conventional: All students are treated at par.

Innovative:

- (a) For Academically Weaker Students- identified via interaction, continuous evaluation and university examinations (e.g., Back loggers). The classes are allotted at the pre first period of the day so that all students need not attend the college so early. In case of a handful number of such students in a specific course, the

teacher concerned is given the liberty to arrange such classes during their mutually convenient hours. This has been fruitful as students were able to clear the backlog papers.

(b) For Brighter Students- they are automatically identified through examination and interaction. Since the University does not have provisions to reward them academically, such as, earning extra credits, the Department/Institute encourages such students through

i) Rewards and Prizes

ii) Arranging Coaching for GATE for the motivated students.

(c) For enhancement of Domain knowledge of students- Domain knowledge lectures by senior and experienced faculty taking care of explaining/combing the important topics/areas for prospective employers.

Display Mode: Website, Notice boards.

Review Process: Internally and Semester wise, reparation starts from the publication of University results.

The Innovations by the Faculty in Teaching and Learning are summarized in the table below:

Sl. No.	Items	Components	Source	Remarks (Display mode)
1	Learning Materials	Learning Outcome based Lesson Plans	Course Instructor	Department, Library
		Course Ware	Selective Experienced Faculty	Website, Library
		E-Learning Materials	NPTEL	Website, Library
2	Instructional Delivery	Use of Teaching Aides: a. Smart Class Room b. Project-Based Learning	a. Digital Board b. Faculty	a. Seminar Room b. Various Labs.
		Instructional Methods: a. Coordination between theory and practice b. In-house training	a. Industrial practices and models b. Facilitator	a. Various Labs of the Department. b. Various Labs of the Department.
		Class room Interaction a. Learn while Teaching b. Incentive based class room interaction c. Laboratory class room interaction	a. Individual faculty b. Topic based quizzes, Q-A between different groups c. Laboratory Instructors	a. Class room activity different from usual seminars b. Class room activity Organized the competitive mode c. Laboratory activity
		Assessment and	a. Open Book Exam	a. Individual faculty

	Evaluation	b. Modified format for MCQ questions c. Designing CO based assessment tools	b. Individual faculty c. Individual faculty	b. Unit Test c. Unit Test, Tutorial
4	Need Based Class Rooms	a. For academically weaker students b. For brighter students c. For Career guidance	a. Most of the faculty b. Coaching for GATE, etc. c. External & Internal experienced faculty	a. Special Classes at designated hours. b. Selective Experienced Faculty c. Special Classes

CSE Academic Resources

- a) <https://us04web.zoom.us/j/77105293061?pwd=NWg1TGgzeHVDS21kaGtOa1F0K2ZMUT09>
b) <https://us04web.zoom.us/j/6604272675?pwd=Smh4dStycWt6MHF1WExyWGorbDBGQT09>

1. Sample VIDEO and PPT link:
<https://aecwb.edu.in/?pn=acdmcRsrc>

2. Sample online class link lecture:
<https://us04web.zoom.us/j/76228755505?pwd=VFhtRmFyekJhNkxpSlllZWZRJcjMwZz09>

5.6 Faculty as participants in Faculty development/training activities/STTPs (15)

Sl. No.	Name of the Faculty	Max 3 per Faculty		
		2020-21 (CAYm1)	2019-20 (CAYm2)	2018-19 (CAYm3)
1	Dr. Debashis Chakraborty	3	-	-
2	Dr. Monish Chatterjee	3	3	3
3	Dr. Sandip Roy	3	3	3
4	Dr. Anup Kumar Mukhopadhyay	3	3	3
5	Dr. Pintu Pal	3	3	3
6	Dr. Abhishek Bandyopadhyay	3	3	3
7	Dr. Avishek Banerjee	3	3	3
8	Mr. Shibsankar Bala	3	3	3
9	Mr. Uddalok Sen	3	3	3
10	Mr. Sujoy Kumar Basu	3	3	3
11	Mr. Subhas Chandra Nath	3	3	3
12	Mr. Tapan Kumar Das	3	3	3
13	Mr. Simanta Hazra	3	3	3
14	Mr. Ujjwal Kumar Kamila	3	3	3
15	Mr. Biplab Kumar Mandal	3	3	3
16	Mr. Debabrata Maity	3	3	3
17	Mrs. Shatabdi Saha	3	3	3
18	Mr. Pranabes Gangopadhyay	3	3	3
19	Mrs. Vedatrayee Chatterjee	3	3	3
20	Mrs. Lumbini Bhaumik	3	3	3
21	Mr. Sabyasachi Mukherjee	3	3	3

22	Mrs. Rinku Datta Rakshit	3	3	3
23	Mr.Kinshuk Banerjee	3	3	3
	Sum	69	66	66
	RF = Number of Faculty required to comply with 20:1 Student Faculty Ratio as per 5.1	19	19	19
	Assessment [$3*(Sum / (0.5*RF))$]	21.79	20.84	20.84
	Average Assessment over three years	21.16		

5.7 Research and Development (30)

Serial No	Quality publication in referred/SCI journals[CAY (2021-22)]	Citations
1	M. Bhattacharya, S. Roy , A. K. Das, S. Chattopadhyay S.Banerjeeand A. Mitra,“DDoS attack resisting authentication protocol for mobile based online social network applications,” Journal of Information Security and Applications, Elsevier , Volume 65, March 2022, 103115, (Impact factor: 3.872 , Indexed in - Science Citation Index Expanded (SCIE), Scopus and others).	0
2	S. Begum, R.Sarkar, D. Chakraborty , S. Sen and U.Maulik, “Application of active learning in DNA microarray data for cancerous gene identification”, in Expert Systems with Applications, Elsevier , Vol.177, September2021, 114914. (Impact factor: 6.954 , Indexed in - Science Citation Index Expanded (SCIE), Scopus and others).	0
3	S.Paira, M. Chatterjee and U. Bhattacharya, “On Survivable Energy-Efficient and Crosstalk-aware Routing, Spectrum and Core Allocation schemes for Dynamic Multiclass Traffic in SDM-EONs”, in Optical Switching and Networking, Elsevier , Vol. 42,November, 2021,100630.(Impact Factor – 2.786 , Indexed in - Science Citation Index Expanded (SCIE) and others).	1
4	J.Halder, T.Acharya, M.Chatterjee and U.Bhattacharya, “ES-RSM-RSA: A novel Energy and Spectrum efficient Regenerator aware Multipath based Survivable RSA in offline EON”, in IEEE Transactions on Green Computing and Networking , Vol. 5, No. 3,September 2021,pages 1451 – 1466.	3
5	S.Das and M.Chatterjee , “Network Dimensioning and Survivability of Orthogonal Frequency Division Multiplexed Transparent Optical Grids: An Online Relocation Based Solution”, IEEE Access , Vol. 9, Aug 2021, pages 120481–120491.(Impact Factor: 3.367 , Indexed in - Science Citation Index Expanded (SCIE), Journal Citation Reports and others).	0
Serial No	Quality publication in referred/SCI journals [CAYm1 (2020-21)]	Citations
1	J. Halder, T. Acharya, M. Chatterjee and U. Bhattacharya, "On spectrum and energy efficient survivable multipath routing in off-line Elastic Optical Network", Computer Communications, Elsevier , Vol. 160, July 2020, pages 375-387. (Impact Factor: 3.167 , Indexed in - Science Citation Index Expanded (SCIE), Scopus and others).	8
Serial No	Quality publication in referred/SCI journals [CAYm2 (2019-20)]	Citations
1	S. Paira, J. Halder, M. Chatterjee , U. Bhattacharya, “On Energy Efficient Survivable Multipath Based Approaches in Space Division Multiplexing Elastic Optical Network: Crosstalk-Aware and Fragmentation-Aware”, IEEE Access , Vol.8, No.1, March 2020, pages 47344 – 47356. (Impact Factor: 3.367 , Indexed in - Science Citation Index Expanded (SCIE), Journal Citation Reports and others).	16

2	A. Bhattacharya, M.Sarder, M. Chatterjee and D.Saha, “Efficient integration of logical topology design and survivable traffic grooming for throughput enhancement in WDM optical networks”, IEEE Access , Vol. 8, No.1, March 2020, pages 58155-58170. (Impact Factor: 3.367 , Indexed in - Science Citation Index Expanded (SCIE), Journal Citation Reports and others).	1
3	M. Bhattacharya, S. Roy , K.Mistry, H. P.H. Shum and S.Chattopadhyay, “A Privacy-Preserving Efficient Location-Sharing Scheme for Mobile Online Social Network Applications”, IEEE Access , Vol. 8, pages.221330-221351, 2020. (Impact Factor: 3.367 , Indexed in - Science Citation Index Expanded (SCIE), Journal Citation Reports and others).	2
4	S. Banerjee, S. Roy , V. Odelu, A.K. Das, S. Chattopadhyay, J.J.P.C Rodrigues and Y. Park, “Multi-Authority CP-ABE-Based user access control scheme with constant-size key and cipher text for IoT deployment”, Journal of Information Security and Applications, Elsevier , Vol.53, August 2020, 102503. (Impact factor: 3.872 , Indexed in - Science Citation Index Expanded (SCIE) and others).	16
5	V. Dey, A. Bandyopadhyay , U. Bhattacharya and M. Chatterjee , “An offline scheme for reducing cost of protection in all-optical WDM mesh networks with fast recovery”, International Journal of Parallel Emergent and Distributed Systems, Taylor and Francis, U.K. , Vol.34, No.5, 2019, pages-572-593. (CiteScore: 2.2 , Indexed in – Scopus (Elsevier), Emerging Sources Citation Index (Thomson Reuters) and others).	2
6	I. Nath, V.Dey, J.Halder, M.Chatterjee and U.Bhattacharya, "Minimizing Cost of Regeneration at Regeneration Sites - A New Approach for Dynamic Lightpath Establishment in Translucent Optical Networks", IEEE Access , Vol.8, No.1, Dec 2019, pages 4198-4210. (Impact Factor: 3.367 , Indexed in - Science Citation Index Expanded (SCIE), Journal Citation Reports and others).	0
7	S. Khanam, V. Dey, M. Chatterjee and U. Bhattacharya, “An offline cost-efficient strategy for multicast traffic protection in WDM optical mesh networks to aid rapid recovery”, Optical Switching and Networking, Elsevier , Vol. 34, 2019, pages 47–57. (Impact Factor – 2.786 , Indexed in - Science Citation Index Expanded (SCIE) and others).	1
8	S. Roy , A. K Das, S. Chatterjee, N. Kumar, S. Chattopadhyay, and J. J. P. C. Rodrigues. "Provably Secure Fine-Grained Data Access Control over Multiple Cloud Servers in Mobile Cloud Computing Based Healthcare Applications", IEEE Transactions on Industrial Informatics , Vol. 15, No. 1, pp. 457-468, Jan-2019. (Impact Factor: 10.215 , Indexed in - Science Citation Index Expanded and others).	73
Serial No	Quality publication in referred/SCI journals [CAYm3 (2018-19)]	Citations
1	J. Halder, S. Paira, S. Das, M. Chatterjee , and U. Bhattacharya, “A Multipath-Based Survivability Scheme in Energy-Efficient EON”, IEEE Communication Letters , vol. 22, no.1, October 2018, pages 2024-2027. (Impact factor – 3.436 , Indexed in – Science Citation Index, Science Citation Index Expanded and others).	14
2	S. Roy , S. Chatterjee, A. K. Das, S. Chattopadhyay, S. Kumari, and M. Jo. "Chaotic Map-based Anonymous User Authentication Scheme with User Biometrics and Fuzzy Extractor for Crowdsourcing Internet of Things", IEEE Internet of Things Journal , Vol. 5, No. 4, pp. 2884-2895, 2018. (Impact Factor – 11.75 , Indexed in - Science Citation Index Expanded and others).	119
3	S. Roy , S. Chatterjee and G. Mahapatra. "An Efficient Biometric Based Remote User Authentication Scheme for Secure Internet of Things Environment", Journal of	12

	Intelligent & Fuzzy Systems, IOS Press, Netherlands, vol. 34, no. 3, pp. 1403-1410, 2018. (Impact Factor - 1.851, Indexed in - Science Citation Index Expanded and others).	
4	S. Chatterjee, S. Roy , A. K. Das, S. Chattopadhyay, N. Kumar, and A. V. Vasilakos. "Secure Biometric-Based Authentication Scheme using Chebyshev Chaotic Map for Multi-Server Environment". IEEE Transactions on Dependable and Secure Computing , Vol. 15, No. 5, pp. 824-839, September 2018. (Impact Factor – 7.329, Indexed in - Science Citation Index Expanded and others).	146
5	S. Chatterjee and S. Roy , "An Efficient Fine-grained Access Control Scheme for Hierarchical Wireless Sensor Networks". International Journal of Ad Hoc and Ubiquitous Computing , Inderscience Publishers, Vol. 29, No.3, pp.161 – 180, 2018. (Impact Factor - 0.654, Indexed in - Science Citation Index Expanded and others).	2
6	S. Chatterjee and S. Roy . "An Efficient Dynamic Access Control Scheme for Distributed Wireless Sensor Networks", International Journal of Ad Hoc and Ubiquitous Computing , Inderscience Publishers, Vol. 27 no. 1, Pages 1-18, 2018. (Impact Factor - 0.714, Indexed in - Science Citation Index Expanded and others).	5

5.7.1. Academic Research (10)

Book / Book Chapters:

SI No.	Book / Book Chapters (CAYm2, 2019-20)
1	R. D. Rakshit , and D. R. Kisku, "Face Identification via Strategic Combination of Local Features", in A. Das, J. Nayak, B. Naik, S.Pati and D. Pelusi (eds) Computational Intelligence in Pattern Recognition, Advances in Intelligent Systems and Computing, Vol.999, Springer, Singapore, 2020.
2	H. N. Jha, S. Gupta S. and D. Maity , "Effect of Wormhole attack on MANET," in Design Frameworks for Wireless Networks, Lecture Notes in Networks and Systems Vol. 82, 2020, Springer Nature Singapore Pte Ltd, ISBN 987-981-13-9573-4.
	Book / Book Chapters (CAYm3, 2018-19)
3	S. Mukherjee and L. Bhaumik , "Simultaneous Clustering and Feature Selection Using Nature-Inspired Algorithm," Springer Lecture Notes in Networks and Systems, Vol.41, pages.545-550, February, 2019.
4	U.K. Kamila , O. Bandyopadhyay and and A. Biswas, "Detection of Hemorrhagic Region in Brain MRI," Springer Lecture Notes in Networks and Systems, Vol.46, pages 383-391, September, 2018

Conference Publications

SI No.	Conference Publications (CAY, 2021-22)
1	S. Paira, U. Bhattacharya, and M. Chatterjee , "A crosstalk-aware and energy-saving survivable RSCA for online prioritized traffic in SDM-EONs, in IEEE Proc. of 12th International Conference on Computing Communication and Networking Technologies (ICCCNT) , 2021, IIT Karagpur, India.

Conference Publications (CAYm1, 2020-21)	
1	S. Paira, J. Halder, U. Bhattacharya and M. Chatterjee , “A novel fragmentation-aware and energy-efficient multipath routing and spectrum allocation for prioritized traffic in protected EONs,” in IEEE Proc. Of 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT) , 2020, IIT Kharagpur, India.
2	J. Halder, T. Acharya, M. Chatterjee , and U. Bhattacharya, “Optimal Design of Energy Efficient Survivable Routing & Spectrum Allocation in EON, in IEEE Proc. of 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT) , 2020, IIT Karagpur, India.
3	A. Bhattacharya, H. Kumbhakar, M. Chatterjee and D. Saha, “Controlling Traffic Hops-A New Approach for Traffic Grooming in WDM Optical Networks, in IEEE Proc. of International Conference on Electronics, Computing and Communication Technologies (IEEE CONECCT) , 2020, Bangalore, India.
Conference Publications (CAYm2, 2019-20)	
1	I. Nath, U. Bhattacharya, and M. Chatterjee , “An efficient heuristic to minimize number of regenerations in translucent optical network under dynamic scenario,” in ACM Proc. of the 20th International Conference on Distributed Computing and Networking (ICDCN) , 2019, Bangalore, India.
Conference Publications (CAYm3, 2018-19)	
1	S. Paira, M. Chatterjee , S. Khanam, and U. Bhattacharya, “GSWA: A survivable dynamic multicast efficient RWA scheme in WDM mesh Networks,” in IEEE Proc. of 9th International Conference on Computing, Communication and Networking Technologies (ICCCNT) , 2018, Bangalore, India.

**PhD Guidance
CAYm1 (2020-21)**

Research Guide	Name of the Scholar	Topic of the Research	University & Year of Registration/Awarded	Status	Year of completion
Dr. Monish Chatterjee	Abhishek Bandyopadhyay	Design of Resilient All-optical WDM Networks: Survivable Traffic Grooming and Fast Failure Recovery	IEST, Shibpur 2020(Awarded)	Awarded	2020
	Ira Nath	Design and Analysis of Resource Constrained Translucent Optical Networks	IEST, Shibpur 2020(Awarded)	Awarded	2020
	Asima Bhattacharya	Traffic Grooming in WDM Optical Mesh Networks	Jadavpur University, Kolkata 2020 (Awarded)	Awarded	2021
	Sougata Das	Designing Survivable Optical	Maulana Abul Kalam Azad	Registered in 2017	NA

		Grid Networks	University of Technology (MAKAUT), Kolkata, 2017 (Registration)		
Dr. Debasis Chakraborty	Shemim Begum	Some Studies on Feature Selection Approaches for Classification of Microarray Data	Jadavpur University, Index No. 21/16/B	Awarded	2020

CAYm2 (2019-20)

Research Guide	Name of the Scholar	Topic of the Research	University & Year of Registration/Awarded	Status	Year of completion
-	-	-	-	-	-

CAYm3 (2018-19)

Research Guide	Name of the Scholar	Topic of the Research	University & Year of Registration/Awarded	Status	Year of completion
-	-	-	-	-	-

Ph.D Awarded

Name of the Faculty	Name of the Institute/University	Year
Dr. Sandip Roy	Jadavpur University	2019
Dr. Avishek Banerjee	Jadavpur University	2019
Dr. Anup Kumar Mukhopadhyay	IIT(ISM), Dhanbad	2019
Dr. Abhishek Bandyopadhyay	IEST, Shibpur	2020
Dr. Rinku Datta Rakshit	NIT Durgapur	2021

5.7.2 Sponsored research (5)

CAYm1(2020-21)

Project Title	Duration	Funding Agency	Amount
-	-	-	-

CAYm2(2019-20)

Project Title	Duration	Funding Agency	Amount
-	-	-	-

CAYm2(2018-19)

Project Title	Duration	Funding Agency	Amount
-	-	-	-

Cumulative Amount(X + Y + Z) = NIL

5.7.3 Development Activities (10)

Product Development:

Amidst the COVID-19 threat, it was extremely important for the institution to maintain a safe, healthy and hygienic environment. This can be achieved in two ways. First, we needed to ensure that those students or employees who have COVID-19 positive syndrome (like high fever) are not allowed to enter Asansol Engineering College campus. Second, those who do not have COVID-19 positive symptoms must use touch-less hand sanitizer and wash hands through touch-less smart tap for at least 20 seconds, as suggested by WHO. So the aim was to implement the above two safety measures completely in an automated way, so that college can avoid man-to-man health monitoring. The product Temp Nitizer developed by the CSE department is a positive step in this direction. The device status monitoring also avoids manual observation, as it works under a cloud based alert/ information system. The details of the project and the product developed are given below.

Manpower required (approximately):

Faculty Member: 02

Cloud Expert (Student):02

IoT platform Development (Student):02

Front End (Student):02

Components & Technical Specifications: Components and Technical Specifications need to set up through series of meetings with project-team members.

Cost of the project: Rs. 10,000 (Approximately)

Time of Completion: 1-2 Weeks

Investigators:

1. PI: Dr. Sandip Roy, Dept of CSE
2. Co-PI: Mr. Uddalok Sen, Dept of CSE
3. Student Coordinator: Mr. Amar Sinha, Roll- 10800117011

Basic Steps or Algorithm of Temp Nitizer:

- Step 01: An employee or a student comes to AEC campus gate, his/her body temperature is measured automatically using a laser based temperature sensor. If temperature is ≥ 100 degree Fahrenheit, then a warning message will be displayed. The gate will not open and that person will be advised to meet the concerned medical officer. Else if, the person has temperature ≤ 100 degree Fahrenheit then go to Step 02.
- Step 02: That employee or student moves forward to an automatic, touch-less PIR sensor based hand sanitizer dispenser machine. The person keeps his or her palm to a proper distance from the dispense machine, and a fixed amount of hand sanitizer will be automatically dispensed.
- Step 03: Once sanitizer is dispensed, that person moves his or her hand to a smart touch-less tap/ faucet, which then starts operating. Water will continue to flow for 20 seconds for washing hands.

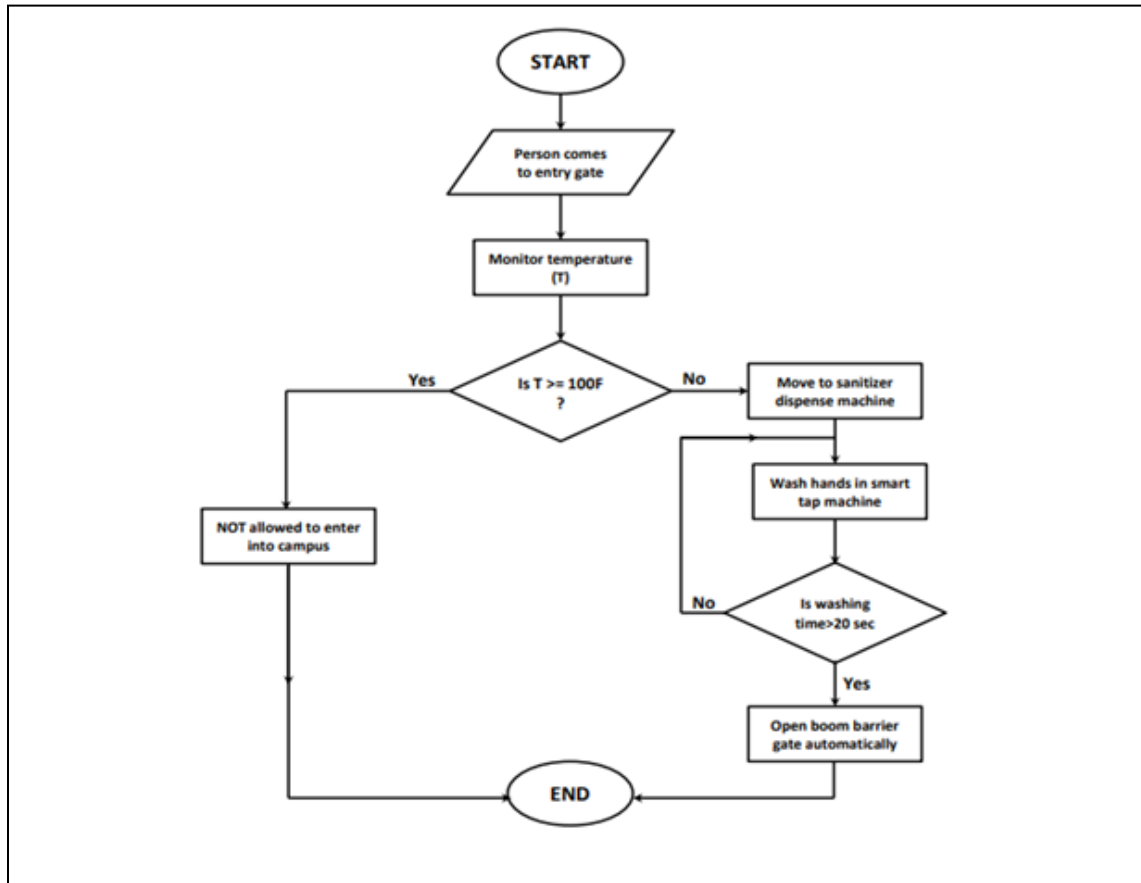
- Step 04: If, the person step 01, step 02 and step 03 executes successfully, microcontroller based boom barrier gate will open automatically and he or she will be allowed to enter into AEC campus.

Features of Temp Nitizer:

1. it's an automated and cloud based verifiable system, i.e., unmanned system.
2. If any person skips any process, the next process does not execute. As for example, if a person has ≥ 100 degree Fahrenheit and moves to a hand sanitizer dispenser machine, it will not dispense sanitizer, as it is a wastage only.
3. If a person does not use any hand sanitizer then smart tap must not flow water as it is wastage of water.
4. Boom barrier gate will open, only if all previous steps are executed successfully. As for example, the boom barrier gate refuses to open, if someone does not use sanitizer.



Working models/Charts/Monograms:

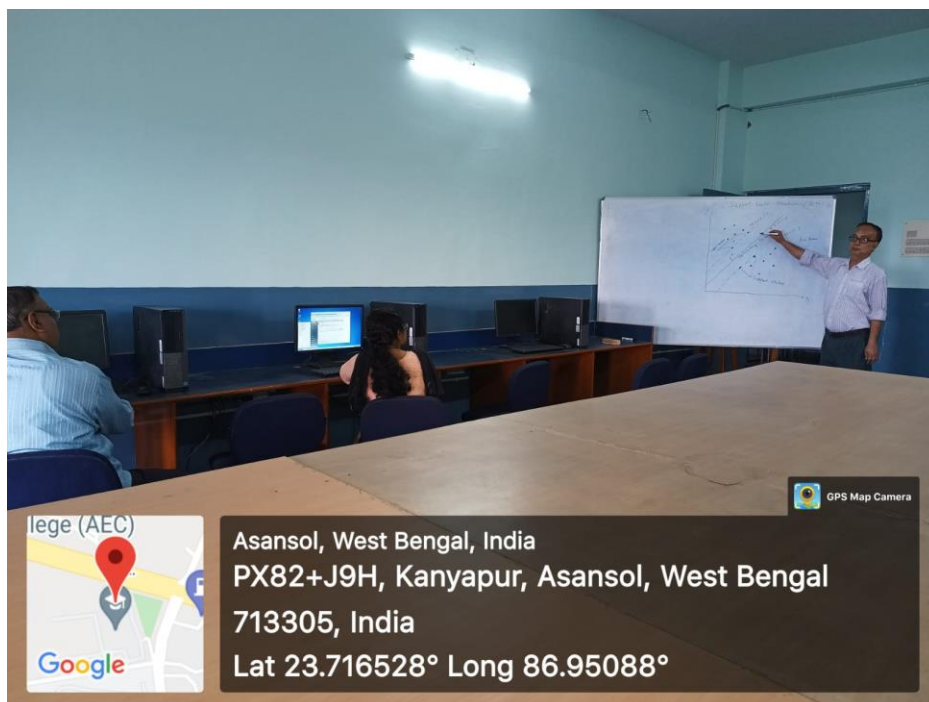


Flowchart

Research and Design Laboratory:

The department has a small research laboratory to help faculty members to carry out their research work during PhD as well as post PhD. The research laboratory is equipped with the following facilities:

- a) Six computers (i3) with tools like MATLAB, CPLEX, Python, JAVA and internet facility.
- b) Editors: Word, LATEX (Overleaf)
- c) Software: GIMP, Microsoft Paint etc.



Research & Development Laboratory Lab

Areas of Research:

Optical Networks, Cryptography, Machine Learning, Pattern Recognition, Bioinformatics, Genetic algorithm and Evolutionary Computing.

Outcomes of R&D Lab

Number of SCI/SCIE/SCOPUS Journal Publications by Faculty Members:

CAY (2021-22)	CAYm1 (2020-21)	CAYm2 (2019-20)	CAYm3 (2018-19)
5	1	8	6

Number of Conference Publications by Faculty Members

CAY (2021-22)	CAYm1 (2020-21)	CAYm2 (2019-20)	CAYm3 (2018-19)
1	3	1	1

PhD produced

CAY (2021-22)	CAYm1 (2020-21)	CAYm2 (2019-20)	CAYm3 (2018-19)
0	3	0	0

Access to **Springer e-books**, published between 2005-2007, **IEEE Journals**, **Science Direct journals**, **National Digital Library** by creating own account through the URL mentioned below to all the systems in the department:

- a. www.link.springer.com (<http://www.link.springer.com/>)

b. www.sciencedirect.com (<http://www.sciencedirect.com/>)

c. www.ndl.iitkgp.ac.in (<http://www.ndl.iitkgp.ac.in/>)

5.7.4 Consultancy (from Industry) (5)

2020-21 (CAYm1)

Project Title	Duration (Hrs)	Funding Agency	Amount
-	-	-	-

2019-20 (CAYm2)

Project Title	Duration (Hrs)	Funding Agency	Amount
-	-	-	-

2018-19 (CAYm3)

Project Title	Duration (Hrs)	Funding Agency	Amount (INR)
IT Help Desk Attendant	400	PMKVY	2,49,900
Junior Software Developer	400	PMKVY	2,55,780
Domestic Data Entry Operator	400	PMKVY	2,44,020
Total			7,49,700

Cumulative Amount(X + Y + Z) = 0 + 0+ 7,49,700= INR 7,49,700

5.8 Faculty Performance Appraisal and Development System (FPADS) (30)

The institute has well defined system of faculty performance appraisal and development system.

Implementation Process:

All faculty members have to prepare and submit self-appraisal reports in a well-defined format annually which include along with the basic information of the faculty members as following:

- Involvement in teaching learning process, introduction to innovative methods.
- Involvement in research and development activities, its outcome, publications of research articles, etc.
- Participation and organizing national and international seminar, symposium, workshop etc.
- Participation in faculty development program/ training activities.
- Interaction with industry and other institute or universities.
- Sharing administrative responsibilities of the institute and department.
- Involvement in students extra and co-curricular activities.
- Involvement in social and cultural activities.

- The self-appraisal report of each faculty member is evaluated by HOD and based on the recommendation of HOD puts his comments and forwards the same along with a short summary of all information including student feedback to Principal/Director for consideration.
- Principal/Director keeps the record of this recommendation and forward the same to external expert committee by academic council/BOG of the institute for their Observations.
- The expert committee members scrutinize the self-appraisal report of the faculty members and if required may call for interaction with some of the faculty members.
- Finally expert committee members submit their recommendation to Director/Principal. Director/Principal on the basis of these recommendations take action with the approval of BOG.

On the basis of recommendation following actions are taken:

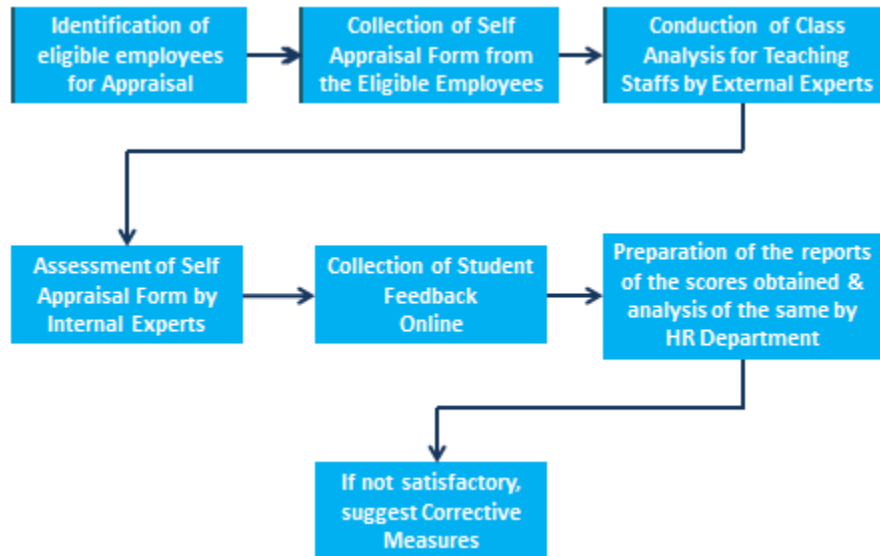
- Performing faculty members are encouraged for their performance by giving certificate of appreciation, identifying the best faculty in the department and in some cases, the best faculty of the institute. Special award is given to the month of the institute.
- Non-performing faculty members are counseled for their betterment by senior faculty members along with HOD. Their performance reconsidered after one semester and improvement is noted.
- For absolute non –performing faculty members warning twice, and if no improvement is noted, action is taken against them.

Effectiveness

As an index of improvement of quality in academic activities in the institute following may be noted:

- Faculty members have either completed or registered for Ph.D and progress in research work is satisfactory.
- Faculty involvement in research and development activities is improving, resulting in more research publications.
- More number of faculty members is participating in seminars.
- Substantial improvements in faculty industry interaction and regular visit to industry and premier institutions.
- Organizing symposium, workshops and seminars have increased.
- Faculty involvement in students co-curricular and extra-curricular activities have substantially improved.
- Faculty involvement in social and cultural activities is continuously improving. The FPADS is implemented regularly and is very effective for improving academic quality of the department as well as institute.

Appraisal Process Flow Chart (Teaching)



Parameters for Assessment

TEACHING STAFFS: Final report contains following details of an employee

- a) Student Result(25)
- b) Mentorship(10)
- c) Administrative Responsibilities(35)
- d) Student Feedback(10)
- e) Head of The Department (HOD)(10)
- f) Head of The Institute (HOI)(10)
- g) Class Analysis (CA)(50)

To encourage faculty members for Publication and Development, a separate desired category for Publication & Development (150) has been incorporated.

- It is desired that teaching staff score more than 70% score in total.

Academic Performance Indicators

(1)

ACADEMIC PERFORMANCE INDICATORS

GENERAL INFORMATION :

Name (in Block Letters)	:	
College Name	:	
Department	:	
Date of joining	:	
Previous Experience	:	Teaching: Industry: Research:
Whether acquired any degree or fresh academic qualifications during the year:(Mention degree name and date)	:	

Sl	Parameter	Total marks	Marks Obtained
I	Student Result	25	
II	Class Analysis (To be filled by HR Department)	50	
III	Mentorship	10	
IV	Administrative Responsibilities	35	
V	Students Feedback	10	
VI	HOD's Report	10	
VII	Principal's Report	10	
	TOTAL	150	

Note: The faculties have to submit all related documents. All data submitted related to parameter I,II,III&IV has to be verified and validated by the HOD

.....
Signature of the Assesse

Apart from the above mentioned information the faculty is also requested to fill their R&D details in prescribed manner. The faculty scoring more than 70% in total and/or excelling in individual category will be encouraged with R&D reward

5.9 Visiting/Adjunct/Emeritus Faculty etc. (10)

Asansol Engineering College has provision of inviting visiting /adjunct and Emeritus faculty.

Procedure: As per decision taken by the Departmental Academic Committee (DAC), the HOD finalizes the list of Visiting/Adjunct faculty and experts from industry for academic development in the department. The list is finally approved by Director / Principal.

The list of such faculty/Industry experts that visited the college over the last three academic years is as follows.

Name of Visiting/Adjunct/Emeritus Faculty Qualification Institutions /University/Organization			Hrs. of interaction with the faculty		
			CAYm1(2020-2021)	CAYm2(2019-2020)	CAYm3(2018-2019)
Mr. Sougata Das (Adjunct faculty)	M. Tech.	Architect – Development and Security Operations(Dev Secops), IBM India Global Business Solutions, Presently Senior Architect, Cognizant Technology Solutions, India.	26	NA	24
Prof. (Dr.) S.Choudhury (Visiting Faculty)	PhD	Calcutta University	NA	22	26
Prof. (Dr.) N.Chaki (Visiting Faculty)	PhD	Calcutta University	28	30	NA

CRITERION 6
FACILITIES AND TECHNICAL SUPPORT

6. FACILITIES AND TECHNICAL SUPPORT (80)

6.1. Adequate and well-equipped laboratories, and technical manpower (30)

Sr. No.	Name of the Laboratory	No. of students per setup (Batch Size) On Avg.	Name of the Important equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower support		
					Name of the technical staff	Designation	Qualification
01	AI Lab	30	30 Desktop Computer System: Intel Core i7-10700 @ 2.90 GHz /16GB/1 TB HDD/23.8Inch TFT Monitor, Air Conditioner:2 nos. 1,5ton, Wall mounted (Havells Lloyd), Printer: HP laser, Switch: 48 port Gigabit Ethernet (D'Link)	12hrs	DEBENDRA NATHPATANAYAK	SR. TECHNICAL ASSISTANT	B.Sc. and "DOEACC A"Level
02	Networking Lab	30	30 Desktop Computer System: Intel Core i7-11700 @ 2.50 GHz/16GB/1 TB HDD/19.5Inch TFT Monitor, Air Conditioner: 2 nos. 1.5ton, Wall mounted (Havells Lloyd), Printer & Scanner: HP laser, Switch: 48 port Gigabit Ethernet (D'Link) UPS: 10KVA	12hrs	SUKHAMAY CHOUDHURY	TECHNICAL ASSISTANT	"DOEACC A" Level
03	CSE Project Lab	30	30 Desktop Computer System: Intel Core i7-11700 @ 2.50 GHz/16GB/1 TB HDD/19.5Inch TFT Monitor, Air	14hrs	SUMAN MALLICK	SR. TECHNICAL ASSISTANT	"DOEACC A" Level

			Conditioner:2 nos. 2ton,Wall mounted (Havells Lloyd),Printer& Scanner: HP laser, HP Scanjet Scanner, Projector, Screen, Switch: Switch: 48 port Gigabit Ethernet (D'Link)				
04	DBMS Lab	30	30 Desktop Computer System: Intel Core i3 4160 @ 3.60GHz/8GB/500 GB HDD/18.5Inch TFT Monitor, Air Conditioner:2 nos. of 1.5ton each, Wall mounted (Voltas), Printer & Scanner: HP laser, Switch: 2x24 port Ethernet, UPS: 10KVA	12hrs	BABAI UKIL	TECHNI CALAS SISTAN T	B.Sc. and “DOEAC C A”Level
05	Computin g Lab 1	30	34 Desktop Computer System: Core i3 4130/3240 @ 3.60 GHz/8 GB RAM/500GB/18.5In ch TFT Monitor, Air Conditioner:2 nos. of 1.5ton each. Wall mounted(Havells Lloyd), Printer & Scanner: HP LaserJet, Switch: Switch: 24 port Gigabit Ethernet (TP-Link)	12 hrs	AMITAVA ROY	TECHNI CALAS SISTAN T	“DOEAC C A” Level
06	Computer Organizati on Lab	30	Digital trainer kit: 6, Bread board: 5, IC checker, wires, cutter, tweezer, ICs. 10 Desktop Computer System: Intel Core i3 3240 @ 3.40 GHz/ 4GB RAM/500 GB HDD/18.5Inch TFT	8 hrs	RAJAT GHOSH	TECHNI CALAS SISTAN T	“DOEAC C A” Leveland O” Level

			Monitor, Mentor Graphics software in 5 Desktop Computer System, Air Conditioner:2 nos 1.5ton each (Voltas), HP laser Printer UPS: 10KVA Penguin				
07	Computing Lab 2	30	36 Desktop Computer System: Intel Dual Core @ 2.70GHz/4GB/160 GB/15inch TFT Monitor, UPS: 10KVA Liveline, Switch: 24 port Gigabit Ethernet, Air Conditioner:2 nos. 1.5ton each (Voltas)	12 hrs.	SULEKHA GOPE	TECHNICAL ASSISTANT	“DOEACC A” Level
08	Object Oriented Programming Lab	30	36 Desktop Computer System: Intel Dual Core @ 2.70GHz/4GB/160 GB/15 inch TFT Monitor, Switch: 24 port Gigabit Ethernet (DAX), Air Conditioner:2 nos. 1.5ton each(Voltas), HP laser Printer	12 hrs.	MITRANI MUKHERJEE	TECHNICAL ASSISTANT	“DOEACC A” Level
09	Computing Lab 3	30	36 Desktop Computer System: Intel Dual Core @ 2.70GHz/4GB/160 GB/15inch TFT Monitor, Switch: 24 port Gigabit Ethernet (TP-Link), UPS: 10KVA Kirloskar, Air Conditioner:2 nos. 1.5 ton each (Voltas), HP laser Printer	10hrs	RAJENDRA NATH PATTANAYAK	TECHNICAL ASSISTANT	BCA

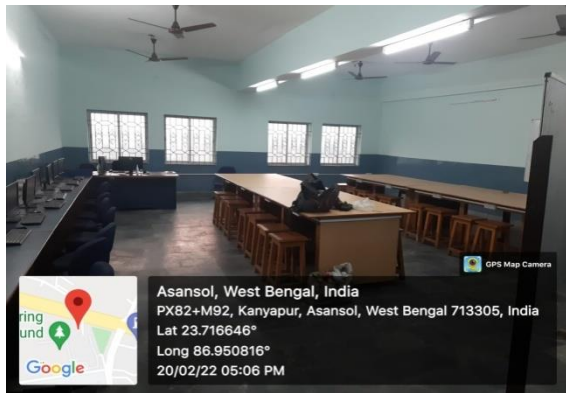
Some Laboratories of CSE Department



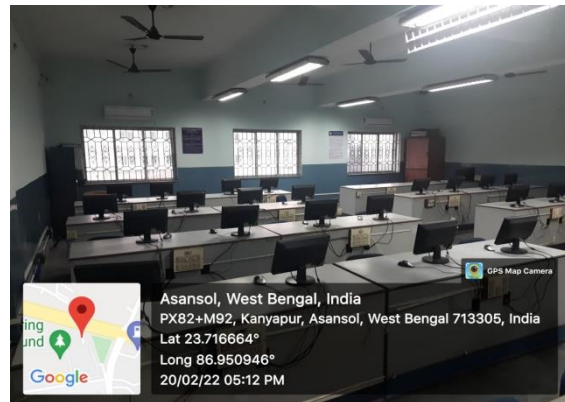
Database Management System Laboratory



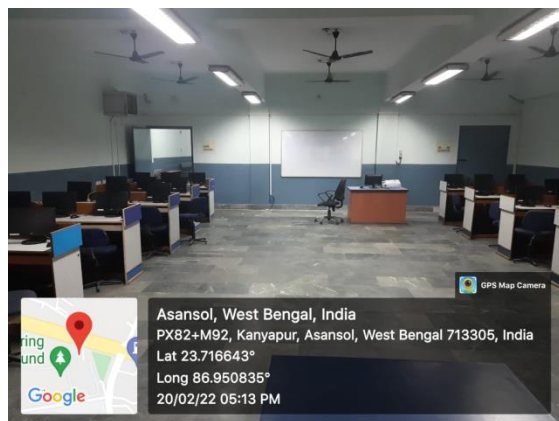
Computing Lab 1



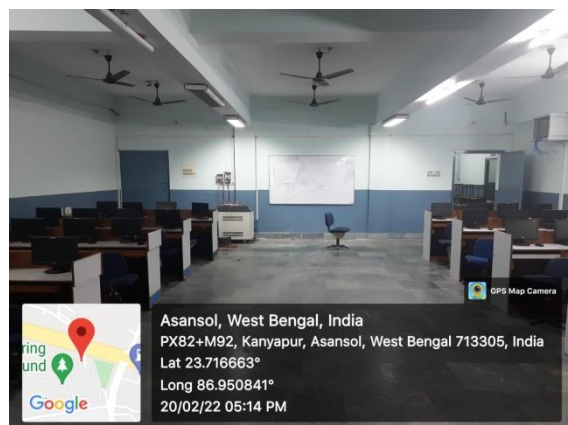
Computer Organization Laboratory



Computing Lab 2



Object Oriented Programming Laboratory



Computing Lab 3

6.2. Additional facilities created for improving the quality of learning experience in laboratories (25)

Sr. No.	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students' are expected to have enhanced learning	Relevance to POs/PSOs
1	Knowledge Gateway	The institute has membership of Elsevier and has lifetime membership of Springer E-books (1125 Titles). Students can access Reports and Journals.	For research and project activities. To know about recent trends in Computer Science and Engineering field.	By Students and faculty members	All engineering subject domains	PO1,PO2, PO3,PO4,PO6,PO7,PO8,PO9,PO11,PO12, PSO1,PSO2,PSO3
2	E-learning	Access to IIT Kharagpur digital library (e-books), NPTEL Videos, Swayam MOOCs	To enhance Teaching & Learning	By Students and faculty members	All engineering subject domains	PO1,PO2, PO3,PO4,PO6,PO7,PO8,PO9,PO10,PO12, PSO1,PSO2,PSO3

6.3. Laboratories: Maintenance and overall ambience (10)

(Self-Explanatory)

Maintenance:

- Regular basis maintenance (AMC) is done by reputed vendors for UPS.
- Software with latest version being updated as and when required.
- Regular basis maintenance (AMC) for air conditioners.
- All departmental machines are connected through Virtual LAN and it is maintained in-house.
- All Servers & Desktop computers are repaired, updated and maintained in-house.
- Regular checkup of equipment is carried out at the end of every semester.
- Breakdown register is maintained in the laboratories.
- As per the requirements minor repairs are carried out by the lab technical staffs.
- Major repairs are outsourced by following the procedure of the institute.

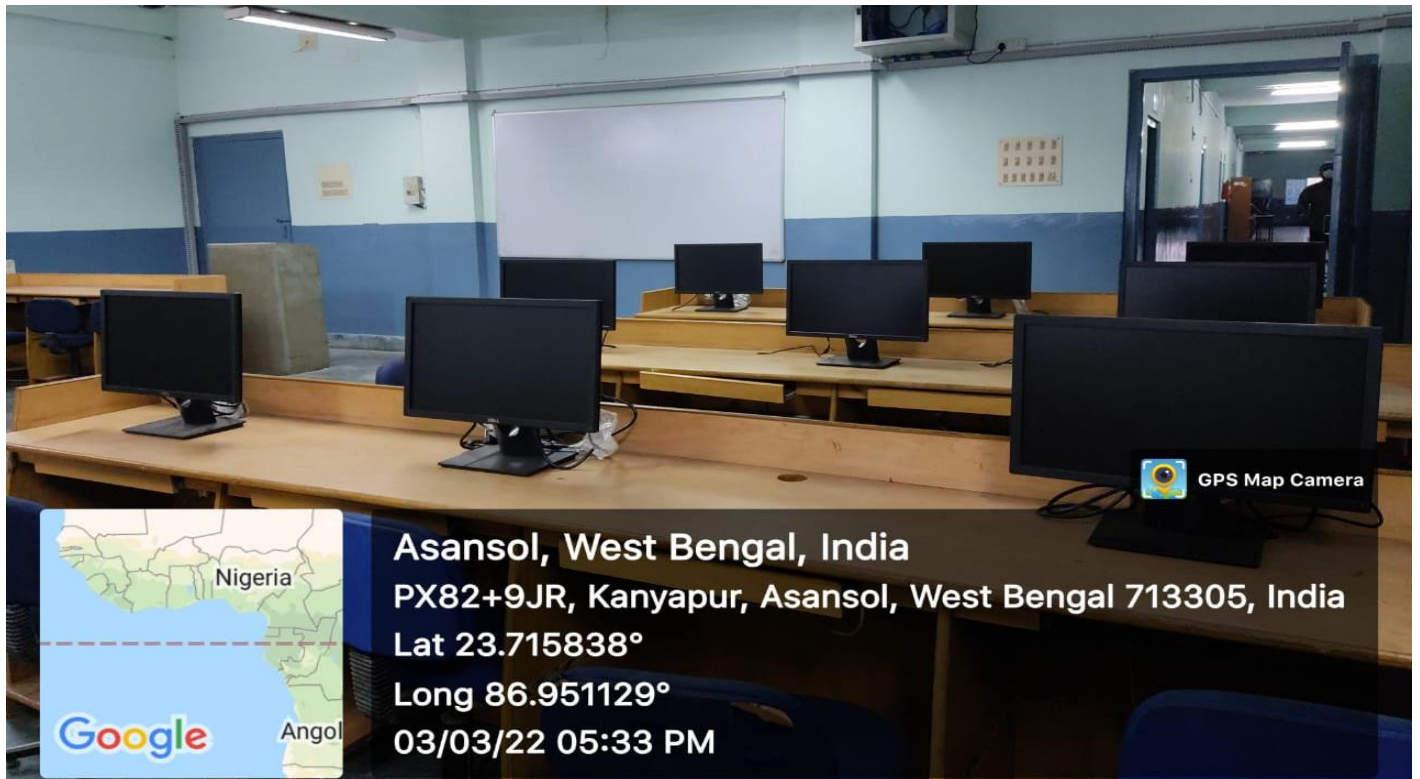
Ambience:

- Department has enough laboratories which are used throughout the year as per the timetable to meet the curriculum requirements.
- Chairs/benches/desks are in good condition. Chairs are provided for individual students in laboratories.
- Laboratories are equipped with sufficient hardware and licensed software to run program specific curriculum and beyond curriculum activities.
- Sufficient laboratory manuals are distributed among the students.
- Sufficient number of windows are available for ventilation and natural light and every laboratory has single entry and exit points (though there is an emergency door as a safety measure).
- Lighting system is very effective, along with the natural light in every corner of the laboratories.
- Emergency light connections available in laboratory in case of power failure.
- Cup-boards are available outside each laboratory for students to place their belongings.
- Each laboratory is equipped with whiteboard, computer with internet connectivity and such other amenities.
- All the laboratory related papers are allotted with laboratory hours every week.

6.4. Project laboratory (5)

(Mention facilities & Utilization)

- Name of the Laboratory: CSE Project Lab
- Capacity: 30 users at a time
- LAN connection: ALL systems are LAN connected at present.
- Hardware configuration: Intel Core i7 10.700GHz, 16GB RAM, 1TB HDD
- Software specifications:
 - PYTHON 3.9
 - JDK
 - PHP (front end)
 - HTML
 - XML
 - C++
 - JSON(JAVA Script Object Notation)
 - JavaScript
 - MS Word 97 or later versions.
 - Web Browser: Microsoft Internet Explorer, Mozilla, Google Chrome.
 - MySQL Server (back-end)
 - NS2(Network Simulator 2)
 - Operating System: Windows7, LINUX
- Mentors/Project Guide: Each group has assigned mentor/guide who helps to develop the project.



6.5. Safety measures in laboratories (10)

Sr. No.	Name of the Laboratory	Safety Measures
01.	AI Lab	<ul style="list-style-type: none">• For avoiding short circuit each laboratory has separate MCB.• Earthing Voltage checked on regular basis.• Each laboratory has Fire Extinguishers.• All Laboratories are very near to Water reservoir.• General Rules of Conduct (Do's and Don'ts) in each and every Laboratory is displayed.• Specific Safety Rules for students are being displayed.• First aid box available in the laboratories.• Well-trained technical supporting staff.• Avoiding the use of damaged equipment and providing needful equipment and components.• Periodical servicing of the laboratory equipment.• Maintain a clean and organized laboratory,• Avoiding the use of cell phones.• Appropriate storage areas.
02.	Networking Lab	
03.	CSE Project Lab	
04.	DBMS Lab	
05.	Computing Lab 1	
06.	Computer Organization Lab	
07.	Computing Lab 2	
08.	Object Oriented Programming Lab	
09.	Computing Lab 3	

CRITERION 7
CONTINUOUS IMPROVEMENT

7.1 POs & PSOs Attainment Levels and Actions for improvement – Batch 2016-2020

Actions taken based on the results of evaluation of each of the POs & PSOs (20)

Identify the areas of weaknesses in the program based on the analysis of evaluation of POs & PSOs attainment levels. Measures identified and implemented to improve POs & PSOs attainment levels for the assessment years.

(CAYm2 2019-2020)

POs	Target Level	Attainment Level	Observations
PO1: Engineering knowledge: To Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems			
PO1	2.09	2.15	Computer Science and engineering curriculum requires the strong foundation of theoretical and practical knowledge of engineering subjects, which the students study in their first year that correlates the theoretical concepts with applications. Target Met
ACTION TAKEN: NIL			
PO2: Problem analysis: Identify, formulate, review research literature, and analyse complex Engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.			
PO2	2.01	2.04	The problem solving and analyzing skills gained through first and second year courses helps the students to apply in real time application. Target Met
ACTION TAKEN: NIL			
PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate considerations for the public health and safety, and the cultural, societal, and environmental considerations.			
PO3	2.07	2.17	Some of the projects developed by the student as hobby projects/major projects (final year) are not fully considering the social and environmental issues. Target Met
ACTION TAKEN: NIL			
PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.			
PO4	1.73	1.76	It is observed that most of the project abstract and literature survey are addressing the research based approach but does not end with valid conclusions. Target Met
ACTION TAKEN: NIL			
PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.			
PO5	1.76	1.77	It is observed that Up-gradations of tools and resources are necessary to meet the industry standards and research. Target Met

ACTION TAKEN: Attainment needs to be improved. Emphasis on Webinar or project work that involves use of modern technologies, software tools, optimizing tools etc.

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO6	2.14	2.09	Attainment needs to be improved
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ACTION TAKEN: Attainment needs to be improved. Students are encouraged to provide solutions to problems during their project work and assignments keeping in mind the societal issues, health issues, cultural issues and privacy of individuals.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO7	2.01	2.17	The issues of global and environmental awareness among the student are very good. Target Met
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ACTION TAKEN: NIL

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO8	1.82	1.80	Attainment needs to be improved
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ACTION TAKEN: Beside Course work in ethics students are induced to practice the same among fellow students and other as large. They are given more lessons on cyber security to avoid unethical practices or hacking.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO9	1.81	1.79	Attainment needs to be improved
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ACTION TAKEN: Assigned team-based projects such as technical model making in a technical competition.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO10	1.65	1.68	The communication, presentation and report writing skills are to be further improved among the students. Target Met
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ACTION TAKEN: NIL

PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO11	1.62	1.69	Few courses of curriculum give knowledge of Management principle and applying managerial principles to his/her work including financial implications and to manage the project in multidisciplinary environments. Target Met
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ACTION TAKEN: NIL

PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life- long learning in the broadest context of technological change.

PO12	1.79	1.80	The pre final year and final year courses of the program are demonstrating the resource for contemporary issues and lifelong learning. Target Met
ACTION TAKEN: NIL			
Similar information is to be provided for PSOs			
PSO1: Attain the ability to design efficient algorithms for developing hardware and software-based systems.			
PSO 1	1.84	1.88	The courses of the program are demonstrating the algorithms for developing hardware and software-based systems. Target Met
ACTION TAKEN: NIL			
PSO2: Apply standard software engineering approach and be able to use modern tools for solving real life problems.			
PSO 2	1.82	1.93	Usages of different modern tools to, develop or implement, test, and maintain the computer systems for Industrial Equipment and for solving real life problems. Target Met
ACTION TAKEN: NIL			
PSO3: Apply the acquired proficiency to become successful technocrats and entrepreneurs as well as engage in research work in emerging fields of Computer Science and Engineering.			
PSO 3	1.67	1.72	To inculcate ethics, good interpersonal relationships, ability to be entrepreneurs as well as engage in research work in emerging fields of Computer Science and Engineering Target Met
ACTION TAKEN: NIL			

**POs & PSOs Attainment Levels and Actions for improvement – Batch 2015-2019
(CAYm3 2018-2019)**

POs	Target Level	Attainment Level	Observations
PO1: Engineering knowledge: To Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems			
PO1	2.02	2.09	Computer Science and engineering curriculum requires the strong foundation of theoretical and practical knowledge of engineering subjects, which the students study in their first year that correlates the theoretical concepts with applications. Target Met
ACTION TAKEN: NIL			
PO2: Problem analysis: Identify, formulate, review research literature, and analyse complex Engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.			
PO2	1.94	2.01	The problem solving and analyzing skills gained through first and second year courses helps the students to apply in real time application. Target Met
ACTION TAKEN: NIL			

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate considerations for the public health and safety, and the cultural, societal, and environmental considerations.

PO3	2.03	2.07	Some of the projects developed by the student as hobby projects/major projects (final year) are not fully considering the social and environmental issues. Target Met
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ACTION TAKEN: NIL

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO4	1.67	1.73	It is observed that most of the project abstract and literature survey are addressing the research based approach but does not end with valid conclusions. Target Met
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ACTION TAKEN: NIL

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO5	1.72	1.76	It is observed that Up-gradations of tools and resources are necessary to meet the industry standards and research. Target Met
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ACTION TAKEN: NIL

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO6	1.95	2.14	The courses of Computer Science and Engineering are addressing the needs of, health, safety and social concerns regarding engineering practices in real life. Target Met
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ACTION TAKEN: NIL

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO7	1.87	2.01	The issues of global and environmental awareness among the student are very good. Target Met
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ACTION TAKEN: NIL

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO8	1.7	1.82	The students are doing better in improving the overall expertise in field of engineering and also in ethical moral knowledge. Target Met
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ACTION TAKEN: NIL

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO9	1.81	1.81	The students are able to work as individual as well as in team. Target Met
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ACTION TAKEN: NIL			
PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.			
PO10	1.62	1.65	The communication, presentation and report writing skills are to be further improved among the students. Target Met
ACTION TAKEN: NIL			
PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.			
PO11	1.61	1.62	Few courses of curriculum give knowledge of Management principle and applying managerial principles to his/her work including financial implications and to manage the project in multidisciplinary environments. Target Met
ACTION TAKEN: NIL			
PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life- long learning in the broadest context of technological change.			
PO12	1.77	1.79	The pre final year and final year courses of the program are demonstrating the resource for contemporary issues and lifelong learning. Target Met
ACTION TAKEN: Attainment needs to be improved. To reach the target level, students are motivated to study relevant literature, so as to prepare themselves for planning, design, development and implementation of projects. Students are advised to attend seminar in advanced technological areas which helps in life-long learning.			
Similar information is to be provided for PSOs			
PSO1: Attain the ability to design efficient algorithms for developing hardware and software-based systems.			
PSO 1	1.81	1.84	The courses of the program are demonstrating the algorithms for developing hardware and software-based systems. Target Met
ACTION TAKEN: Attainment needs to be improved. To reach the target level, more emphasis is given to additional classes for some core Computer Science subjects like Design and Analysis of Algorithms and Computer Organization & Architecture, Data structure so that doubts are cleared to the extent possible.			
PSO2: Apply standard software engineering approach and be able to use modern tools for solving real life problems.			
PSO 2	1.81	1.82	Usages of different modern tools to, develop or implement, test, and maintain the computer systems for Industrial Equipment or for solving real life problems. Target Met
ACTION TAKEN: NIL			

PSO3: Apply the acquired proficiency to become successful technocrats and entrepreneurs as well as engage in research work in emerging fields of Computer Science and Engineering.

PSO 3	1.65	1.67	To inculcate ethics, good interpersonal relationships, ability to be entrepreneurs as well as engage in research work in emerging fields of Computer Science and Engineering Target Met
ACTION TAKEN: NIL			

**POs & PSOs Attainment Levels and Actions for improvement – Batch 2014-2018
(CAYm4 2017-2018)**

POs	Target Level	Attainment Level	Observations
PO1: Engineering knowledge: To Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems			
PO1	1.83	2.02	Computer Science and engineering curriculum requires the strong foundation of theoretical and practical knowledge of engineering subjects, which the students study in their first year that correlates the theoretical concepts with applications. Target Met
ACTION TAKEN: NIL			

PO2: Problem analysis: Identify, formulate, review research literature, and analyse complex Engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.			
PO2	1.73	1.94	The problem solving and analyzing skills gained through first and second year courses helps the students to apply in real time application. Target Met
ACTION TAKEN: NIL			

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate considerations for the public health and safety, and the cultural, societal, and environmental considerations.			
PO3	1.84	2.03	Some of the projects developed by the student as hobby projects/major projects (final year) are not fully considering the social and environmental issues. Target Met
ACTION TAKEN: NIL			

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.			
PO4	1.32	1.76	It is observed that most of the project abstract and literature survey are addressing the research based approach but does not end with valid conclusions. Target Met
ACTION TAKEN: NIL			

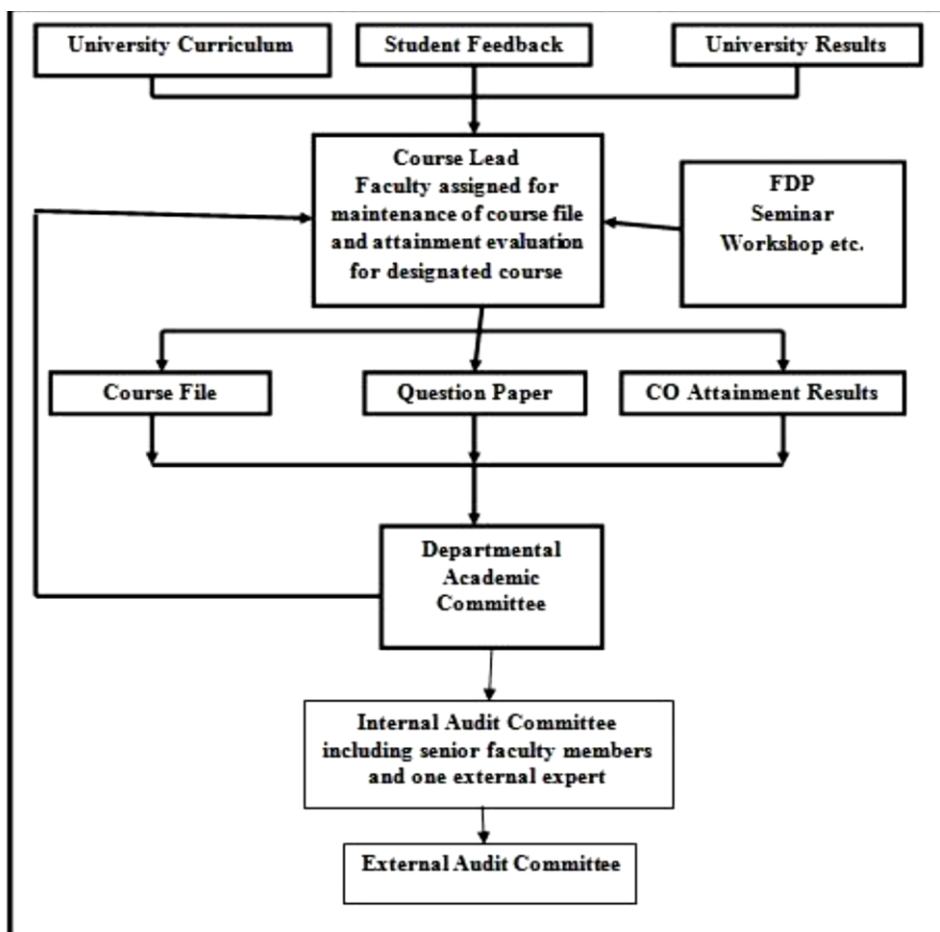
PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.			
PO5	1.32	1.72	It is observed that Up-gradations of tools and resources are necessary to meet the industry standards and research.

			Target Met
ACTION TAKEN: NIL			
PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.			
PO6	1.64	1.95	The courses of Computer Science and Engineering are addressing the needs of, health, safety and social concerns regarding engineering practices in real life. Target Met
ACTION TAKEN: NIL			
PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.			
PO7	1.53	1.78	The issues of global and environmental awareness among the student are very good. Target Met
ACTION TAKEN: NIL			
PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
PO8	1.33	1.7	The students are doing better in improving the overall expertise in field of engineering and also in ethical moral knowledge.. Target Met
ACTION TAKEN: NIL			
PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.			
PO9	1.37	1.81	The students are able to work as individual as well as in team. Target Met
ACTION TAKEN: NIL			
PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.			
PO10	1.25	1.62	The communication, presentation and report writing skills are to be further improved among the students. Target Met
ACTION TAKEN: NIL			
PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.			
PO11	1.33	1.61	Few courses of curriculum give knowledge of Management principle and applying managerial principles to his/her work including financial implications and to manage the project in multidisciplinary environments. Target Met
ACTION TAKEN: NIL			
PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life- long learning in the broadest context of technological change.			
PO12	1.40	1.77	The pre final year and final year courses of the program are demonstrating the resource for contemporary issues and lifelong learning. Target Met

ACTION TAKEN: NIL			
Similar information is to be provided for PSOs			
PSO1: Attain the ability to design efficient algorithms for developing hardware and software-based systems.			
PSO 1	1.51	1.81	The courses of the program are demonstrating the algorithms for developing hardware and software-based systems. Target Met
ACTION TAKEN: NIL			
PSO2: Apply standard software engineering approach and be able to use modern tools for solving real life problems.			
PSO 2	1.52	1.81	Usage of different modern tools to , develop/ implement, test, and maintain the computer systems for Industrial Equipment or for solving real life problems. Target Met
ACTION TAKEN: NIL			
PSO3: Apply the acquired proficiency to become successful technocrats and entrepreneurs as well as engage in research work in emerging fields of Computer Science and Engineering.			
PSO 3	1.32	1.65	To inculcate ethics, good interpersonal relationships, ability to be entrepreneurs as well as engage in research work in emerging fields of Computer Science and Engineering Target Met
ACTION TAKEN: NIL			

7.2 Academic Audit and actions taken thereof during the period of Assessment (10)

Academic audit and actions taken are carried out with the help of different components:



Process of Academic Audit

- Course Coordinator/Lead takes feedback from different sources like University Curriculum (for detail syllabus of the course, course outcomes with lecture details), Students Feedback and from University Results (for the calculation of attainment level).
- He also arranged faculty development Program (FDP) for that particular course where faculty can go for that particular subject's FDP or seminar or workshops.
- After assigning the particular faculty member for that particular course, he/she should prepare course file, question papers and attainment level calculations for that particular course.
- The course files and question papers (class test along with assignments) so prepared were reviewed by Departmental Academic Committee (DAC).
- The attainment calculations for that Course Outcomes are reviewed by Departmental Academic Committee (DAC) and put their valuable suggestions also for that course.
- Departmental academic committee is also there to look after of the regular classes, visits laboratories observation and put valuable feedback about that particular course.
- Finally, all the reports from different sections are collectively give one feedback about the course taken by that particular faculty and accordingly actions can be taken by department.
- An academic committee comprising of on external expert has been formed by Departmental Academic Committee (DAC) to check the departmental documents and put a report to department.

- Individual department forward the department academic report to Principal.
- Principal forms an external academic committee to check all the department academic committee reports and submit the consolidated report.

1 Course file evaluation

Course files are prepared by faculty members before the semester starts. Course file contents are as per recommendations mentioned in below table. The academic committee consisting of HOD, course coordinator and few of departmental senior faculty members performs audit of course files i.e., verify the contents of the course file, lesson plan, assignments, extra material lecture notes, etc. The comments of the committee are given as feedback to the faculty member to include the recommended material. This audit ensures the quality deliverables to the students.

Asansol Engineering College,713305
Department of Computer science &Engineering
Departmental Audit
Check List for Evaluation of Course File (Theory)

Sl. No.	Item	Academic Year				
		16-17	17-18	18-19	19-20	
1.	Vision & Mission (Institute)			√		
2.	Vision & Mission (Dept.)			√		
3.	PEO, PO & PSO			√		
4.	Academic Calendar			√		
5.	Time table (Dept. & Individual)			√		
6.	Syllabus					
7.	Academic Course Description					
7.1	Course Outcome			√		
7.2	Mapping of COs and PO/PSO			√		
7.3	Lecture Plan			√		
7.4	Session Plan			√		
7.5	Course Completion Details			√		
8.	Study Material					
8.1	Course Content/Lecture Notes			√		
8.2	Multiple Choice Question			√		
8.3	Sample Question papers (CO wise, High, Medium, Low)			√		
8.4	University Question papers					
9.	Internal Evaluation Documents					
9.1	Class Test Question Paper	<i>CT-1</i>				√
		<i>CT-2</i>				√
9.2	Sample Class Test Answer Script	<i>CT-1</i>	Best			
			Average			
			Poor			
		<i>CT-2</i>	Best			
			Average			
			Poor			
9.3	Assignment Question Paper	<i>Assignment-1</i>				√
		<i>Assignment-2</i>				√
9.4	Sample Assignment Answer Script	<i>Assig-1</i>	Best			
			Average			
			Poor			
		<i>Assig-2</i>	Best			
			Average			
			Poor			
10.	Assessment & Remedial Measures					
10.1	Internal & End Sem Exam. Results			√		
10.2	CO attainment Record & Analysis			√		
Annexure (Any other Relevant Information)			1. Blooms Taxonomy 2. Syllabus of other institutes of Repute 3. Important Univ. Notices etc.....			
Departmental Quality Cell						

Sl. No.	Contents of Course File	
	Theory	Labs
1	Session plan	Laboratory Manual
2	Lecture plan	List of Laboratory Experiments
3	Question papers of class test	Reports of Laboratory Experiments
4	Assignment question	Other relevant materials
5	Answer scripts of class tests	
6	Assignment's report and other relevant materials	
7	Project Reports	
8	Report of Design Projects	

2 Lectures/ Lab evaluation

The academic committee during their random observation of the lectures/lab check delivery of course material as per the lesson plan, teaching aids used, communication skill and classroom management etc. parameters to ensure the teaching methods of benchmarked standards are being used throughout the institute. Feedback is communicated to the faculty member. The academic committee for observation consists of HOD, and few senior faculty members.

3 Faculty development program (FDP)

A faculty member has to undergo faculty development program. The FDP to improve the communication skills and to improve the methods of teaching-learning are carried out at the institute level itself by the learning and development team. The technical component in the teaching is improvised with the help of faculty members attending workshops, expert lectures etc. either organized at our institute or at another institute.

4 Review

Review of the faculty member is taken at the end of the semester again to compare the levels what was at the beginning and after the various feedbacks and training received.

Action taken by the faculty members

- Faculty members incorporate changes suggested by the academic committee, if any gaps are found, to ensure quality deliverables.
- Faculty members have to match the pace of their deliverables as per the students' requirements as well as they have to schedule the lecture plans in such a way that the syllabus is completed on time. To achieve this they can arrange extra lectures and cope-up the syllabus.
- Regular analysis of the results of internal assessment examination of all subjects is done and concerned faculties are guided to take necessary actions. Remedial classes are scheduled in reference to academic progress of the student.
- Faculty members attend FDP as required for the overall development of teaching skills in terms of communication, methods and technical.
- The academic audit is carried out at the beginning of the semester as soon as the faculty members are ready with their course files.
- The academic observation is carried out considering two criteria – feedback from students (requested to the authorities) and randomized observation.
- FDP for communication skill development and improving methods of teaching-learning are being carried out regularly by the learning and development department.
- Technical FDP, expert lectures, seminars etc. are being arranged by the individual departments at least once in a semester.

7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10)

Assessment is based on improvement in:

- Placement: number, quality placement, core industry, pay packages etc.
- Higher studies: performance in GATE, GRE, GMAT, CAT etc., and admissions in premier institutions
- Entrepreneurs

Table 7.3

Academic Performance	LYG (2020- 21)	LYGm1(2019- 20)	LYGm2(2018- 19)
Total No. of Final Year Students (N)	134	131	134
No. of students placed in companies or Government Sector (x)	112	111	110
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	6	6	7
No. of students turned entrepreneur in engineering/technology (z)	2	0	0
x + y + z =	120	117	117
Placement Index: (x + y + z)/N	0.89	0.89	0.87
Average placement= (P1 + P2 + P3)/3	0.88		

7.4 Improvement in the quality of students admitted to the program (10)

Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrances tests, percentage marks in Physics, Chemistry and Mathematics in 12th Standard and percentage marks of the lateral entry students.

Table 7.4

Item		CAY (2021- 22)	CAYm1 (2020- 21)	CAYm2(2019- 20)
National Level Entrance Examination AIEEE/JEE Main	No of students admitted	26	28	10
	Opening Score/Rank	145420	144390	97442
	Closing Score/Rank	795804	974185	1091548
State/ University/ Level Entrance Examination/ Others WBJEE	No of students admitted	163	157	114
	Opening Score/Rank	4820	3658	7017
	Closing Score/Rank	64789	71462	80264
Name of the Entrance Examination for Lateral Entry or lateral entry details JELET	No of students admitted	15	12	12
	Opening Score/Rank	531	5383	1051
	Closing Score/Rank	8871	6164	5880
Average CBSE/Any other board result of admitted students (Physics, Chemistry & Mathematics)		73.12	71.1	69.73

CRITERION 8**First Year Academics****50****1. FIRST YEAR ACADEMICS (50)**

Please provide First year faculty information considering load for the particular program

Name of Faculty Member	PAN No	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of Joining	CAY	CAY m1	CAY m2	Currently Associated (Yes/No)	Nature of Association (Regular / Contract)	Date of Leaving (in case Currently Associated is 'No,)
ASIT GUPTA	AKAPG4604L	M.Sc. and PhD	01-12-1998	Physics	Professor	17.08.2006	100	100	100	Yes	Regular	
ANIMESH UPADHYAY	AALPU3559R	M.Sc. and PhD	13-02-2006	Mathematics	Professor	15.09.1998	100	100	100	Yes	Regular	
ARNAB BANDYOPADHYAY	AQPPB1030J	M.Sc. and PhD	09-03-2015	Mathematics	Professor	30.09.2008	100	100	100	Yes	Regular	
GOURISANKAR PANDA	AKZPP8111C	M.Sc. and PhD	08-11-2003	Chemistry	Professor	01.03.2004	100	100	100	Yes	Regular	
SANDIP HALDAR	ABBPH2871A	M.Sc. and PhD	09-07-2003	Physics	Professor	01.09.2000	100	100	100	Yes	Regular	
AVIK DE	BAVPD5513R	M.Sc. and PhD	27-03-2019	Chemistry	Associate Professor	01.08.2011	100	100	100	Yes	Regular	
KRISHNENDU KUMAR POBI	AVXPP1006H	M.Sc. and PhD	05-12-2019	Chemistry	Associate Professor	28.08.2008	100	100	100	Yes	Regular	
MITHU DEY SARKAR	AKBPD3464C	M.Sc. and PhD	31-01-2020	Mathematics	Associate Professor	01.03.2007	100	100	100	Yes	Regular	
PINAKI RANJAN DUARI	BRIPD4090F	M.Sc. and PhD	10-11-2016	Mathematics	Associate Professor	21.08.2014	100	100	100	Yes	Regular	
RANJITA SINHA	BJJPS4165F	M.Sc. and PhD	24-02-2020	Physics	Associate Professor	14.02.2008	100	100	100	Yes	Regular	
SAMIR DEY	AITPD4870C	M.Sc. and PhD	22-09-2016	Mathematics	Associate Professor	01.08.2005	100	100	100	Yes	Regular	
SUDHANGSHU CHAKRABORTY	AMSPC4167E	M.Sc. and PhD	01-05-2015	Physics	Associate Professor	16.03.2010	100	100	100	Yes	Regular	
ABHIJIT DEBNATH	AJBPD2741D	M.Sc	24-12-2004	Mathematics	Assistant Professor	25.09.2008	100	100	100	Yes	Regular	
AMARTYA ROY	ASOPR8454K	M.Tech	01-07-2016	Electrical Engineering	Assistant Professor	17.01.2017	100	100	100	Yes	Regular	
BIDISHA BANERJEE	AZUPB9196K	MA	30-09-2009	Humanities	Assistant Professor	09.09.2010	100	100	100	Yes	Regular	
BISWAJIT MAITY	AJNPM1331N	MBA	26-02-1999	Management	Assistant Professor	14.12.2012	100	100	100	Yes	Regular	
DEBJANI CHATERJEE	AKHPC0478K	MA	31-10-2013	Humanities	Assistant Professor	01.04.2008	100	100	100	Yes	Regular	
HARSHA KUNDU	AUBPD0957E	MBA	26-05-2012	Management	Assistant Professor	05.08.2015	100	100	100	Yes	Regular	
HIRAK GUPTA	ALZPG5920D	MA	09-01-2007	Humanities	Assistant Professor	23.07.2007	100	100	100	Yes	Regular	
JOYSHREE MAJI	BBMPM8902M	M.Sc	09-09-2009	Physics	Assistant Professor	01.08.2011	100	100	100	Yes	Regular	
KAUSOMBI CHOUDHURY	ARHPC8869R	MBA	30-08-2012	Management	Assistant Professor	10.07.2017	100	100	100	Yes	Regular	
MD. HAYAT ALI	DBVPA2322A	MA	26-05-2018	Humanities	Assistant Professor	05.01.2021	100	-	-	Yes	Regular	
MUN MAJUMDER	AYFPM7031G	M.Sc	07-07-2008	Chemistry	Assistant Professor	02.02.2009	100	100	100	Yes	Regular	
PARTHA MUKHOPADHYAY	APAPM6010R	M.Sc	26-11-1996	Mathematics	Assistant Professor	16.01.2005	100	100	100	Yes	Regular	

PIYUSH RAJ	ANIPR2127G	M.Tech	26-02-2014	Mechanical Engineering	Assistant Professor	05.01.2021	100	-	-	Yes	Regular	
PRIYANKA KANJILAL	AZBPK3141Q	MBA	08-03-2011	Management	Assistant Professor	30.07.2015	100	100	100	Yes	Regular	
ROBIN KUMAR AGARWAL	AWSPA6541Q	MBA	09-07-2010	Management	Assistant Professor	16.08.2010	100	100	100	Yes	Regular	
SAMIRAN GUPTA	AMUPG1579Q	M.Tech	12-06-2013	Computer Science and Engineering	Assistant Professor	02.01.2018	100	100	100	Yes	Regular	
SANDIP KARMAKAR	BPEPK9918M	CMA & MBA	21-08-2016	Management	Assistant Professor	08.03.2021	100	-	-	Yes	Regular	
SANDIP KUMAR	BLIPK1849M	M.Tech	20-07-2013	Mechanical Engineering	Assistant Professor	05.01.2021	100	-	-	Yes	Regular	
SANTANU BERA	ALMPB0705G	MBA	03-03-2006	Management	Assistant Professor	02.08.2007	100	100	100	Yes	Regular	
SATYENDRA KUMAR SRIVASTAVA	AYOPS3222Q	M.Tech	05-08-2010	Computer Science and Engineering	Assistant Professor	02.01.2018	100	100	100	Yes	Regular	
SUJOY DAS MAHAPATRA	ARQPM0342J	M.E/M.Tech	21-07-2011	Computer Science and Engineering	Assistant Professor	04.09.2006	100	100	100	Yes	Regular	
SULOGNA NAYAK	AHSPN2217R	MA	30-09-2009	Humanities	Assistant Professor	14.08.2008	100	100	100	Yes	Regular	
TAMAL SAHU	JIVPS1859H	MA	02-09-2019	Humanities	Assistant Professor	05.01.2021	100	-	-	Yes	Regular	
SUDIP BASU	AYAPB7885N	MBA	20-06-2012	Humanities	Assistant Professor	17.01.2022	-	-	-	Yes	Regular	

8.1 First Year Student-Faculty Ratio (FYSFR) (5)

Data for first year courses to calculate the FYSFR:

Year	Number of students (approved intake strength)	Number of faculty members (considering fractional load)	FYSFR	*Assessment = $(5 \times 20) / \text{FYSFR}$ (Limited to Max. 5)
2019-20(CAYm2)	690	35	19.71	5
2020-21(CAYm1)	690	35	19.71	5
2021-22(CAY)	690	35	19.71	5
Average	690	35	19.71	5

*Note: If FYSFR is greater than 25, then assessment equal to zero.

8.2 Qualification of Faculty Teaching First Year Common Courses (5)

Year	x	Y	RF	Assessment of faculty qualification $(5x + 3y) / RF$
2019-20	09	26	34	3.62
2020-21	12	23	34	3.79
2021-22	12	23	34	3.79
Average Assessment				3.73

x = Number of Regular Faculty with PhD
 y = Number of Regular Faculty with Post-Graduate Qualification
 RF = Number of Faculty members required as per SFR

8.3 First Year Academic Performance (10)

Academic Performance	2020-21 (CAYm1)	2019-20 (CAYm2)	2018-19 (CAYm3)
Mean of CGPA or mean percentage of all successful students*(X)	9.48	8.66	7.31
Total Number of successful students(Y)	183	124	120
Total Number of students appeared in the examination(Z)	183	124	124
API $[X*(Y/Z)]$	9.48	8.66	7.07
Average API	8.40		

*Note: Successful Students means who are permitted to proceed to the second year

8.4 Attainment of Course Outcomes of first year courses (10)

8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5)

The Course Outcome (CO) Assessment and Data Acquisition process is prescribed in the following paragraphs.

Course Outcome Assessment Process

The CO assessment tools are used to measure the attainment levels of 1st year courses includes-

1. Student's performance in internal assessments such as class test, assignments, continuous evaluation in laboratory through rubrics etc. and
2. Student's performance in semester examination conducted by university.

All the 1st year courses prescribed by the university for the Program under consideration may be divided into two broad categories i) theory courses and ii) laboratory, for the evaluation. The overall percentage distribution of marks for direct assessment methods as per examination scheme prescribed by university is shown in Table 8.4.1.1.

Course Type	Assessment Type	Evaluation Through	Marks Distribution
<i>Direct Assessment</i>			
<i>Theory</i>	Internal	Class Test	30 %
		Assignment	
	External	University Examination	70 %
<i>Laboratory</i>	Internal	Continuous Evaluation	40 %
	External	University Examination	60 %

Data Acquisition Process for CO Assessment

The data required for the assessment of attainment level of each CO is indicated in above table.

The data acquisition frequency and process is presented in **Table 8.4.1.2**.

Assessment Tool	Data Collection Frequency	Responsible Entity
Class Test	Four times every semester*	Faculty Members
Assignment	Four times every semester*	Faculty Members
Rubric of Continuous Evaluation in Laboratories	Continuous	Faculty Members
University Exam	Semester wise	Faculty Members

*As per university guidelines, the data collection frequency for class test and assignment was twice per semester till AY 2019-20.

8.4.2 Record the attainment of Course Outcomes of all first-year courses (5)

The attainment of each course outcome is measured through percentage students getting

marks above target level for each assessment tool as indicated in (as indicated in *Table 8.4.1.1*). The attainment level for CO assessment is adopted as in *Table 8.4.2.1*.

Attainment Level (AL)	Criteria
1	60% of students scoring above Target level*
2	70% of students scoring above Target level*
3	80% of students scoring above Target level*

*Target Levels is set for individual course keeping past university examination result

Sample CO attainment through direct assessment process of Course – Chemistry - I (BSCH-201) is shown below.

COURSE: CHEMISTRY-I			
COURSE CODE: BSCH 201; SESSION: 2020 EVEN	SEMESTER:2nd	YEAR: 1st	
A1: 60% OF STUDENTS SCORING MORE THAN 55% MARKS			
A2: 70% OF STUDENTS SCORING MORE THAN 55% MARKS			
A3: 80% OF STUDENTS SCORING MORE THAN 55% MARKS			
INTERNAL ASSESMENT (BSCH201 for 2019-2020)			

Sl No.	Student Name	Roll. No.	Class Test 1		Class Test 2		Class Test 3	Class Test 4
			BSCH 201.1	BSCH 201.2	BSCH 201.3	BSCH 201.4	BSCH 201.5	BSCH 201.6
Contribution in Question paper			30	20	10	20	10	30
1	SWETA BHOWMICK	10800119001	28	18	8	17	9	30
2	TANIYA ROY	10800119002	30	20	10	20	10	30
3	SHANA PARWEEN	10800119003	30	19	9	20	10	30
4	SURYADEEP SEN	10800119004	30	20	10	20	10	28
5	AYAN ROY	10800119005	30	18	10	19	9	30
6	SHRESTHA THAKUR	10800119006	30	20	10	20	10	28
7	RASHI SAHAY	10800119007	30	20	10	20	10	30
8	SWARUP BIT	10800119008	28	20	10	20	8	26
9	SUPRIO MONDAL	10800119009	26	17	9	17	9	26
10	AYUSH KR SHARMA	10800119010	26	17	9	20	8	26
11	NEETA KR SRIVASTAWA	10800119011	26	20	8	19	7	26
12	APURVA SRIVASTAVA	10800119012	30	18	10	19	9	30
13	SHUBHAM DAS	10800119013	30	20	10	20	10	30
14	KOMAL KUMARI	10800119014	28	20	10	20	10	26
15	ARPITA MUKHERJEE	10800119015	30	20	10	20	10	28
16	KARANVEER SINGH	10800119016	28	20	8	20	10	26
17	JYOTI RANI	10800119017	30	20	10	20	10	30
18	ANURAG SHARMA	10800119018	30	20	10	20	10	30
19	ASHUTOSH AMARTYA	10800119019	30	20	10	20	10	30
20	ROHIT KR MAHATO	10800119020	30	20	10	20	10	30
21	SUMONA MONDAL	10800119021	30	20	10	20	10	30
22	ANSHU GUPTA	10800119023	30	20	10	20	10	30
23	HARSH KR SINGH	10800119024	30	20	10	20	10	28
24	SHREYASI BALL	10800119025	26	17	9	18	8	28
25	SHIBU SINGH	10800119026	28	19	9	19	9	28
26	SUBHAM BOURI	10800119027	26	18	8	18	8	30
27	ABINASH CHOUDHARY	10800119028	30	18	10	20	10	30
28	NIRAJ KUMAR	10800119029	42	20	10	20	10	30
29	SUBHRAJEET DAS	10800119030	26	17	9	17	9	24
30	SANTOSH KUMAR DAS	10800119031	28	20	10	20	10	26
31	SHUBHAM KUMAR	10800119032	30	20	10	20	10	28
32	AKHILESH KUMAR	10800119033	30	20	10	20	10	30
33	ARNAB OJHA	10800119034	26	18	8	18	8	24

34	ABHISHEK RAKSHIT	10800119035	30	20	10	20	10	30
35	RYAN RAY	10800119036	30	20	10	20	10	30
36	SUBHADEEP MAJI	10800119037	28	17	9	18	8	30
37	SOUVIK GHOSAL	10800119038	30	20	10	20	10	30
38	SNEHA SUMAN	10800119039	28	20	8	20	10	26
39	SREEJA GHOSH	10800119040	28	20	10	19	9	26
40	SNEHA MUKHERJEE	10800119041	28	17	9	18	10	30
41	PRATIK JHUNJUNWALA	10800119042	28	19	7	17	9	30
42	NITIN KUMAR CHAURASIA	10800119043	26	19	7	17	9	28
43	SUBHAMOY BANERJEE	10800119044	26	19	7	19	7	26
44	AYUSH DUTTA	10800119045	30	20	10	23	11	30
45	PRITAM CHANDA	10800119046	28	20	10	20	8	26
46	SOURAV ROY	10800119047	26	17	9	18	8	26
47	ANURAG KUMAR	10800119048	26	17	9	18	8	26
48	HANSWENI PRABHAKAR	10800119049	28	18	8	19	7	30
49	SUSHMITA DUTTA	10800119050	30	20	10	20	10	28
50	VIVEK VERMA	10800119051	28	18	10	18	10	28
51	SARBANANDA MAJI	10800119052	30	20	10	20	10	30
52	MD AHMAD RAZA	10800119053	26	19	7	20	8	26
53	MD SAIF IQBAL	10800119054	30	18	10	20	10	30
54	SRIJA BANERJEE	10800119055	28	18	8	19	7	30
55	RAJANI ROY	10800119056	30	20	10	20	10	30
56	SAPTAPARNI KUNDU	10800119057	30	20	10	20	10	28
57	RAJDIP MAHATO	10800119058	28	18	8	20	8	30
58	JANHABI MUKHERJEE	10800119059	30	20	10	20	10	30
59	RITOBROTO ROY	10800119060	26	17	9	19	9	26
60	ANSU DALMIA	10800119061	30	20	10	20	10	28
61	KAMRAN HASSAN	10800119062	30	20	10	20	10	30
62	RUPA KUMARI YADAV	10800119063	28	17	9	19	7	30
63	RITIK KUMAR	10800119064	26	18	8	20	8	26
64	SANCHARI DUTTA	10800119065	28	18	8	20	10	28
65	SASWATA CHATTERJEE	10800119066	28	18	10	19	9	28
66	SOUMEN KARMAKAR	10800119067	30	20	10	19	9	30
67	MD ADIL	10800119068	30	20	10	20	10	30
68	PRERNA BARNWAL	10800119069	26	19	7	18	8	28
69	DEEP CHAKRABORTY	10800119070	30	20	10	20	10	28
70	ADITYA RAJ	10800119071	26	17	9	18	8	26
71	PURBITA DEB	10800119072	30	20	10	20	10	30
72	DEBAPRIYA MUKHOPADHYAY	10800119073	30	20	10	20	10	28
73	KUNDAN ROY	10800119074	30	20	10	20	10	30
74	SIDDHARTHA PAL	10800119075	28	18	10	18	10	28
75	AKASH KUMBHAKAR	10800119076	30	23	11	20	10	30
76	MRINAL TANTUBAI	10800119077	30	20	10	20	10	30
77	DEBARGHYA MITRA	10800119078	30	20	10	20	10	30
78	DEBJIT RAY	10800119079	30	20	10	20	10	30
79	LOKESH KUMAR SINGH	10800119080	30	20	10	20	10	30
80	RAJAT KUMAR CHANDRA	10800119081	30	20	10	20	10	28
81	KESHAV KR GUPTA	10800119082	30	20	10	20	10	28
82	NIDHI KUMARI	10800119083	26	18	8	17	9	28
83	AKASH RUIDAS	10800119084	26	19	7	18	8	28
84	SHUBHAM KUMAR	10800119085	30	20	10	20	10	30
85	KISHAN KUMAR	10800119086	28	19	7	18	10	30
86	NEELI KUMARI	10800119087	30	20	10	18	10	30
87	VAISHNAVI RANJAN	10800119088	30	20	10	20	10	30
88	SAUMYA VERMA	10800119089	28	18	10	19	9	28
89	TANYA LAL	10800119090	30	20	10	20	10	30
90	SUSMIT SHAW	10800119091	24	16	6	19	7	24
91	UTKARSH UMANG	10800119092	30	20	10	20	10	28
92	HIMANSHU NANDAN	10800119093	26	18	8	18	8	28
93	SHUBHAM	10800119094	30	20	8	18	10	30
94	GOURAV KUMAR	10800119095	30	23	11	20	10	30
95	SHRISTI SAGAR	10800119096	30	20	10	20	10	30
96	JAYESH NATH JHA	10800119097	30	20	10	20	10	28
97	HARSH TIWARI	10800119098	30	20	10	20	10	30

98	ROSHNI BOSE	10800119099	28	20	10	17	9	28
99	ADITI GHOSAL	10800119100	30	20	10	20	10	30
100	GULSHAN KUMAR	10800119101	28	19	7	19	9	30
101	DEEPAK KUMAR	10800119102	30	20	10	20	10	28
102	ANIMESH RAJ	10800119103	30	20	10	20	10	28
103	ANJALI KEWAT	10800119104	30	20	10	20	10	30
104	HARSH KASHYAP	10800119105	30	20	10	20	10	30
105	ANIKET SINHA	10800119106	26	18	8	20	8	26
106	SAYAK PAL	10800119107	30	20	10	20	10	30
107	AVIJEET GHOSH	10800119108	30	20	10	20	10	30
108	TIRTHARAJ SEN	10800119109	26	19	7	19	9	26
109	RISHIK CH. PAHARI	10800119110	28	18	8	20	10	28
110	PROTETI MITRA	10800119111	30	20	10	20	10	28
111	RISHAB DEV	10800119112	30	20	10	20	10	30
112	ABHIRAJ VERMA	10800119113	30	20	10	20	10	30
113	ABHISHEK KR JAISWAL	10800119114	30	20	10	20	10	30
114	PROYETI MITRA	10800119115	30	20	10	20	10	28
115	ABHINAV MISHRA	10800119116	26	19	7	17	9	28
116	HRICK KARNA ROY	10800119117	30	20	10	20	10	30
117	AMAN KUMAR	10800119118	30	20	10	20	10	30
118	ADITYA ANAND	10800119119	30	20	10	20	10	30
119	ANKIT KUMAR	10800119120	30	20	10	19	9	30
120	ANIKET SINGH	10800119121	30	20	10	20	10	28
121	AMAN GUPTA	10800119122	30	20	10	20	10	28
122	ABHISHEK ANAND	10800119123	28	20	10	20	10	26
123	SOURIN DEY	10800119130	30	20	10	19	9	30
124	ASHMITA BHATTACHARYYA	10800119137	30	20	10	20	10	30
No. of Students above Target level for each CO			124	124	124	124	124	124
% of students above Target Level			100	100	100	100	100	100

TABLE 2 ASSIGNMENT DATA (BSCH201 for 2019-2020)

Sl No.	Student Name	Roll. No.	Assignment - 1		Assignment - 2		Assignm ent - 3	Assignm ent - 4
			BSCH 201.1	BSCH 201.2	BSCH 201.3	BSCH 201.4	BSCH 201.5	BSCH 201.6
Contribution in Question paper			18	12	16	14	30	30
1	SWETA BHOWMICK	10800119001	15	9	11	13	24	24
2	TANIYA ROY	10800119002	16	11	16	14	30	24
3	SHANA PARWEEN	10800119003	15	9	12	12	24	24
4	SURYADEEP SEN	10800119004	14	10	15	12	24	24
5	AYAN ROY	10800119005	14	10	11	13	24	21
6	SHRESTHA THAKUR	10800119006	14	10	11	13	24	24
7	RASHI SAHAY	10800119007	18	12	14	13	30	30
8	SWARUP BIT	10800119008	15	9	12	12	24	27
9	SUPRIO MONDAL	10800119009	16	11	13	11	24	30
10	AYUSH KR SHARMA	10800119010	16	11	13	11	24	30
11	NEETA KR SRIVASTAWA	10800119011	17	10	16	14	30	24
12	APURVA SRIVASTAVA	10800119012	14	10	13	11	24	21
13	SHUBHAM DAS	10800119013	14	10	11	13	24	21
14	KOMAL KUMARI	10800119014	15	9	12	12	24	24
15	ARPITA MUKHERJEE	10800119015	15	9	13	11	24	27
16	KARANVEER SINGH	10800119016	15	9	13	11	24	24
17	JYOTI RANI	10800119017	14	10	11	13	24	24
18	ANURAG SHARMA	10800119018	17	10	16	14	30	24
19	ASHUTOSH AMARTYA	10800119019	17	10	16	14	24	27
20	ROHIT KR MAHATO	10800119020	14	10	12	12	24	24
21	SUMONA MONDAL	10800119021	14	10	13	11	24	24
22	ANSHU GUPTA	10800119023	17	10	13	11	24	30
23	HARSH KR SINGH	10800119024	15	9	11	13	24	21
24	SHREYASI BALL	10800119025	18	12	16	14	30	30
25	SHIBU SINGH	10800119026	14	10	11	10	21	24
26	SUBHAM BOURI	10800119027	16	11	16	14	30	24
27	ABINASH CHOUDHARY	10800119028	18	12	13	14	27	30
28	NIRAJ KUMAR	10800119029	18	12	16	14	30	30

29	SUBHRAJEET DAS	10800119030	14	10	11	13	24	27
30	SANTOSH KUMAR DAS	10800119031	14	10	12	12	24	24
31	SHUBHAM KUMAR	10800119032	14	10	12	12	24	24
32	AKHILESH KUMAR	10800119033	18	12	16	14	30	30
33	ARNAB OJHA	10800119034	14	10	10	11	24	24
34	ABHISHEK RAKSHIT	10800119035	16	11	16	14	30	24
35	RYAN RAY	10800119036	17	10	16	14	24	27
36	SUBHADEEP MAJI	10800119037	14	10	13	11	24	21
37	SOUVIK GHOSAL	10800119038	17	10	16	14	27	24
38	SNEHA SUMAN	10800119039	17	10	13	14	30	24
39	SREEJA GHOSH	10800119040	14	10	12	12	24	24
40	SNEHA MUKHERJEE	10800119041	16	11	16	14	30	24
41	PRATIK JHUNJHUNWALA	10800119042	18	12	16	14	30	30
42	NITIN KUMAR CHAURASIA	10800119043	15	9	13	11	24	24
43	SUBHAMOY BANERJEE	10800119044	17	10	16	14	30	24
44	AYUSH DUTTA	10800119045	15	9	12	12	24	21
45	PRITAM CHANDA	10800119046	14	10	13	11	24	21
46	SOURAV ROY	10800119047	15	9	15	12	24	24
47	ANURAG KUMAR	10800119048	15	9	12	12	24	24
48	HANSWENI PRABHAKAR	10800119049	16	11	13	14	27	27
49	SUSHMITA DUTTA	10800119050	14	10	12	12	27	24
50	VIVEK VERMA	10800119051	14	10	11	13	24	27
51	SARBANANDA MAJI	10800119052	17	10	16	14	27	24
52	MD AHMAD RAZA	10800119053	17	10	12	12	30	27
53	MD SAIF IQBAL	10800119054	16	11	16	14	27	24
54	SRIJA BANERJEE	10800119055	15	9	13	14	27	24
55	RAJANI ROY	10800119056	14	10	11	13	27	24
56	SAPTAPARNI KUNDU	10800119057	18	12	16	14	30	30
57	RAJDIP MAHATO	10800119058	17	10	16	14	30	24
58	JANHABI MUKHERJEE	10800119059	14	10	11	13	24	24
59	RITOBROTO ROY	10800119060	14	10	11	13	24	27
60	ANSU DALMIA	10800119061	18	12	16	14	30	30
61	KAMRAN HASSAN	10800119062	14	10	13	14	27	24
62	RUPA KUMARI YADAV	10800119063	15	9	11	13	24	21
63	RITIK KUMAR	10800119064	14	10	13	11	24	27
64	SANCHARI DUTTA	10800119065	18	12	16	14	27	30
65	SASWATA CHATTERJEE	10800119066	14	10	14	13	27	24
66	SOUMEN KARMAKAR	10800119067	16	11	12	12	24	30
67	MD ADIL	10800119068	15	9	12	12	24	24
68	PRERNA BARNWAL	10800119069	14	10	13	11	21	24
69	DEEP CHAKRABORTY	10800119070	14	10	11	13	24	21
70	ADITYA RAJ	10800119071	15	9	13	14	24	24
71	PURBITA DEB	10800119072	14	10	11	10	21	24
72	DEBAPRIYA MUKHOPADHYAY	10800119073	15	9	14	13	24	24
73	KUNDAN ROY	10800119074	14	10	11	13	21	24
74	SIDDHARTHA PAL	10800119075	14	10	11	13	24	27
75	AKASH KUMBHAKAR	10800119076	18	12	16	14	27	27
76	MRINAL TANTUBAI	10800119077	18	12	16	14	30	30
77	DEBARGHYA MITRA	10800119078	14	10	12	12	24	24
78	DEBJIT RAY	10800119079	17	10	13	11	24	30
79	LOKESH KUMAR SINGH	10800119080	15	9	12	12	24	21
80	RAJAT KUMAR CHANDRA	10800119081	16	11	16	14	24	27
81	KESHAV KR GUPTA	10800119082	16	11	16	14	30	24
82	NIDHI KUMARI	10800119083	17	10	15	12	30	24
83	AKASH RUIDAS	10800119084	14	10	13	11	24	24
84	SHUBHAM KUMAR	10800119085	18	12	16	14	30	30
85	KISHAN KUMAR	10800119086	17	10	13	14	30	24
86	NEELI KUMARI	10800119087	16	11	15	12	30	24
87	VAISHNAVI RANJAN	10800119088	18	12	16	14	30	30
88	SAUMYA VERMA	10800119089	15	9	10	11	24	24
89	TANYA LAL	10800119090	15	9	13	11	24	27
90	SUSMIT SHAW	10800119091	18	12	16	14	30	30
91	UTKARSH UMANG	10800119092	14	10	12	12	24	24
92	HIMANSHU NANDAN	10800119093	18	12	16	14	30	30

93	SHUBHAM	10800119094	14	10	11	13	27	24
94	GOURAV KUMAR	10800119095	14	10	14	13	24	24
95	SHRISTI SAGAR	10800119096	14	10	13	14	27	24
96	JAYESH NATH JHA	10800119097	15	9	12	12	24	27
97	HARSH TIWARI	10800119098	17	10	16	14	24	27
98	ROSHNI BOSE	10800119099	15	9	13	11	24	21
99	ADITI GHOSAL	10800119100	16	11	13	14	30	24
100	GULSHAN KUMAR	10800119101	18	12	16	14	30	30
101	DEEPAK KUMAR	10800119102	15	9	12	12	24	24
102	ANIMESH RAJ	10800119103	15	9	10	11	24	24
103	ANJALI KEWAT	10800119104	16	11	13	11	30	27
104	HARSH KASHYAP	10800119105	15	9	11	13	27	24
105	ANIKET SINHA	10800119106	18	12	16	14	30	30
106	SAYAK PAL	10800119107	15	9	12	12	24	21
107	AVIJEET GHOSH	10800119108	17	10	12	12	30	27
108	TIRTHARAJ SEN	10800119109	14	10	13	11	24	24
109	RISHIK CH. PAHARI	10800119110	15	9	13	11	24	24
110	PROTETI MITRA	10800119111	18	12	15	12	30	27
111	RISHAB DEV	10800119112	18	12	16	14	30	30
112	ABHIRAJ VERMA	10800119113	16	11	16	14	27	24
113	ABHISHEK KR JAISWAL	10800119114	15	9	14	13	27	24
114	PROYETI MITRA	10800119115	14	10	12	12	24	21
115	ABHINAV MISHRA	10800119116	15	9	11	13	24	24
116	HRICK KARNA ROY	10800119117	14	10	12	12	24	24
117	AMAN KUMAR	10800119118	15	9	11	13	24	24
118	ADITYA ANAND	10800119119	18	12	16	14	30	30
119	ANKIT KUMAR	10800119120	17	10	13	14	30	24
120	ANIKET SINGH	10800119121	15	9	13	11	27	24
121	AMAN GUPTA	10800119122	14	10	12	12	24	24
122	ABHISHEK ANAND	10800119123	14	10	12	12	24	21
123	SOURIN DEY	10800119130	14	10	13	14	24	24
124	ASHMITA BHATTACHARYYA	10800119137	17	10	16	14	27	24
No. of Students above Target level for each CO			124	124	124	124	124	124
% of students above Target Level			100	100	100	100	100	100

TABLE 3: CO ATTAINMENT CALCULATION FOR INTERNAL ASSESMENT (BSCH201 for 2019-2020)

INTERNAL ATTAINMENT CONTRIBUTION	BSCH 201.1	BSCH 201.2	BSCH 201.3	BSCH 201.4	BSCH 201.5	BSCH 201.6
% OF STUDENTS ABOVE TARGET IN CLASS TEST	100	100	100	100	100	100
% OF STUDENTS ABOVE TARGET IN ASSIGNMENT	100	100	100	100	100	100
WIEGHTED AVERAGE = CT*0.6+ AT*0.4	100	100	100	100	100	100
ATTAINMENT LEVEL THROUGH INTERNAL ASSESMENT	3	3	3	3	3	3

TABLE 4: EXTERNAL ASSESMENT DATA FOR BSCH-201 (UNIVERSITY EXAM DATA)

SI	STUDENT NAME	ROLL NO	GRADE	AVERAGE MARKS	INTERNAL MARKS	EXTERNA L MARKS
1	SWETA BHOWMICK	10800119001	E(36)	85	26	59
2	TANIYA ROY	10800119002	O(40)	95	28	67
3	SHANA PARWEEN	10800119003	O(40)	95	27	68
4	SURYADEEP SEN	10800119004	O(40)	95	27	68
5	AYAN ROY	10800119005	O(40)	95	27	68
6	SHRESTHA THAKUR	10800119006	O(40)	95	27	68
7	RASHI SAHAY	10800119007	O(40)	95	29	66
8	SWARUP BIT	10800119008	O(40)	95	26	69
9	SUPRIO MONDAL	10800119009	O(40)	95	25	70
10	AYUSH KR SHARMA	10800119010	O(40)	95	25	70

11	NEETA KR SRIVASTAWA	10800119011	O(40)	95	25	70
12	APURVA SRIVASTAVA	10800119012	E(36)	85	27	58
13	SHUBHAM DAS	10800119013	O(40)	95	29	66
14	KOMAL KUMARI	10800119014	O(40)	95	26	69
15	ARPITA MUKHERJEE	10800119015	E(36)	85	27	58
16	KARANVEER SINGH	10800119016	O(40)	95	26	69
17	JYOTI RANI	10800119017	O(40)	95	27	68
18	ANURAG SHARMA	10800119018	O(40)	95	29	66
19	ASHUTOSH AMARTYA	10800119019	O(40)	95	28	67
20	ROHIT KR MAHATO	10800119020	O(40)	95	28	67
21	SUMONA MONDAL	10800119021	O(40)	95	29	66
22	ANSHU GUPTA	10800119023	O(40)	95	29	66
23	HARSH KR SINGH	10800119024	O(40)	95	28	67
24	SHREYASI BALL	10800119025	O(40)	95	25	70
25	SHIBU SINGH	10800119026	O(40)	95	26	69
26	SUBHAM BOURI	10800119027	O(40)	95	25	70
27	ABINASH CHOUDHARY	10800119028	O(40)	95	27	68
28	NIRAJ KUMAR	10800119029	O(40)	95	35	60
29	SUBHRAJEET DAS	10800119030	A(32)	75	24	51
30	SANTOSH KUMAR DAS	10800119031	O(40)	95	26	69
31	SHUBHAM KUMAR	10800119032	O(40)	95	27	68
32	AKHILESH KUMAR	10800119033	O(40)	95	29	66
33	ARNAB OJHA	10800119034	A(32)	75	24	51
34	ABHISHEK RAKSHIT	10800119035	O(40)	95	27	68
35	RYAN RAY	10800119036	O(40)	95	28	67
36	SUBHADEEP MAJI	10800119037	O(40)	95	26	69
37	SOUVIK GHOSAL	10800119038	E(36)	85	28	57
38	SNEHA SUMAN	10800119039	O(40)	95	26	69
39	SREEJA GHOSH	10800119040	A(32)	75	26	49
40	SNEHA MUKHERJEE	10800119041	O(40)	95	26	69
41	PRATIK JHUNJHUNWALA	10800119042	O(40)	95	26	69
42	NITIN KUMAR CHAURASIA	10800119043	E(36)	85	25	60
43	SUBHAMOY BANERJEE	10800119044	O(40)	95	25	70
44	AYUSH DUTTA	10800119045	O(40)	95	29	66
45	PRITAM CHANDA	10800119046	O(40)	95	26	69
46	SOURAV ROY	10800119047	O(40)	95	25	70
47	ANURAG KUMAR	10800119048	O(40)	95	25	70
48	HANSWENI PRABHAKAR	10800119049	O(40)	95	26	69
49	SUSHMITA DUTTA	10800119050	O(40)	95	28	67
50	VIVEK VERMA	10800119051	O(40)	95	26	69
51	SARBANANDA MAJI	10800119052	O(40)	95	28	67
52	MD AHMAD RAZA	10800119053	O(40)	95	25	70
53	MD SAIF IQBAL	10800119054	O(40)	95	27	68
54	SRIJA BANERJEE	10800119055	O(40)	95	26	69
55	RAJANI ROY	10800119056	O(40)	95	29	66
56	SAPTAPARNI KUNDU	10800119057	E(36)	85	27	58
57	RAJDIP MAHATO	10800119058	O(40)	95	26	69
58	JANHABI MUKHERJEE	10800119059	O(40)	95	28	67
59	RITOBROTO ROY	10800119060	O(40)	95	25	70
60	ANSU DALMIA	10800119061	O(40)	95	27	68
61	KAMRAN HASSAN	10800119062	O(40)	95	29	66
62	RUPA KUMARI YADAV	10800119063	O(40)	95	26	69
63	RITIK KUMAR	10800119064	O(40)	95	25	70
64	SANCHARI DUTTA	10800119065	O(40)	95	26	69
65	SASWATA CHATTERJEE	10800119066	O(40)	95	26	69
66	SOUMEN KARMAKAR	10800119067	O(40)	95	27	68
67	MD ADIL	10800119068	O(40)	95	27	68
68	PRERNA BARNWAL	10800119069	O(40)	95	25	70
69	DEEP CHAKRABORTY	10800119070	O(40)	95	27	68
70	ADITYA RAJ	10800119071	O(40)	95	25	70
71	PURBITA DEB	10800119072	O(40)	95	27	68
72	DEBAPRIYA MUKHOPADHYAY	10800119073	O(40)	95	28	67
73	KUNDAN ROY	10800119074	O(40)	95	28	67
74	SIDDHARTHA PAL	10800119075	O(40)	95	26	69

75	AKASH KUMBHAKAR	10800119076	O(40)	95	29	66
76	MRINAL TANTUBAI	10800119077	O(40)	95	27	68
77	DEBARGHYA MITRA	10800119078	O(40)	95	27	68
78	DEBJIT RAY	10800119079	O(40)	95	28	67
79	LOKESH KUMAR SINGH	10800119080	O(40)	95	28	67
80	RAJAT KUMAR CHANDRA	10800119081	O(40)	95	28	67
81	KESHAV KR GUPTA	10800119082	O(40)	95	28	67
82	NIDHI KUMARI	10800119083	O(40)	95	25	70
83	AKASH RUIDAS	10800119084	O(40)	95	25	70
84	SHUBHAM KUMAR	10800119085	O(40)	95	29	66
85	KISHAN KUMAR	10800119086	O(40)	95	26	69
86	NEELI KUMARI	10800119087	O(40)	95	27	68
87	VAISHNAVI RANJAN	10800119088	O(40)	95	29	66
88	SAUMYA VERMA	10800119089	O(40)	95	26	69
89	TANYA LAL	10800119090	O(40)	95	28	67
90	SUSMIT SHAW	10800119091	A(32)	75	23	52
91	UTKARSH UMANG	10800119092	O(40)	95	27	68
92	HIMANSHU NANDAN	10800119093	O(40)	95	25	70
93	SHUBHAM	10800119094	O(40)	95	27	68
94	GOURAV KUMAR	10800119095	O(40)	95	29	66
95	SHRISTI SAGAR	10800119096	O(40)	95	29	66
96	JAYESH NATH JHA	10800119097	E(36)	85	27	58
97	HARSH TIWARI	10800119098	E(36)	85	28	57
98	ROSHNI BOSE	10800119099	O(40)	95	26	69
99	ADITI GHOSAL	10800119100	O(40)	95	29	66
100	GULSHAN KUMAR	10800119101	O(40)	95	26	69
101	DEEPAK KUMAR	10800119102	O(40)	95	27	68
102	ANIMESH RAJ	10800119103	E(36)	85	28	57
103	ANJALI KEWAT	10800119104	O(40)	95	28	67
104	HARSH KASHYAP	10800119105	E(36)	85	28	57
105	ANIKET SINHA	10800119106	E(36)	85	25	60
106	SAYAK PAL	10800119107	O(40)	95	28	67
107	AVIJEET GHOSH	10800119108	O(40)	95	29	66
108	TIRTHARAJ SEN	10800119109	O(40)	95	25	70
109	RISHIK CH. PAHARI	10800119110	O(40)	95	26	69
110	PROTETI MITRA	10800119111	O(40)	95	28	67
111	RISHAB DEV	10800119112	O(40)	95	29	66
112	ABHIRAJ VERMA	10800119113	O(40)	95	28	67
113	ABHISHEK KR JAISWAL	10800119114	O(40)	95	29	66
114	PROYETI MITRA	10800119115	O(40)	95	27	68
115	ABHINAV MISHRA	10800119116	O(40)	95	25	70
116	HRICK KARNA ROY	10800119117	O(40)	95	29	66
117	AMAN KUMAR	10800119118	O(40)	95	29	66
118	ADITYA ANAND	10800119119	O(40)	95	29	66
119	ANKIT KUMAR	10800119120	O(40)	95	27	68
120	ANIKET SINGH	10800119121	O(40)	95	28	67
121	AMAN GUPTA	10800119122	O(40)	95	28	67
122	ABHISHEK ANAND	10800119123	O(40)	95	26	69
123	SOURIN DEY	10800119130	O(40)	95	27	68
124	ASHMITA BHATTACHARYYA	10800119137	E(36)	85	28	57
NO OF STUDENTS ABOVE TARGET LEVEL						124
PERCENTAGE OF STUDENTS ABOVE TARGET LEVEL						100
ATTAINMENT LEVEL THROUGH EXTERNAL ASSESMENT						3

TABLE 5: OVERALL CO ATTAINMENT LEVEL CALCULATION: BSCH201 for 2019-2020						
ATTAINMENT LEVEL	BSCH 201.1	BSCH 201.2	BSCH 201.3	BSCH 201.4	BSCH 201.5	BSCH 201.6
THROUGH INTERTNAL ASSESMENT	3	3	3	3	3	3
THROUGH EXTERNAL ASSESMENT	3	3	3	3	3	3
OVERALL CO ATTAINMENT LEVEL FOR EACH CO (AL) (30% OF INTERNAL +70 % of EXTERNAL)	3	3	3	3	3	3

The CO Attainment level of all 1st year courses is summarized in Table 8.4.2.2. for academic years 2019-20, 2018-19 and 2017-18.

TABLE 8.4.2.2 Direct Course Outcome Attainment Record of all 1st Year						
Course Code	COURSE OUTCOMES (Attainment Level)					
	CO1	CO2	CO3	CO4	CO5	CO6
Academic Year 2019-20						
BS-CH-201	3	3	3	3	3	3
BS-CH-291	3	3	3	3	3	3
BS-M-101	1.6	1.6	1.6	1.6	1.6	1.6
BS-M201	3	3	3	3	3	3
BS-PH101	1.6	1.6	1.6	1.6	1.6	1.6
BS-PH191	2.6	3	2.2	3	3	3
ES-CS201	3	3	3	3	3	-
ES-CS291	3	3	3	3	-	-
ES-EE-101	1.6	1.6	1.6	1.6	1.6	1.6
ES-EE-191	3	3	3	3	3	3
ES-ME-192	2.4	2.4	2.4	1.6	1.2	-
ES-ME-291	2.2	2.6	3	3	2.6	-
HM-HU201	3	3	3	3	3	3
HM-HU291	3	3	3	3	3	-
Academic Year 2018-19						
BS-CH-201	1.6	1.3	1	1.6	1.3	1.3
BS-CH-291	2.2	2.2	1.8	2.6	2.6	2.2
BS-M-101	3	3	3	3	3	3
BS-M201	1.6	1.6	1.6	1.6	1.6	1.6
BS-PH101	1.6	1.3	1	1.6	1.6	1
BS-PH191	3	3	2.6	3	2.2	2.2
ES-CS201	3	3	3	3	3	-
ES-CS291	2	1.6	1.6	2.4	-	-
ES-EE-101	1.6	1.3	1.3	1.6	1.6	1.6
ES-EE-191	3	3	3	3	3	3
ES-ME-192	2.4	2.4	2.4	2	1.2	-
ES-ME-291	1.6	1.6	2	2.4	2	-
HM-HU201	3	3	3	3	3	3
HM-HU291	3	3	3	3	3	-
Academic Year 2017-18						
CH 201	3	3	3	3	3	3
CH 291	2.6	2.6	2.2	3	3	2.6
CS 201	1.6	1.6	1.6	1.6	1.6	-
CS 291	2.4	1.6	1.6	2	-	-
ES 101	1.7	1.7	1.7	1.7	1.7	1.7
ES 191	2.4	2.4	2.4	2.4	2.4	2.4
ES 201	0.7	0.7	0.7	1.3	0.7	0.7
ES 291	2.6	3	3	3	2.6	2.6
HU 101	3	3	3	3	3	3

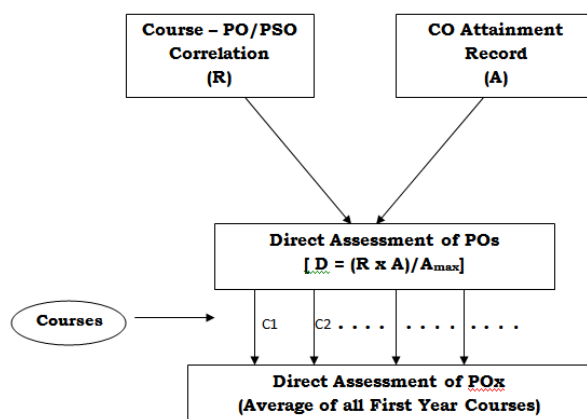
HU 181	3	3	3	3	3	-
M 101	2.3	2.3	2.3	2.3	2.3	2.3
M 201	1.6	1.3	1.3	1.6	1.6	1.3
ME 101	1.6	1.6	1.6	1.6	1.6	-
ME 192	1.8	1.8	1.4	1	1	-
ME 201	1.6	1.6	1.6	1.6	1.6	-
ME 291	1.6	1.6	2	2.4	2	-
PH 101	1.6	1.3	1.3	1.6	1.6	1.3
PH 191	3	2.7	2.4	3	3	3
XC 181	3	3	3	3	3	3

8.5 Attainment of Program Outcomes from first year courses (20)

8.5.1 Indicate results of evaluation of each relevant PO and/or PSO, if applicable (15)

The direct assessment process used for evaluation of attainment level is schematically shown below:

Direct Assessment Process:



PO Attainment Record of 1 st Year Course												
Course Code	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12
Academic Year 2019-20												
BS-CH-201	3	2	-	-	-	3	-	-	-	2	-	2
BS-CH-291	3	2	-	-	-	3	2	-	2	2	-	3
BS-M 201	2.5	2.33	-	-	-	-	-	-	-	1.33	-	2.5
BS-M-101	1.6	1.07	-	-	-	-	-	-	-	0.53	-	1.6
BS-PH 101	1.6	1.07	-	-	-	-	-	-	-	1.07	-	1.07
BS-PH191	2.7	2.7	-	-	-	-	-	-	2.8	1.87	-	1.87
ES-CS201	3	3	3	-	-	-	-	-	3	3	-	3
ES-CS291	3	3	3	3	3	-	-	-	3	3	-	3
ES-EE-101	1.6	1.6	-	-	-	-	-	-	0.53	1.07	-	1.07
ES-EE-191	3	3	-	-	-	-	-	-	2	3	-	2
ES-ME-192	1.6	1.49	-	-	-	-	-	-	1.84	0.67	-	1.33
ES-ME-291	2.36	2.36	-	-	2.6	-	-	-	2.68	1.79	-	1.64

HM-HU201	-	-	-	-	-	3	3	3	3	3	3	3
HM-HU291	-	-	-	-	-	-	-	-	3	3	3	3
Direct Attainment	2.41	2.14	3	3	2.8	3	2.5	3	2.39	1.95	3	2.15
Academic Year 2018-19												
BS-CH-201	1.35	0.9	-	-	-	1.35	-	-	-	0.9	-	0.9
BS-CH-291	2.2	1.47	-	-	-	2.2	1.47	-	0.73	0.73	-	2.2
BS-M-101	2.85	1.9	-	-	-	-	-	-	-	0.95	-	2.82
BS-M201	1.33	1.24	-	-	-	-	-	-	-	0.71	-	1.33
BS-PH101	1.45	0.97	-	-	-	-	-	-	-	0.97	-	0.97
BS-PH191	2.47	1.64	-	-	-	-	-	-	2.47	1.64	-	1.64
ES-CS201	3	3	3	-	-	-	-	-	3	3	-	3
ES-CS291	1.9	1.9	1.9	1.9	1.9	-	-	-	1.9	1.9	-	1.9
ES-EE-101	1.5	1.5	-	-	-	-	-	-	0.5	1	-	1
ES-EE-191	3	3	-	-	-	-	-	-	2	3	-	2
ES-ME-192	1.68	1.55	-	-	-	-	-	-	1.92	0.69	-	1.39
ES-ME-291	1.71	1.71	-	-	2	-	-	-	1.92	1.28	-	1.2
HM-HU201	-	-	-	-	-	3	3	3	3	3	3	3
HM-HU291	-	-	-	-	-	-	-	-	3	3	3	3
Direct Attainment	2.04	1.73	2.45	1.9	1.95	2.18	2.24	3	2.04	1.63	3	1.88
Academic Year 2017-18												
CH 201	3	2	-	-	-	3	-	-	-	2	-	2
CH 291	2.67	1.78	-	-	-	2.67	1.78	-	1.78	1.78	-	2.67
CS 201	1.6	1.6	1.6	-	-	-	-	-	1.6	1.6	-	1.6
CS 291	1.9	1.9	1.9	1.9	1.9	-	-	-	1.9	1.9	-	1.9
ES 101	1.51	1.32	-	-	-	-	-	-	0.57	1.32	-	1.51
ES 191	1.87	1.73	-	-	-	-	-	-	1.6	0.8	-	1.2
ES 201	0.61	0.65	-	-	-	-	-	-	0.38	0.38	-	0.53
ES291	2.18	2.03	-	-	-	-	-	-	1.87	0.93	-	1.39
HU101	-	-	-	-	-	3	3	3	3	3	3	3
HU181	-	-	-	-	-	-	-	-	3	3	3	3
M 101	2.3	1.53	-	-	-	-	-	-	-	0.77	-	2.25
M 201	1.38	0.97	-	-	-	-	-	-	-	0.48	-	0.97
ME 101	1.33	0.89	-	-	-	-	-	-	-	-	-	0.89
ME 192	1.12	1.05	-	-	-	-	-	-	1.28	0.47	-	0.93
ME 201	1.33	0.89	-	-	-	-	-	-	-	-	-	0.89
ME291	1.71	1.71	-	-	2	-	-	-	1.92	1.28	-	1.2
PH-101	1.5	1	-	-	-	-	-	-	-	1	-	1
PH191	2.85	1.9	-	-	-	-	-	-	2.85	1.9	-	1.9
XC181	-	-	-	-	-	3	3	3	3	3	3	3
Direct Attainment	1.8	1.43	1.75	1.9	1.95	2.92	2.59	3	1.9	1.51	3	1.68

PSO Attainment Record of 1st Year Course			
Course Code	PSO-1	PSO-2	PSO-3
Academic Year 2019-20			
BS-CH-201	-	-	-
BS-CH-291	-	-	-
BS-M 201	2.33	-	-
BS-M-101	1.07	-	-
BS-PH101	-	-	-
BS-PH191	-	-	-
ES-CS201	2	1.67	1
ES-CS291	2	1	1
ES-EE-101	-	-	-
ES-EE-191	-	-	-
ES-ME-192	-	-	-
ES-ME-291	-	-	-
HM-HU201	-	-	-
HM-HU291	-	-	-
Direct Attainment	1.85	1.34	1
Academic Year 2018-19			
BS-CH-201	-	-	-
BS-CH-291	-	-	-
BS-M-101	1.9	-	-
BS-M201	1.24	-	-
BS-PH101	-	-	-
BS-PH191	-	-	-
ES-CS201	2	1.67	1
ES-CS291	1.27	0.63	0.63
ES-EE-101	-	-	-
ES-EE-191	-	-	-
ES-ME-192	-	-	-
ES-ME-291	-	-	-
HM-HU201	-	-	-
HM-HU291	-	-	-
Direct Attainment	1.59	1.12	0.80
Academic Year 2017-18			
CH 201	-	-	-
CH 291	-	-	-
CS 201	1.07	0.89	0.53
CS 291	1.27	0.63	0.63
ES 101	-	-	-
ES 191	-	-	-
ES 201	-	-	-
ES 291	-	-	-
HU 101	-	-	-

HU 181	-	-	-
M 101	1.53	-	-
M 201	0.97	-	-
ME 101	-	-	-
ME 192	-	-	-
ME 201	-	-	-
ME291	-	-	-
PH-101	-	-	-
PH 191	-	-	-
XC 181	-	-	-
Direct Attainment	1.2	0.73	0.57

8.5.2 Actions taken based on the results of evaluation of relevant POs (5)

(The attainment levels by direct (student performance) are to be presented through Program level Course-PO matrix as indicated)

PO Attainment Levels and Actions for improvement – CAYm1 – Mention for relevant POs

POs Attainment Levels and Actions for Improvement- (2019-20)

POs	Target Level	Attainment Level	Observations
PO1: Statement as mentioned in Annexure I			
PO1	2.04	2.41	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO2: Statement as mentioned in Annexure I			
PO2	1.80	2.14	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO3: Statement as mentioned in Annexure I			
PO3	2.45	3	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO4: Statement as mentioned in Annexure I			
PO4	1.90	3	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO5: Statement as mentioned in Annexure I			
PO5	1.95	2.80	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO6: Statement as mentioned in Annexure I			
PO6	2.18	3	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			

PO7: Statement as mentioned in Annexure I			
PO7	2.24	2.50	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO-8: Statement as mentioned in Annexure I			
PO8	3	3	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO9: Statement as mentioned in Annexure I			
PO9	2.04	2.39	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO10: Statement as mentioned in Annexure I			
PO10	1.80	1.95	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO11: Statement as mentioned in Annexure I			
PO11	2.1	3	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO12: Statement as mentioned in Annexure I			
PO12	1.88	2.15	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			

POs Attainment Levels and Actions for Improvement- (2018-19)

POs	Target Level	Attainment Level	Observations
PO1: Statement as mentioned in Annexure I			
PO1	1.80	2.04	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO2: Statement as mentioned in Annexure I			
PO2	1.80	1.73	Target not Achieved.
Action 1: Target will be retained and will be observed for next academic year			
To Improve analytical thinking skills in first year engineering subjects following steps were taken.			
Action 2: Lectures plans for the coming semester were modified to incorporate more tutorial classes to develop their attitude in problem solving ability.			
Action 2: FSP on aptitude skills were conducted.			
PO3: Statement as mentioned in Annexure I			
PO3	1.80	2.45	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO4: Statement as mentioned in Annexure I			
PO4	1.80	1.90	Target Achieved.

Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO5: Statement as mentioned in Annexure I			
PO5	1.80	1.95	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO6: Statement as mentioned in Annexure I			
PO6	1.80	2.18	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO7: Statement as mentioned in Annexure I			
PO7	1.80	2.24	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO8: Statement as mentioned in Annexure I			
PO8	1.80	3	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO9: Statement as mentioned in Annexure I			
PO9	1.80	2.04	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO10: Statement as mentioned in Annexure I			
PO10	1.80	1.63	Target not Achieved.
Action 1: Target will be retained and will be observed for next academic year			
Action 2: FSP on Communication and other soft-skills were conducted.			
PO11: Statement as mentioned in Annexure I			
PO11	1.80	3	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO12: Statement as mentioned in Annexure I			
PO12	1.80	1.88	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year			

POs Attainment Levels and Actions for Improvement- (2017-18)

POs	Target Level	Attainment Level	Observations
PO1: Statement as mentioned in Annexure I			
PO1	1.80	1.80	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO2: Statement as mentioned in Annexure I			
PO2	1.80	1.43	Target not Achieved.
Action 1: Target will be retained and will be observed for next academic year			
To Improve analytical thinking skills in first year engineering subjects following steps were taken.			
Action 2: Lectures plans for the coming semester were modified to incorporate more tutorial classes			

to develop their attitude in problem solving ability.			
Action 2: FSP on aptitude skills were conducted.			
PO3: Statement as mentioned in Annexure I			
PO3	1.80	1.75	Target not Achieved.
Action 1: Target will be retained and will be observed for next academic year			
Action 2: FSP on C Programming were done with more emphasis on real life problem solving and development of solution thereto.			
PO4: Statement as mentioned in Annexure I			
PO4	1.80	1.90	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO5: Statement as mentioned in Annexure I			
PO5	1.80	1.95	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO6: Statement as mentioned in Annexure I			
PO6	1.80	2.92	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO7: Statement as mentioned in Annexure I			
PO7	1.80	2.59	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO8: Statement as mentioned in Annexure I			
PO8	1.80	3	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO9: Statement as mentioned in Annexure I			
PO9	1.80	1.90	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO10: Statement as mentioned in Annexure I			
PO10	1.80	1.51	Target not Achieved.
Action 1: Target will be retained and will be observed for next academic year			
Action 2: FSP on Communication and other soft-skills were conducted.			
PO11: Statement as mentioned in Annexure I			
PO11	1.80	3	Target Achieved.
Action 1: Target achieved. Hence the attainment for the current academic year is fixed as Target for the next academic year.			
PO12: Statement as mentioned in Annexure I			
PO12	1.80	1.68	Target not Achieved.
Action 1: Target will be retained and will be observed for next academic year			
Action 2: FSP on topics related to recent technological trends were conducted.			
Action 3: Students were motivated to attend MOOCS courses and for this MOOCS Baskets are prepared and disbursed among the students.			

9.0 STUDENT SUPPORT SYSTEMS (50)

9.1 Mentoring system to help at individual level (5)

MENTORING SYSTEM

Mentoring immensely contributes in improvement of the overall academic and personal development of students. The students are greatly benefitted by incessant proficient guidance of mentors. Each faculty member acts as mentor with a group of 20 mentees preferably.

Roles & Responsibilities of Mentor

All the mentors perform the following roles in mentorship process:

- 1) **Gaining the Trust:** All the mentors work hard to gain the trust of their mentees with effective mentoring.
- 2) **Documents and Records Keeping:** Mentors keep key documents (Academic Testimonials, MAR Documents, Mentee's personal details etc.) required for effective mentoring.
- 3) **Continuous Meet:** All mentors hold a meeting regularly or as when required with all of his/her mentee. Reports in this regard are made and kept by mentors for experiencing effective mentorship with personal and professional issues such as attendance in theory & laboratory classes, MAR Point earned, NPTEL/Coursera/MOOCs completion etc.
- 4) **Alerts and Reminders:** Mentors play the important role of an efficient disseminator with respect to any kind of notices (form fill-up, data update, examination etc.), information about events, competitive areas, skill development modules etc.
- 5) **Help and Support:** Mentors always help the mentee in gaining all kinds of benefit like Scholarship, Books, Notes etc.

- 6) **Ethical Shield to the Mentee:** Mentor act like an ethical shield to mentee for his/her safeguard towards any kind of undesirable and unproven offence.
- 7) **Motivator:** Mentor always motivates his/her mentee to be very competitive and win the show whether its academic, sports, cultural etc.
- 8) **Mentor as Friend and Family:** All the mentors go beyond the level from a faculty to Friend and Family zone under pleasant environment and maintain the healthy relationship with their mentee. For getting deeper in this section acts like wishing of birthday, greeting to different occasions, festivals and achievements, suggestions about movies, songs, books, shows etc. helps.
- 9) **Compliance:** Mentors sportingly comply to data demanded like MAR documentation, Mentorship Portal Report etc.

University Guideline for Mentorship:

Guidance & Counselling is part & parcel of educational excellence. Maulana Abul Kalam Azad University of Technology, West Bengal having 194 affiliated Institutes/Colleges offering UG/PG Programmes in Engineering / Technology / Architecture / Pharmacy / Management / Computer Application / Hotel Management & Catering Technology / Applied Sciences / Professional Courses is the nodal University in the state of West Bengal having largest number of affiliated Colleges / Institutes on its roll.

The University has taken the initiative to start the Mentoring Process to the students under its umbrella as a policy of the present State Government to achieve excellence by the students studying in West Bengal.

Maulana Abul Kalam Azad University of Technology, West Bengal requests all stakeholders and the Head of the affiliated Institutes to start Mentorship with immediate effect as a model compulsorily from July 2018.

We solicit kind co-operation of all Trust / Society / Institutes under its affiliations. Modification / Suggestions are most welcome to make this Mentoring Exercise at par with the world's best educational Institutes.

Mentorship Committee:

A Mentorship committee to govern the activities of the mentors is in place. Structure and functions for the same is given below:

Committee	Structure	Function	Frequency
Mentorship Committee	a) Coordinator – One Senior Faculty Member b) Members – One faculty member from each department	a) To allocate the mentor-mentee. b) To provide necessary suggestion for mentorship for each department. c) To perform as bridge between Institute and University regarding mentorship functioning & circulation of information. d) To report academic committee about the mentorship status of the institute.	(a) The Mentorship Committee shall meet as often as may be necessary but not less than two times during a semester. (b) Coordinator may convene a meeting as and when she/he deems fit without any prior notice.

Proforma for Mentorship: The proforma for mentorship is divided into two parts

Part – A: Students' Profile

1. Name of the Student:

Mobile No.:

Email Id:

2. Programme of Study:

Academic Year of Admission:

Department:

University Registration No.:

3. Father's Name:

Educational Qualification:

Fathers Home Address:

Fathers Mobile No.:

Landline No.:

Occupation:

Annual Income:

4. Mothers Name:

Educational Qualification:

Mobile No.:

Email Id:

Occupation:

Annual Income:

5. Medical History

Weight:

Blood Group:

Veg/Non-Veg:

Identification Marks:

Allergic to:

Major Health Problem:

Chronic Health Problem:

6. Hostel Information:

Details of Paying Guest/Mess/Rented-House:

7. Previous Academic Details:

Madhyamik/ 10th Standard:

Name of the School:

Address / Place:

a) Education Board:

Subjects		
% of Marks Obtained		

Overall % of Marks:

b) Higher Secondary/ 12th Standard

Attributes	Theory Papers	Practical Papers
Subjects		
% of Marks Obtained		

Overall % of Marks:

Rank in WBJEE/JEE(Main)/ JELET:

c) Any other degree/diploma

Name of the Course	Discipline/ Subjects	% of Marks Obtained

8. Hobbies / Interest in Extra-Curricular Activities:

9. Awards /Prizes (if any) received in academic and extra-curricular activities prior to admission in this Institute:

a. Final Year Project:

Name of Guide:

Title of Project:

b. Placement:

Name of the Company:

Salary Offered:

Part – B: Student’s Performance Assessment

Course Name:

Year:

Discipline:

Semester :

Assessment Parameters	Outstanding O (90-100)%	Excellent E (80-89)%	Very Good A (70-79)%	Good B (60-69)%	Average C (50-59)%	Poor D (40-49)%	Corrective Measures & Assessment Thereof
Attendance (Theory)							
Attendance (Lab)							
Academic Performance (Theory)							
Academic Performance (Lab)							
Understanding / Communication In English							
Speaking/ Presentation Skill							
Writing Skill							
Technical Skill in Lab/ Project							
Performance in Extra Curricular Activities							
Team Building/Leadership							
Physical Health							
Mental Health							
Overall Behaviour/ Attitude (Personality)							

Please put tick mark (√) parameter wise.

Name of the Mentor:

Signature:

Date:

Proforma for Mentorship Report for Mentorship Portal at MAKAUT

Parameters	Details	Input
Student Name		
Student Roll No.		
Name of the Mentor attached		
Stream		
Semester		
Students' attendance (%)		
Any unusual behaviour of the student (due to any problem) [No or any personal problem /Silently noticed by the mentor]		
Characteristic behaviour of the student [Very clam/ cool/ extrovert/introvert/ jolly/ Keeps aloof from others/ moves alone/always smiling/ very serious look/ always keeps friends around / any other]		
Involvement in extra circular activity or passing of free time	Games [To be specified (i.e., football/ cricket/volley/T.T./Carom/ etc)]	
	Sports [Specific event should be mentioned, (sprint/ Long distance runner/Jumper/ any other event)]	
	Music [Vocal/ Instrumental]	
	Dance [Bharat Natyam/ kathak/ Kunchipuri/ Creative etc.]	
	Passing free time by Watching T.V. or busy with mobile or any other	
Participation in outreach programme [Social activity outside the campus/ blood donation camp/ activity related to science and environment outside the campus/ Any other activity of social value outside the campus.]		
Effort for career development [MOOCS/ Skill Development / any other]		

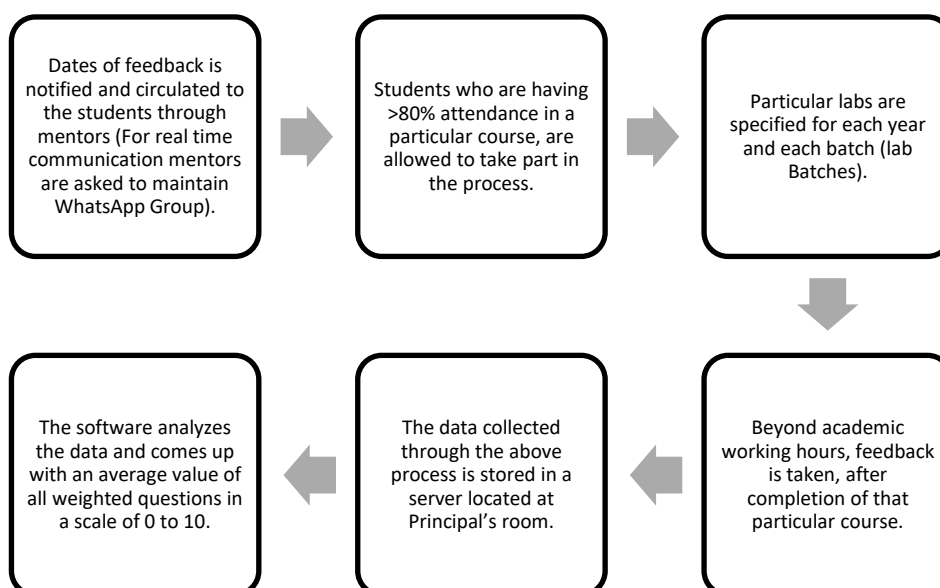
Communication pattern	English [Fluent/ Stammering/ Fumbles]	
	Bengali [Fluent/ Stammering/ Fumbles]	
	Hindi [Fluent/ Stammering/ Fumbles]	
Health Issue	Height (Cm)	
	Weight (Kg)	
Physical health	Blood Group	
	Normal or challenged	
	Eye Spect with spot or without	
Mental Health [Very nervous / cool & calm / takes everything sportingly/ gets upset very quickly/ nothing believes easily / trusts everybody / trusts nobody / others]		
Any other facet felt by the mentor to be of worth mentioning		
Comment of the Mentor		

9.2 Feedback analysis and reward /corrective measures taken, if any (10)

The institute has a well-defined process for feedback collection with respect to all the courses. The following process is practiced by the institution in this regard:

Average percentage of students who participated: >75%

Feedback collection process



Basis of reward/corrective measures:

Feedback forms are evaluated by software. Academic Committee manually analyses the result given by the software and indicate each Faculty member as “E” (Excellent), “V” (Very Good), “G” (Good) and “F” (Fair), respectively. Inference is drawn from the matrices.

Grade	Scale
Excellent (E)	Total points obtained > 8.99
Very Good (V)	Total points obtained > 7.99 but < 9
Good (G)	Total points obtained > 6.99 but < 8
Fair (F)	Total points obtained < 7

Suggestions for the improvements are given to the faculty members scored ‘F’ in the feedback process.

Based on overall points obtained through feedback process, administrative activities and other research credentials, name of one faculty member from each department are sent for inter-institute award competition like JIS Samman etc.

Indices used for measuring quality of teaching & learning

Asansol Engineering College

Vivekananda Sarani, Kanyapur, Asansol, Dist. Burdwan, Pin - 713305

STUDENT FEEDBACK

(TO BE FILLED FOR THE CURRENT SEMESTER)

FACULTY NAME	SOUMEN CHANAK		
SUBJECT CODE	ES201	NAME OF THE SUBJECT	BASIC ELECTRICAL & ELECTRONICS ENGG.- II
DEPARTMENT	COMPUTER SCIENCE & ENGINEERING1		
SEMESTER	2	SESSION	2016-17

Please select the appropriate option for rating

- 1 Does the Teacher come well prepared for the class? Always Sometimes Never
- 2 The teacher's English presentation and teaching skills are: Good Satisfactory Unsatisfactory
- 3 Does the faculty provide assistance beyond routine hours, whenever required? Usually Sometimes Rarely
- 4 Presentation of Teacher by using LCD Projector and/or Blackboard is: Clear Satisfactory Shabby
- 5 Does the teacher allow you to ask questions and answers the questions you have asked? Always Avoid Never
- 6 Does the teacher revise and ask questions which are relevant to the topic of discussion? Always Rarely Never
- 7 Does the teacher give sufficient examples and solve previous examination problems in the class? Always Rarely Never
- 8 Does the teacher assist you in the Laboratory and solve Laboratory related problems in the class? Always Rarely Never
- 9 Does the teacher give assignments and check the assignments? Always Sometimes Never
- 10 Does the teacher come to the class on time and take full class time ? Always Sometimes Never
- 11 Does the teacher ignore the acts of indiscipline in the class and outside the class? Never Always Sometimes
- 12 How does the teachers' assessment of your internal assessment (test) books? Balanced Strictly Erratically
- 13 Does the teacher favour some group of students while evaluating internal test books and regarding other issues? Yes No
- 14 Does the teacher dictate notes in the class? No Yes (<25%) Yes (Between 25-50%) Yes (>50% time)
- 15 Any additional information you wish to add about your teacher

Fig: 9.2.1 Screen Shots of the Questions asked in student feedback of a Particular course

Summary of the index values for all courses/teachers



MIS (NEW FORMAT): FAS-II

ASANSOL ENGINEERING COLLEGE
SUMMARY OF FACULTY APPRAISAL FROM STUDENTS
FEEDBACK (EVALUATION SHEET)
(ON OVERALL BASIS)

SEMESTER EVEN ACADEMIC YEAR 2020-21

SL.NO.	Name Of Faculty	Total Number Of Participants	Total Average
1	ABHIJIT DEBNATH	119	8.8
2	AMARTYA ROY	113	8.2
3	ANIMESH UPADHYAY	124	8.7
4	ARNAB BANDYOPADHYAY	125	8.75
5	ASIT GUPTA	79	8.19
6	AVIK DE	98	8.39
7	BIDISHA BANERJEE	121	7.89
8	BISWAJIT MAITY	65	8.18
9	DEBJANI CHATERJEE	124	8.0
10	GAURAV YADAV	34	8.62
11	GOURISANKAR PANDA	78	8.12
12	HARSHA KUNDU	68	7.87
13	HIRAK GUPTA	87	7.73
14	JOYSHREE MAJI	80	8.46
15	KAUSOMBI CHOUDHURY	135	7.76
16	KRISHNENDU BANERJEE	55	8.49
17	KRISHNENDU KUMAR POBI	154	7.5
18	MITHU DEY SARKAR	123	8.05
19	MUN MAJUMDER	128	7.75
20	PARTHA MUKHOPADHYAY	108	7.9
21	PARTHA PARICHA	84	7.93
22	PINAKI RANJAN DUARI	118	7.85
23	PRIYANKA KANJILAL	108	7.95
24	RANJITA SINHA	66	7.5
25	ROBIN KUMAR AGARWAL	65	8.1
26	SAMIR DEY	189	7.59
27	SAMIRAN GUPTA	63	7.83
28	SANDIP HALDAR	105	8.51
29	SANTANU BERA	124	7.93
30	SATYENDRA KUMAR SRIVASTAV	83	8.11
31	SOMDEV DAS	52	8.63
32	SOURAV DE	55	8.67
33	SUDHANGSHU CHAKRABORTY	92	8.31
34	SUJOY DAS MAHAPATRA	42	7.94

35	SULOGNA NAYAK	56	8.25
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Number of corrective actions taken: In the year 2020-21, faculty members who scored low in feedback were advised for the improvement.



MIS (NEW FORMAT): FAS-II

ASANSOL ENGINEERING COLLEGE

SUMMARY OF FACULTY APPRAISAL FROM STUDENTS FEEDBACK (EVALUATION SHEET) (ON OVERALL BASIS)

SEMESTER EVEN ACADEMIC YEAR 2020-21

SL.NO.	Name Of Faculty	Total Number Of Participants	Total Average
1	ABHISHEK BANDHYOPADHYAY	58	8.15
2	ANUP MUKHOPADHYAY	52	7.8
3	AVISHEK BANERJEE	62	8.0
4	BIPLAB MANDAL	54	8.41
5	DEBABRATA MAITY	56	8.31
6	DEBASIS CHAKRABORTY	21	8.2
7	KINSHUK BANERJEE	56	8.10
8	LUMBINI BHAUMIK	96	7.95
9	MONISH CHATTERJEE	58	8.12
10	PINTU PAL	61	8.40
11	PRANABES GANGOPADHYAY	64	8.50
12	RINKU DATTA RAKSHIT	58	8.62
13	SABYASACHI MUKHERJEE	58	8.1
14	SANDIP ROY	66	8.31
15	SHATABDI SAHA	44	7.98
16	SHIBSANKAR BALA	56	8.04
17	SIMANTA HAZRA	55	8.58
18	SUBHAS CHANDRA NATH	45	8.68
19	SUJOY KUMAR BASU	68	8.66
20	TAPAN DAS	62	8.49
21	UDDALOK SEN	67	8.25
22	UJJWAL KAMILA	64	8.85
23	VEDATRAYEE CHATTERJEE	66	8.52

Number of corrective actions taken: In the year 2020-21, faculty members who scored low in feedback were advised for the improvement.

9.3 Feedback on facilities (5)

For collection, disbursement and analysis of feedback forms on facilities once in a year basis a committee is formed every year.

Committee	Structure	Function	Frequency
Feedback Committee	a) Chairperson – Administrator b) Coordinator – One senior faculty member c) Members – One TA from each department	a) To disburse the feedback forms among students b) To collect and analyse the feedback on facilities c) To suggest necessary actions based on feedback collected on facilities	Once in a year (After the end of even sem)

Sample Form for Feedback on Facilities

Different facilities for which feedback are taken from students:

- i) Canteen
- ii) Hostel
- iii) Emergency Transport
- iv) Gym, ATM & Banking Facilities
- v) Medical Facilities

- vi) Library
- vii) Mentorship
- vii) Extra-Curricular Activities
- ix) Class Room
- x) Lab

Basis for corrective actions: In any parameters mentioned above, if average score obtained is less than 50%, actions may be triggered as per the requirement.

9. 4 Self-Learning (5)

Self-learning, which is a personalized method of learning, is the new paradigm for the 21st Century. The learner is free to choose what to learn, how to learn, when to learn and where to learn. With the advancement of information and communication technology, the learner is getting familiarized with more and more to non-formal mode of education thereby shifting the preference to self-learning methods. Self-learning modules and materials make this learning process in our institute more effective.

Facilities for self-learning:

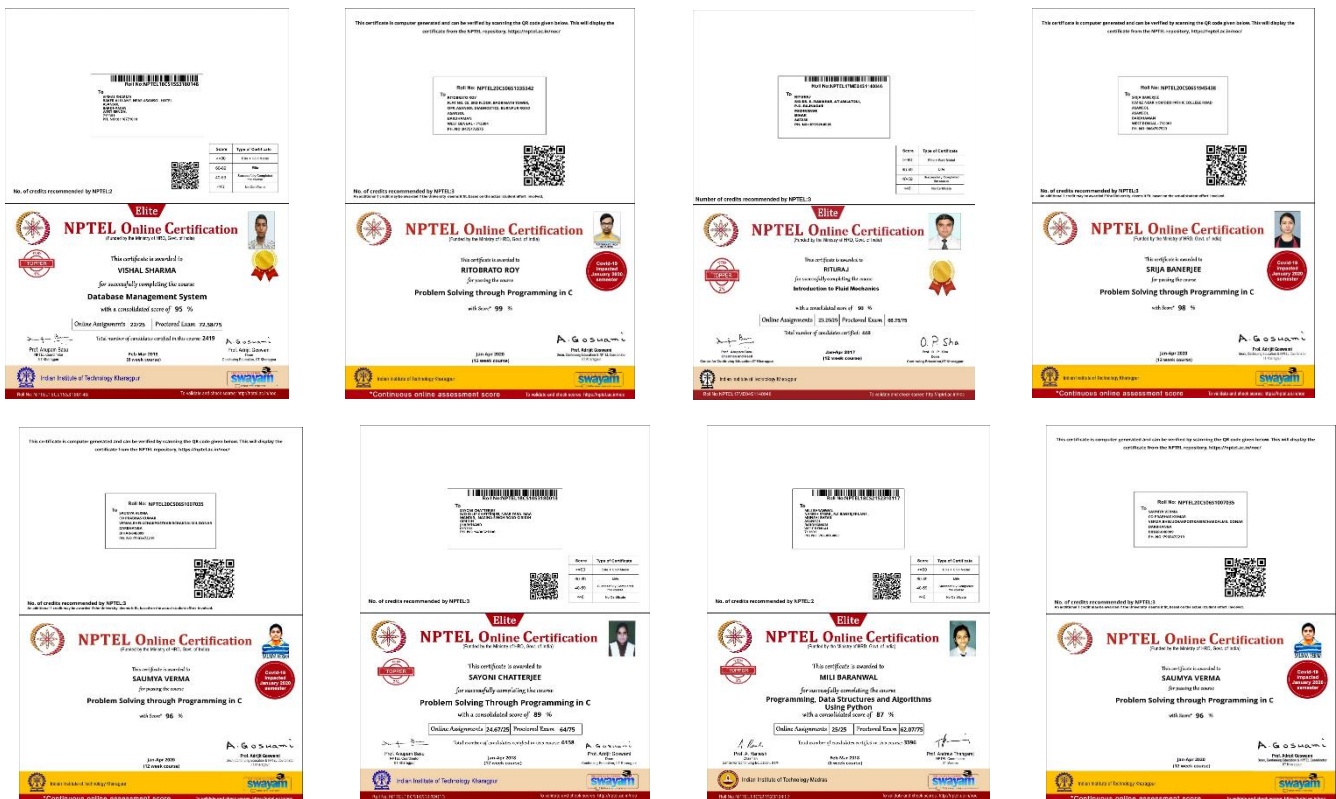
- Wi-fi enabled Campus
- Internet connectivity
- Exclusive internet/virtual laboratory for students
- Well-equipped central library
- Digital Library
- Library on Wheels
- Web based learning
- Free and open learning environment
- Video Lecture Bank (Prepared by Faculty Members of Institute)
- Seminar/Webinar organized by Institution for self-learning purpose.

Materials for self-learning / extramural learning:

- CDs of Video Lectures
- COURSERA

- NPTEL (MOOCS) courses
- IEEE on line journals
- Open access central library with 66074 (No of Title: 7158) books and 190 journals (Online). Departmental Library with reference books related to the departmental program.
- Course specific lecture materials are available in the departmental homepage of the institute website & in Video Lecture Bank.
- Open and free environment - students are free to interact with faculty at any point of time regarding queries, references, etc.
- Video recording of specific courses (such as, control system engineering, power electronics, electronic circuits, circuit theory) delivered by IIT Faculty members under NPTEL (SWAYAM) project of MHRD. The institute is a local chapter of NPTEL (SWAYAM). Most of the video lecture of the faculty members from different IITs and IISc are made available to our students.

Sample Certificates



9.5 Career Guidance, Training, Placement (10)

Training and Placement has been the cornerstone of the best practices adopted by the College since inception. The quality and volume of placements achieved by the students of the College have attracted talented fresh entrants and the achievements may be safely attributed to sound academics imparted by the faculty, wholistic training designed in close collaboration with Industry and incessant innovation of the placement team towards attracting companies from near and far.

The execution revolves around a two-tier approach where Training and Placement Office works in tandem with Departmental Teams to create the right mix of Industry Relations and Academic Feedback.

The Training and Placement Office does a thorough market research on one hand and on the other hand closely monitors the student training needs. The key functions of the Office are as enumerated below:

- i) Relationship Management with companies already recruiting from the College.
- ii) Prospecting new companies for Placements and Internships.
- iii) Understanding training need and accordingly arranging summer/winter trainings in various Industries, FSPs, Seminars/Webinars, etc.
- iv) Actively participating in various Industry Associations and Forums to gain insights, initiate collaborations to create internship opportunities & MoUs, etc.
- v) Interacting with students and build exposure on Industry expectation for better employability.

The Departmental Teams were formed with an initial objective to create the last mile connectivity with students and keep track of strengths and weaknesses of individual student. The departmental teams also ensured seamless communication with students on all happenings and thereby ensure active participation of the students in every programme. The key functions are as enumerated below:

- i) Sharing recruitment notifications and ensure participation of the eligible candidates
- ii) Keeping track of placed candidates and collecting Offer letters in coordination with them.
- iii) Supporting T&P Office to identify training needs of the students and contribute in fixing the training calendar.

- iv) Encouraging students with aspiration for higher studies to declare the same as per placement policy and keeping a track of the same.
- v) Close coordination with T&P Office for smooth execution of all T&P agendas.

FINISHING SCHOOL PROGRAM

The Finishing School Programme as the name suggests was designed to close the gap between Industry expectations and the aspiring candidate's employability status.

The programmes try to cover key areas which correlate to how Industry evaluates freshers like Aptitude test skill development, competitive coding skills, soft skills, etc.

The other aspect of the programme is to provide job aspirants opportunity to acquire differentiated skill sets to stay ahead in competition like....

The programmes are rolled out through a rigorous stepwise process which involves:

1. Skill gap identification
2. Course structure formulation
3. Faculty selection
4. Course co-ordination team formation
5. Infrastructure readiness check
6. Notification and roll-out
7. Feedback

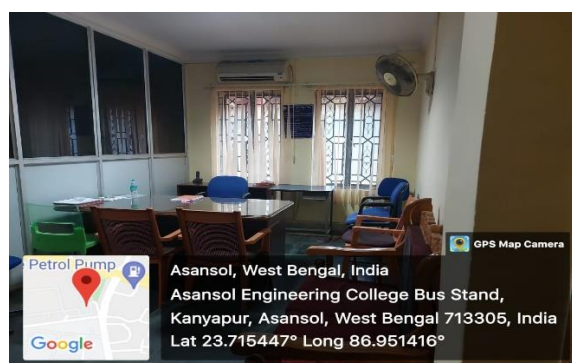
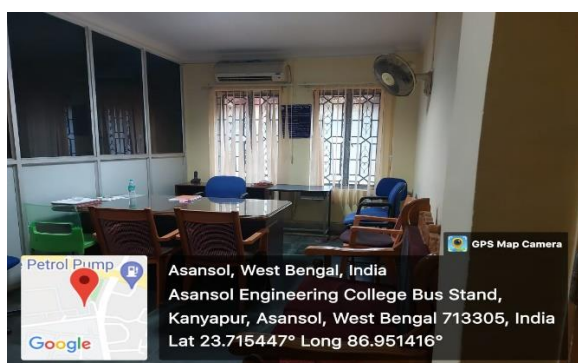
List of Committee Members of Training & Placement Cell:

Session 2021-22

Mrs. Debika Chatterjee	Training & Placement Officer
Mr. Banty Banerjee	Assistant Training & Placement Officer
Mr. Amit Kumar Rai - ECE	Member
Mr. Swarup Mukherjee - ECE	Member
Mrs. Sumita Bhattacharya - ECE	Member
Mr. Pranabesh Ganguly - CSE	Member
Mr. Rajat Ghosh - CSE	Member

Mr. Anish Deb - ME	Member
Mr. Swarnendu Pal - ME	Member
Mr. P. Krishna Rao - ME	Member
Mr. Faiyaz Ansari - ME	Member
Mr. Victor Das - IT	Member
Mr. Amitava Roy - IT	Member
Mr. Sumit Singha - CA	Member
Mr. Sourav Gayen - CA	Member
Mrs. Lipika Mondal - AEIE	Member
Mr. Joydeep Kundu - AEIE	Member
Dr. Apurba Chatterjee - EE	Member
Mr. Rakesh Ghosh - EE	Member
Miss Shreyasee Sanjay - CE	Member
Mr. Sujit Kishore Chakraborty - CE	Member

Training & Placement/Career Guidance Cell



List of Events conducted against Pre-placement Training:

List of Pre-Placement Training Activities						
Academic Year: 2020-21						
Sl. No	Training Dates	Training Activity	No of Participants	Year / Semester	Stream	Resource Person
1	12.04.21 - 01.05.21	Full Stack Development	305	Final Year/ 7th & 8th Sem (2021 Batch)	CSE, IT, ECE	Mr. Chandan Mukherjee (Totsol Technologies)
2	26.07.21 - 31.07.21	PLC	26	Final Year/ 7th & 8th Sem (2021 Batch)	AEIE	Mr. Joydeep Nath, (Micropro)
3	23.07.21 - 29.07.21	Ansys Software	107	Final Year/ 7th & 8th Sem (2021 Batch)	EE	Mr. Bijoy Nashkar (Ardent Computech)
4	06.07.21 - 10.07.21	Smart Air Conditioning & Green Building	130	Final Year/ 7th & 8th Sem (2021 Batch)	ME	Dr. Ratan Mondal (Ardent Computech)
5	05.04.21 - 09.04.21	Estimation	69	Final Year/ 7th & 8th Sem (2021 Batch)	CE	Mr. Anirudha Kundu (Ardent Computech)
6	28.06.21 - 30.06.21	English Communication	400	1st Year /2nd Sem (2024 batch)	All Btech	Mrs. Arundhati Majumder & Md Shakir (Freelancer)
7	02.03.21 - 06.03.21	Python	120	2nd year / 3rd Sem (2023 B.Tech)	CSE, IT, ECE	Mr. Joyjit Guha Biswas, (ARDENT Computech Pvt. Ltd)
8	02.03.21 - 06.03.21	Core Java	98	2nd year / 3rd Sem (2023 B.Tech)	CSE, IT, ECE	Mr. Ayan Roy Mukherjee, (ARDENT Computech Pvt. Ltd)

9	02.03.21 - 06.03.21	Advanced C	95	2nd year / 3rd Sem (2023 B.Tech)	CSE, IT, ECE	Mr. Arnab Chakraborty, TOTSOL Technologies
10	03.03.21 - 07.03.21	C & Data Structure	95	2nd year / 3rd Sem (2023 B.Tech)	AEIE, EE	Mr. Anindya Banerjee, TOTSOL Technologies
11	05.04.21 - 09.04.21	AutoCad	51	2nd year / 3rd Sem (2023 B.Tech)	CE	Ms. Sweta Singh Chowdhury, (Amity Computer Academy)
12	27.01.21 - 02.02.21	ML Using Python Phase 1	85	3rd Year / 5th Sem (2022 Batch)	CSE, IT, ECE & AEIE	Mr. Arnab Chakraborty (TOTSOL Technologies)
13	27.01.21 - 02.02.21	Advanced Java Phase 1	135	3rd Year / 5th Sem (2022 Batch)	CSE, IT, ECE & AEIE	Mr. Ayan Roy Mukherjee, (Micropro)
14	27.01.21 - 02.02.21	Java Script Phase 1	165	3rd Year / 5th Sem (2022 Batch)	CSE, IT, ECE & AEIE	Mr. Chandan Mukherjee, (TOTSOL Technologies)
15	19.04.21 - 30.04.21	ML Using Python Phase2	85	3rd Year / 5th Sem (2022 Batch)	CSE, IT, ECE & AEIE	Mr. Arnab Chakraborty, (TOTSOL Technologies)
16	02.06.21 - 18.06.21	Advanced Java Phase2	135	3rd Year / 5th Sem (2022 Batch)	CSE, IT, ECE & AEIE	Mr. Ayan Roy Mukherjee, (Micropro)
17	19.04.21 - 30.04.21	Java Script Phase2	165	3rd Year / 5th Sem (2022 Batch)	CSE, IT, ECE & AEIE	Mr. Chandan Mukherjee, (TOTSOL Technologies)
18	19.04.21 - 30.04.21	Advanced C Programming	85	3rd Year / 5th Sem (2022 Batch)	ME & EE	Mr. Arnab Chakraborty, (TOTSOL Technologies)
19	19.04.21 - 30.04.21	C & Data Structure	105	3rd Year / 5th Sem (2022 Batch)	ME, EE & CE	Mr. Arnab Chakraborty, (TOTSOL Technologies)

20	18.02.21 - 27.02.21	Basic Aptitude	515	3rd Year / 5th Sem (2022 Batch)	All Btech	Mr. Mohit Jain, Freelancer
21	12.04.21 - 20.04.21	English Communication	515	3rd Year / 5th Sem (2022 Batch)	All Btech	Mrs Mahua Roy & Mrs Arundhati Majumder
24	05.07.21 - 16.07.21	Python + DBMS	178	3rd Year / 6th Sem (2022 Batch)	ME & EE	Mr. Chandan Mukherjee, (TOTSOL Technologies)
25	18.02.21 - 27.02.21	Company Specific Aptitude	515	3rd Year / 6th Sem (2022 Batch)	All Btech	Mr. Mohit Jain, Freelancer
26	12.04.21 - 20.04.21	Advanced Quants	515	3rd Year / 6th Sem (2022 Batch)	All Btech	Mr. Mohit Jain, Freelancer
27	12.06.21 - 20.06.21	Advanced Coding (TCS Digital Preparation)	515	3rd Year / 6th Sem (2022 Batch)	All Btech	Mr. Gyanendra, (Kodnv Software Solutions.)
28	15.07.20 - 05.08.20	Company Specific Aptitude Preparation	725	Final Year/ 7th Sem (2021 Batch)	All Btech, MCA	Mr. Mohit Jain, Freelancer
29	07.08.20 - 14.08.20	Competitive Coding	725	Final Year/ 7th Sem (2021 Batch)	All Btech, MCA	Mr. Ayan Roy Mukherjee, (Micropro)
30	17.08.22 - 22.08.20	Quantitate Aptitude, Logical Reasoning	725	Final Year/ 7th Sem (2021 Batch)	All Btech, MCA	Mr. Mohit Jain, Freelancer
31	03.08.20 - 04.08.20	VLSI	48	Final Year/ 7th Sem (2021 Batch)	ECE	Dr. Soumya Pandit, M.Sc., M.Tech, Ph.D., MIE (I), SMIEEE, CEng (India)

32	21.06.21 - 24.06.21	Programming Concept using Pseudo Code	400	1st Year /2nd Sem (2024 batch)	All Btech	Mr. Anindya Banerjee (Totsol Technologies), Saikat Chakraborty, (Freelancer), Debojyoti Majumder (ARDENT Computech Pvt. Ltd)
33	08.07.21 - 10.07.21	Basic Aptitude	400	2nd Year /2nd Sem (2024 batch)	All Btech	Mr. Mohit Jain & Abhishek Sinha (Freelancer)
34	14.06.21 - 19.06.21	Quality, Reliability, Availability, Maintainability, and Safety Engineering	67	2nd year / 3rd Sem (2023 B.Tech)	ME	Prof. S.C Panja, Jadavpur University, Mechanical Engineering Department

Academic Session 2019-20

Sl. No.	Dates	Training Topic	No. of participants	Department	YEAR/SEM	Resource Person
1	05-11-2019- 09-11-2019	Java	55	CSE + IT	3RD YEAR/6TH SEM	Mr. Ayan Roy Mukherjee (Micropro.)
2	05-11-2019- 09-11-2019	Python	109	CSE + IT	3RD YEAR/6TH SEM	Mr. Gyanendra (Talentio) Mr. Mahendra (Ardent)
3	05-11-2019- 09-11-2019	Advance Coding	59	CSE + IT	3RD YEAR/6TH SEM	Ms. Priyanka (Talentio)
4	15-07-2019- 14-08-2019	Communication for Business needs	537	All Btech	1ST YEAR/2ND SEM	Mr. Mohit Jain and Team (Freelancer)
5	15-07-2019- 14-08-2019	C Programming	537	All Btech	1ST YEAR/2ND SEM	Mr. Ayan Roy Mukherjee (Micropro.)

6	08-07-2019-11-07-2019	Automobile Training	70	ME	2ND YEAR/4TH SEM	Mr. M. Murugason, Senior Engineer, TVS Training
7	08-07-2019- 13-07-2019	C & Data Structure	70	ME	1ST YEAR/2ND SEM	Mr.Ayan Roy Mukherjee (Micropro.)
8	17-06-2019 to 27-06-2019 to 04-07-2019 & 08-07-2019 to 10-07-2019 & 12-07-2019 to 16-07-2019	Java Batch 1	58	CSE + IT	4TH YEAR/8TH SEM & 3RD YEAR/6TH SEM	Mr.Ayan Roy Mukherjee (Micropro.)
9	17-06-2019 to 26-06-2019 & 28-06-2019 to 04-07-2019 & 08-07-2019 to 14-07-2019	Java Batch 2	240	ECE + AEIE + EE + ME + CE	4TH YEAR/8TH SEM & 3RD YEAR/6TH SEM	Mr.Ayan Roy Mukherjee (Micropro)
10	17-06-2019 to 04-07-2019 & 08-07-2019 to 14-07-2019	Advance Coding	77	CSE + IT	3RD YEAR/6TH SEM	Mr. Gyanendra Talentio
11	17-06-2019 to 04-07-2019 & 08-07-2019 to 14-07-2019	Advance Coding	166	ECE + AEIE + EE + ME + CE	3RD YEAR/6TH SEM	Mr. Arnab Chakraborty (TOTSOL Technologies)
12	17-06-2019 to 22-06-2019 & 24-06-2019 to 29-06-2019 & 02-07-2019 to 04-07-2019 & 08-07-	Cloud Computing	126	CSE + IT + ECE	3RD YEAR/6TH SEM	Mr. Avijit Aich (Ingram Micro)

	2019 & 12-07-2019 to 14-07-2019 & 16-07-2019 to 17-07-2019					
13	22,23,24,27,28,29,30 April, 4,5,6 May 2020	Machine Learning using Python	22	MCA	3RD YEAR/6TH SEM	Arnab Ckkraborty, Totsol Technologies

List of Events Conducted for Higher Studies/Gate Preparation

Academic Year: 2020-21

Criteria 9.5 - GATE Training Conduction Details

SI No	Date	Activity Details	No. of Participant	Semester	Department	Trainer Details
1	Aug 2018 - 11, 12, 18, 19,25,26, Sep 2018 - 1, 2	GATE Training	27	5th & 7th	CE	Mr. Tapan Jana(SOM), Freelancer
2	Feb 2019 - 16,17,23,24, Mar 2019 - 2,3,9,10	GATE Training	21	6th	CE	Mr. Abhishek Roy(FM), Freelancer
3	Aug 2019 - 17,18,24,25,31, Sep 2019 - 7,8	GATE Training	30	5th & 7th	CE	Mr. Trinanjan Roy (SOM), Freelancer
4	Feb 2020 - 15,16,22,23,29, Mar 2020 - 1,7,8	GATE Training	18	6th	CE	Mr. Abhishek Roy(FM)

5	Aug 2020 - 22,23,29,30, Sep 2020 - 12,13,19,20	GATE Training	26	5th & 7th	CE	Mr. Tapan Jana(SOM), Freelancer
6	Feb 2021 - 27, 28, Mar 2021 - 6,7,13,14	GATE Training	15	6th	CE	Mr. Palash Sam (SOM), Freelancer
7	22.08.20 - 23.08.20	GATE Training	26	3rd & 4 th / 5 th & 7th	ME	Mr. Swagata Poria (Mfg),
8	29.08.20 - 30.08.20	GATE Training	26	3rd & 4 th / 5 th & 7th	ME	Mr. Swagata Poria (Mfg),
9	12.09.20 - 13.09.20	GATE Training	26	3rd & 4 th / 5 th & 7th	ME	Mr. Swagata Poria (Mfg),
10	19.10.20 - 20.10.20	GATE Training	26	3rd & 4 th / 5 th & 7th	ME	Mr. Swagata Poria (Mfg),
11	25.01.21 - 29.01.21	GATE Training	15	3rd & 4 th / 5 th & 7th	ME	Mr. Palash Sam (SOM, Design),

List of Events Conducted under Career Guidance Facility

Academic Year: 2021-22

Sl. No.	Date	Topic	No of Participants	Year/Semester	Participants	Resource Person
1	27th October 2021	Python & Robotics	120	4th/7th & 3rd/5th	EE/ME/CE/ECE/AEIE	Mr.Pradip Pramanick (Researcher, Embedded Systems & Robotics TCS Research & Innovation)
2	29th October 2021	Neural Network	80	4th/7th & 3rd/5th	CSE/ECE/IT/AEIE/MCA	Ms.Jayeeta Mondal (Researcher, Embedded Systems & Robotics, TCS Research)
3	18th November 2021	5G Network	100	4th/7th & 3rd/5th	CSE/ECE/IT/AEIE/MCA	Dr. Arpita Sen (Product Manager & Innovation Evangelist TCS)
4	21st December 2021	Computer Vision	120	4th/7th & 3rd/5th	CSE/ECE/IT/AEIE/MCA	Dr. Swapna Agarwal (Scientist at TCS Research & Innovation, Kolkata, India)

Academic Year: 2019-20

1	13th June 2020	Python and it's application in Multi Robot Task Allocation	120	4th/7th & 3rd/5th	Nominated Btech & MCA students	Ms. Marichi Agarwal (TCS)
2	18th June 2020	Cloud infrastructure	100	4th/7th & 3rd/5th	Nominated Btech & MCA students	Mr. Parameshwar Das (TCS)

3	31st August 2019	Interaction with 1st Year students	200	1st Year/1st Sem	CSE, IT, ECE	Mr. Partha Sarkar (Academic Relationship Manager TCS)
Academic Year: 2018-19						
1	11th January 2019	Data Science	80	4th/7th & 3rd/5th	CSE,IT, ECE, MCA	Mr. Jayanta Adhikary (TCS)
Academic Year: 2017-18						
1	27th April 2018	Engineering Applications & IoT	60	4th/7th & 3rd/5th	Nominated B.Tech & MCA students	Mr. Deb Kumar Ghosh (TCS)
2	24th November 2017	Data Science	45	4th/7th & 3rd/5th	CSE,IT, ECE, MCA	Mr. Jayanta Adhikary (TCS)
3	28th July 2017	Smart Grid	60	4th/7th & 3rd/5th	Nominated Btech & MCA students	Mr. Subhajit Ghosh (TCS)

9. 6 Entrepreneurship Cell (5)

Even the greatest minds need a little push. The greatest of businessman (woman) started with help of someone who pushed them to their limits and became their stairway to success. We at ED Cell, Asansol Engineering College, want to do just that. With a mission of bringing like-minded groups of people together and put those ideas or opinions into action & thereby creating a start-up culture. We believe that ideas are more than enough to be a great entrepreneur. Just with some exposure they can be the best of the best. From the inauguration on 24th March, 2015 we are adding stars on our shoulders, touching new heights every day. It is said, hard work bears the tastiest fruits. If we go further the ED Cell was the reason of many successful start-ups like the WEBINGO, RADOBIZ, WITYLITI etc.

ED Cell (Committee)

S. No	Name	Designation & Dept	Post
1	Mr. Soumen Sen	Asst. Prof, ECE	Coordinator
2	Mr. Bhaskar Roy	Asst. Prof, ECE	Asst. Coordinator
3	Mr. Biplab Bhowmick	Asst. Prof, ECE	Treasurer
4	Mr. Manit Mukhopadhyay	Asst. Prof, EE	Member
5	Mrs. Joyshree Maji	Asst. Prof, BS-HU	Member
6	Mr. Ashes Maji	Asst. Prof, ME	Member
7	Mr. Kinshuk Banerjee	Asst. Prof, CSE	Member
8	Mr. Apurba Pal	Asst. Prof, CE	Member
9	Mr. Subham Raj Sharma	Alumni Entrepreneur	Member
10	Mr. Amit Kumar Gupta	Alumni Entrepreneur	Member
11	Mr. Aamir Ismiel	Student	Member
12	Mr. Sudeep Dutta	Student	Member

Functions/Activity of Entrepreneurship Development Cell

1. Organize Entrepreneurship Development Programs (EDP) for the students and publics.
2. Conduct Entrepreneurship Awareness Camp (EAC) & workshop.
3. Conduct Business Plan Competitions.
4. Conduct lecturer session of successful entrepreneurs.
5. Mentor and assist them, who want to become entrepreneur.
6. Organize idea generation workshop
7. Invite speakers from Financial and Venture Capital institutions to enlighten on schemes and assistance existing to promote new ventures.

List of events conducted by ED Cell, Asansol Engineering College

Serial No.	Event Date	Name of the Event	Number of Participants
Academic Year: 2019-2020			
1.	15/06/2020	IDEAOLGY (Business Idea Competition)	19
2.	24/04/2020	E-Quiz	630
3.	23/02/2020	Workshop on web designing	147
4.	31/01/2020	1 dollar venture (Startup Idea Competition)	20
5.	12/11/2019	Seminar on Startup Discussion	50
6.	21/08/2019	Seminar on Start-up club	60
7.	16/08/2019	Idea Workshop	50
Academic Year: 2018-2019			
1.	29/04/2019 30/04/2019 06/05/2019 07/05/2019	4 days' Workshop on "Website Designing & Web-Page Management".	81
2.	08/03/2019	Seminar on Industry Setup on Govt Policies	53
3.	04/03/2019	Induction Program	211
4.	02/03/2019	ED Cell, AEC started to work at its own workspace (Room No-ME105A)	106
5.	26/10/2018	Entrepreneurship Quiz	36
6.	23/10/2018	Workshop on HTML, CSS & JAVASCRIPT	134
7.	25/09/2018	All EDC members registered themselves for Wadhani Foundation Course (WF100)	122
8.	25/08/2018	Orientation program for newly admitted students	134
Academic Year: 2017-2018			
1.	16/02/2018	<u>E WEEK-2018: E-TALK</u>	40
2.	15/02/2018	<u>E WEEK-2018:</u> (A) E-Ship Games (B) Event Name-TODAY'S BEST SALESMAN (C) Event Name- Film Fest (Movie on Entrepreneurship)	39 46 35
3.	14/02/2018	<u>E WEEK-2018: Social Entrepreneurship</u>	20
4.	13/02/2018	<u>E WEEK-2018: School Outreach</u>	130
5.	11/02/2018	<u>E WEEK-2018:</u> Technical Workshop "HACKERFUN"	110

6.	10/02/2018	<u>E WEEK-2018:</u> (A) Event name– AD MADS (B) Event Name –Workshop on Word Press Blogging.	25 60
7.	08/11/2017	Event Name- IDEA BOX	52
8.	17/10/2017	Seminar on “Successful Entrepreneur Story”	92



Seminar on Start-up club on 21st August 2019



Workshop on web design on 23rd February 2020



Seminar on “Successful Entrepreneur Story” on 17th October 2017



Glimpses of ED-Cell activity till 2020

List of Entrepreneurs from AEC

AEC Entrepreneurs						
Sl No	Name	Branch/ Batch	Place	Nature of Start-up with authorization number	E Mail ID	Mobile No
1.	Abhishek Khemka	AEIE/2007	Asansol	Hind Oil Industries (GSTIN-19AFCPK0753R1ZZ)	abhishekkhemka001@gmail.com	8116199991
2.	Sandeep Singh	IT/2013	Giridih	Singh Tele Ventures (SEA1534900008401)	sandeep.singh.dua@gmail.com	9709607000
3.	Ankit Kedia	CSE/2014	Asansol	Kedia Electronics (GSTIN: 19BKHPK3460J1ZW)	imankitkedia22@gmail.com	7699996652
4.	Adil Farhan	CE/2019	Mumbai	Business (Al-Rahat Granite) (Reg. No.- 10ACRPF4907G1ZW)	adilfarhan1998@gmail.com	8825296120
5.	Srijan Mukherjee	ECE/2020	Asansol	Srijan Films India (Reg. No.- WB23D0000774)	1997srijanmukherjee@gmail.com	9647480475
6.	Subham Raj Sharma	CSE/2021	Asansol	Webingo Infotech Solutions (LLP-IN: AAP-7675, DIN-08495220)	subham.sharma93@gmail.com	7001300600
7.	Amit Kumar Gupta	CSE/2021	Patna	Radobiz Private Limited (CIN No- U92419BR2020PTC047050, DIN – 08806682)	guptaamit950442@gmail.com	9801916625
8.	Md Imran	CSE/2017	Asansol	Elezire Technologies (www.elezire.com) (CIN-U72900JH2017PTC009457, DIN-07712047)	imran@gmail.com	9832145261
9.	Sushil Kumar	ECE/2016	Asansol	Wityliti Automation and Solutions Private Limited (CIN No U72300WB2015PTC207705, DIN-07235837)	sushil@digirex.in	8768777710
10.	Tanay Chakraborty	MCA/2019	Asansol	Inocentum Technologies (www.inocentum.in) (Certificate No.-05021Y22000445)	tanay@inocentum.in	9564987234

11.	Arnab Jain	MCA/2019	Asansol	Inocentum Technologies (www.inocentum.in) (Certificate No.-05021Y22000445)	arnab@inocentum.in,	7063707547
12.	Diganta Dasgupta	MCA/2017	Asansol	Inocentum Technologies (www.inocentum.in) (Certificate No.-05021Y22000445)	diganta@inocentum.in	7001828717
13.	Mrinmoy Sarkar	AEIE/2014	Kolkata	Edots Technology	mrinmoysrkr70@gmail.com	8013242347
14.	Souvik Jana	ECE/2019	Midnapore	Fliqaindia Private Limited (CIN-U22222WB2019PTC233170, DIN-08524412, Startup Registration No.- MP2019000006)	souvikjana1996@gmail.com	9046138040
15.	Suman Bhattacharyya	ECE/2020	Asansol	Bitwin Technologies (www.ambuzone.com) (Reg. No. BD2020000030)	sbhattacharyya510@gmail.com	8116067157
16.	Sourav Rakshit	AEIE/2018	Kolkata	Logiczap Nextgen Technologies (DIN 0009282398, CIN-U80900OR2021PTC037720)	sourav.logiczap@gmail.com	9614120256
17.	Supriyo Mitra	ECE/2023	Asansol	Small Town Talks (Certificate No.- 05053Y22000901)	supriyo@gmail.com	9933093449



*Subham Raj Sharma
(CSE 2021 Passout Batch)
Co-Founder and Director
Webingo Infotech Solutions*



*Sourav Rakshit
(AEIE 2018 Passout Batch)
Founder and Director
Logiczap Nextgen Technologies*



*Tanay Chakraborty
(MCA 2019 Passout Batch)
Co-Founder
INOCENTUM TECHNOLOGIES*



*Amit Kr Gupta
(CSE 2021 Passout Batch)
Co-Founder and Director
Radobiz Private Limited*

9.7 Co-curricular and Extra-curricular Activities (10)

For conduction of different sets of co-curricular and extra-curricular activities institutes has different chapters, membership, clubs and societies which are as follows:

Clubs: Hardware Club, Coding Club, Photography Club, Science Club, Tech Club, Robotics Society

YEAR-WISE ACTIVITIES OF DIFFERENT CLUBS

SN	Date	Name of the Event	Participants	National/ State/ Institute/ Dept.	Club Name	Mode
Academic Year 2020-2021						
1	27-06-2021	Monthly Event "Share Your Knowledge" for month of June	51	Institute	Hardware Club	Online
2	19-06-2021	Tech Quiz #02	140	Institute	Coding Club	Online
3	19-06-2021	Webinar on Effect on ULTRASOUND	120	Institute	Science Club	Online
4	06-06-2021	CodeMate #01	93	Institute	Coding Club	Online
5	05-06-2021	Poster Making Competition in World Environment Day	177	Institute	Tech Club	Online
6	01-06-2021 02-06-2021	Hands on Training on RoboArms Movement	129	Institute	Robotics Society, AEC	Online
7	23-05-2021	Monthly Event "Share Your Knowledge" for month of May	101	Institute	Hardware Club	Online
8	01-05-2021	Electronics Circuit Design Competition 2021	22	Institute	Hardware Club	Online
9	24-04-2021	Webinar on Importance of Project	145	Institute	Hardware Club	Online
10	24-04-2021	Tech Quiz #01	277	Institute	Coding Club	Online
11	22-04-2021	Webinar on Earth Day	110	Institute	Science Club	Online
12	22-04-2021	Online Debate Competition	18	Institute	Science Club	Online

13	18-04-2021	Monthly Event "Share Your Knowledge" for month of April	102	Institute	Hardware Club	Online
14	16-04-2021	Seminar on "Nano Science and Technology"	86	Institute	Robotics Society, AEC	Online
15	11-04-2021	Inauguration of AEC Coding Club	233	Institute	Coding Club	Online
16	10-04-2021	Online Quiz Competition "Week of AEC Hardware Club (Special Edition-2)"	223	Institute	Hardware Club	Online
17 18	05-04-2021	2 Days Workshop on familiarization of Electronics Components/Devices for preparing hardware project	88	Institute	Hardware Club	Online
	06-04-2021					
19	22-02-2021	Webinar on "Service Before Sale" by Lt. Sandeep Jha	103	Institute	Tech Club	Online
20	21-02-2021	Monthly Event "Share Your Knowledge" for month of February	77	Institute	Hardware Club	Online
21	24-01-2021	Monthly Event "Share Your Knowledge" for month of January	184	Institute	Hardware Club	Online
22	12-01-2021	National Youth Celebration	135	Institute	Tech Club	Online
23	06-01-2021	Science Model Competition	20	Institute	Science Club	Online
24	19-12-2020	Monthly Event "Share Your Knowledge" for month of December	208	Institute	Hardware Club	Online
25	15-12-2020	Science Quiz	40	Institute	Science Club	Online

26	05-12-2020	CSI State Student Convention in Association with Tech Club 1. Online Technical paper presentation 2. Online project elicitation and competition.	136	State	Tech Club	Online
27	22-11-2020	Monthly Event "Share Your Knowledge" for month of November	18	Institute	Hardware Club	Online
28 29	10-10-2020	2 days Webinar on Achiever Talks by Anukun Ojha (TCS Digital), Md. Sadman (TCS Digital), Richik Majumdar (Persident)	200	Institute	Tech Club	Online
	11-10-2020					
30	06-10-2020	Online RoboQuiz - Round Final	23	Institute	Robotics Society, AEC	Online
31	05-10-2020	Online RoboQuiz - Round 1	87	Institute	Robotics Society, AEC	Online
32	20-09-2020	Monthly Event "Share Your Knowledge" for month of September	29	Institute	Hardware Club	Online
33	05-09-2020	Wall Magazine - WITTY WALL publication (Technical)	167	Institute	Robotics Society, AEC	Online
34	23-08-2020	Monthly Event "Share Your Knowledge" for month of August	19	Institute	Hardware Club	Online
35	01-08-2020	Webinar on "Rethinking of Innovation on Product Development"	106	Institute	Robotics Society, AEC	Online
36	19-07-2020	Monthly Event "Share Your Knowledge" for month of July	25	Institute	Hardware Club	Online

37	12-07-2020	Webinar on necessity of club in dept and blueStack future utility for job by Atul Kashyap from CGI	90	Institute	Tech Club	Online
38	10-07-2020	Discussion on Python Programming for Hardware Project	101	Institute	Hardware Club	Online
39	04-07-2020	Webinar on "Concept of Robot Programming and Application"	89	Institute	Robotics Society, AEC	Online
Academic Year 2019-2020						
1	22-06-2020	Electronics Circuit Design Contest 2020	19	Institute	Hardware Club	Online
2	10-06-2020	Technical Writing Competition "Look Around You"	146	Institute	Hardware Club	Online
3	17-05-2020	Python Quiz for CSE students	120	Institute	Tech Club	Online
4	15-05-2020	Innovative Poster Making Competition 2020	110	Institute	Hardware Club	Online
5	09-05-2020	Online Quiz Competition "Week of AEC Hardware Club (Special Edition-1)"	645	Institute	Hardware Club	Online
6	04-05-2020	Webinar on "Learn Fundamentals of Python"	203	Institute	Robotics Society, AEC	Online
7	03-05-2020	Innovative Idea Submission Competition 2020	17	Institute	Hardware Club	Online
8	03-05-2020	Quizzardt on Data Structure for 2nd year CSI members	90	Institute	Tech Club	Online

9	01-05-2020	Writing of Technical Review Article and Publication	103	Institute	Robotics Society, AEC	Online
10	26-04-2020	Webinar on Emerging Trends on Cloud Technology by Avinash Kumar Prasad Senior Software engineer at Cognizant	120	Institute	Tech Club	Online
11	26-04-2020	Poster Making Competition	130	Institute	Tech Club	Online
12	15-04-2020	Big Quiz	140	Institute	Tech Club	Online
13	02-03-2020	10 Hours Hands on Training (workshop)	80	Institute	Tech Club	Offline
14	24-02-2020	EVOLVE 2020 - Robotics Championship Competition	197	Institute	Robotics Society, AEC	Offline
15	22-02-2020	EVOLVE 2020 - Robotics Championship Workshop	197	Institute	Robotics Society, AEC	Offline
16	23-02-2020					
17	03-02-2020	Science Model making Competition	16	Institute	Science Club	Offline
18	11-11-2019	CSI Student wing inauguration in Association with Tech Club and Seminar on IoT and Machine Learning	347	Institute	Tech Club	Offline
19	10-11-2019	EVOLVE 2019 - Senior and Junior Robo Championship	312	Institute	Robotics Society, AEC	Offline
20	08-11-2019 to 09-11-2019	EVOLVE 2019 - Innovative Workshop	312	Institute	Robotics Society, AEC	Offline
21	18-10-2019	Innovative Hardware Model Making Competition 2019	500	Institute	Hardware Club	Offline
22	17-10-2019	Science quiz	50	Institute	Science Club	Offline

23	05-09-2019	Wall Magazine - WITTY WALL publication (Technical)	134	Institute	Robotics Society, AEC	Offline
24	14-08-2019	Symposium by different campus representative like code chef for 1st and 2nd year student	127	Institute	Tech Club	Offline
Academic Year 2018-2019						
1	05-05-2019	Quiz Contest on "Modern Technology"	315	Institute	Robotics Society, AEC	Offline
2	09-04-2019	Workshop on Web designing using Html and CSS (10 Hours)	60	Institute	Tech Club	Offline
3	04-04-2019	Extempore	30	Institute	Science Club	Offline
4	16-03-2019 18-03-2019	Workshop on Basic Drone Technology for 2nd Year Students	169	Institute	Robotics Society, AEC	Offline
5	17-03-2019	Seminar on "Nano Science"	86	Institute	Robotics Society, AEC	Offline
6	16-03-2019	Seminar on "Recent Technology in the field of Automation"	98	Institute	Robotics Society, AEC	Offline
7	06-03-2019 to 08-03-2019	Workshop on Basic Drone Technology for 1st Year Students	278	Institute	Robotics Society, AEC	Offline
8	08-02-2019 09-02-2019	ARDUINO DEVELOPMENT Workshop	127	Institute	Robotics Society, AEC	Offline
9	30-01-2019	Problem solving challenge	35	Institute	Science Club	Offline
10	15-09-2018	Logo Design Contest	60	Institute	Tech Club	Offline

11	05-09-2018	Wall Magazine - WITTY WALL publication (Technical)	123	Institute	Robotics Society, AEC	Offline
12	03-09-2018	Symposium on Emerging trends in web design	105	Institute	Tech Club	Offline
13	27-07-2018	Codeway 1.0 workshop on coding through C for 1st year students (10 Hours)	90	Institute	Tech Club	Offline
Academic Year 2017-2018						
1	16-06-2018 to 17-06-2018	Hands on Training on Arduino Technology	121	Institute	Robotics Society, AEC	Offline
2	27-05-2018	RoboQuizzz - Final Round	34	Institute	Robotics Society, AEC	Offline
3	20-05-2018	RoboQuizzz - Round 1 and Round 2	149	Institute	Robotics Society, AEC	Offline
4	22-04-2018	Seminar on "Mechatronics"	118	Institute	Robotics Society, AEC	Offline
5	21-04-2018	Seminar on "Innovative Ideas on RoboNix"	112	Institute	Robotics Society, AEC	Offline
6	08-04-2018	Extempore	32	Institute	Science Club	Offline
7	08-04-2018	TECHNOXIAN - RoboRace Championship (Senior and Junior)	289	Institute	Robotics Society, AEC	Offline
8	06-04-2018 to 07-04-2018	TECHNOXIAN - Robotics Workshop	289	Institute	Robotics Society, AEC	Offline
9	26-01-2018	Problem solving challenge	20	Institute	Science Club	Offline
10	04-11-2017 to 05-11-2017	Hands on Workshop on "Basic Robotics"	204	Institute	Robotics Society, AEC	Offline
11	27-09-2017	Seminar by Mr. Imteyaz Khan, Senior Software Engineer at Flipkart	103	Institute	Tech Club	Offline
12	24-09-2017	Training on "Robotic Components"	116	Institute	Robotics Society, AEC	Offline

13	17-09-2017	Training on "Robotic Components"	116	Institute	Robotics Society, AEC	Offline
14	09-09-2017	Science & Technical Quiz	60	Institute	Science Club	Offline
15	05-09-2017	Inauguration of Robotics Society of AEC	75	Institute	Robotics Society, AEC	Offline
16	21-04-2017	C-Code Battle	60	Institute	Tech Club	Offline

Coding Club: Photo Gallery

EVENTS GALLERY OF AEC CODING CLUB

11/04/21 Inauguration of AEC Coding Club
 It gives us a great pleasure to announce that ASANSOL ENGINEERING COLLEGE is inaugurating AEC CODING CLUB on 11th of April 2021 on 10:35am - 12:00noon.
AEC CODING CLUB
 Always top of the heap
 Meeting link: <https://forms.gle/921362581852>
 Register yourself: <https://forms.gle/GjRiAFDakWcbW8>
 Student Coordinators: Dr. Anup Kr. Mukhopadhyay, Mr. Biplob Kumar Mondal, Mr. Rijendra Pattanayak
 Teacher Coordinators: Dr. Anishk Banerjee, Mr. Sudip Kumar De

24/04/21 Tech Quiz #01
ASANSOL ENGINEERING COLLEGE AEC CODING CLUB PRESENTS TECHNICAL QUIZ APRIL 2021
 STUDENT CO-ORDINATORS: ASHUTOSH BHARATI (4TH YEAR), DEBIPRANJAN MAHA (3RD YEAR), ANAN TRIPATHI (3RD YEAR), SUDIP KUMAR DE (3RD YEAR), GOURISH SACHU (3RD YEAR)
 TEACHER CO-ORDINATORS: DR. ANISHK BANERJEE, DR. ANUP KR. MUKHOPADHYAY, MR. BIPLAB KUMAR MONDAL, MR. RIJENDRA PATTANAYAK, MR. SUDIP KUMAR DE
 DATE OF EVENT: 24/04/2021 SATURDAY

06/06/21 CodeMate#01
ASANSOL ENGINEERING COLLEGE AEC CODING CLUB CodeMate #01
 Sunday, June 06, 2021 11 a.m. - 12 p.m.
 Must Have a HackerRank Account
 Teacher Coordinators: Dr. Anup Kr. Mukhopadhyay - 9474734629, Dr. Anishk Banerjee - 9474002523, Mr. Sudip Kumar De - 9434584654, Mr. Biplob Kumar Mondal - 6295425557
 Student Coordinators: Ashutosh Bharti - 831953115, Sourin Hazra - 797993312, Varun Kedia - 700819278
 CODE LEARN COMPETE
 SCAN HERE

19/06/21 Tech Quiz #02
ASANSOL ENGINEERING COLLEGE AEC CODING CLUB Tech Quiz #02
 Teacher Coordinators: Dr. Anup Kr. Mukhopadhyay - 9474734629, Dr. Anishk Banerjee - 9474002523, Mr. Sudip Kumar De - 9434584654, Mr. Biplob Kumar Mondal - 6295425557
 Student Coordinators: Suraj Burman - 9083975805, Aman Thakur - 8292104146, Gourish Sachu - 9800778545
 Visit the link, <https://forms.gle/N42RikVZ7dvQ3UCW8> or, scan to register.

24/09/21 Introducing AEECC in first Year Induction Program
AEC Coding Club
 ALWAYS TOP OF THE HEAP
 Welcome you in Induction Program
 24/09/21 Introducing AEECC in first Year Induction Program

06/09/21 Tech Quiz #03
AEC Coding Club Tech Quiz #3
 Teacher Coordinators: Dr. Anup Kumar Mukhopadhyay - 9474732629, Dr. Anishk Banerjee - 9474002523, Mr. Sudip Kumar De - 9434584654, Mr. Biplob Kumar Mondal - 6295425557
 Student Coordinators: Rahul Mahato - 6205192718, Varun Kedia - 700819278, Rudina Das - 7488159636, Ujjwali Verma - 6207973058, Simran Kumari - 7081594383
 SUNDAY, 26th Sept, 2021 | 12 pm
 Google form link: <https://forms.gle/N42RikVZ7dvQ3UCW8>
 9073083912 | 810082408
 www.aecwb.edu.in

17/12/21 Tech Quiz #04
ASANSOL ENGINEERING COLLEGE AEC Coding Club Tech Quiz #04
 Teacher Coordinators: Anup Kumar Mukhopadhyay - 9474732629, Sudip Kumar De - 9434584654, Biplob Kumar Mondal - 6295425557
 Student Coordinators: Anshu Mahato - 6205192718, Varun Kedia - 700819278, Rudina Das - 7488159636, Ujjwali Verma - 6207973058, Simran Kumari - 7081594383
 Link for registration: <https://forms.gle/N42RikVZ7dvQ3UCW8>
 FRIDAY, 17th DECEMBER, 2021 | STARTS AT 7PM
 www.aecwb.edu.in

18/07/21 CodeMate#02
AEC CODING CLUB
 IS ORGANIZING AN ONLINE CODING COMPETITION
CODEMATE #2
 SUNDAY
 JULY 18, 2021
 11AM - 12:30 PM
 Scan the QR to Register
 NOTE: You must have a hackerrank account

Science Club: Photo Gallery

EVENT GALLERY OF SCIENCE CLUB



19.06.2021
WEBINAR



05.06.2021
POSTER MAKING COMPETITION



22.04.2021
WEBINAR



30.01.2019
SCIENCE QUIZ 2019 EVEN



THE SCIENCE CLUB
ASANSOL ENGINEERING COLLEGE



26.01.2018
SCIENCE QUIZ 2018 EVEN



SCIENCE QUIZ 2017 EVEN

09.09.2017



SCIENCE QUIZ 2017 ODD

Hardware Club: Photo Gallery

HARDWARE CLUB PHOTO GALLERY YEAR OF 2020-21

Week of AEC Hardware Club
Special Edition: 3
EVENT DATE: 10TH APRIL 2021, 8:00PM
ORGANISED BY: HARDWARE CLUB, ASANSOL ENGINEERING COLLEGE
ALL STUDENTS OF AEC CAN PARTICIPATE
TOP 3 WILL BE FELICITATED
1. CERTIFICATE FOR ALL
2. EXPERIMENTAL KIT EQUIPMENT

AEC HARDWARE CLUB
SHARE YOUR KNOWLEDGE
THIS IS A MONTHLY EVENT WHERE YOU CAN SHARE YOUR INNOVATIVE IDEAS/SKILLS/PROJECTS/EXPERIENCES IN BODILE MEET PLATFORM
EVENT DATE: 18TH APRIL 2021 (SUNDAY)
1. AWARD FOR BEST IDEAS
2. AWARD FOR BEST SKILLS/PROJECTS
3. WINNER'S PRIZE: ₹10000
4. SHYAMA DIXIT, ₹25000
5. SHYAMA DIXIT, ₹25000
FACULTY COORDINATOR: DR. SOUMEN SENA

Webinar on "importance on project for company job 24th April 2021
SOMIT KUMAR
Senior Software Developer
Company: CAHub

Electronics Circuit Design Competition 2021
EVENT DATE: 10th May 2021
LAST DATE FOR REGISTRATION: 8th April 2021

Shubha Sundar Chakraborty (Student of ECE-1st year) Project "Automatic Hand Sanitizer Dispenser" at ETV BHARAT news on 1st August, 2020 with Principal sir and teacher coordinator

Shubha Sundar Chakraborty (Student of ECE-1st year) project "Automatic Hand Sanitizer Dispenser" at Ei Bangla news on 3rd August, 2020

1

HARDWARE CLUB PHOTO GALLERY YEAR OF 2020-21

दैनिक जागरण
गंगा घाट ला झपका तो बोल उठेगा चयमा
300
Huzee
इंजीनियरिंग कॉलेज के छात्र ने बनाया बिना संपर्क स्विच

Different projects of AEC Hardware Club in different newspaper Kaman Hassan's project with Principal Sir and Teacher coordinator

आसनसोल इंजीनियरिंग कॉलेज के छात्र ने तैयार किया नॉन कंटेक्ट स्वीचिंग इस्ट्रूमेंट यंत्र
Corona Related Project: Non Contact Switching System
Student Name: Kaman Hassan, CSE-1st year

मायूरी वैदिक ईट चानल के प्रतिक्रिया कर बन कर बन दस
Hardware club project in different media

2

HARDWARE CLUB PHOTO GALLERY YEAR OF 2020-21

Transfer of "Non Contact Switching System" technology to a company which is developed by Kaman Hassan, Student of CSE-1st year from Hardware Club, Asansol Engineering College through IIP Cell of Asansol Engineering College.

Corona related project "UV sanitizer channel for files etc" made by AEC Hardware Club members

Smartphone control landmine detecting robotic car
News published on 17/09/2020 by ETV Bharat

3

**HARDWARE CLUB PHOTO GALLERY
YEAR OF 2020-21**



Hardware Club students has participated in CII Innovation 2020 online event on 04/12/2020



Faculty Coordinator of Hardware Club Mr. Soumen Sen received appreciation certificate from Texas Instrument (TI) and AICTE for motivating students towards TI Embedded System Design using MSP430 MCU MOOC course

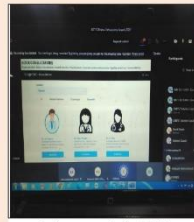


Hardware club student members has participated in 1st national Hackathon on 29/01/2021 to 31/01/2021, organized by CSI, Kolkata with JIS group educational initiatives.



4

**HARDWARE CLUB PHOTO GALLERY
YEAR OF 2020-21**



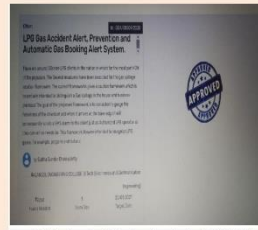
Online presentation in "AICTE CHITRA VISWAKARMA AWARD"



Student participate in TOYCATHION 2021



Best students project award 2020



Subha Sundar Chakraborty , student of ECE 2nd year project proposal selected for IDEA-O-METER fund



5

**HARDWARE CLUB PHOTO GALLERY
YEAR OF 2020-21**



Attended in IICDC CONCLAVE ON 14th JUNE, 2021 in Virtual Mode



Students share their ideas on the Hardware club's monthly event "Share Your Knowledge"

6

**HARDWARE CLUB PHOTO GALLERY
YEAR OF 2020-21**



Hardware club student members interact with Kangaroo Chamber of Commerce



Monthly event "Share your knowledge" on 19th July 2020



Webinar on "Discussion on python Programming for hardware project" On 10th July 2020



Webinar on UAM packaging on 11th December 2021

7

**HARDWARE CLUB PHOTO GALLERY
YEAR OF 2019-20**



Electronic circuit design contest on 22nd June



Electronic circuit design contest winner list



Innovative hardware model making competition 2019



Group photo of Innovative Hardware Model Making Competition 2019



1st position: Kamran Hassan and his team (TeamNo-31)



Special Prize: Best Project Idea from EE-1 st year: Sourav Mishra and his team (Team No-86)



Model exhibition

9

**HARDWARE CLUB PHOTO GALLERY
YEAR OF 2019-20**



Project presentation at Kolkata International Book Fair on 3rd February, 2020



Attended in Science and Cultural Exhibition at DAV School, Budha, Asansol on 6th & 7th February 2020



Workshop on 5th and 6th April 2020



Extra Classes for 1st year



"Innovative Idea submission 2020" on 3rd May, 2020



Weekly online event "Week of AEC hardware club (Special Edition)" on 9th May



Innovative Poster making competition on 20th May 2020



Technical Writing Competition "Look around You" on 10th June 2020

8

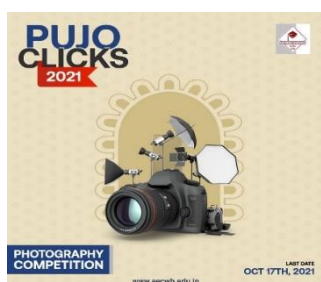
Tech Club: Photo Gallery



Photography Club

SN	Date	Name of the Event	Participants	National/ State/ Institute/ Dept.	Club Name	Mode
Academic Year 2020-2021						
1	27-06-2021	Webinar “Learn about Basic to Advanced about Photography techniques”	109	Institute	Photography Club	Online
2	31-10-2020	Puja Clicks 2020	167	Institute	Photography Club	Online
3	19-08-2020	Photography Contest on World Photography Day (in association with Fliqa India)	89	Institute	Photography Club	Online
Academic Year 2019-2020						
1	15-05-2020	FLIQAEC 2K20 National Level Photography Competition	74	Institute	Photography Club	Online
2	04-11-2019	Photography Contest for AEC Calendar	83	Institute	Photography Club	Online

Photography Club: Photo Gallery



REPORT ON NSS ACTIVITIES

Sl. No.	Date	Name of the Event	National/ State/ Institute/ Dept.	Participants	Mode
Academic Year 2020-2021					
1	03-03-2021	Mask Distribution	State	400	Offline
2	19-03-2021	Food Distribution	State	400	Offline
Academic Year 2019-2020					
1	05-06-2020	Tree Plantation	CSE, IT, ME, EE, CE, MCA, ECE	100	Online
Academic Year 2018-2019					
1	08-08-2018	Blood Donation Camp	CSE, IT, ECE, ME, CE, EE, MCA	110	Offline
2	08-08-2018	Tree Plantation	CSE, IT, ME, EE, CE, MCA, ECE	112	Online
3	07-11-2018	Tree Plantation	IT, ME, EE, CE, MCA, ECE, CSE	157	Offline
3	19/09/2018	Eye Checkup Camps	CSE, IT, ME, EE, CE, MCA, ECE	98	Offline
4	17/04/2019	Blood Donation Camp	ME, EE, CE, IT, ECE, CSE, MCA	86	Offline
Academic Year 2017-2018					
1	08-08-2017	Blood Donation Camp	IT, ME, EE, CE, MCA, ECE, CSE	105	Offline
2	11-02-2017	Blood Donation Camp	CSE, ECE, ME, CE, EE	58	Offline
3	17/04/2018	Swachh Bharat	ECE, CSE, IT, ME, EE, CE, MCA	139	Offline
Academic Year 2016-2017					
1	20/04/2017	Pulmonary Function Test	CSE, IT, ECE, ME	96	Offline
2	15/05/2017	Poster Competition	ECE, CSE, IT, ME, EE	46	Offline
3	07-03-2017	Campus Cleaning Program	ECE, CSE, IT, ME, EE	146	Offline
4	07-03-2017	Library Cleaning Program	ECE, CSE, IT, ME, EE	121	Offline

Blood Donation Camp on the Foundation Day 8th August 2018

On 8th of August every year Asansol Engineering College gladly celebrates its foundation day. Since last several years on the eve of foundation day we organize Blood donation camp in our college campus. This year also we have organized a Blood Donation camp in Vivekananda Seminar Hall. Around 100 students and Faculty members donated the blood. Head of the Asansol blood bank Mr. A. Chatterjee was present with his team. Donors were provided with the certificates and donor cards.



Tree plantation program on the college foundation day 2018

On college foundation day 8th August 2018, we celebrated the day with a tree plantation program. Around 100 different kinds of trees are planted in our campus. Students with faculty members participated in the program. The event was a real success.



Tree plantation program on CISF Foundation Day 2018

CISF Unit of Asansol has organized a tree plantation program in our college campus with the help of Asansol engineering College NSS unit. In the presence of CISF Commanding officer with his team our students and faculty members are also participated in the program, 50 nos of trees are planted.



Blood Donation Camp no 17th April 2019

On 17th of April 2019 NSS unit of Asansol Engineering College has organized a Blood Donation camp in Vivekananda Seminar Hall. Around 108 students and Faculty members donated the blood. Head of the Asansol blood bank Mr. A. Chatterjee was very



happy to see the enthusiasm and support of the students and willing to organize such camps in the future. Donors were provided with the certificates and donor cards.

Swachh Bharat Mission on 17/04/2018

Swachh Bharat Mission or Swachh Bharat Abhiyan or Clean India Mission is a country-wide campaign initiated by the Government of India in 2014 to eliminate open defecation and improve solid waste management.

Swachh Bharat Mission will lead to Healthy India which in turn increase productivity of Indians. High productivity means High earning potential. In short, we can say healthy body is directly proportional to earning potential. A healthy auto driver can work for 12 hours a day from existing 8 hours thus can earn 50% more.



dance-drama on the song “Swachh Bharat ka irada karliya humse” composed by Mr. Prasoona Joshi and sung by Mr. Kailash Kher showing the usual practices of littering and the mockery on the same.

It was followed by sharing of the opinions and views of the student on the topic of cleanliness. A small quiz was organized for the proper interaction and to increase the awareness regarding the Swachh Bharat Mission.

Keeping this in mind, AEC organized a one-day event on the awareness program of the Swachh Bharat Mission.

The event started with the speech of Principal of AEC briefing about the importance of cleanliness followed by lighting of the diyas and seeking the blessings from almighty.

The Program started with a very impactful



After this well enlightening and fun filled quiz, two dramas were performed, one by the students of the Electronics & Communication Engineering Department regarding the open defecation and diseases related with it and Instrumentation Engineering Department for the awareness regarding the littering and the various issues related with it.



The event ended on a note of praise of the father of the Nation, Sir Mahatma Gandhi for his contributions in raising the awareness

about the cleanliness and sanitation and the appreciation of the cleanliness workers all around the world for their contributions in making this world a better place to live in.

We then went to a nearby village, *Panchgachia* for the awareness program and had a quite insightful interactions with the villagers.

Tree Plantation Program 05th June 2020

A tree plantation program was organized on the world environment day 2020. This was organized online as the college was closed due to Covid lockdown. The response from the students was wanderfull. Around 100 students was participated.





REPORTS ON SPORTS ACTIVITIES

The Institute is very much enthusiastic to promote sporting activities among the students as we believe that “A healthy mind Lives in a Healthy body only”.

Infrastructure:

1. Cricket and Football Ground.
2. Volleyball Court
3. Basketball Court
4. Central Gymnasium
5. Badminton Courts in Hostels
6. Carom Boards in Hostels

Intra College Events:

1. Inter Departmental Cricket Tournament
2. Inter Departmental Football Tournament
3. Inter Departmental Volleyball Tournament
4. Annual Sports

Different Sports Activities

Sl. No.	Date	Name of the Event	National/ State/ Institute/ Dept.	Participants
Academic Year 2020-2021				
2	14th to 20th January, 2021	SJSM & SK Intercollege Tournaments	Intercollege	14
Academic Year 2019-2020				
1	10th to 11th February, 2020	Annual Sports	Institute	237
2	18th to 24th January, 2020	SJSM & SK Intercollege Tournaments	Intercollege	48
3	5th to 8th January, 2020	Cricket Tournament	Institute	224
4	7th to 9th January, 2020	Volley Ball Tournament (Boys' & Girls)	Institute	80 + 40
5	15th to 18th September, 2019	Football Tournament	Institute	240
Academic Year 2018-2019				
1	4th to 5th February, 2019	Annual Sports	Institute	237
2	15th to 21st February, 2019	SJSM Intercollege Tournaments	Intercollege	38
3	13th to 16th January, 2019	Cricket Tournament	Institute	224
4	15th to 17th January, 2019	Volley Ball Tournament (Boys' & Girls)	Institute	80 + 40
5	29th September to 1st October, 2018	SJSM Volleyball Tournament for Boys	Intercollege	12
6	16th to 19th September, 2018	Football Tournament	Institute	240
Academic Year 2017-2018				
1	5th to 6th February, 2018	Annual Sports	Institute	237
2	10th to 14th February, 2018	SJSM Intercollege Tournaments	Intercollege	28
3	13th to 16th January, 2018	Cricket Tournament	Institute	224
4	31st October to 3rd November, 2017	MAKAUT Zone-1 Inter College Football Tournament	Institute	15
5	18th to 21st September, 2017	Football Tournament	Institute	240

Glimpses of Sports & Games



Lineup: Inter-Departmental Football – 2019



**Champions
MAKAUT Zone 1 Football Tournament – 2017**



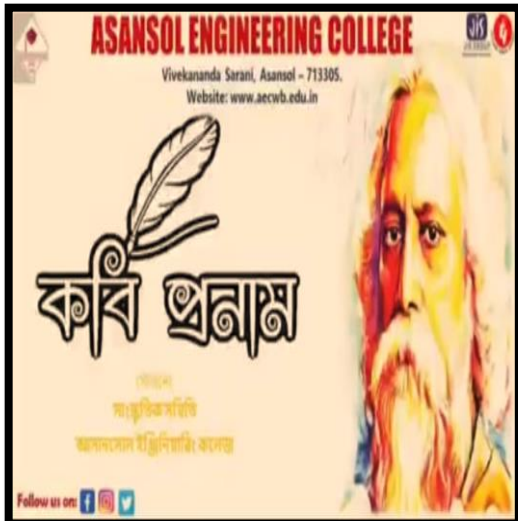
**Trophies
Inter-Departmental Football – 2018**



**Sports Person (Girl and Boy) Annual
Sports - 2020**

REPORTS ON CUTLTURAL ACTIVITIES

Sl. No.	Date	Name of the Event	Participants	Mode
Academic Year 2020-2021				
1	2nd October, 2020	Gandhiji Birthday Celebration	23 participants	Online Activity
2	26th January, 2021	Republic day Celebration	20 participants	Only Teachers
3	18th March, 2021	Basanta Utsav	24 participants	Online Activity
4	15th April, 2021	Poila Baisakh (Bengali new Year)	35 participants	Online Activity
5	9th May, 2021	Rabindra Jayanti Celebration	18 participants	Online Activity
6	24th May, 2021	Nazrul Jayanti	20 participants	Online Activity
Academic Year 2019-2020				
1	8th August, 2019	College Foundation Day	70 participants	Offline Activity
2	15th August, 2019	Independence Day	20 participants	Offline Activity
3	28th September, 2019	Agomani Utsav (Pre-Puja Celebration)	30 participants	Offline Activity
4	27th October, 2019	Diwali celebration	17 participants	Offline Activity
5	26th January, 2020	Republic day Celebration	50 participants	Offline Activity
Academic Year 2018-2019				
1	15th August, 2018	Independence Day	45 participants	Offline Activity
2	9th October, 2018	Agomani Utsav (Pre-Puja Celebration)	32 participants	Offline Activity
3	2nd October, 2018	Gandhiji Birthday Celebration	26 participants	Offline Activity
4	26th January, 2019	Republic day Celebration	25 participants	Offline Activity
Academic Year 2017-2018				
1	15th August, 2017	Independence Day	50 participants	Offline Activity
2	2nd October, 2017	Gandhiji Birthday celebration	36 participants	Offline Activity
3	19th October, 2017	Diwali celebration	45 participants	Offline Activity
4	26th January, 2018	Republic day celebration	29 participants	Offline Activity



Rabindra Jayanti (9th May 2021)

The cultural unit organises offline and online programmes for celebration of important days like Rabindra Jayanti – the birth anniversary of the Nobel Laureate poet Rabindranath Tagore, the birth anniversary of Kazi Nazrul Islam – the rebel poet of Asansol and the like.

To spread and motivate students towards performing arts in form of music, dance, drama, instruments and group show of talent so as to develop their socio-cultural competencies, the cultural unit of college organizes several programmes across the year where students can freely participate and harness their talents.



Nazrul Jayanti (24th May 2021)

‘Agomoni’ – a term used for invoking the home-coming of goddess Durga who is treated ‘Uma’ - as the daughter of Bengal is a cultural performance held before the Durga Puja vacations where students participate with great enthusiasm and zest.



Agomoni (28th September 2019)

Rangoli Festival organised during the Diwali celebrations in college is one of the major attractions. Students' creativity is exhibited in the various designs created with flower, colours and diyas during the Rangoli festivals.



Rangoli, Diwali Celebration (19th October 2017)



Basanta Utsav (20th March 2021)

Basanta Ustab (Holi) is one of the events of colour and dance and music which is organised in the time of Spring. Students enjoy putting colours on their faces and participate in a musical journey of the folk songs and dance numbers of Bengal.

Not only students but also teachers and staff members participate in many cultural programmes of college. This enables a greater bonding in the teacher-student relationship and creates a conducive environment for beyond class learning as well. The Diwali celebration of



Diwali Celebration (21st November 2021)

the year 2020 is one such example where the teachers organised an online performance which was uploaded in the face book page of college.

On 2nd October, to observe the Birth Anniversary of the Father of the Nation – Mahatma Gandhi, the college organises an open to all sit and draw painting event. Teachers and students happily participate in this event.



Painting, Gandhi Jayanti (2nd October 2018)

ANNUAL EVENTS

Following events are done annually:

- 1) Annual Sports
- 2) FIESTA: An Annual Cultural and Technical Fest

FIESTA

(LEGANZZA & INFOQUEST)

(The Annual Fest of ASANSOL ENGINEERING COLLEGE)

We, the members of the ASANSOL ENGINEERING COLLEGE (AEC) family, join our hands together to organize the much-awaited event FIESTA every year in the month of February-March. The AECians, which include more than 2000 students and near about 200 faculty & staff members, wait eagerly for the event every year. FIESTA, is basically an annual event which has two categories viz. the Cultural Fest named as LEGANZZA and the Technical Fest INFOQUEST.

Separate Committees comprising of both Teachers and Students are set up for organizing the events in a flawless and peaceful manner. Responsibilities are being assigned to each of the committee members which they perform spontaneously and with utmost interest to make the events a grand success. Students' participants enroll their names in different events to the registration committee. Around 8 events take place under LEGANZZA and approx. 17 events take place under INFOQUEST. Every event has teacher coordinators and student coordinators who take charge of their respective events. More or less 60% to 70% students participate in the events majority of which happens to be from 1st year.

LEGANZZA, a two days event, comes up with the events which unfolds the cultural talents of our students like

- Solo & Group Dance (Both Competitions and Performances)
- Singing Competition (Miley Sur Mera Tumhara)
- AEC Rowdies

- Director's Cut
- Rangmanch/SKIT
- Paper Dress Art
- String Symphony (Instrumental Performances by students)
- Fashion Show (Mr.& Miss. AEC) which happens to be probably the most attractive, most popular and most prestigious event among all.

Few of the events have the initial elimination rounds in presence of the teachers. After finalizing the participants for the on-stage appearances, several grooming and/or practice sessions are arranged for them. Apart from the students' performances, teachers & staffs also perform sometimes which certainly boosts up the student's confidence. Besides Students and Teachers performances, we organize two renowned guest performances on each day.

INFOQUEST, two days event as well, targets on highlighting the technical talents of our beloved students. The major events under INFOQUEST are

- CODIAC
- Quizomania
- LABYRINTH
- Spell Bee
- Paint Ball
- Creative Writing
- Photography
- Painting
- FUTSOL
- Hardware Battleship etc.

Many hidden talents of our students get unleashed through these events. In some events, participants from other colleges also take part.

The names of the winners and the runners up students of different events of both LEGANZZA and INFOQUEST were announced on the stage on the closing day and the students were felicitated.

Glimpses of FIESTA (LEGANZZA and INFOQUEST)



**Event: Labyrinth
Infoquest 2018**



**Event: Mr & Ms AEC
Leganza 2018**



**Event: Group Dance
Leganza 2019**



**Event: Rangmanch
Leganza 2019**



**Event: Group Dance
Leganza 2019**



**Event: Human Pyramid
Leganza 2018**



**Event: Rangmanch
Leganza 2019**



**Event: Celebrity Performance by TRAP Band
Leganza 2018**

10. GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120)

10.1. Organization, Governance and Transparency (40)

10.1.1. State the Vision and Mission of the Institute (5)

Vision: To emerge as a center of excellence in technical education, offering best of the teaching and learning by creating ambience for advanced level of education and research to serve the society.

Mission:

IM-1. To create an ambience for advanced level of teaching and learning process.

IM-2. To generate new ideas by engaging in cutting-edge research and technology.

IM-3. To initiate collaborative projects which offer opportunities for long term interaction with industry and academia.

IM-4. To develop intellectual human potential for serving the society according to the regional, national and global needs.

10.1.2. Governing body, administrative setup, functions of various bodies, service rules, procedures, recruitment and promotional policies (10)

Board of Governors (BoG)

Governance is the key activity that keeps a connection between the management, staff, students and the community. The institution has a governing body in place wherein the members are drawn from distinguished cross-section of the society following AICTE guidelines.

Details of the members of the governing body are mentioned in the following table.

SN	Name	Designation	Field
1	Prof. (Dr.) Ajay Roy	Chairman	Director, JISIASR, Padmashree, Ex-VC & Director, IEST., Ex – Professor of IIT, Kharagpur
2	DTE / Representative of DTE	Member	Nominee of the State Government (Ex – officio)
3	Prof. (Dr.) Sebak Ranjan Roy	Member	Professor, Dept. of Food & Science, MAKAUT, Kolkata (Nominee from MAKAUT, University Representative)
4	Mr. Taranjit Singh,	Member	MD, JIS Group (Nominee of the Society)
5	Mr. Haranjit Singh	Member	Director, JIS Group (Nominee of the Society)
6	Mr. S. Roychowdhury	Member	MD, Techno India Group (Nominee of the Society)
7	Mr. G. Roychowdhury	Member	Chairman, Techno India Group (Nominee of the Society)
8	Mr. Amrik Singh	Member	Director, JIS Group (Nominee of the Society)
9	Mr. T. K. Ghosh	Member	Executive Director, Techno India Group (Nominee of the Society)
10	State Govt. Nominee	Member	Educationist nominated by the State Govt.
11	Dr. Asit Guha	Member	Ex- COE, Kalyani University (Educationist, Nominated by the Society)
12	Mr. Amit Srivastava	Member	Director, Hash Technology (Industrialist, Nominated by the Society)
13	Dr. Sandip Haldar	Member	Professor, AEC (Faculty Representative)
14	Mr. Koushik Neogi	Member	Asst. Professor, AEC (Faculty Representative)
15	Prof. (Dr.) P. P. Bhattacharya	Member Secretary	Principal, AEC

BoG meeting is held quarterly in every Academic session. In case of exigency Board meetings are organized with the recommendation from the Chairman, BoG.

Functions of BoG

Terms of office of Members of Board:	The terms of the office of all the members shall be two years.
Meeting(s):	At least four times a year
Function of the Board of Governors:	a. The Governing Body of the institute shall be responsible for the general superintendence, direction and control of affairs of the institute and shall exercise all the powers of the institute.

b. Without prejudice to the provisions of sub-section, Governing Body shall

1. Take all decisions on questions of policy related to the administration of the institution.
2. Propose and approve different courses of studies in the institution.
3. Make plan and appoint different cadre for academic as well as other posts of the institution.
4. Make and approve the service rule of the institution.
5. Supervise, guide and approve proposals of various committees such as Academic Committee, Finance Committee, Purchase Committee etc.
6. Consider and approve resolutions on the annual report, the accounts and the institute's budget.
7. Have the power to perform such other duties and appoint such committees as it considers necessary and deemed fit for proper development and conservation of academic standard and reputation of the institute.
8. Introduce scholarships, fellowships, medals and certificates on the recommendations of the appropriate committees.
9. Consider reward and promotion of the faculty member(s) and staff on recommendation of the appropriate committees.
10. Review project implementation in progress and give guidance for achieving project goal and target.
11. Develop strategies for creating the ambience for excellence.
12. Suggest measures for enhancing the reach and effectiveness of services to community and industry.
13. Ensure institutional accountability and compliance with policy reforms.

Administrative set up

The institute enables a perfect decentralization of activities and entrustment of authorities for different functions. Entire administration procedures remain primarily focused on students, who are heart & soul of the system, though they do not take part directly to the administration process. Involvement of each and everyone in the decision-making and the transparency associated therein also form the important features of the work culture of the institute. The institute functions with perfect decentralized administration as depicted in the Organizational Structure.

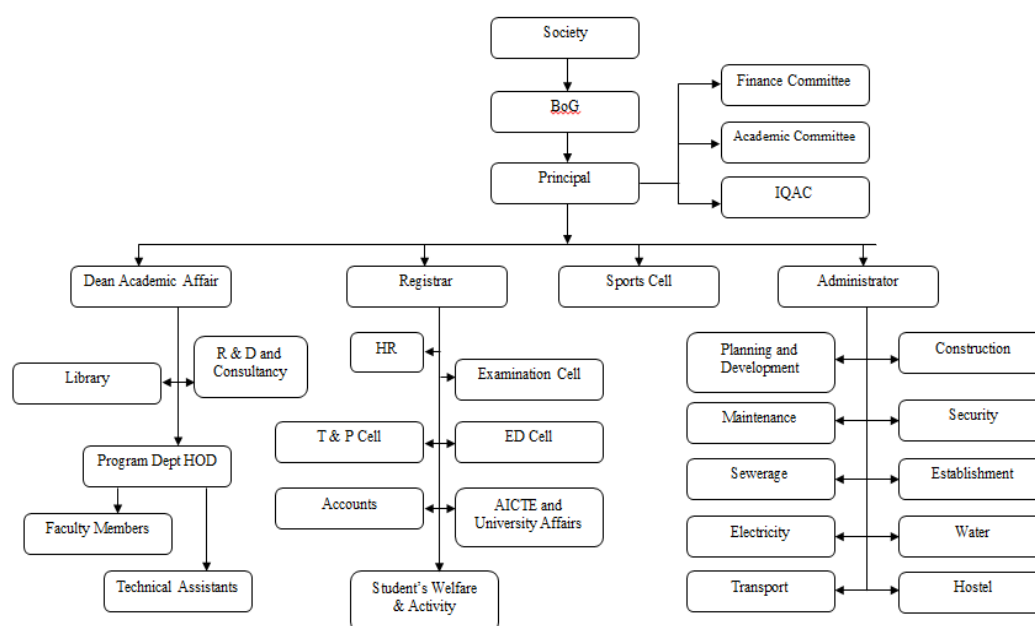


Fig. 10.1 Organizational Structure

Structure and Functions of various bodies/committee

Name of the committee	Committee structure	Function	Frequency of meeting
Academic Committee	a) Chairperson - Principal b) Convener - Senior Faculty Member	a) To exercise general supervision over the academic work of the Institute and to give direction regarding methods of instructions, evaluation or research or improvements in academic standards.	(a) The Academic Committee shall meet as often as may be

	<p>c) Member - All HoDs and two Senior Faculty Members</p> <p>d) External Members – One from Industry and One from Academia</p>	<p>b) To promote research within the Institute, acquire reports on such researches from time to time.</p> <p>c) To consider matters of academic interest either on its own initiative or at the instance of the Board of Governors and to take proper action thereon.</p> <p>d) To make arrangements for the conduction of examinations in conformity with the by-laws.</p> <p>e) To maintain proper standards of the examination.</p> <p>f) To suggest measures for departmental co-ordination.</p> <p>g) To make recommendations to the Board of Governors on:</p> <p>(i) Measures for improvement of standards of teaching, training and research.</p> <p>(ii) Fellowships, Scholarships, Medals, Prizes etc.</p> <p>(iii) By-laws covering the academic functioning of the Institute, discipline, residence, admissions, examinations, award of fellowships and studentship, free ships, concessions, attendance etc.</p> <p>h) To appoint sub-committees for providing advice on such specific matters and may be referred to by the Board of Governors.</p> <p>i) To consider the recommendations of the sub-committees and to take action</p>	<p>necessary but not less than two times during a semester.</p> <p>(b) Chairpers on may convene a meeting as and when she/he deems fit without any prior notice.</p>
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		<p>accordingly (including making of recommendations to the Board of Governors) as the circumstances on each case may require.</p> <p>j) To take periodic review of the activities of the Department / Centers and to take appropriate action (including making of recommendations to the Board of Governors) with a view to maintain and improve the standards of instruction.</p> <p>k) To exercise such other powers and perform such duties as may be conferred to or imposed upon by the rules and by-laws.</p> <p>l) To recommend creation of Teaching posts, Professors, Associate Professor and Assistant Professors to the Board of Governors.</p> <p>m) To finalize academic calendar and holiday list.</p>	
Finance Committee	<p>a) Chairperson – Principal</p> <p>b) Convenor – Registrar</p> <p>c) Member – Administrator</p> <p>d) Member – One/Two Senior Faculty Member</p> <p>e) Member – BoG Nominee</p>	<p>a) Budget preparation and Fiscal Planning</p> <p>b) Budget Allocation</p> <p>c) Recommend the Budget to the BoG for approval</p> <p>d) Re-appropriation of funds of different Heads of the Budget with approval of the BoG.</p> <p>e) Budget estimates relating to the grant received / receivable from UGC, and income from fees and other</p>	<p>(a) The Finance Committee shall meet as often as may be necessary but not less than one time annually.</p> <p>(b) Chairperson may convene a meeting as and when she/he deems fit without any prior notice.</p>

	f) Finance Officer – Head, Accounts	sources collected for smooth operation of the college f) Advise the BoG on any matter involving finance, if asked for.	
Grievance Redressal Committee (GRC)	a) Chairperson - Principal b) Convener – One Senior Faculty Member c) Member – Two Senior Faculty Members (One Female) d) Student Members – One	a) To enlist the grievances of the students & staff and to initiate corrective measures immediately. b) To provide all sorts of information to the students & guardians. c) To ensure creation of staff-students’ friendly atmosphere. d) To report intermittently to the BoG on the action taken for mitigating the grievances received by the committee. e) To function under overall control & guidance of the BoG f) Any other function as may be entrusted by the BoG from time to time	(a) The Grievance Redressal Cell shall meet as often as may be necessary but not less than one time annually. (b) Chairperson may convene a meeting as and when she/he deems fit without any prior notice.
Anti-Ragging Committee	a) Chairperson - Principal (Ex-officio) b) Convener - Registrar c) Member - Administrator d) Members –Two or Three HoDs of Academic Departments e) Member - Representative of Police	a) To prevent ragging in the Institution. b) To aware all about the punishment & cons of Ragging. c) To Ensure all take the anti-ragging oath. d) To make ragging free environment in and	(a) The Anti-Ragging Committee shall meet as often as may be necessary but not less than one time annually.

	<p>f) Member - Representative of Civil Administration</p> <p>g) Member - Representative from NGO</p> <p>h) Member - Representative from local media</p> <p>i) Member - Representative from parents</p> <p>j) Member – One lady representative from Staff</p> <p>k) Member - One male representative from Staff</p> <p>l) Members - Hostel Warden and Asst. Wardens</p> <p>m) Members - Four student members</p>	<p>around the campus of the institution</p> <p>e) To tackle the cases of ragging in the Institution.</p> <p>f) To maintain relevant records properly.</p> <p>g) Any other function as may be entrusted by the BoG from time to time</p>	<p>(b) Chairperson may convene a meeting as and when she/he deems fit without any prior notice.</p>
<p>Internal Complaints Committee (ICC)</p>	<p>a) Presiding Officer - One Senior Lady Faculty</p> <p>b) Members - Two Senior teaching and two non-teaching staff members (female)</p> <p>c) Members - Three student nominees</p>	<p>a) To deal the matter related with Prevention and Prohibition of Sexual Harassment of Women Employees and Students and Redressal of Grievances</p> <p>b) To organize training/orientation/awareness program for gender sensitization and process for complaint settlement</p>	<p>(a) The Internal Complaints Committee shall meet as often as may be necessary but not less than one time annually.</p> <p>(b) Presiding officer may convene a meeting as and when she/he deems fit without any prior notice.</p>

SC/ST Committee	<p>a) Chairperson – Principal</p> <p>b) Convener – One Senior Faculty Member</p> <p>c) Members – 2 faculty members shall be SC/ST</p> <p>d) Members – 1 faculty member (female)</p>	<p>a) To resolve issues related to SC/ST and their grievances if any</p> <p>b) To aware about the different schemes of Govt for the SC/ST</p>	<p>(a) The SC/ST Committee shall meet as often as may be necessary but not less than one time annually.</p> <p>(b) Chairperson may convene a meeting as and when she/he deems fit without any prior notice.</p>
Internal Quality Assurance Cell (IQAC)	<p>a) Chairperson - Principal</p> <p>b) Member - Five senior faculty members and one senior administrative official</p> <p>c) Member - Two external experts on Quality Management/ Industry/Local Community -</p> <p>d) Member Secretary - Director / Coordinator</p>	<p>a) Development and application of quality benchmarks.</p> <p>b) Parameters for various academic and administrative activities of the institution.</p> <p>c) Enabling the creation of a learner-centric environment favourable to quality education and faculty development, to adopt the required knowledge and technology for learner centered, interactive teaching and learning process.</p> <p>d) Gathering and analysing of feedback from all stakeholders on quality-related institutional processes.</p> <p>e) Broadcasting of information on various quality parameters to all stakeholders.</p>	<p>(a) The Internal Quality Assurance Cell shall meet as often as may be necessary but not less than two times during a semester.</p> <p>(b) Chairperson may convene a meeting as and when</p>

		<p>f) Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles.</p> <p>g) Documentation of the various programmes/activities leading to quality upgrading.</p> <p>h) Performing as a nodal agency of the Institution for coordinating quality-related activities, including adoption and spreading of best practices.</p> <p>i) Growth and conservation of institutional database through ERP for the purpose of maintaining /enhancing the institutional quality.</p> <p>j) Periodical conduction of Academic and Administrative Audit and its follow-up.</p> <p>k) Preparation and submission of the Annual Quality Assurance Report (AQAR) as per guidelines and parameters of NBA/NAAC.</p>	<p>she/he deems fit without any prior notice.</p>
Library Committee	<p>a) Chairperson – Principal</p> <p>b) Convener - Librarian (Ex-officio)</p> <p>c) Members - One faculty</p>	<p>a) To ensure proper functioning of the library.</p> <p>b) To ensure accessibility of Books/Journals as per requirement of the student and faculty.</p> <p>c) To ensure that e-library facilities are available for use.</p> <p>d) To ensure accessibility &</p>	<p>(a) The Library Committee shall meet as often as may be necessary but not less than once in every three months.</p>

	from each academic department	enhancement of resources of digital library. e) To arrange for keeping library open as per need of the student/faculty members. f) To function under overall control and guidance of the BoG. g) Any other function as may be assigned by the BoG from time to time.	(b) Chairperson may convene a meeting as and when she/he deems fit without any prior notice.
Industry Institute Partnership Cell/ IIC	a) Chairperson - Principal b) Chief Coordinator - One Senior Faculty b) Members of Advisory Committee – Registrar, All HoDs, Two Industry Persons c) Members of Marketing Committee – 3 senior faculty members	a) Enrolment of Industry personnel for academic exchange. b) Find out future investors / collaborators in various departments of the college. c) Organize quarterly department specific industry institute meeting & finalize sponsors for the same. d) Setup Centre of Excellence. e) Bring and execute consultancy projects for various departments. f) Testing and assuring quality/strength for various industry products.	(a) The IIC shall meet as often as may be necessary but not less than one time annually. (b) Chief Coordinator may convene a meeting as and when she/he deems fit without any prior notice.
R & D Committee	a) Coordinator - One HoD / senior faculty member	a) Identifying different funding agencies. b) Applying Project proposal,	(a) The R & D Committee shall meet as often as

	<p>b) Members - Faculty members having ample of research experience</p>	<p>AICTE, DST, etc. by involving all faculty members.</p> <p>c) Maintaining report of all research related activities, copy of publications, copy of project proposal etc.</p> <p>d) Any other function as may be entrusted by the BoG from time to time.</p>	<p>may be necessary but not less than twice in a year.</p> <p>(b) Coordinator may convene a meeting as and when she/he deems fit without any prior notice.</p>
Admission Committee	<p>a) Convener – Registrar</p> <p>b) Admission In Charge/Coordinator – One Senior Faculty Members</p> <p>c) Members - Faculty Members / TA / Office staff.</p>	<ol style="list-style-type: none"> 1. To look after the promotional activities for admission. 2. To provide all sorts of information regarding admission to the concerned students & guardians. 3. To facilitate the admission process properly. 4. Any other function as may be entrusted by the BoG from time to time. 	<p>(a)The Admission Committee shall meet as often as may be necessary but not less than one time annually.</p> <p>(b) Convener may convene a meeting as and when she/he deems fit without any prior notice.</p>
Sports Committee	<p>a) Sports In Charge/Coordinator - One Senior Faculty Member</p> <p>b) Members - Faculty members and TA are nominated as Coordinator of</p>	<ol style="list-style-type: none"> a. To conduct annual sports & games in the Institution. b. To organize regular practice of sports & games for the students and to ensure their better performance. c. To take initiatives regarding the participation of the 	<p>(a) The Sports Committee shall meet as often as may be necessary but not less than one time annually.</p> <p>(b) Chairperson may convene a</p>

	<p>different sports. Faculty member / TA /students (co-opted). Physical Director - Head Coach</p>	<p>institution in Inter-college competitions etc. d. Any other function as may be entrusted by the BoG from time to time.</p>	<p>meeting as and when she/he deems fit without any prior notice.</p>
Cultural Committee	<p>a) Convener: One Senior Faculty Member. b) Members - Representatives from Faculty members / TA / other staffs / students</p>	<p>a. To conduct all types of cultural programmes throughout the year in the Institution. b. To encourage students' participation in the various cultural programmes of the college. c. To take initiatives for the participation of the institution in Inter-college competitions etc.</p>	<p>(a) The Cultural Committee shall meet as often as may be necessary but not less than one time annually. (b) Convener may convene a meeting as and when she/he deems fit without any prior notice.</p>
Techno-Scientific Committee	<p>a) Convener: One senior faculty member b) Members - Three representatives from Faculty Members. c) Member - Three Representatives from TAs d) Member - Two representatives from staffs</p>	<p>a. To organize quiz competitions, seminars etc. related to science & technology b. To organize Tech. Fair c. To make arrangements for Technology model competition d. To take initiatives for the participation of the institute in Inter-college competitions etc. e. The committee will take care to prepare students to appear</p>	<p>(a) The Techno - Scientific Committee shall meet as often as may be necessary but not less than one time annually. (b) Convener may convene a meeting as and when she/he deems fit</p>

	e) Member - Four student representatives from four years with representation from girl students also.	for the competitive exams to achieve awards, fellowships etc.	without any prior notice
Women Cell	a) Coordinator – One Senior Faculty (Female) b) Member – At least 4 teaching faculty (female) c) Member – 2 technical staffs (female) d) Member – At least 1 non-teaching staff (female) e) Member – 2 students’ representative (female)	a. To aware about the different schemes for students (female) b. To deal with the issues related with women (not at purview of ICC) c. To arrange different programs related to women.	(a) The Women Cell shall meet as often as may be necessary but not less than once in a semester (b) Coordinator may convene a meeting as and when she/he deems fit without any prior notice

Functions of Key Administrative Positions

Positions	Functions
Society	<ul style="list-style-type: none"> • Highest Authority for Governance of the College • Advice the governing body through its nominated representatives.
BoG	<ul style="list-style-type: none"> • Take all decisions on questions of policy related to the administration of the institution. • Propose and approve different courses of studies in the institution. • Make plan and appoint different cadre for academic as well as other posts of the institution. • Make and approve the service rule of the institution.

	<ul style="list-style-type: none"> • Supervise, guide and approve proposals of various committees such as Academic Committee, Finance Committee, Purchase Committee etc. • Consider and approve resolutions on the annual report, the accounts and the institute's budget. • Consider reward and promotion of the faculty members and staff on the recommendation of the appropriate committees. • Review project implementation in progress and give guidance for achieving project goal and target. • Develop strategies for creating the ambience for excellence. • Suggest measures for enhancing the reach and effectiveness of services to community and industry. • Ensuring institutional accountability and compliance with policy reforms.
Principal	<ul style="list-style-type: none"> • The Director/Principal shall be the chief academic and administrative Head of the College. • Policy planning and leadership. • Communicating the Vision, Mission, Objectives and all Policy of the authority to all employees of the Institution. • Implementation of the directions of the BOG / Society • Total Administration of the Institution. • Fixing parameters and goal sheets for the teaching and non-teaching employees • Monitoring and evaluation of Teaching, Research, Publication, Real knowledge application etc. • Close participation in the process of performance evaluation of employees. • Personal involvement in Teaching, Research, Publication, Real knowledge application as per norms. • To monitor & follow up the proceedings of meeting of the Departmental committee & activities.

	<ul style="list-style-type: none"> • To monitor & follow-up the proceeding & activities of all the college committee, cells such as faculty / student, faculty / HOD, HOD / Principal interfaces to ensure that all issue are addressed timely and properly for the best interest of the students. • Principal will actively participate in Teaching, Research, Publication, • Monitoring of the student's feedback systems duly authenticated by respective HODs. • To monitor and ensure that all relevant data are duly uploaded in ERP portal. • Any other responsibility given by the Authority / Society
Dean Academics	<ul style="list-style-type: none"> • Preparation of the academic almanac, monitoring the progress of class work, syllabus coverage, student counseling/mentoring, directing and supervising student activity programs. • Helping faculty in planning effective remedial instruction. • Managing and evaluating instructional support program. • Inviting faculty members from all departments to be mentors • Maintaining proper records for each of the mentors with complete details of their experience, subjects of their specialization, their research interests, publications, authorship of books, projects guided at PG and PhD levels, consultancy experience etc. • Preparing subjects-wise specialization of faculty list in all the subjects • Maintaining an up-to-date record of mentee faculty list • Guiding younger faculty in identifying their fields of interest • Maintaining an up-to-date database of career opportunities for teaching community with information on qualification and skill up-gradation opportunities • Liaison with the Heads of the departments to update the list of mentees and mentors from each department

	<ul style="list-style-type: none"> • Monitoring and promoting R & D activities in the institution. • Developing a strong association with industry, research and consultancy establishments and signing Memorandum of Understandings aimed at improving specific strengths of the college. • Identifying the newly inducted faculty for orientation programs and plan for them in every semester. • Serving as an instructional coach. • Creating professional development opportunities for all. • Motivating faculty and others. • Identifying unique leadership capabilities of teachers and others and match them with leadership opportunities. • Mentoring others and identifying others with mentoring capabilities • Any other function that may be assigned by the HOI from time to time.
Administrator	<ul style="list-style-type: none"> • Oversee all the construction activities • Supervise the security and housekeeping staff • Supervise the maintenance work / water supply / electricity • Advice on each development work of college • Determining the need and planning for facility maintenance, and renovation expansion. • To ensure overall administration of all hostels. • To establish coordination with Chief Warden/Assistant Warden of various hostels for smooth running of day-to-day routine work of hostel.
Registrar	<ul style="list-style-type: none"> • Assists the Principal (HOI) in administering and leading the college within the policy framework developed by the College Academic Committee. • Supervises at the directives of the HOI, and assists in the completion of administrative details and tasks required to maintain an efficient operational pattern for the college.

	<ul style="list-style-type: none"> • Maintaining all records pertaining to students, faculty and staff • Developing job descriptions for faculty and other staff by emphasizing a candidate's knowledge, skills, values, and commitment. • Completing the student admission process of all programs of the college. • Ensuring effective utilization of transport of students, staff, and faculty members. • Ensuring safety and security to all in the institute. • Promoting multicultural interactions and understandings among students, staff, and faculty members. • Acts as a link between students, alumni and the employers. • Planning, directing, scheduling and coordinating in-service training program for non- technical and non-teaching staff. • Supervising and evaluating administrative personnel. • Maintaining student mentoring systems. • Interacting with parents and other citizens. • Preparing information to be disseminated to parents, students, other stakeholders and public. • Preparing special reports and bulletins for general distribution. • Determining the need and planning for facility maintenance, and renovation expansion. • Determining specifications for equipment and suppliers. • Inventorying and distributing supplies and equipment. • Preparing reports/grant applications for AICTE, DTE, University, etc.
HoDs	<ul style="list-style-type: none"> • The Head of every Department shall act under the General supervision and Control of the Director / Principal of the College and his duties and function shall be to administer the academic and administrative affairs of the Department concerned in accordance with the guidance of the Director/Principal and as per the policy of the authority.

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| | <ul style="list-style-type: none">• HODs will actively participate in Teaching, Research, Publication, Real world knowledge application and administrative work in the departments.• In addition to the allotment of classes to the teachers, he / she shall assess the workload of the teachers, lab Instructors and other technical persons in the department, requirements of staff members etc. He / She shall also maintain a liaison with the other departments. He / She shall keep vigil about the quality teaching in every theoretical & practical subject as per syllabi of the University. The HOD shall ask the teachers to prepare lesson planning on each subject and he / she shall monitor whether the scheduled is maintained. He / She shall prepare a list of the equipment, books etc. well before the beginning of the semester and forwarded straight to the Director/Principal for early procurement. He / She shall take care of conducting all the examinations, evaluation methods, keeping all records of examinations as per regulations under the guidelines of the Director/Principal. In any case of urgency or anything related to academic affairs which are not mentioned above the HOD shall take advice from the Director/Principal and shall take necessary steps.• As a part of academic affairs, the HODs will impart knowledge to the students by taking classes, to take tutorial and remedial classes on regular basis, need based laboratory development and Lab classes, conducting evaluation of the students and so on.• As part of Real-world knowledge Application, HOD shall encourage consultancy and project work amongst faculty members as per norms in consultation with the Director/Principal. The said activities, progress and achievement are recorded in the meeting of the Departmental Committee. HOD will also ensure that at least one seminar of State level is organized by the College in each semester. HOD will also ensure that Faculty members are engaged in development of |
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	<p>quality study materials, course materials, lesson plan, model question, answer etc on regular basis and those are uploaded into MIS Server of the College. Total implementation of online teaching learning process with full participation of the faculty members and all sections of students.</p> <ul style="list-style-type: none"> • HOD will also ensure that senior faculty members hold regular (i.e., two meetings in each semester) interaction with Class Representatives (CR) to resolve ongoing issues and healthy student-teacher relationship is maintained with all dignity. • HOD will provide effective leadership towards industry Institution partnership. Organization of special lectures, seminar, workshops by the industry professionals for total development of the future professionals. • HOD will give advice & suggestion regarding purchase and preservation in the Departmental Library of books or other resources pertaining to his sphere of learning to the Librarian. • As far as management of the academic affairs of the Department concerned, he shall act in consultation with Departmental Committee, The Departmental Committee shall meet at least once in a month, which shall be convened by the Head of the Department concerned with the agenda and the time of the meeting being decided upon in the preceding meeting so that no notice is circulated. The names of the members of the intra-departmental committee have to be submitted to the Director/Principal at the beginning of each Semester. • Faculty/Teaching Skill Development Program to be planned by the HOD based on need analysis of all the concerned faculty and technical staff members. • HOD has to ensure that required data are duly uploaded in ERP portal by all the Faculty Members. • Any other responsibility given by the Director/Principal.
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	<ul style="list-style-type: none"> • HOD shall encourage faculty members to do PhD and must involve themselves in research activities along with publication of research work.
T & P Officer	<ul style="list-style-type: none"> • The Training & Placement Officer will be responsible for all activities related to training of the students to enhance their interview winning skill in consultation with the Director / Principal and Head of the Central Placement Cell (if any), Registrar/ Administrative Officer, H.O.D. • The Training & Placement Officer will be responsible to keep close Co-ordination with the Director/ Principal and Head of the Central Placement Cell (if any), Registrar/ Administrative Officer and HOD. • The Training & Placement Officer shall maintain all database of the students necessary for placement of the students. • The Training & Placement Officer will take the initiative to make visit to different Companies in order to build up a good Industry institute relationship. • The Training & Placement Officer before taking any final decision shall always consult the Director/Principal and the Head of the Central Placement Cell (if any). • The Training & Placement Officer should keep the students informed about all activities of his/her Cell, which are related to students training & placement. • He/She will maintain all records needed by the corporate for placement of the students. • He/She will submit regular statement reports to the Director/ Principal regarding the expenditure in his/her Cell. • He/She will be ready to accept and execute any responsibility given by the Director / Principal or by the Head of the Central Training & Placement Cell in matters related to Training & Placement. • The Training & Placement Officer will report to the Director/Principal.

<p>Librarian</p>	<ul style="list-style-type: none"> • Librarian will Manage the planning, administrative and budgetary functions of library and information services including • Establish and implement library and information policies and procedures • The person will be responsible for procurement planning in consultation with respective HODs and the Director/Principal. • Develop and manage convenient, accessible library and information services • Prepare and manage the budget for library and information services, technology and media • Develop and manage cost-effective library and information services, technology and media • Order materials and maintain records for payment of invoices • Analyze and evaluate library and information services, technology and media service requirements • Prepare reports related to library and information services, technology and media services, resources and activities • Smooth & effective operation of the library • Procurement planning in consultation with Director/ Principal and HOD • Software Implementation/up gradation. • Librarian will provide effective access to library collections and resources, maintain the organization of library materials. • Provide library services in response to the information needs of library users and perform other related duties. • Any other responsibility given by the Director /Principal and HOD.
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Rules, procedures, recruitment, and promotion policies

Institute has published the revised ‘Service Rules’ on 01.07.2018.

Procedure for recruitment of staff members:

- All appointments: Permanent, contractual and temporary to fill up any category of post in the College shall be made by Director-Society on the recommendation of the Selection Committee to be constituted as per regulatory Norms.
- All new appointments required to be endorsed in the following meeting of the Board of Governors of the College.
- Part-time and/ or Guest Faculty: The Principal of the Institution may from time to time appoint, under exceptional circumstances, part-time and / or Guest faculty, fulfilling minimum norms, for handling theoretical sessions/lab / workshop assignments on honorarium basis that may be decided by the authorities.
- Direct Recruitment – As per regulatory norms and strictly on merit: For selection of faculty members and staffs, advertisements are to be notified in the Website of Asansol Engineering College or in Newspaper. For appointment of any category of staff, a Selection committee is to be constituted as per norms for each position to select eligible candidates purely on merit, academic record and other eligibility criteria for each position.
- A Selection Committee is formed as per the norms of the regulatory body including the Subject expert. The selection committee will choose the candidates based on applicants and will recommend the best suitable for the post based on the post record and face to face performance. The Subject expert may include internal subject expert, i.e., expert from the College / or External subject expert which means expert from the other university / institutions of repute /Industry. The panel of the selected candidates will be valid for six months.
- Recommendation of Selection committee will be final subject to the approval of the BOG. In case, any kind of misinformation declared by the candidate is noticed even after the appointment or joining or confirmation of job, the appointment may be cancelled summarily depending upon the gravity and nature of the misinformation/ hiding of facts.
- Director-Society alone can issue the appointment letter. The new appointments may be in Scale or in consolidated basis for any posts case as per requirement, irrespective of others already in that post / similar post are in Scale or Consolidated pay
- Probation: An employee appointed either as a faculty or as a non-teaching staff shall remain on probation as may be defined in his appointment letter. Typically, the probation period will be for a period of one year. In case the performance of the

candidate is unsatisfactory and / or inefficiency in handling the allotted assignment, his probation may be extended or his service may be terminated during the probation period by giving one months' notice in writing or one months' salary, in lieu of.

- Extension of probation will not be allowed for more than once.

Extension of Probation period is not a right to the candidate but might be considered by Authority / Society.

- Period of probation may also be relaxed in exceptional circumstances at the discretion of the Appointing Authority / Society. In exceptionally deserving cases, the Authority / Society may waive the Probation period of an employee at the time of appointment.
- The Employee appointed under contract will be excluded from terms of probation. Terms of Contract will guide contractual appointment only.
- The contract will be valid up to the specified tenure only. The contract will be automatically terminated on the expiry of the contract period unless renewed further.
- Confirmation: On completion of stipulated period of probation the performance will be evaluated as per appraisal procedures. Depending upon performance report he will be eligible for confirmation of service.
 - a) On confirmation he will be either placed on suitable scale or consolidated salary depending on performance report and the discretion of the Authority / Society.
 - b) In case, a staff member does not receive a letter of confirmation from the Institution in time, his service in the College would not be deemed to have been confirmed and it shall be presumed that his period of probation has been extended.
 - c) Performance appraisal for all faculty and non-teaching staff is mandatory prior to confirmation of service. No person will be confirmed without performance appraisal. It will solely depend on total performance evaluation by Principal and HoD followed by personal appraisal held by the Appraisal Committee. The Chairperson of the Appraisal Committee will have to be duly appointed by Authority / Society who will have to be an experienced academician of repute, i.e. of a Senior Professor level.

Procedure for promotion of Staff Members:

- Promotion will be carried out only for Regular Employees. Probationers, Temporary Employees and Contractual Employees will not be eligible for promotion.

- Acquiring eligible qualification, Annual Performance review report and experience will be considered during the promotion review, however they do not establish right to be promoted to higher cadre. Depending upon available vacancy and other criterion, the candidate will be considered along with other eligible candidates who have applied for the position.
- If disciplinary proceedings have been initiated against an employee or if an employee is suspended because of any reason, he will not be eligible for promotion till such proceedings are over or suspension is withdrawn.
- In case of a record of violation of code of conduct in last three years, an employee will not be eligible for promotion.
- Promotion of Faculty positions will be decided as per the following procedures:
 - Availability of sanctioned vacant posts is to be decided by the Governing Body.
 - Governing Body will constitute a Selection Committee for consideration of internal cases fit for promotion to fill up the vacant sanctioned posts.
 - On fulfillment of stipulated condition of regulatory body and / or norms of the College, the candidate will be eligible to appear before Selection Committee.
 - An employee who had awarded a “Poor” or “Unsatisfactory” rating in any of the last three Annual Performance Reviews will not be eligible for promotion unless he had acquired two “excellent ratings” out of which, one has to be in last performance review.
 - Application of eligible candidates will be scrutinized by the Selection Committee. The Committee will consider the points as mentioned along with other points decided by the Selection Committee.
 - Selection Committee will conduct personnel interviews/ test of the eligible candidates and their opinion including Annual performance review report, which will be placed before the authority for appropriate decision regarding promotion including the date from which the order will be effective. The Principal will be informed about the decision taken on the annual performance review report of a candidate (if needed).
 - Based on the recommendation of the selection committee the competent authority may issue the promotion order to the deserving candidates.
 - It is not mandatory or essential for the competent authority to fulfill the vacant posts from the internal applicants. The authority has full liberty to fill up all the vacant positions through external candidates.

Promotion of non-Teaching Employees will be decided as per the following procedures:

- Availability of sanctioned vacant posts is to be decided by the Governing Body.
- Governing Body will constitute a Selection Committee for consideration of internal cases fit for promotion to fill up the vacant sanctioned posts.
- On fulfillment of stipulated condition of regulatory body and / or norms of the College, the candidate will be eligible to appear before Selection Committee.
- An employee who had been awarded a “Poor” or “Unsatisfactory” rating in any of the last three Annual performance reviews will not be eligible for promotion unless he had acquired two excellent rating out of which, one has to be in last performance review.
- Application of eligible candidates will be scrutinized by the selection committee. Promotion of a non-teaching staff to higher scale shall be as far as possible on seniority-cum-merit basis. The committee will consider the seniority and Annual performance review report along with other points decided by the Selection committee.
- Based on the recommendation of the selection committee the competent authority may issue the promotion order to the deserving candidates.
- It is not mandatory or essential for the competent authority to fulfill the vacant posts from the internal applicants. The authority has full liberty to fill up all the vacant positions through external candidates.

10.1.3. Decentralization in working and grievance redressal mechanism (10)

The different committees are formed with members from different sections to run the administrative and academic activities of the institution. The committee is comprehensive and cover every aspect of administrative and academic activities undertaken by the institution. The structure of different committees has been formed following stipulated guidelines wherever applicable. The committee show the participation of personnel from all departments and sections for the required function and identify the administrative and academic decision makers for various responsibilities. The different BoG approved Committee are: Academic Committee, Finance Committee, Internal Quality Assurance Cell, Library Committee, ICC, IIPC, R & D committee, Anti-Ragging Committee, Grievance Cell, Alumni Association, Admission Committee, Sports Committee, Cultural Committee, Techno Scientific Committee etc.

List of faculty members who are administrators / decision makers for various assigned jobs.

Sl. No.	Name	Responsibility
1	Prof. (Dr.) Parth Pratim Bhattacharya	Principal
2	Dr. Sandip Haldar	Registrar
3	Dr. Debashis Sarkar	Convener, Academic Committee
4	Dr. Sandip Haldar	Member Secretary, IQAC
5	Mr. Tarunava Ghosh	Head Accountant
6	Dr. Debashish Chakraborty	HoD, Computer Science & Engineering
7	Dr. Debashis Sarkar	HoD, Mechanical Engineering
8	Dr. Arunava De	HoD, Electronics & Communication Engineering
9	Dr. Rajan Sarkar	HoD, Electrical Engineering
10	Dr. Dibyendu Kumar Pal	HoD, Computer Application
11	Dr. Anup Kumr Mukhapadhyay	HoD – In - Charge, Information Technology
12	Mr. Biplab Saha	HoD, Civil Engineering
13	Dr. Sandip Haldar	HoD, BS & HU
14	Mr. Bidyut Patra	Librarian
15	Dr. Arunava De	Coordinator, R & D Committee
16	Mr. Gurjeet Singh	Head, HR Section
17	Mr. Sujoy Kumar Basu	Admission – In - Charge
18	Mrs. Debika Chatterjee	Training & Placement Officer
19	Dr. Animesh Upadhyay	Officer – In – Charge, Examination
20	Dr. Krisnendu Pobi	Coordinator, Mentorship Committee
21	Mr. Soumen Sen	Coordinator, ED Cell
22	Dr. Ramesh Prasad Saha	Coordinator, IIP Cell
23	Dr. Gouri Sankar Panda	Convener, Anti – Ragging Committee
24	Dr. Anup Kumr Mukhapadhyay	Convener, GRC
25	Dr. Mithu Dey Sarkar	Presiding Officer, ICC
26	Mr. Soumen Sen	Coordinator, Techno Scientific Committee
27	Mr. Hirak Gupta	Coordinator, Cultural Committee
28	Mrs. Seuli Chakraborty	Coordinator, Women Cell

29	Mr. Sambit S Mondal	Sports – In - Charge
30	Mr. Ashish Banerjee	Project Engineer

Grievance Redressal Mechanism:

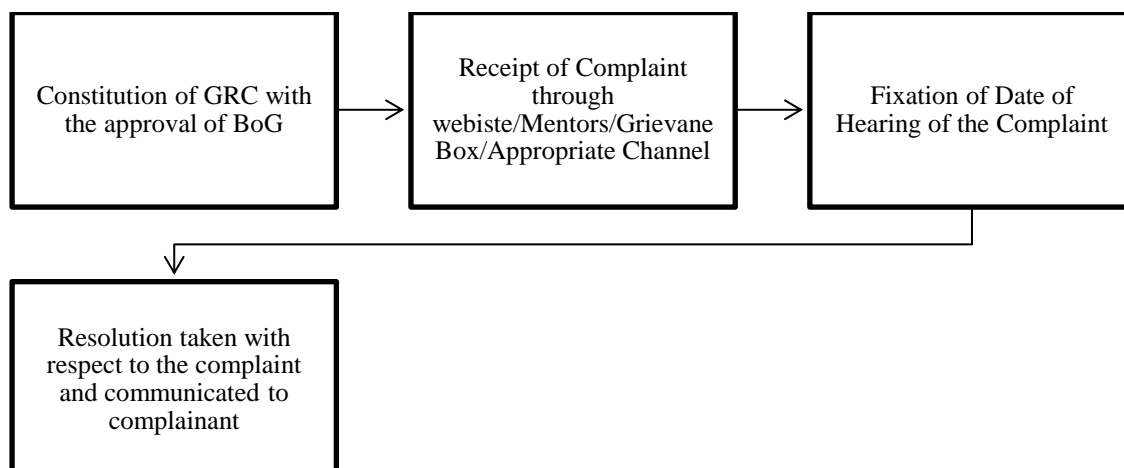
The institution has a well-defined grievance redressal mechanism in place. Decentralized functioning being quite effectively practiced, the redressal of majority of the grievances is eventually taken care of by the respective departments and the faculty members. A few common grievances are dealt with from the level of the HoD / College authorities (Principal / Administrator / Registrar) who actively interacts with the students to help them sort out their grievances. It attends to both registered and unregistered grievances of the students. To take care of any major grievance, a central Grievance Redressal Committee (GRC) is constituted. Internal Complaint Committee is in place to address matters related to gender discrimination, sexual harassments etc. The issues related with ragging of students are addressed by the Anti-Ragging Committee. To address any affair related to discrimination with the person belongs to SC/ST community, SC/ST Committee is in place. Students are free to share their views/grievances/suggestions with the mentors, faculty members, HoD, Registrar, Administrator as well as the Principal of the institute. Apart from this, students can drop their grievances/complaints/suggestions in the suggestion box if they don't want to reveal the grievance in person. Such complaints are forwarded to the concerned committee for time bound resolutions. The functioning and composition of different grievance redressal machineries are given below –

Grievance Redressal Committee (GRC)

Sl. No	Name	Designation	Nature
1	Dr. P. P. Bhattacharya	Principal	Chairperson
2	Dr. Anup Kumar Mukhopadhyay	Prof. & HoD, IT	Convener
3	Dr. Asit Kumar Gupta	Prof., BS&HU	Member
4	Mrs. Khusi Banerjee	Asst. Prof., ECE	Member
5	Mr. Sourav Kairi	CSE (Batch- 2018-22)	Member

Tenure of Members: Two year for nominated members.

Meeting: At least once in a semester and as and when necessary.

Procedure:**Action taken by GRC:**

Year	No of Complaints	No of Complaints resolved	Action Taken
2020-21	0	0	NA
2019-20	0	0	NA
2018-19	0	0	NA
2017-18	1) Complaint was related with refund against cancellation of admission. (25/04/2018) 2) Complaint was related with refund against cancellation of admission (03/08/2017)	1) Resolved (30/05/2018) 2) Resolved (25/08/2017)	Adjusted Money as per the norms was refunded. Adjusted Money as per the norms was refunded.

Internal Complaints Committee (ICC)

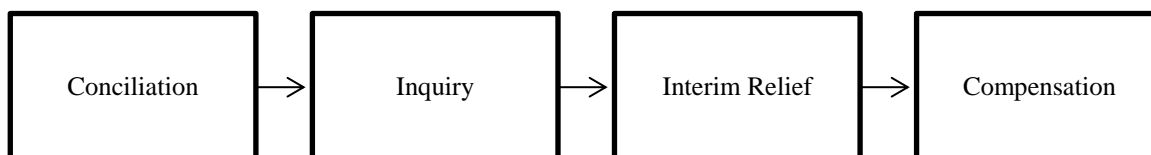
Sl. No	Name	Designation	Nature
1	Dr. Mithu Dey Sarkar	Asso. Prof. BS & HU	Presiding Officer
2	Mrs. Agamani Chakraborty	AP, EE	Faculty Representative
3	Mrs. Seuli Chakraborty	AP, IT	Faculty Representative
4	Mrs. Sruti Choudhury	Office Assistant	Non-Teaching Representative
5	Mrs. Anandita Srivastava	PA to Principal	Non-Teaching Representative
6	Ms. Ashmita Bhattacharya	CSE, 2 nd Year	Student Member

7	Ms. Sriza Malakar	CSE, 3 rd Year	Student Member
8	Ms. Swati Das	IT, 1 st Year	Student Member

Terms of members: Three year for nominated members

Meetings: As and when necessary

Procedure:



Number of complaints of sexual harassment received in the year: Nil

Number of orientation or training Programmes carried out for the members of the ICC to deal with complaints: 01

Number of complaints disposed of during the year: Nil

Number of cases pending for more than 90 days: Nil

Number of workshops or awareness Programme carried out for the officers, functionaries, faculty and students to sensitize them against sexual harassment: 01

Nature of action taken by the Technical Institution against the perpetrator: Not required

Anti-Ragging Committee (ARC)

Sl. No	Name	Category	Nature
1	Prof. (Dr.) P. P. Bhattacharya	Principal	Chairperson
2	Mr. Atindra Narayan Choudhury	Advisor (A & D)	Member
3	Dr. G. S. Panda	Registrar	Convener
4	Mr. Chinmoy Chakraborty	I/C Kanyapur Police Station	Member
5	Mr. Anshuman Dutta, WBCS	Dy Magistrate, Paschim Bardhaman	Member
6	Mr. Bani Mondal	Advocate	Member
7	Mr. Satyendra Kr. Turi	Bureau Chief, Journalism Today	Member
8	Mr. Saikat Chatterjee	Parent	Member
9	Dr. D. Sarkar	HoD, ME	Member
10	Mr. Sambit S. Mondal	HoD, ECE	Member
11	Dr. Dibyendu Kuamr Paul	HoD, CA	Member

12	Dr. A. Upadhyay	Prof, BS & HU	Member
13	Dr. Mithu Dey	Warden	Member
14	Mrs. Agamoni Chakraborty	AP, EE	Member
15	Mr. Amitava Chakraborty	Warden	Member
16	Mr. Bidyut Kr. Patra	Librarian	Member
17	Mrs. Sruti Choudhury	Office Assistant	Member
18	Mr. Siddhant Trivedi	Senior Student	Member
19	Mr. Ronit Banerjee	Senior Student	Member
20	Ms. Rubina Das	Junior Student	Member
21	Ms. Triya Mohanto	Junior Student	Member

Terms of members: One year for nominated members

Meetings: As and when necessary

Functions:

- Arrange campaigning, counseling and growing awareness through display or otherwise against the evils of ragging, its severity as a criminal offence and the associated punishments, when found guilty.
- Conduct enquiry of all reported cases and /or complaints received in any form.
- Making the BOG aware through the Principal the findings and the punitive action to be taken, if any.
- Evolve and suggest means to take preventive measures against ragging.

Action taken by Anti-Ragging Committee:

Year	No. of Complains	No. of Complains Resolved	Action taken
2020-21	0	0	NA
2019-20	07.08.19	07.08.19	The fact was not identified. Complaint was not justified. Suggested that Anti ragging Squad members will act seriously.
	21.08.19	22.08.19	Victim and accused both the students were identified and they were accepted about their mistake. Both the students were counseled.

	17.09.19	19.09.19	It was the same incident (happened on 21.08.19). Same report was sent to the Anti Ragging helpline.
2018-19	09.10.18	26.10.18	2 students were suspended from college for 1 month and warning letter was issued to them.
	25.01.19	06.02.19	2 students were suspended from college for 15 days. Informed to local police station. Undertaking was received from the students and their parents.
	18.03.19	29.03.19	1 student was suspended from college for 1 month. Informed to local Police Station.
	17.05.19	21.05.19	Victim and accused were not identified. A committee was constituted to counsel the hostellers.
2017-18	30.07.17	04.08.17	Formed an investigation committee by the members of Anti ragging Committee. No authenticated facts identified and Anti-ragging Cell closed the complaint.
	02.11.17	08.11.17	Immediately a FIR was filed against a student and he was suspended from the hostel.

10.1.4. Delegation of financial powers (10)

The institute has the finance committee is in place to address all the affairs related to monetary policy of the institution under the supervision of BoG. The composition, tenure, and functioning of the finance committee is as follow:

Finance Committee (FC) for the financial year 2020-2022

Sl No	Name	Category	Nature
1	Prof. (Dr.) P. P. Bhattacharya	Principal	Chairperson
2	Mr. Atin Choudhury	Advisor (A & D)	Member
3	Dr. G. S. Panda	Registrar	Convener
4	Mr. Biswajit Maity	BoG Nominee	Member
5	Dr. Rajan Sarkar	HoD, EE	Member
6	Mr. Tarunava Ghosh	Head Accountant	Member

Terms of Members:

The terms of the nominated members will be for a period of two years.

Meeting:

The committee will meet at least 2 times a year before the BoG meeting for recommending its resolutions to the BoG for consideration.

Functions:

- Budget preparation & Finance Planning
- Budget Allocation
- Recommend the Budget BoG for approval.
- Re-appropriation of funds of different Heads of the Budget with approval of the BoG.
- Budget estimates relating to the grant received / receivable from the UGC, and income from fees and other sources collected for smooth operation of the college.
- Advise the BoG on any matter involving finance.

Distribution of Financial Autonomy

BoG has approved financial autonomy to the following extent at different levels of hierarchy of the institute.

Sl. No.	Position	*Approval Power (financial) in Rs. Cash expenditure authority (impressed cash) in Rs.
1	Principal	50 thousand
2	Administrator	20 thousand
3	Registrar	20 thousand
4	HoD	10 thousand

**Note: Subject to change on timely basis*

10.1.5 Transparency and availability of correct / unambiguous information in public domain (5)

Institution is ready to give reply on any query/ grievance. Anyone can ask the question through online mode after registering himself/ herself. This facility is available in the college website. The queries are answered back appropriately, after due consideration, in reply.

The Institute provides correct/ unambiguous information as and when it is demanded. The Institute functions with perfect decentralized administration that has complete transparency

in its functioning. Dissemination and availability of institute / program specific information through the web:

- The Institute has its own website which is updated periodically as and when required. The Institute and the program-specific information is made available to all aspirants through the web- site.
- The web site URL is: www.aecwb.edu.in

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30)

10.2.1 Adequacy of budget allocation (10)

The allocation of budget under different heads was adequate for meet the demands of the Institution.

The allocation of budget is sufficient for conducting the academic, Infrastructural developments, Modernization and R&D activities.

10.2.2 Utilization of allocated funds (15)

The fund provided was almost fully utilized.

Summary of current financial year's budget and actual expenditure incurred (for the institution exclusively) in the three previous financial years

Total Income at Institute level: For CFY, CFYm1, CFYm2 & CFYm3

CFY: (Current Financial Year),

CFYm1: (Current Financial Year minus 1),

CFYm2: (Current Financial Year minus 2) and

CFYm3: (Current Financial Year minus 3)

Table 1 - CFY 2021-22

Total Income (Proposed)261962738.39			Actual expenditure: 180579544.00				Total No. Of Students 2539
Fee	Govt.	Grants	Other sources(specify) interest from saving accounts and fixed deposits	Recurring including salaries	Non- Recurring	Special Projects/Any other, specify	Expenditure per student
238288344.00	0.00	0.00	23674394.39	4060106.00	176519438.00	0.00	71122.31

Table 2 - CFYm1 2020-21

Total Income 241579917.25				Actual expenditure 207929789.00			Total No. Of Students 2506
Fee	Govt.	Grants	Other sources(specify) interest from savings account and fixed deposits	Recurring including salaries	Non- Recurring	Special Projects/Any other, specify	Expenditure per student
223302309.95	0.00	0.00	18277607.30	184047923.00	23881866.00	0.00	82972.78

Table 3 - CFYm2 2019-20

Total Income 274548323.72				Actual expenditure 221752698.20			Total No. Of Students 2654
Fee	Govt.	Grants	Other sources(specify) interest from savings account and fixed deposits	Recurring including salaries	Non- Recurring	Special Projects/Any other, specify	Expenditure per student
258790813.36	0.0	0.0	15757510.36	194496756.20	27255942.00	0.0	83554.14

Table 4 - CFYm3 2018-19

Total Income 261183519.70				Actual expenditure 218391101.00			Total No. Of Students 2867
Fee	Govt.	Grants	Other sources(specify) interest from savings account and fixed deposits	Recurring including salaries	Non- Recurring	Special Projects/Any other, specify	Expenditure per student
246890813.36	0.0	0.0	14292706.34	184240545.00	34150556.00	0.0	76174.08

Items	Budgeted in 2021-22	Actual Expense s in 2021-22 till Feb 2022	Budgeted in 2020-21	Actual Expenses in 2020-21	Budgeted in 2019-20	Actual Expenses in 2019-20	Budgeted in 2018-19	Actual Expenses in 2018-19
Infrastructure Built-Up	8360000.00	1130530	9511000.00	8829746.00	16979000.0 0	16048500.0 0	24601000.0 0	23745246.0 0
Library	2024000.00	791902	2180000.00	2082442.00	3326000.00	3170583.20	3567000.00	3448761.00
Laboratory equipment	12355000.0 0	2137674	15942000.0 0	15052120.0 0	11201000.0 0	10492825.0 0	9420000.00	9244995.00

Laboratory consumables	1536000.00	1490966	1202000.00	1121897.00	2887000.00	2739180.00	2778000.00	2626542.00
Teaching and non-teaching staff salary	153226000.00	140631661	142372000.00	131324292.00	136579000.00	130597015.00	130885000.00	126356228.00
Maintenance and spares	7764000.00	2745802	7807000.00	7354659.00	7462000.00	7113031.00	9482000.00	9116924.00
R&D	10022000.00	5206659	7790000.00	7209228.00	12042000.00	11597333.00	8582000.00	8140111.00
Training and Travel	21770000.00	10633090	17477000.00	16620698.00	21534000.00	20433396.00	18552000.00	17869171.00
Miscellaneous Expenses	6438000.00	6653628	9657000.00	9089444.00	10060000.00	9443543.00	8830000.00	8357180.00
Others Administrative Expenses	12799000.00	9157632	9710000.00	9245263.00	10670000.00	10117292.00	9929000.00	9485943.00
Total	236294000.00	180579544	223648000.00	207929789.00	232740000.00	221752698.20	226626000.00	218391101.00

10.2.3 Availability of the audited statements on the institute's website (5)

Yes, available.

10.3 Program Specific Budget Allocation, Utilization (30)

10.3.1 Adequacy of budget allocation (10)

- The allocation of budget was adequate for conducting the academic and R&D activities.
- The department improved the lab teaching and other academic activities using this fund.
- Departmental infrastructure was improved also.
- A brief account of few such improved activities is mentioned below:
- Planning and execution of the laboratory maintenance.
- Improvement of the laboratory programs.
- Introduction of innovative experiments in the laboratories

10.3.2 Utilization of allocated funds (20)

Referring to the table has been given in section 10.3, it is seen that the allocated

Total Income at Institute level: For CFY, CFYm1, CFYm2 & CFYm3

CFY: (Current Financial Year),

CFYm1: (Current Financial Year minus 1),

CFYm2: (Current Financial Year minus 2) and

CFYm3: (Current Financial Year minus 3)

Table 1: CFY 2021-22

Total Budget: 7677000.00		Actual expenditure: 5012815.00		Total No. Of Students: 665
Non-Recurring	Recurring	Non-Recurring	Recurring	Expenditure per student
3029000.00	4648000.00	662000.00	4350815.00	7538.06

Table 2: CFYm1 2020-21

Total Budget: 9269866.00		Actual expenditure 8745732.00		Total No. Of Students: 595
Non-Recurring	Recurring	Non-Recurring	Recurring	Expenditure per student
4696000.00	4573866.00	4434085.00	4311647.00	14698.71

Table 3: CFYm2 2019-20

Total Budget: 7988897.00		Actual expenditure 7548938.80		Total No. Of Students 522
Non-Recurring	Recurring	Non-Recurring	Recurring	Expenditure per student
1912000.00	6076897.00	1791365.00	5757573.80	14461.57

Table 4: CFYm3 2018-19

Total Budget: 6843152.00		Actual expenditure 6605191.00		Total No. Of Students 528
Non-Recurring	Recurring	Non-Recurring	Recurring	Expenditure per student
1862000.00	4981152.00	1827067.00	4778124.00	12509.83

Items	Budgeted in 2021-22	Actual Expenses in 2021-22 till Feb 2022	Budgeted in 2020-21	Actual Expenses in 2020-21	Budgeted in 2019-20	Actual Expenses in 2019-20	Budgeted in 2018-19	Actual Expenses in 2018-19
Laboratory equipment	3029000	662000	4696000	4434085	1912000	1791365	1862000	1827067
Software		0		0		0		0
Laboratory consumable	160000	145789	149000	140108	361000	341726.70	344000	325454
Maintenance and spares	92000	85321	118000	112575	115000	109296	105000	101200
R & D	1335000	1235456	1194000	1104788	1850000	1781915.40	1307000	1254870
Training and Travel	2695000	2535689	2473866	2352647	3089897	2904503	2645152	2547810
Miscellaneous expenses	366000	348560	639000	601529	661000	620132.70	580000	548790
Total	7677000	5012815	9269866	8745732	7988897	7548938.80	6843152	6605191

10.4 Library and Internet (20)

10.4.1 Quality of learning resources (hard/soft) (10)

Library Facilities (Space, timings etc.):

Area of library (in sqm)	2007 sqm
Reading space (in sqm)	197 sqm
Number of seats in reading room	150
Number of user (book issue) per day	80
Number of users (reading room) per day	110
Timing	8:00 am to 8:00 pm on all working days
Number of library staff	6
Computerization for search, indexing, and issue/return record	Available
Bar coding used	Yes
Library services on Internet/Intranet INDEST or other similar membership archives	Yes

Titles and Volumes (in Library):

Number of titles: 7158

Number of volumes: 65142

Year	New titles	New volumes
2017-2018	32	445
2018 - 2019	47	480
2019 - 2020	30	473

Scholarly Journal Subscription:

	Details	CFY	CFY m1	CFY m2	CFY m3
Engineering & Technology	As soft copy	497	497	497	497
	As hard copy	16			

Digital Library Details:

- Availability of Digital Library Content: Yes
- If available, mention name of courses: CSE, IT, ECE, EE, ME, CE
- Number of e-books: 1125 (Springer)
- Availability of an exclusive server: No
- Availability over Intranet/Intranet: Yes
- Availability of exclusive space /room: Yes
- Number of users per day: 20 (average)

Library Expenditure (books, magazines/journals etc.)

Year	Expenditure		
	Books	e-journals	Magazines etc.
2020-2021	-	19,11,380	-
2019-2020	1,95,698	20,73,226	50,543
2018-2019	1,54,286	19,23,783	49,213

Quality of Learning Resources:

Relevance of available learning resources including e-resources: Yes, in both forms

Sl. No.	Learning Resources	Correlation with POs & PSOs
1	IEEE ASPP Online Journals	PO1, PO2, PO5, PO6, PO7, PO8, PO9, PO12, PSO1, PSO2
2	NPTEL (MOOC) Courses	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO12, PSO1, PSO2, PSO3

3	CDs of Video Lectures	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3
4	66074 books (Central library)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2, PSO3
5	Departmental libraries with program specific reference books	PO1, PO2, PO5, PO6, PO7, PO8, PO9, PO12, PSO1, PSO2
6	Course specific lecture materials in institute website	PO1, PO2, PO5, PO6, PO7, PO8, PO9, PO12, PSO1, PSO2
7	Video recording of specific courses	PO1, PO2, PO5, PO6, PO7, PO8, PO9, PO12, PSO1, PSO2

Accessibility to students: Yes

Sl. No.	Learning Resources	Accessibility
1	IEEE ASPP Online Journals	During college hours
2	NPTEL (MOOC) Courses	During college hours
3	CDs of Video Lectures	During college hours
4	Central Library	During library working hours
5	Departmental library with program specific reference books	During college hours
6	Course specific lecture materials in institute website	Anytime from anywhere
7	Video recording of specific courses	During class hours and beyond

Support to students for self-learning activities:

Wi-fi enabled Campus

Internet connectivity

Exclusive internet laboratory for students

Digital Library with internet connectivity – Access during library working hours

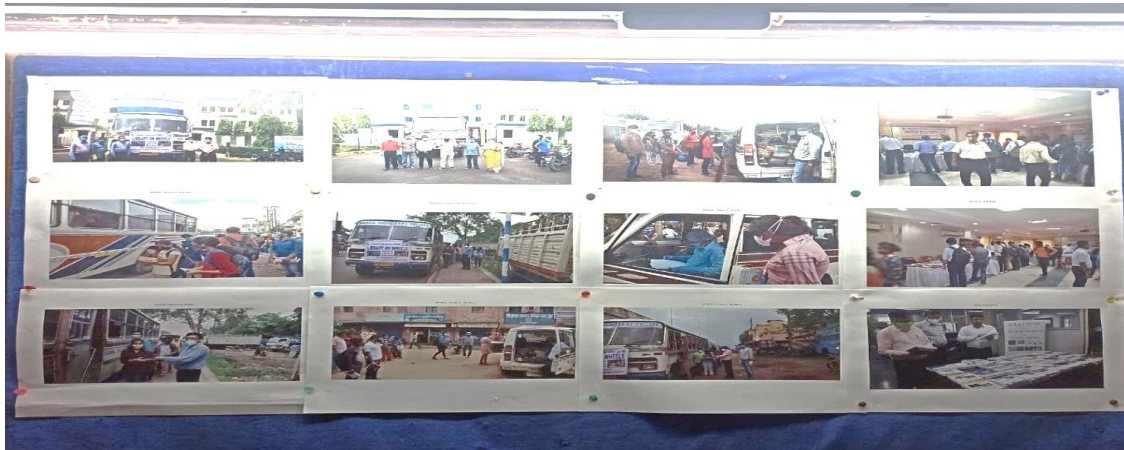
Well-equipped library – Access during library working hours

Web based learning

Innovation and Incubation Cell with internet connectivity

Free and open learning environment

Photo gallery: Library



10.4.2 Internet (10)

Name of the Internet Service Provider: Railtel Corporation of India Ltd. & Vodafone Idea Ltd. & Indinet Service Pvt. Ltd.

Available Bandwidth: 582 Mbps

Redundancy in Fiber Optical cable connection from Internet Service Provider for Uninterrupted Internet Availability.

Redundancy in Internet Proxy Server for Uninterrupted Internet Availability with Users, Bandwidth Control and Monitoring, Firewall, DoS Protection, VPN, Web Control / Category-Based Web Filtering, Application Control, and WAN Optimization.

Redundancy in Uninterrupted Power Supply.

24 X 7 Uninterrupted Internet Availability in Labs, Classrooms, Hostels, Library, and Offices by LAN.

Hotspots and WiFi Enable Campus.

WiFi Availability: 582 Mbps

Students and Staffs can able to access Internet from anytime, anywhere.



ASANSOL ENGINEERING COLLEGE

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E-mail : principal.office@aecwb.edu.in Website : www.aecwb.edu.in

Declaration

I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines in force as on date and the institute shall fully abide by them.

It is submitted that information provided in this Self-Assessment Report is factually correct. I understand and agree that an appropriate disciplinary action against the Institute will be initiated by the NBA, in case any false statement/information is observed during pre-visit, visit, post visit and subsequent to grant of accreditation.

Date: 15/03/2022
Place: Asansol

P.P.
15/03/2022
Prof. (Dr.) P.P. Bhattacharya

Principal
Principal
Asansol Engineering College



List of Program Outcomes (POs)

PO-1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO-2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO-3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO-4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO-5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO-6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO-7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO-8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO-9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO-10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO-11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO-12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.