MORADABAD INSTITUTE OF TECHNOLOGY

Computer Science & Engg.

Part A : Institutional Information

1 Name and Address of the Institution

MORADABAD INSTITUTE OF TECHNOLOGY,
RAM GANGA VIHAR, PHASE-2, MORADABAD

2 Name and Address of Affiliating University

DR A P J ABDUL KALAM TECHNICAL UNIVERSITY LUCKNOW

3 Year of establishment of the Institution:

1996

4 Type of the Institution:

☐ University	☐ Autonomous
☐ Deemed University	☑ Affiliated
☐ Government Aided	

5 Ownership Status:

☐ Central Government	☑ Trust
☐ State Government	☐ Society
☐ Government Aided	☐ Section 25 Company
☑ Self financing	☐ Any Other(Please Specify)

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

Name of Institutions	Year of Establishment	Programs of Study	Location
MET Faculty of Architecture	2009	B.Arch.	Ramganga Vihar Phase 2, Moradabad-U.P.
MET Faculty of Pharmacy	2009	B.Pharma and D.Pharma	Ramganga Vihar Phase 2, Moradabad-U.P.
MIT College of Management	2010	MBA	Ramganga Vihar Phase 2, Moradabad-U.P.
MIT College of Pharmacy	2019	B.Pharma and D.Pharma	Ramganga Vihar Phase 2, Moradabad-U.P.

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

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
B.Tech Computer Science & Engineering	UG	2001	2001	60	Yes	180	Granted provisional accreditation for two years for the period(specify period)	2013	2015	Yes	4

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Computer Science & Engg.
2	Under Graduate	Engineering & Technology	Mechanical Engg.

9 Total number of employees in the institution:

A. Regular* Employees (Faculty and Staff):

Items	2019-20		2018-19		2017-18	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	57	62	58	68	71	83
Faculty in Engineering (Female)	16	17	16	19	19	24
Faculty in Maths, Science & Humanities (Male)	11	12	14	15	14	15
Faculty in Maths, Science & Humanities (FeMale)	10	10	12	13	12	13
Non-teaching staff (Male)	126	163	162	168	167	170
Non-teaching staff (FeMale)	6	6	7	7	8	8

B. Contractual* Employees (Faculty and Staff):

Items	2019-20		2018-19		2017-18	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	0	0	0	0	0	0
Faculty in Engineering (Female)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (Male)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (FeMale)	0	0	0	0	0	0
Non-teaching staff (Male)	0	0	0	0	0	0
Non-teaching staff (FeMale)	0	0	0	0	0	0

10 Total number of Engineering Students:

Engineering and Technology- UG	☑ Shift1	☐ Shift2
Engineering and Technology- PG	☑ Shift1	☐ Shift2
Engineering and Technology- Polytechnic	☐ Shift1	☐ Shift2
MBA	☑ Shift1	☐ Shift2
MCA	☐ Shift1	☐ Shift2

Engineering and Technology- UG Shift-1

Items	2019-20	2018-19	2017-18
Total no. of Boys	1001	1244	1528
Total no. of Girls	263	309	380
Total	**1264**	**1553**	**1908**

Engineering and Technology- PG Shift-1

Items	2019-20	2018-19	2017-18
Total no. of Boys	0	1	1
Total no. of Girls	0	0	2
Total	**0**	**1**	**3**

Engineering and Technology- MBA Shift-1

Items	2019-20	2018-19	2017-18
Total no. of Boys	35	34	33
Total no. of Girls	24	28	38
Total	**59**	**62**	**71**

11 Vision of the Institution:

To develop industry ready professionals with values and ethics for global needs.

12 Mission of the Institution:

M1: To impart education through outcome based pedagogic principles.

M2: To provide conducive environment for personality development, training and entrepreneurial skills.

M3: To induct high professional ethics and accountability towards society in students.

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

Head of the Institution	
Name	Dr. Rohit Garg
Designation	Director
Mobile No.	9896948007
Email ID	director@mitmoradabad.edu.in

NBA Coordinator, If Designated

Name	Dr. Somesh Kumar
Designation	Professor & Head CSE
Mobile No.	9911614673
Email ID	kumarsomesh507@gmail.com

PART B: Criteria Summary

Critera No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60	60.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120	120.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	120.00
4	STUDENTS' PERFORMANCE	150	121.80
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	152.85
6	FACILITIES AND TECHNICAL SUPPORT	80	80.00
7	CONTINUOUS IMPROVEMENT	50	50.00
8	FIRST YEAR ACADEMICS	50	46.17
9	STUDENT SUPPORT SYSTEMS	50	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	120.00
	Total	**1000**	**921**

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60)

Total Marks 60.00

1.1 State the Vision and Mission of the Department and Institute (5)

Total Marks 5.00

Institute Marks : 5.00

Vision of the institute	To develop industry ready professionals with values and ethics for global needs.
Mission of the institute	**M1:** To impart education through outcome based pedagogic principles. **M2:** To provide conducive environment for personality development, training and entrepreneurial skills. **M3:** To induct high professional ethics and accountability towards society in students.
Vision of the Department	To develop globally recognized computer science and engineering graduates with ethical values for need of software industries.
Mission of the Department	

Mission No.	Mission Statements
M1	To impart knowledge through well defined instructional objectives in the field of computer science and engineering.
M2	To provide learning ambience for skills, innovation, leadership and overall personality development.
M3	To inculcate professional ethics, teamwork and responsiveness towards society.

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

Total Marks 5.00

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	The graduates will have entrepreneurial and employable skills in software industries, by adapting themselves in the corporate world by utilizing the defined instructional objectives learnt in the program.
PEO2	The graduates will engage in skill enhancement, that would help to work in their own area of interest, individually or in a team.
PEO3	The graduates will demonstrate ownership and responsiveness towards the profession and the society.

1.3 Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (10) Total Marks 10.00

Institute Marks : 10.00

The Vision, Mission and PEOs are published and disseminated among the following stake holders as shown in following table B.1.3a:

Table B.1.3a: List of Stakeholders

Internal Stake Holders	External Stake Holders
Students	Parents
Faculty Members	Alumni
Supporting Staff	Industry
Management	Employer

The Vision & Mission of the department, along with the PEOs are published and disseminated among all stakeholders by ensuring the following methods:

a. Department web page (https://www.mitmoradabad.edu.in/computer-science-engg/ (https://www.mitmoradabad.edu.in/computer-science-engg/))
b. Department Newsletter
c. Academic Calendar
d. Course Files
e. HoD Cabin
f. All faculty members cabins
g. Department Notice Board
h. Department Laboratories
i. Corridors
j. Department Library
k. Department Seminar Hall

Process of dissemination among stakeholders:

Table B.1.3b describes the process of dissemination among stakeholders.

Table B.1.3b:Process of dissemination among stakeholders

Stake holders	Event/Mode	By whom
Alumni	Alumni meet conducted by the Institute	Convener Alumni
Faculty Members	Department meetings	Head of the Department
Students	At the time of registration for new semester	Academic office
Industry	During Industrial visits, MoU meetings	Concern faculty member
Parents	Shared during their visits to the college regarding the academic progress of their wards.	Counselors
	At the time of final admission	Academic office
Employers	During placement drives (in campus or off campus)	Training & Placement Department
Note: In addition to above, these are also disseminated to all the stakeholders through social media sites like Facebook, WhatsApp, etc.		

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (25) Total Marks 25.00

Institute Marks : 25.00

The process of defining the Departments Vision and Mission from the Institutes Vision and Mission is described in the figure B.1.4a.

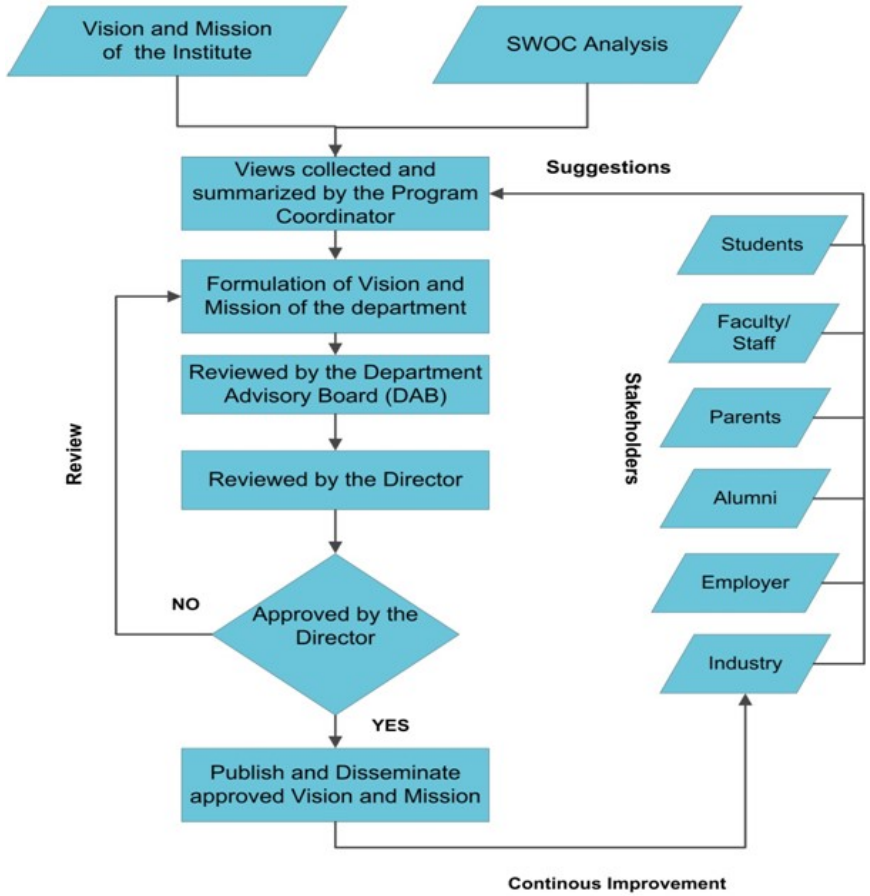


Fig. B.1.4a: Process for defining Vision and Mission of the Department

In establishing the vision and mission of the department, the following steps were taken:

1. Vision and Mission of the Institute are taken as basis.
2. Views are taken from all the stakeholders like Parents, Alumni, Students, Employer, Industry and Faculty members.
3. The collected views are summarized by program coordinator.
4. The vision and mission of the department are formulated by committee constituted by head of the department.
5. The vision and mission of the department are analyzed and reviewed by Department Advisory Committee (DAB) to check consistency with Institution vision and mission.
6. The vision and mission of the department are reviewed by the Director. If not approved by the Director then send back to department to formulate again.
7. After approval from the Director, the approved Vision and Mission of the department are published and disseminated to all stake holders.

The process of defining the Departments PEOs is described in the figure B.1.4b

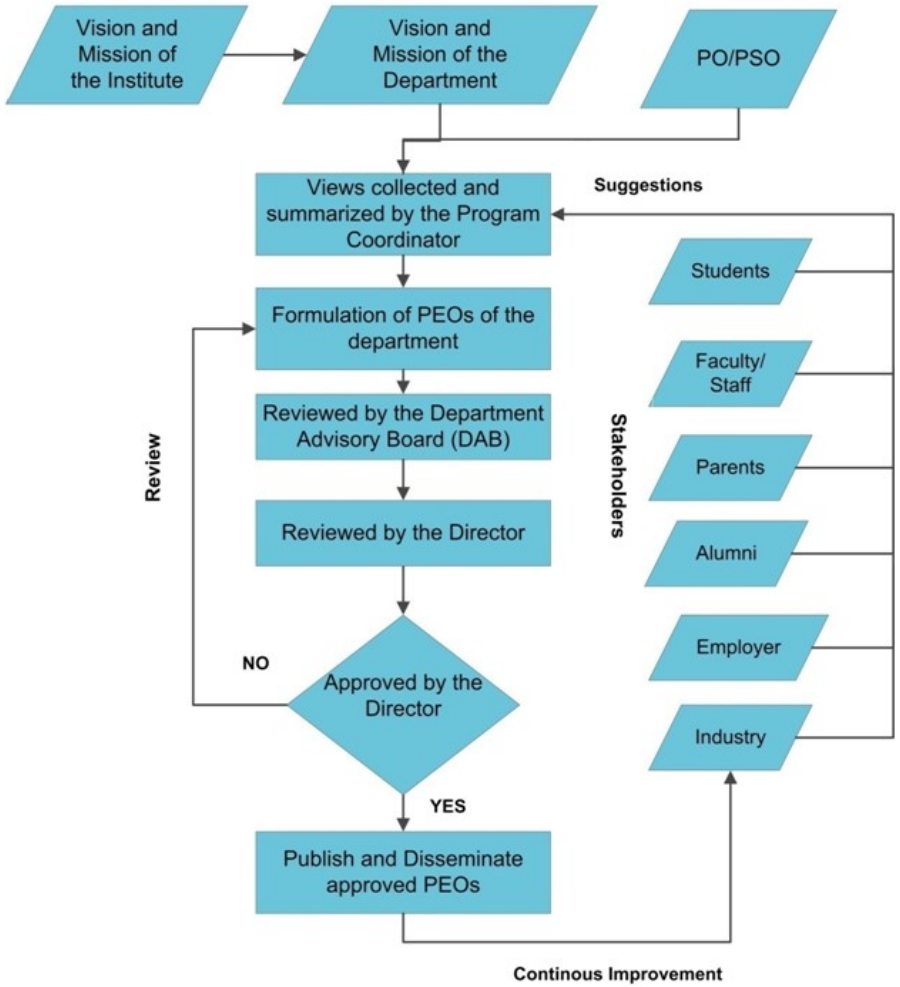


Fig. B.1.4b: Process for defining PEOs of the Program

In defining the PEOs of the department, the following steps were taken:

1. The PO/PSO, Vision and Mission of the Department are taken as basis.
2. Views are taken from all the stakeholders like Parents, Alumni, Students, Employer, Industry and Faculty members.
3. The collected views are summarized by program coordinator.
4. The PEOs of the department are formulated by the committee constituted by head of the department.
5. The PEOs of the department are analyzed and reviewed by Department Advisory Committee (DAB) to check consistency with Department vision and mission.
6. The PEOs are reviewed by the Director. If not approved by the Director then send back to department to formulate again.
7. After approval from the Director, the approved PEOS of the department are published and disseminated to all stake holders.

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

Total Marks 15.00

Institute Marks : 15.00

Table B.1.5a: PEOs and Mission elements

Mission Element		PEO Element	
M1	Impart knowledge, Instructional objects	PEO1	Software industries, corporate world, instructional objectives
M2	Learning ambience, skill, innovation, leadership , personality development	PEO2	Skill enhancement, individually or team work
M3	Professional ethics, teamwork, responsiveness, society	PEO3	Ownership, responsiveness, profession, society

Justification for Mapping of PEOs with Mission of the Department:

PEO1 is highly cohesive with M1, as it focuses on the core knowledge imparted to the students by our dedicated competent staff, and hence it is assigned 3. PEO1 moderately correlates to M2, with a provision of fully equipped labs as per the curriculum defined by the affiliating university and the students undergo various training programs for their overall development, hence assigned 2. PEO1 is moderately mapped with M3, as it focuses on professional ethics for which the institution provides workshops on human values and ethics, therefore assigned 2.

PEO2 maps moderately with M1, as students follow the course curriculum and develop their technical knowledge in area of Computer Sciences. PEO2 highly maps with M2, as apart from the curriculum, they are provided with various workshops on personality development and latest technology, which would help them to meet the challenges of the competitive world. PEO2 is slightly cohesive with M3 as students develop code of conduct and work ethics in their various innovative projects, in their own area of interest.

PEO3 matches moderately with M1, as workshops on entrepreneurship development help in inculcating ownership and responsiveness towards ones profession and the society. PEO3 is moderately cohesive with M2, as leadership trait is nurtured in the students by exploring their strengths in research and innovative projects, which can help them, think out of the box in their respective professions. PEO3 maps highly with M3, as the institute focuses on fostering and nurturing work ethics, team spirit and responsiveness, by providing trainings on soft skills and human values. Various cultural activities like, Tech-fest, sports meet etc. are arranged by the department.

PEO Statements	M1	M2	M3
The graduates will have entrepreneurial and employable skills in software industries, by adapting themselves in the corporate world by utilizing the defined instructional objectives learnt in the program.	3	2	2
The graduates will engage in skill enhancement, that would help to work in their own area of interest, individually or in a team.	2	3	1
The graduates will demonstrate ownership and responsiveness towards the profession and the society.	2	2	3

2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120)

Total Marks 120.00

2.1 Program Curriculum (20)

Total Marks 20.00

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 Annexurel. Also mention the identified curricular gaps, if any (10)

Institute Marks : 10.00

Moradabad Institute of Technology (MIT), Moradabad is affiliated to Dr. A. P. J. Abdul Kalam Technical University (AKTU), Lucknow, Uttar Pradesh. Department of Computer Science and Engineering follows the scheme and syllabus of AKTU. It is semester system and divided into eight semesters for the four years graduation program. The curriculum contains core, humanities, social sciences and elective courses. The Table B.2.1.1a shows curriculum designed by AKTU followed by MIT.

Table B.2.1.1a Mapping of curriculum components with PO/ PSOs

S. No.	Program curriculum grouping based on course component	Number of subjects	Relevance to POs	Relevance to PSOs
1.	Basic Science	8	PO1,PO2,PO5	--
2.	Engineering Science	12	PO1,PO2,PO3,PO5	--
3.	Science and Humanities	7	PO1,PO2,PO6,PO7,PO8,PO10	--
4.	Professional Core Subjects	35	PO1,PO2,PO3,PO4,PO5,PO11	PSO1,PSO2
5.	Program Electives	6	PO1,PO3,PO4	PSO1
6.	Open Electives	5	PO2,PO3,PO5,PO6,PO11	--
7.	Project Work	2	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11,PO12	PSO1,PSO2
8.	Seminar/ Industrial Training/ Internship	3	PO1,PO3,PO5,PO10,PO11,PO12	PSO1,PSO2

The students admitted in this branch have to study the following courses in different semesters. It is given as follows:-

Table B.2.1.1b Ratio of curriculum components

S. No.	Course component	Curriculum content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
1.	Basic Science	11.65	26	24
2.	Engineering Science	14.56	40	30
3.	Science and Humanities	7.28	16	15
4.	Professional Core Subjects	40.78	109	84
5.	Program Electives	11.17	23	23
6.	Open Electives	5.83	20	12
7.	Project Work	4.85	18	10

8.	Seminar/ Industrial Training/ Internship	1.94	7	4
Total number of credits				206

The institution implements the overall curriculum break up as per AKTU which is for a period of 8 semesters or 4 years. The curriculum of MIT for Bachelor of Engineering in Computer Science and Engineering is given in Table B.2.1.1c.

Table B.2.1.1c AKTU Curriculum

Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

(Formerly U.P. TECHNICAL UNIVERSITY, LUCKNOW)

STUDY EVALUATION SCHEME

B. TECH. COMPUTER SCIENCE & ENGINEERING

Session	Year/ Semester	Course code	Course title	Total number of contact hours				Credits	Subject Type
				Lecture (L)	Tutorial (T)	Practical (P)	Total		
		THEORY SUBJECT							
		NAS-103	Engg Mathematics I	3	1	0	4	4	Basic science
		NEC-101	Electronics Engg	3	1	0	4	4	Engineering Science
		NAS-102	Engg. Chemistry	3	1	0	4	4	Basic science
		NEE-101	Basic Electrical Engg	3	1	0	4	4	Engineering Science
		NAS-101	Engg Physics I	2	1	0	3	3	Basic science
2015-16 ODD	**1st /1st**	NME-101	Basic Manufacturing Processes	2	0	0	2	2	Engineering Science
		PRACTICAL/DESIGN/DRAWING							
		NAS-152	Engg. Chemistry Lab	0	0	2	2	1	Basic science
		NEE-151	Basic Electrical Engg. Lab	0	0	2	2	1	Engineering Science
		NWS-151	Workshop Practice	0	1	3	4	2	Engineering Science
		NAS-151	Engg Physics Lab	0	0	2	2	1	Basic science
		THEORY SUBJECT							

		NAS-203	Engg. Mathematics-II	3	1	0	4	4	Basic science
		NAS-204	Professional Communication	3	1	0	4	4	Science and Humanities
		NME-202	Engg. Mechanics	3	1	0	4	4	Engineering Science
		NCS-201	Computer System And Programming In C	3	1	0	4	4	Professional Core Subjects
		NAS-201	Engg. Physics-II	2	1	0	3	3	Basic science
2015-16 EVEN	**1st /2nd**	NAS-205	Environment & Ecology	2	0	0	2	2	Science and Humanities
		PRACTICAL/DESIGN/DRAWING							
		NME-252	Engg. Mechanics Lab	0	0	2	2	1	Engineering Science
		NCS-251	Computer Programming Lab	0	0	2	2	1	Professional Core Subjects
		NCE-251	Computer Aided Engg. Graphics	0	1	3	4	2	Engineering Science
		NAS-254	Professional Communication Lab	0	0	2	2	1	Science and Humanities
		THEORY SUBJECT							
		NOE-033	Laser Systems & Applications	3	1	0	4	4	Open Electives
		NEC 309	Digital Logic Design	3	1	0	4	4	Engineering Science
2016-17 ODD	**2nd /3rd**	NCS 301	Data Structures Using C	3	1	0	4	4	Professional Core Subjects
		NCS 302	Discrete Structures And Graph Theory	3	1	0	4	4	Professional Core Subjects
		NHU301	Industrial Psychology	2	0	0	2	2	Science and Humanities

		NCS 303	Computer Based Numerical And Statistical Techniques	2	1	0	3	3	Professional Core Subjects
		AUC-002	Cyber Security	2	0	0	2		Professional Core Subjects
		PRACTICAL/DESIGN/DRAWING							
		NEC 359	Digital Logic Design Lab	0	0	3	3	1	Engineering Science
		NCS 351	Data Structures Using C Lab	0	0	3	3	1	Professional Core Subjects
		NCS 353	Numerical Techniques Lab	0	0	2	2	1	Professional Core Subjects
		NCS 355	Advance Programming Lab	0	0	2	2	1	Professional Core Subjects
2016-17 EVEN	**2nd /4th**	**THEORY SUBJECT**							
		NAS-401	Mathematics III	3	1	0	4	4	Basic science
		NHU402	Industrial Sociology	2	0	0	2	2	Science and Humanities
		NEC-409	Introduction To Microprocessor	3	1	0	4	4	Engineering Science
		NCS-401	Operating System	3	1	0	4	4	Professional Core Subjects
		NCS-402	Theory Of Automata And Formal Language	3	1	0	4	4	Professional Core Subjects
		NCS-403	Computer Graphics	2	1	0	3	3	Professional Core Subjects
		AUC-001	Human Values & Professional Ethics	2	0	0	2		Professional Core Subjects
		PRACTICAL/DESIGN/DRAWING							

		NEC-459	Microprocessor Lab	0	0	3	3	1	Engineering Science
		NCS 451	Operating System Lab	0	0	3	3	1	Professional Core Subjects
		NCS 453	Computer Graphics Lab	0	0	2	2	1	Professional Core Subjects
		NCS 455	Functional And Logic Programming Lab	0	0	2	2	1	Professional Core Subjects
2017-18 ODD	**3rd /5th**	**THEORY SUBJECT**							
		NCS-501	Design And Analysis Of Algorithm	3	1	0	4	4	Professional Core Subjects
		NCS-502	Database Management System	3	1	0	4	4	Professional Core Subjects
		NCS-503	Principle Of Programming Language	3	1	0	4	4	Professional Core Subjects
		NCS-504	Web Technology	3	1	0	4	4	Professional Core Subjects
		NCS-505	Computer Architecture	2	1	0	3	3	Professional Core Subjects
		NHU-501	Engineering Economics	2	0	0	2	2	Science and Humanities
		PRACTICAL/DESIGN/DRAWING							
		NCS-551	Design And Analysis Of Algorithm Lab	0	0	3	3	1	Professional Core Subjects
		NCS-552	DBMS Lab	0	0	3	3	1	Professional Core Subjects
		NCS-553	Principle Of Programming Language Lab	0	0	2	2	1	Professional Core Subjects

		NCS- 554	Web Technology Lab	0	0	2	2	1	Professional Core Subjects
2017-18 EVEN	3rd /6th	**THEORY SUBJECT**							
		NCS-601	Computer Network	3	1	0	4	4	Professional Core Subjects
		NCS-602	Software Engineering	3	1	0	4	4	Professional Core Subjects
		NCS-603	Compiler Design	3	1	0	4	4	Professional Core Subjects
		NCS-063	Parallel Algorithm	3	1	0	4	4	Program Electives
		NCS-066	Data Warehousing & Data Mining	2	1	0	3	3	Program Electives
		NHU-601	Industrial Management	2	0	0	2	2	Science and Humanities
		PRACTICAL/DESIGN/DRAWING							
		NCS- 651	Computer Networks Lab	0	0	3	3	1	Professional Core Subjects
		NCS- 652	Software Engineering Lab	0	0	3	3	1	Professional Core Subjects
		NCS- 653	Compiler Design Lab	0	0	2	2	1	Professional Core Subjects
		NCS- 654	Seminar	0	0	2	2	1	Seminar
2018-19 ODD	4th 7th	**THEORY SUBJECT**							
		NOE-071	Entrepreneurship Development	3	1	0	4	4	Open Electives
		NOE-077	Software Project Management	3	1	0	4		Open Electives
		NOE-072	Operations Research	3	1	0	4		Open Electives

		NCS-701	Distributed System	3	1	0	4	4	Professional Core Subjects
		NCS-702	Artificial Intelligence	3	1	0	4	4	Professional Core Subjects
		NCS-071	Software Testing & Audit	3	1	0	4	4	Program Electives
		NIT-701	Cryptographic & Network Security	3	1	0	4	4	Program Electives
		PRACTICAL / TRAINING /PROJECTS							
		NCS-751	Distributed System	0	0	2	2	1	Professional Core Subjects
		NCS-752	Project	0	0	6	6	3	Project Work
		NCS-753	Industrial Training	0	0	2	2	1	Seminar
2018-19 EVEN	4^{th} /8^{th}	**THEORY SUBJECT**							
		NOE-081	Non-Conventional Energy Resources	3	1	0	4	4	Open Electives
		NCS-801	Digital Image Processing	3	1	0	4	4	Professional Core Subjects
		NCS-082	Real Time System	3	1	0	4	4	Program Electives
		NCS-085	Data Compression	3	1	0	4	4	Program Electives
		PRACTICAL / TRAINING /PROJECTS							
		NCS-851	Seminar	0	0	3	3	2	Seminar
		NCS-852	Project	0	0	12	12	7	Project Work

Department has a well-defined process in implementation to achieve the Program Outcomes (POs) & Program Specific Outcomes (PSOs). If some components, to attain COs/ POs are not included in the curriculum provided by AKTU, then the department makes additional efforts to impart such knowledge. The process of identifying gaps in curriculum is shown in figure B.2.1.1a.

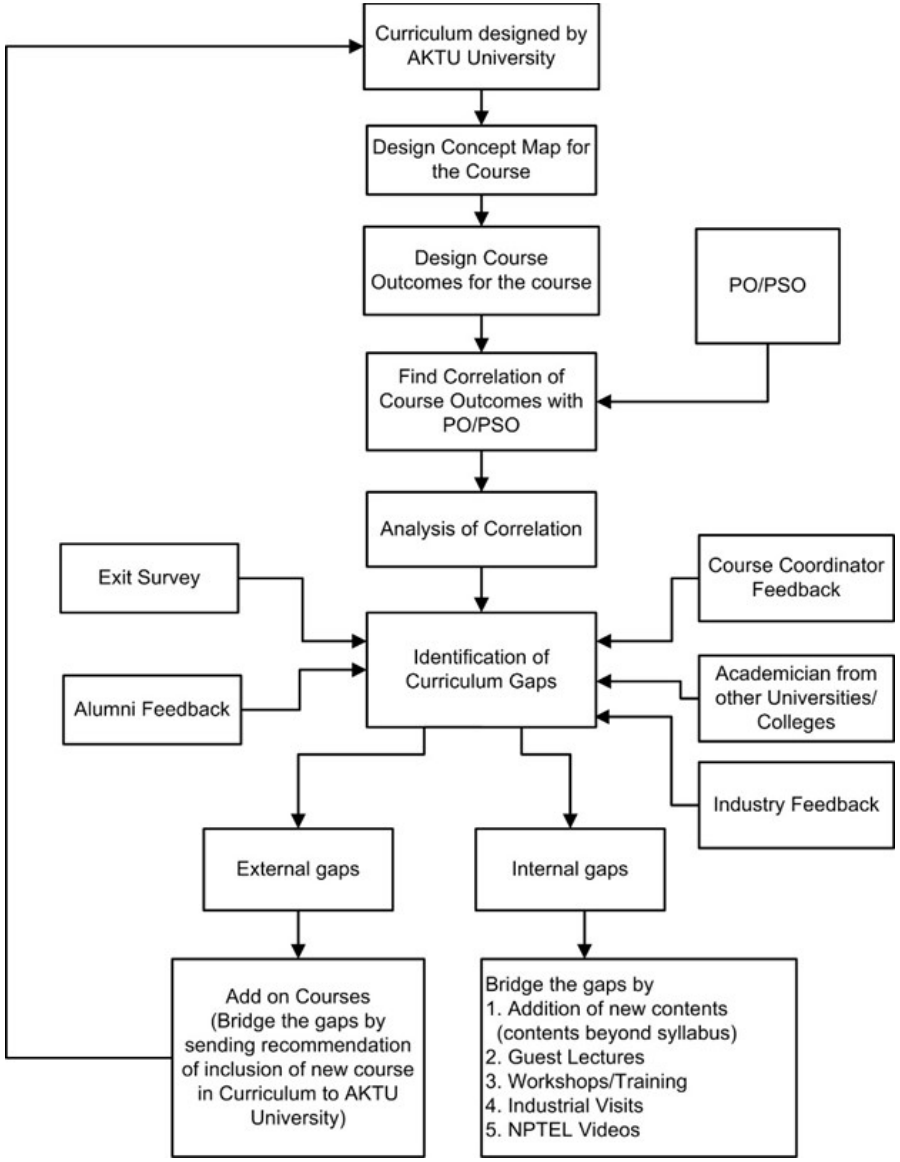


Fig. B.2.1.1a Process to Identify Curriculum Gaps

Following processes are used to identify the extent of compliance of the curriculum for attaining the Program Outcomes and Program Specific Outcomes-

1. The University announces curriculum annually in the month of June. The curriculum provides syllabus and evaluation scheme of each subject.
2. Faculty members design the concept map for the course allotted to them. The teaching plan (blow up) with course objectives and course outcomes is prepared by the individual faculty member of department before commencement of semester. This blow up is duly signed by HoD. Blow up ensures the coverage of complete syllabus before the end of semester.
3. For each course or subject, a course file is prepared by the concerned faculty member. Co-relation of CO with PO/ PSOs is also designed and analysed by faculty members.

4. The feedback from the alumni, industry experts, and academicians from other Universities, course coordinator and students is regularly taken. Gaps are identified on the basis of the CO attainment of individual courses and feedback from different stake holders.
5. The data collected is then presented in front of the Program Evaluation and Review Committee. The gaps are discussed in the PERC meeting and the gaps are divided into internal and external gaps.
6. To bridge internal gaps, seminars, workshops, guest lectures, industrial visits etc. are occasionally arranged by our department/ institute as per the convenience and content beyond the syllabus is prepared accordingly.
7. To bridge external gaps, information is communicated to AKTU for inclusion of new courses.

Curricular Gaps

The following tables list the identified gaps in the syllabus of AKTU for the attainment of Program Outcomes and Program Specific Outcomes.

CAYm1 (2018-19)

Table B.2.1.1d Identified Curricular Gaps

S. No.	Gaps in the Curriculum
1.	Content beyond the syllabus 1.1 Artificial Intelligence: Neural Network concepts 1.2 Software Testing & Audit: Difference between testing techniques and testing tools 1.3 NCER: Energy, economy and social development 1.4 Real Time System: Real-time network based intrusion detection system, Real-time wireless sensor communication system 1.5 Data Compression: Usage of Huffman data compression algorithm in Hashing Computation, Dictionary-based text compression technique using quaternary code, Optimal Context Quantization in Lossless Compression of Image Data Sequences 1.6 Web Technology: Multicast security 1.7 Entrepreneurship Development 1.8 IoT 1.9 Machine Learning
2.	Societal health and safety issues
3.	Team Building & Leadership
4.	Soft skills and personality development
5.	Industry based skills
6.	Latest trends in Engineering
7.	Gap identified in University Curriculum

CAYm2 (2017-18)

Table B.2.1.1e Identified Curricular Gaps

S. No.	Gaps in the Curriculum

1.	Content beyond the syllabus 1.1 DAA: Selection sort, binary tree, binary search tree and its properties (insertion, deletion), Change of coins problem using Greedy approach, Longest common subsequence (LCS) 1.2 Principle of Programming Language: Scheme overview and basics of Machine Learning 1.3 Web Technology: Swings introduction, Object oriented programming concepts in PHP 1.4 DAA Lab: Linear and Binary search 1.5 Web Technology Lab: Java program/servlet/JSP to connect to a database and extract data from the tables and display them. Experiment with various SQL queries. Writing a JSP which does the following job- insert the details of 3 or 4 users who register with the web site by using registration form. Authenticate the user when he submits the login form using the user name and password from the database 1.6 Software Engineering: Agile software development, Rapid application development 1.7 Compiler Design: NFA construction using Thompsons construction 1.8 Parallel Algorithms: Moore's law and its consequences, Forms of parallelism, methods to achieve higher performance 1.9 Data Warehousing & Data Mining: OLAP Guidelines (Dr. E.F. codd rule)
2.	Societal health and safety issues
3.	Team Building & Leadership
4.	Soft skills and personality development
5.	Industry based skills
6.	Latest trends in Engineering
7.	Gap identified in University Curriculum

CAYm3 (2016-17)

Table B.2.1.1f Identified Curricular Gaps

S. No.	Gaps in the Curriculum
1.	Content beyond the syllabus 1.1 Digital Logic Design: Fault secure encoder and decoder for memory applications, FPGA based digital signal processing and bioinformatics devices 1.2 Data Structure using C: Multiple stacks 1.3 Discrete Structures and Graph theory: Traversing of graph 1.4 Advance Programming Lab: Program using friend and virtual function, working with templates 1.5 FLP Lab: To implement Fibonacci series in LISP, To implement 4-Queen problem in LISP 1.6 Cyber Security: ATM and Payment Gateway Frauds and Protection

2.	Societal health and safety issues
3.	Team Building & Leadership
4.	Soft skills and personality development
5.	Industry based skills
6.	Latest trends in Engineering

2.1.2 State the delivery details of the content beyond the syllabus for the attainment of POs and PSOs (10)

Institute Marks : 10.00

2018-19

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Artificial Intelligence: Neural network concepts	Topic covered in respective lecture	25/10/2018	Ms. Shilpi Rani, Assistant Professor	77	PO1, PSO1
2	Software Testing & Audit: Difference between testing techniques and testing tools	Topic covered in respective lecture	03/09/2018	Ms. Richa Saxena, Assistant Professor	73	PO1, PO2, PSO1
3	NCER: Energy, economy and social development	Topic covered in respective lecture	05/02/2019	Ms. Richa Saxena, Assistant Professor	86	PO1, PO2, PO3, PO8, PSO1
4	RTS: Real-time network based intrusion detection system, Real-Time wireless sensor communication system	Topics covered in respective lecture	22/04/2019	Ms. Navita Agarwal, Assistant Professor	87	PO1, PO2, PO3, PO4, PSO1
5	Data Compression: Usage of Huffman data compression algorithm in Hashing computation, Dictionary-based text compression technique using quaternary code	Topics covered in respective lecture	14/03/2019	Ms. Prachi Agarwal, Assistant Professor	90	PO1, PO2, PO3, PO4,PO10, PSO1
6	Multicast Security	Guest Lecture	02/03/2019	Mr. Karan Singh, Assistant Professor	66	PO2, PO3, PSO1, PSO2
7	Entrepreneurship Development	Entrepreneurship Awareness camp	29/11/2018	Prof. H.P. Singh	56	PO10, PO11, PSO1, PSO2
8	Internet of Things	IoT Training	15/02/2019	RANKETHON	57	PO5,PO6, PSO1, PSO2
9	Machine Learning	Machine Learning Training	16/03/2019	CETPA Infotech Pvt. Ltd.	40	PO5,PO6,PO10, PSO1, PSO2
10	Societal health and safety issues	Swacch Bharat Rally and Abhiyan	02/10/2018	Mr. Kumar Manu, Assistant Professor NSS	46	PO6
11	Societal health and safety issues	Matdata Jagrukta Abhiyan	02/11/2018	Mr. Kumar Manu, Assistant Professor	41	PO6
12	Societal health and safety issues	Drug Free India	19/02/2019	Smt. Seetu	40	PO6
13	Societal health and safety issues	Unnat Bharat Abhiyan survey	04/03/2019	Dr M K Agarwal, Assistant Professor	51	PO6
14	Societal health and safety issues	International Yoga Day	21/06/2019	Dr Akhilesh Shukhla, Associate Professor	42	PO6
15	Team Building & Leadership	Activity: Show Your Talent	08/09/2018	Ms. Priyanka Goel, Assistant Professor	45	PO9
16	Team Building & Leadership	Activity: Detective Raju	06/10/2018	Ms. Shiwani Agarwal, Assistant Professor	40	PO9
17	Team Building & Leadership	Activity: Are you true MITian?	10/10/2018	Ms. Priyanka Goel, Assistant Professor	40	PO9
18	Team Building & Leadership	Activity: Counter Strike	03/11/2018	Ms. Neha Gupta, Assistant Professor	40	PO9
19	Team Building & Leadership	Activity: Social Event	15/11/2018	Ms. Neha Gupta, Assistant Professor	49	PO9

20	Team Building & Leadership	Activity: Alpha Battle	06/02/2019	Ms. Neha Gupta, Assistant Professor	45	PO9
21	Team Building & Leadership	Activity: Coder 5.0	20/02/2019	Ms. Priyanka Goel, Assistant Professor	56	PO9
22	Team Building & Leadership	Activity: Pro Gaming League	02/03/2019	Ms. Shiwani Agarwal, Assistant Professor	47	PO9
23	Team Building & Leadership	Activity: #SHE	08/03/2019	Ms. Neha Gupta, Assistant Professor	50	PO9
24	Team Building & Leadership	Activity: MIT Fiesta	10/04/2019	Ms. Neha Gupta, Assistant Professor	59	PO9
25	Soft skills and personality development	Conducted weekly PDP classes	13/08/2018	Ms. Ravneet Kaur	100	PO9, PO10
26	Soft skills and personality development	Guest lecture on Interview Cracking Tips	01/11/2018	Ms. Anshika Gupta, Analyst	78	PO9, PO10
27	Industry based skills	Guest lecture on Busting the bubbles of startups and entrepreneurs	11/10/2018	Mr. Abhishek Raj, CEO	76	PO9, PSO1, PSO2
28	Industry based skills	Guest lecture on Large Network Analysis	31/10/2018	Dr. Anurag Singh, Asst. Professor	74	PO2,PO3, PSO1, PSO2
29	Industry based skills	Guest lecture on Job opportunities through C-DAC	02/11/2018	Ms. Shubhi Shukla, Developer	53	PO6, PSO1, PSO2
30	Industry based skills	Guest lecture on Hack inside Tech	03/11/2018	Mr. Surya Pratap Singh, Director & CEO	58	PO11, PSO1, PSO2
31	Industry based skills	Guest lecture on Searching for a career via Search Engine optimization	14/11/2018	Mr. Gaurav Mehrotra, Senior Digital Marketer	43	PO8, PO9, PSO1, PSO2
32	Industry based skills	Guest lecture on Introduction to IoT, Drones, 3D Printers	19/11/2018	Mr. Ashish Kumar, Head R & D	58	PO5, PO6, PO11, PSO1, PSO2
33	Industry based skills	Guest lecture on Organization culture, Industrial automation & IoT	04/04/2019	Mr. Anoop Singh Thakur, Chief Technology Officer	46	PO3, PO9, PSO1, PSO2
34	Industry based skills	Guest lecture on Internet of Things(IoT) & Opportunities	06/04/2019	Dr. Sharad Saxena, Associate Professor	47	PO5, PO6, PSO1, PSO2
35	Latest trends in Engineering	Guest lecture on Global trends in Engineering education now days	13/02/2019	Mr. Shridamas Das, Research & Innovation Head	69	PO6, PSO1, PSO2
36	Ethical Hacking	Guest lecture	28/02/2019	Mr. Vijay Dulam, Professional Ethical Hacker	49	PO5, PO8, PSO2
37	Cyber Security	Guest lecture	06/03/2019	Mr. Lovejot Singh Chhabra, Founder & CEO, CDI	26	PO7, PO8, PSO2
38	Industry Readiness	Industriual Tour to Aptron Solutions Pvt Ltd	15/03/2019	Mr. Vikas Bhatnagar, Assistant Professor	62	PO7, PO8, PSO2
39	Gap identified in University Curriculum (IoT)	Letter to University	30/05/2019	Registrar, MIT Moradabad	100	PO5,PO6, PSO1, PSO2

2017-18

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	DAA: Selection sort, Binary tree, Binary search tree and its properties (insertion, deletion), Change of coins problem using Greedy approach, Longest Common Subsequence(LCS)	Topics covered in respective lecture	11/11/2017	Dr. Manish Gupta, Associate professor	86	PO1, PO2, PSO1
2	PPL: Scheme overview and basics of ML	Topic covered in respective lecture	23/11/2017	Mr. Shivanshu Rastogi, Assistant Professor	79	PO5, PSO1
3	Web Technology: Swings introduction, Object oriented programming concepts in PHP	Topics covered in respective lecture	27/11/2017	Ms. Richa Saxena, Assistant Professor	70	PO2, PO3, PO4, PO10, PSO1, PSO2
4	DAA Lab: Linear and binary search	Topics covered in respective lab	10/08/2017	Ms. Neha Gupta, Assistant Professor	62	PO1, PO2, PSO1
5	Web Technology Lab: Java program/ servlet/ JSP to connect to a database and extract data from the tables and display them. Experiment with various SQL queries	Topic covered in respective lab	11/09/2017	Ms. Richa Saxena, Assistant Professor	85	PO1, PO2, PO3, PO10, PSO1, PSO2
6	Software Engineering: Agile software development, Rapid application development (RAD)	Topics covered in respective lecture	05/02/2018	Ms. Prachi Gupta, Assistant Professor	76	PO3, PSO1
7	Compiler Design: NFA construction using Thompson's construction	Topic covered in respective lecture	07/02/2018	Mr. Manoj K Singh, Assistant Professor	79	PO1, PO2,PO7,PO9,PO10,PO12, PSO1, PSO2
8	Parallel Algorithms: Moore’s law and its consequences, Forms of parallelism, methods to achieve higher performance	Topics covered in respective lecture	15/02/2018	Ms. Priyanka Goel, Assistant Professor	83	PO1, PO3,PO4,PO6,PO7,PO12, PSO1, PSO2
9	Data Warehousing & Data Mining: OLAP Guidelines (Dr. E.F. codd rule)	Topic covered in respective lecture	17/04/2018	Mr. Anurag Malik, Assistant Professor	71	PO3, PSO1
10	Data Analysis by R Programming	Guest Lecture	18/09/2017	Ms. Parul Yadav Asst. Prof.	79	PO3, PSO1
11	Data Analytics	Guest Lecture	24/10/2017	Mr. Mohit Jetley, Advisory software Engineer	89	PO3, PSO1
12	Societal health and safety issues	Plantation and oath	15/08/2017	Dr. Manuj Agarwal, Assistant Professor	50	PO6
13	Societal health and safety issues	Swachhta Abhiyan	02/10/2017	Dr. Manuj Agarwal, Assistant Professor	100	PO6
14	Societal health and safety issues	Two child policy Rally	06/10/2017	Dainik Jagran	59	PO6
15	Societal health and safety issues	Cycling to prevent the Air Pollution	15/01/2018	Dr. Manuj Agarwal, Assistant Professor	44	PO6
16	Societal health and safety issues	Digital India Programme	17/01/2018	Dr. Manuj Agarwal, Assistant Professor	44	PO6
17	Team Building & Leadership	Activity: Logo Pogo	26/08/2017	Ms. Neha Gupta, Assistant Professor	53	PO9
18	Team Building & Leadership	Activity: Overhaul	15/09/2017	Ms. Priyanka Goel, Assistant Professor	49	PO9

19	Team Building & Leadership	Activity: Act-o-holic	13/10/2017	Ms. Navita Agarwal, Assistant Professor	40	PO9
20	Team Building & Leadership	Activity: Bachpan Reloaded	14/11/2017	Ms. Neha Gupta, Assistant Professor	56	PO9
21	Team Building & Leadership	Activity: Coder 4.0	10/02/2018	Ms. Neha Gupta, Assistant Professor	40	PO9
22	Team Building &	Activity: Dress to Impress	21/02/2018	Ms. Neha Gupta, Assistant Professor	48	PO9
23	Team Building & Leadership	Activity: Counter Strike	21/03/2018	Ms. Priyanka Goel, Assistant Professor	44	PO9
24	Team Building & Leadership	Activity: Googly	04/04/2018	Ms. Navita Agarwal, Assistant Professor	53	PO9
25	Soft skills and personality development	Conducted weekly SDP classes	04/09/2017	Mr. Abhishek Saxena	100	PO5, PO9, PO10,PO12
26	Soft skills and personality development	Guest Lecture on How to prepare for various MNCs during graduation	09/09/2017	Mr. Rachit Agarwal, Associate Account manager	64	PO1, PO3, PO12
27	Industry based skills	Guest Lecture on Ethical Hacking	06/09/2017	Mr. Piyush Pandey, CEO, Cyber Security Analyst	81	PO5, PO8
28	Android App Development & Cross Application Trough Xamarin	Guest Lecture	16/09/2017	Mr. Anuj Jauhari, CEO	67	PO1, PO3, PO5, PO9, PO11, PO12
29	Industry based skills	Guest Lecture on GOLANG & Blockly	20/11/2017	Er. Nitin Mittal, Associate Manager	40	PO5, PO11
30	Latest trends in IT industry	Guest Lecture	04/04/2018	Mr. Sachin Singh Narula, Asst IT Manager	88	PO5, PO6
31	Latest trends in engineering	Industrial Tour to Indovision Consultancy Pvt. Ltd	17/03/2018	Mr. Vikas Bhatnagar, Assistant Professor	71	PO7, PO8
32	Gap identified in University Curriculum (IoT & ML)	Letter to University	31/05/2018	Registrar, MIT Moradabad	0	PO5, PO6, PSO1

2016-17

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	DLD: Fault secure encoder and decoder for memory applications, FPGA based digital signal processing and bioinformatics devices	Topics covered in respective lecture	20/10/2016	Ms. Navita Agarwal, Assistant Professor	90	PO1, PO3, PO5, PSO1
2	Data Structure using C: Multiple Stacks	Topic covered in respective lecture	21/09/2016	Mr Vikas Kumar, Associate Professor	98	PO1,PO2,PO5,PO9,PO10,PSO1,PSO2
3	Discrete Structures and Graph theory: Traversing of graph	Topic covered in respective lecture	20/10/2016	Mr. Puneet Kumar, Assistant Professor	74	PO1, PSO1
4	Advance programming Lab: Program using friend and virtual function, Working with Templates	Topics covered in respective lab	18/11/2016	Mr. Sanjeev Gupta, Assistant Professor	67	PO1, PO2, PO3,PO5, PSO1, PSO2
5	FLP Lab: To implement Fibonacci series in LISP, To implement 4- Queen problem in LISP	Topics covered in respective lab	10/04/2017	Ms. Priyanka Goel, Assistant Professor	75	PO1, PO2, PSO1,PSO2
6	Cyber Security: ATM and Payment Gateway Frauds and Protection	Guest Lecture	06/10/2016	Mr. Rahul Mishra, Cyber Security Adviser	40	PO1,PO3,PO5, PO11, PO12
7	Societal health and safety issues	Plantation	31/08/2016	Dr. Manuj Agarwal, Assistant Professor	40	PO6
8	Societal health and safety issues	Swachh Bharat Abhiyan	02/10/2016	Dr. Pankaj Sharma, Associate Professor	46	PO6
9	Societal health and safety issues	Sardar Vallabh Bhai Patel Jayanti and Integrity Pledge	31/10/2016	Dr. Manuj Agarwal, Assistant Professor	100	PO6
10	Societal health and safety issues	Village tour for Entrepreneurship program	12/01/2017	Dr. Manuj Agarwal, Assistant Professor	89	PO6
11	Societal health and safety issues	Yoga Day	21/06/2017	Dr. Akhilesh Shukla, Associate Professor	45	PO6
12	Team Building & Leadership	Activity: Nation Call	13/08/2016	Ms. Prachi Gupta, Assistant Professor	47	PO9
13	Team Building & Leadership	Activity: Ticket to Indipreneur	05/10/2016	Ms. Prachi Gupta, Assistant Professor	67	PO9
14	Team Building & Leadership	Activity: Canvas-e- Republic	25/01/2017	Ms. Prachi Gupta, Assistant Professor	51	PO9
15	Soft skills and personality development	Conducted weekly SDP classes	18/07/2016	Ms. Neha Rajpoot	100	PO5, PO9, PO10,PO12
16	Soft skills and personality development	Guest lecture on How to Achieve excellence in life	15/09/2016	Mr. Rohit Agarwal, Personality Development speaker	78	PO5, PO9, PO10,PO12
17	Android Application Development	Guest Lecture	21/09/2016	Mr. Anuj Jauhari, Director	42	PO1, PO3, PO5, PO9, PO11, PO12
18	Industry based skills	Guest Lecture on Big Data and Hadoop	26/09/2016	Mr. Sandeep Chaudhary, Team Leader	49	PO1, PO2, PO3, PO4, PO5, PO9, PO11, PO12

19	Industry based skills	Guest Lecture on Application of machine Learning in Imaging and vision	01/04/2017	Dr.R. Balasubramanian, Associate Prof.	45	PO3, PO5

2.2 Teaching - Learning Processes (100) Total Marks 100.00

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

Institute Marks : 25.00

A. Adherence to Academic Calendar :

The institute adheres to the academic calendar of the Dr. A.P.J. Abdul Kalam Technical University Lucknow. The academic calendars are the mirror of the academic activities of the institute and the department. The institute prepares its own academic calendar after the university academic calendar announcement at the beginning of each semester. The department academic calendar (specific to the department) is derived from the institutes academic calendar. The department academic calendar helps faculty members and students ensure effective time management for all activities. The academic calendar is displayed on the notice boards of the institute to provide information to the students. It includes the following details:

1. Dates of registration for the new semesters
2. Dates of commencement of academic session and last working day.
3. The tentative dates of commencement of all the three class tests.
4. Date of submission of compiled attendance of all the students before each class test
5. Last date for submission of the evaluated Class Test copies to the Nodal centre.
6. Dates of filling of the student-teacher feedback forms by the students.
7. Last date for finalizing and submission of the internal marks.
8. Dates for filling of the subject choices for new semester by the faculty members.
9. Date of commencement of preparing time table for next semester.
10. Tentative dates of commencement of University practical and theory end semester examinations.
11. Schedule of conferences, FDPs. workshops, guest lecturers, industrial tours etc. organized by department.
12. Dates of gazetted holidays

Format of Academic Calendar of the department is shown in figure B.2.2.1a .

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

Ram Ganga Vihar Phase-II Moradabad (U.P.)
Approved by AICTE and Affiliated to Dr. A. P. J. Abdul Kalam Technical University, Lucknow
Website: http://mitmoradabad.edu.in

Department Academic Calendar, Odd Semester, Session (2018 – 2019)

VISION

To develop globally recognized computer science and engineering graduates with ethical values for need of software industries.

MISSION

M1: To impart knowledge through well defined instructional objectives in the field of computer science and engineering.
M2: To provide a learning ambience for skills, innovation, leadership and overall personality development.
M3: To inculcate professional ethics, teamwork and responsiveness towards society.

JULY-2018

Su	M	T	W	Th	F	S
1	2	3	4	5	6	7
8	9	10		12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST-2018

Su	M	T	W	Th	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER-2018

Su	M	T	W	Th	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

OCTOBER-2018

Su	M	T	W	Th	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER-2018

Su	M	T	W	Th	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

DECEMBER-2018

Su	M	T	W	Th	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

A	FDP on Comprehensive Ethical Hacking, Beginner to Advanced	Q	Event " Are you true MITian" by CSSS	AH	Filling of Student Feedback form for current Semester
B	Time Table Display on Notice Boards	R	Expert Lecture on "Busting the bubbles of start ups and entrepreneurs" by Mr Abhishek Raj Jauhari , CEO and Co-Founder of Trendeve, Bareilly	AI	Floating of Electives for Even Semester
C	Blow Up Submission to HODs	S	Short Attendance compilation and information to parents	AJ	Submission of consolidated list of shortage of attendance to director and information to parents
D	3rd /5th /7th semester registration	T	2nd Test Series	AK	3rd Test Series
E	Commencement of Classes of 3rd /5th /7th semester	U	Maha Navmi	AL	Submission of Test copies in Nodal Center
F	Independence day	V	Dusshera	AM	Submission of Sessional marks
G	Eid-ul-Zuha	W	Submission of Test copies in Nodal Center	AN	Load distribution by Department
H	Rakshа Bandhan	X	Expert Lecture on "Large Network Analysis" by Dr. Anurag Singh, Assistant Professor, National Institute of Technology, Delhi	AO	Christmas Day
I	Janmashtami	Y	Expert Lecture on "Interview Cracking Tips" by Ms. Anshika Gupta, Analyst, KPMG, Bengaluru		
J	Event "ShowYour Talent" by CSSS	Z	Expert Lecture on "Job opportunities through C-DAC" by Ms. Shubhi Shukla, Developer, Happiest Minds, Bengaluru		
K	Short Attendance compilation and information to parents	AA	Expert Lecture on "Hack Inside Tech" by Mr. Surya Pratap Singh, Director & CEO, Aeonwie Infotech Services Private Limited , Moradabad		
L	1st Test Series		Mid Semester Break (Deepawali)		
M	Moharram	AB	Event 'Counter Strike" by CSSS		
N		AC	Expert Lecture on "Searching for a career via Search Engine Optimization" by Mr. Gaurav Mehrotra, Senior Digital Marketer, ReportGarden Inc, Hyderabad		
O	Submission of Test copies in Nodal Center	AD	Event "Childrens Day Celebration " by CSSS		
P	Event "Detective Raju" by CSSS	AE	Expert Lecture on "Introduction to IOT, Drones ,3D Printers" by Mr. Ashish Kumar, Head (R & D), Drona Robo Academy, Ghaziabad		
		AF	Id-e-Milad		
		AG	Guru Nanak Birthday		

Month	Dates of Teaching Days (2nd, 3rd & 4th Year)	No. of Teaching Days	No. of Lecture Hours
Jul-18	-	NA	92* 6=552
Aug-18	2,3,4,6,7,8,9,10,11,13,14,16,17,18,20,21,23,24,25,27,28,29,30,31	24	
Sep-18	1,4,5,6,7,10,11,12,17,18,19,20,22,24,25,26,27,28,29	19	
Oct-18	1,3,4,5,6,8,9,10,11,12,13,20,22,23,24,25,26,27,29,30,31	21	
Nov-18	1,2,3,5,12,13,14,15,16,17,19,20,22,24,26,27,28,29,30	19	
		83	
	Sessional Examinations	09	
	Total	**92**	**552**

Fig. B.2.2.1a.: Academic calendar of the department

B. Use of various instructional methods and pedagogical initiatives:

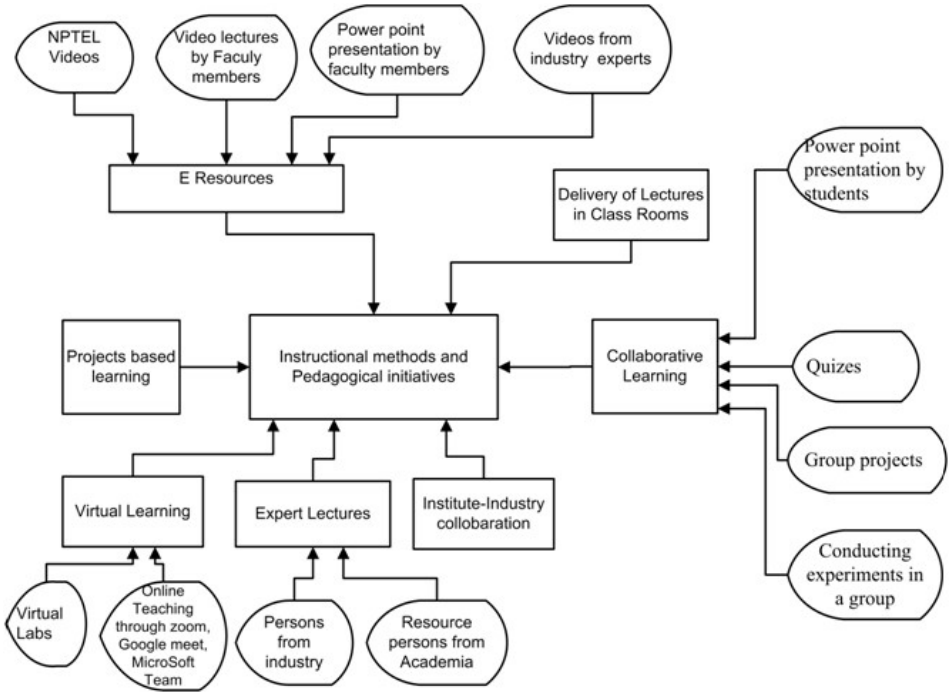


Fig. B.2.2.1b: Instructional method and pedagogies

Delivery of Lectures in Class rooms:

Faculty members deliver lectures using chalk and duster & using a projector also. Each student is free to ask any query related to the subject during lectures. Faculty members resolve the doubts of students asked during lectures.

Use of e-resources:

Faculty members use PowerPoint Presentations on difficult topics for better understanding. They also play videos like National Programme on Technology Enhanced Learning (NPTEL) videos, videos prepared by faculty members and the videos of industry experts for difficult topics.

Collaborative Learning:

Collaborative learning is the educational approach of using groups to enhance learning through working together. Groups of two or more learners work together to solve problems, complete tasks, or learn new concepts. It promotes learning from other's viewpoints, promotes listening to criticism and advice, develops public speaking and active listening skills and improves cooperation. The following methods are used for collaborative learning.

1. Power point presentations by students in the class
2. Quiz Competitions
3. Group Projects
4. Performing Laboratory experiments in a group
5. National level Workshops, Conferences and Short-term courses are organized in Association with Various Professional Societies.

Project based learning:

During the period of study, many real time projects are given to the students on the latest technologies and they are guided by faculty members. In the 7^{th} and 8^{th} semesters, a final year project is developed by a group of students. For some academic courses, students have been encouraged to do some projects.

Real world Examples:

i. Exposing students to real world through examples

ii. Presenting the real life engineering problems through case studies.

iii. Demonstration using models and charts for better subject understanding.

iv. Providing exposure to real world of engineering by taking students to nearby industries.

Expert Lectures:

Experts from Industries and renowned academic institutions are regularly invited to deliver Guest/Expert Lectures for our students.

Virtual Learning

1. *Virtual labs:* Faculty members use virtual labs of different IITs to conduct some difficult experiments of the respective labs. Instruction manuals about conduction of experiments are given in virtual labs, students follow these instruction materials to complete the experiments. There is no need to install latest softwares in the labs as different softwares and simulators are available in virtual labs.
2. *Online teaching through MS Teams, Google meet and Zzoom:* Faculty members use softwares like MS team, Google meet, Zoom etc to take lectures, tutorials and labs online. In last semester, faculty members taken classes online during lockdown period. Some faculty members also run their own created video lectures, NPTEL and YouTube videos during online lectures using MS teams, Google meet and zoom.

C. Methodologies to support weak students and encourage bright students:

Methodologies to support weak students:

- Weak students are identified on the basis of the results of Class Test-1. The students are identified as slow learners if they score less than 50 % in each subject.
- Separate special classes are arranged for weak students after Class Test-1. These classes help in clarifying the doubts and re-explaining of difficult topics to such students.
- Regular monitoring of their progress is done by observing their performance in lectures, tutorials and labs.
- Students are provided with reading materials and notes to improve their understanding power.
- Parents are informed about the performance of their ward.
- A question bank based on the previous year's question papers is provided to the students for better preparation.
- Student mentors are also appointed for 15-20 students. These mentors monitor their progress regularly and guide them throughout the course. They also review student attendance in connection with performance and motivate them to attend classes and participate in co-curricular and extra curricular activities.
- Table B.2.2.1a shows few examples of continuous improvement of weak students

Table B.2.2.1a: Continuous improvement of weak students

S.N.	Student Name	Subject Name	CT-1 marks (%)	CT-2 marks (%)	CT-3 Marks (%)	Marks in External Exam (%)
1.	Shikhar Gupta	DAA	30%	76%	80%	71%
2.	Mohd. Ubaid	Compiler Design	38%	61%	70%	74%
3.	Nikhil Gold	DBMS	49%	65%	72%	76%
4	Pukar Chauhan	Theory of Automata	40%	55%	60%	68%

Methodologies to encourage bright students:

- The bright students are identified from their participation in classroom discussion, performance in the class tests, questioning ability and university result analysis.
- Awards and appreciation are extended to the bright students to perform better in the University examinations by the Director and university. They are felicitated from time to time for their achievements.
- Special facilities are provided to all the bright students. For example, after evaluating the performance of Class Test-1, the top ten students of every section are provided with additional facilities in the library.
- Bright students are encouraged to pursue various online courses such as NPTEL/Swayam/MOOCs courses.
- They are encouraged to participate in conferences, workshop and symposiums. They are also motivated to publish technical papers in reputed conferences and journals.
- They are also encouraged to become university rank holders and also to write competitive exams like GATE, GRE, CAT, GMAT, TOEFL etc, for pursuing higher studies.

Impact Analysis of Methodology used for Bright and Weak students:

As a result of the above initiatives by the department, the following have been achieved

1. End Semester exam results improved

2. Students were appeared in NPTEL exams, attended workshops and also published papers in reputed conferences and journals.

D. Quality of classroom teaching (Observation in a Class):

The department of Computer Science and Engineering follows the curriculum prescribed by Dr. A.P.J. Abdul Kalam Technical University Lucknow. Each classroom is spacious, well ventilated and equipped with green board. Class rooms are equipped with audio visual aids along with other facilities to create better ambience for effective teaching learning environment.

Each lecture is scheduled for one hour. During the lecture, faculty members take efforts to keep students engaged by reviewing and asking questions and interactively deliver the lecture planned for the day. At the end of the lecture, students are encouraged to summarize and ask doubts from the contents taught.

E. Conduct of experiments (Observation in Lab):

All labs in the department are equipped with the enough number of computers with required software. All the labs are also provided with a well prepared manual in adherence to the affiliated university curriculum.

1) Students do their experiments individually which provides good quality of laboratory experience.

2) Lab Manuals are provided for all experiments in the laboratories.

3) Students are advised to study the theory behind the experiments and the procedure to conduct the experiments before the lab session.

4) Concern faculty member explain the experiment procedure.

5) Students are advised to take help from the lab manuals.

6) Faculty member monitors every student during conduction of experiments and also in recording of observations.

7) Calculations and analysis of data as well as practical significance /application of the results obtained are done by students under the guidance of faculty member.

8) The students are asked to submit the lab record for evaluation.

9) Internal marks are allocated on the basis of-

- Execution of the experiments
- Write up of the experiments done
- Viva-voce questions

F. Continuous Assessment in the laboratory:

Continuous assessment system is also implemented for assessment of laboratory work. The assessment is done on the basis of-

- Laboratory records or File records
- Regularity of the students in the laboratory
- Conduction of the experiments by the students

G. Student feedback of teaching learning process and actions taken (6)

The Head of the Department takes first feedback from students after 15 days of the class commencement and second feedback after the class test 1. The Head of the Department (HoD) reviews the performance of the faculty members based on students' feedback. Before completion of course, feedback about the course and faculty member teaching the course is taken in prescribed format (attached below).

Mentors also take regular feedback from students about the course and inform to HoD in this regard.

The report on the basis of students' feedback is being handed over to IQAC by the departments for further action. The faculty members having more than 90%, are appreciated by the department on recommendation of IQAC committee, while those having between 60% to 80%, and are being motivated by HoD to improve further. However, IQAC direct HoD of concerned department to warn those faculty members, individually, whose feedback is less than 60%, and they are advised to improve their way of teaching within the next semester.

STUDENTS' RESPONSE FORM - B

Your teacher in this course is anxious to do everything possible to help you in your job of learning. Please give your honest opinion by checking (✓) against the following points.

Total no. of lectures/Lab classes attended by the student 56 (to be filled by the student) Subject Title: Design & Analysis of Algorithm

Total no. tutorials attended by the student (to be filled by the student) Course Code: NCS-501

Teacher's Name: Manish Gupta Semester: 5th Session: 2017-18

Points to be Considered	Excellent 5	Very Good 4	Good 3	Fair 2	Poor 1
(A) Organisation of Course :					
1. In making clear the objectives of the course/Experiment	✓				
2. Sequence of teaching various topics of subject		✓			
3. Coverage of syllabus & proper weightage of different topics		✓			
4. Regularity of lectures/Lab classes	✓				
5. Regularity & evaluation of class tests/Lab Viva	✓				
6. Regularity in conducting & evaluation of tutorials/Lab reports	✓				
Total of (A)	20	08			
(B) Presentation of Subject matter :					
1. Preparation for lectures/Lab	✓				
2. Beginning & ending of Lab classes	✓				
3. Ability to speak clearly & audibly	✓				
4. Ability to explain subject	✓				
5. ability to create interest in the subject.	✓				
6. Ability to answer questions	✓				
7. Teacher has enhanced my thinking ability		✓			
Total of (B)	30	04			
(C) Rapport & Personality :					
1. Enthusiasm/interest in tutorial/practical classes.	✓				
2. Personal interest in students and their problems.	✓				
3. Control of class.	✓				
4. Availability for out-of-class consultation.		✓			
Total of (C)	15	04			
(D) Overall Assessment :					
1. Overall effectiveness of the teaching.	✓				
2. Enhancement of learning process.	✓				
3. Enhancement of analytical ability.	✓				
Total of (D)	15				
Total of (A), (B), (C) & (D)	80	16			
Grand Total	96				

Any other comments : Excellent Faculty

Fig. B.2.2.1c: Student's feedback form

2.2.2 Quality of internal semester Question papers, Assignments and Evaluation (20) Institute Marks : 20.00

Department follows the University Evaluation Scheme. The evaluation includes class tests, tutorials and attendance. Internal and external exams are main medium for assessing whether all the POs are attained or not. Three class tests are conducted during the semester as per the Institute Academic Calendar. According to University guidelines, two class test marks are considered. The students are informed with evaluation process during their orientation program itself.

Department forms a Program Evaluation Review Committee (PERC) for the moderation of question papers, evaluation and effective process implementation. Two sets of question paper for each course are prepared by the faculty members and submitted to the PERC Committee. The committee member selects one copy based on the questions' quality and relevance to COs. This selected set is further reviewed by the Head of the department (HoD). After approval from the HoD, final paper is printed and submitted to CT Committee, one day prior to the scheduled class test to maintain the privacy issues.

The undergraduate program of the department is based on continuous evaluation system.

Evaluation is done by the faculty member of the subject throughout the semester. Each subject contains three main components for evaluation:

- Attendance
- Class tests
- Tutorials

The internal marks distribution is shown in Fig. B.2.2.2a

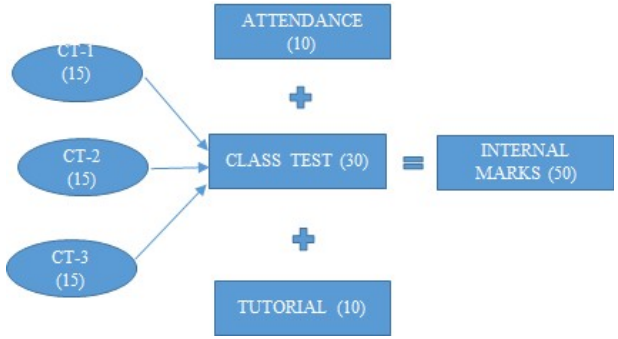


Fig. B.2.2.2a: Internal Theory Evaluation Scheme

A. **Process for Internal semester Question Paper setting and evaluation and effective process implementation:**

To ensure the quality of sessional test papers, there is a quality policy in the Institute. At department level Program Evaluation Review Committee (PERC) ensures compliance with quality policy and the university evaluation scheme. The schedule of the class tests is as per the Academic Calendar notified at the beginning of the semester.

The scheme of class tests is prepared by the CT Committee. The subject co-ordinator ensures that the class test paper questions are framed based on various Bloom's Taxonomy levels and are mapped to the COs. CT Committee provides CT copies for writing the test. The students write the test in their allotted seats as per their Roll Numbers in a test hall, under the invigilation of two faculty members. Test copies after evaluation are stored by the Nodal Centre for at least five years and available for verification.

The faculty members after every class test explain the solution of the questions in the class which will enable students to perform well in the final examination. For any genuine reason, if a student is unable to perform well in all three class tests, improvement test is conducted. The sum of the marks obtained from best two tests is chosen for the award of internal assessment marks. Attendance, assignments and tutorials are also added in class test marks for final Internal Assessment.

Process used to ensure the quality of internal examination and evaluation is shown in Fig. B.2.2.2b

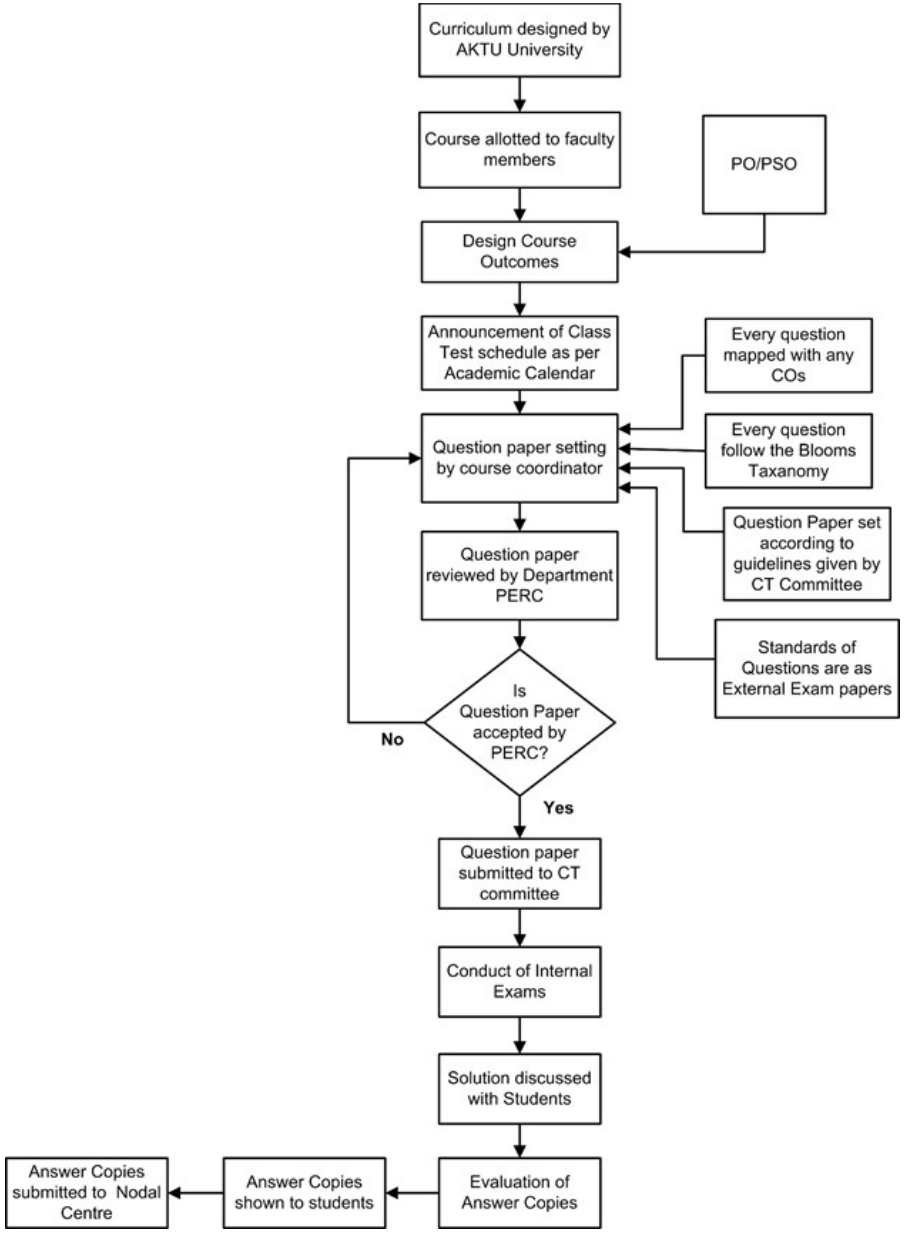


Fig. B.2.2.2b: Process for internal examination and evaluation

After evaluation of CT copies, the marks obtained in each question are filled in different COs separately. The marks obtained for each CO for every student under given question are calculated separately.

MORADABAD INSTITUTE OF TECHNOLOGY, Moradabad
4th Year 7th Sem 2015-16 Batch
Computer Science & Engineering Section B
Distributed System NCS-701
CO Attainment
SESSION 2018-19

			CT-1	CT-2		CT-3	
Sno.	Roll No.	Name of Students	CO 1	CO 2	CO 3	CO 4	CO 5
1	1508210001	AAKASH KUMAR	5	0.5	2.5	4	2
2	1508210002	AAKRITI GUPTA	AB	3.5	6.5	6	5
3	1508210003	AANCHAL GUPTA	11	AB	AB	8	5
4	1508210004	AANCHAL SAXENA	8	3	2	4.5	3.5
5	1508210005	AASTHA AGARWAL	9	6	7	5	2
6	1508210007	ABHIJEET RAGHUVANSHI	4	1	0	3	3
7	1508210008	ABHIMANYU THAKUR	AB	1	2	7	2
8	1508210009	ABHISHEK SHARMA	5	AB	AB	2	1
9	1508210010	ADITYA KUMAR	AB	5	4	6.5	1.5
10	1508210011	AISHWARYA GUPTA	AB	2.5	3.5	3	4
11	1508210012	AJAY KUMAR	7	2	2	6	6
12	1508210013	AKARSH SAXENA	AB	4	5	7	5
13	1508210014	AKASH DUBEY	8	2.5	3.5	5	3
14	1508210015	AKSHAT RATHOR	7	1	2	3	5

Fig. B.2.2.2c: Marks mapping with CO

B. Process to ensure questions from outcomes/learning levels perspective (5):

Faculty members prepare two sets of question paper for each course taught by him/her. While setting the question paper, previous university exam papers are taken into consideration. The question papers are prepared on a set standard given by the higher authorities.

The question paper is divided into three levels. The levels are categorized according to difficulty and detail level. Questions are prepared in consideration with Bloom's Taxonomy.

The questions are of three categories:

- Part A includes one word type questions and are of less difficulty level and can be answered by all students.
- Part B includes short answers and are of moderate difficulty level and need analysis and use of content covered as per syllabus.
- Part C includes detailed answers and are of slight difficult level. Certain amount of thinking, analysis and explanation are required to answer them.

A question paper template is shown in Figure B.2.2.2d

Moradabad Institute of Technology, Moradabad
Class Test-I (2016-17)

Subject & Code: Theory of Automata & Formal Languages (NCS-402) **Max.Marks:** 15
Year/Semester/Branch/Section: 2nd/4th/CS/B, C, D **Time :** 01 Hrs.

Set-1 Approved 23/12/17

Q	Q1	Q2	Q3	Q4	Q5	Q6
CO	CO1	CO1	CO1	CO2	CO2	CO2

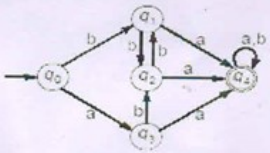
Q1. Construct the DFA for following regular languages. (Attempt any three) **2x3 = 6 marks**

i) L = { All strings over {a, b} in which number of a's is odd and number of b's are divisible by 2}.
ii) L= {a^n : $n \neq 2$ and $n \neq 4$ }.
iii) L is given by regular expression $0^*(01)^*0^*$.
iv) Language accepts all binary strings beginning with **1**, and decimal value of string is divisible by 2.

Q2. Convert the NFA given in the transition table below to an equivalent DFA. **2 marks**

δ	0	1
$\rightarrow q_0$	$\{q_0\}$	$\{q_0, q_1\}$
q_1	$\{q_2\}$	$\{q_2\}$
$*\ q_2$	$\emptyset$	$\emptyset$

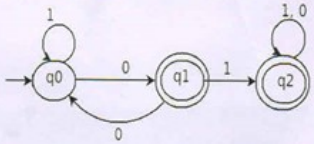
Q3. Minimize the DFA given in the following transition graph. **2 marks**



Or

Design a Moore Machine that scans sequence of inputs of 0 and 1 and generates output 'A' if the input string terminates in 00, output 'B' if the input string terminates in 11, and output 'C' otherwise.

Q4. Find the regular expression for given DFA using Arden's Theorem. **2 marks**



Q5. Write the Regular expression for the following regular languages. **1 x 2 = 2 marks**

i) Set of strings over {0, 1} that ends with 1 and does not contain 00.
ii) Set of binary strings in which every 0 is followed immediately by 11.

Q6. Prove that $(r + s)^* r s (r + s)^* + s^* r^* = (r + s)^*$ **1 marks**

For Solutions Refer Notice Board at the end of class test.

Moradabad Institute of Technology, Moradabad
Class Test-I (2016-17)

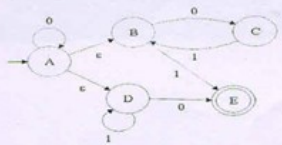
Subject & Code: Theory of Automata & Formal Languages (NCS-402) **Max.Marks:** 15
Year/Semester/Branch/Section: 2nd/4th/CS/B, C, D **Time :** 01 Hrs.

Set-2 Not approved 23/12/17

Q. No. :	Q1	Q2	Q3	Q4	Q5	Q6
CO No. :	1	1	1	1	1	2

Section A (6 Marks)

Q1. i. Define Alphabet, String and Language. 02 Marks
ii. Differentiate between NFA and DFA.
Q2.Convert the given NFA into DFA 02 Marks



Q3. Convert the Mealy machine to equivalent Moore machine 02 Marks

Present State	Next State a = 0	output	a=1	output
$\rightarrow q_1$	q_4	0	q_2	0
q_2	q_2	1	q_3	1
q_3	q_3	0	q_4	0
q_4	q_4	0	q_1	0

Section B (9 Mark)

Q4. Design the DFA for following languages over the alphabet {a, b}. 03 Marks
i. Language of all strings containing either **aaa** or **bbb** in them.
ii. Language of all strings containing even number of **a's** and odd number of **b's**.
iii. Language of all strings in which fourth symbol is **a**.

Q5. Minimize the following DFA having state q2 as final state: 03 Marks

Present State	Next State Input 0	Input 1
$\rightarrow q_0$	q_1	q_5
q_1	q_6	q_2
q_2	q_0	q_2
q_3	q_2	q_6
q_4	q_7	q_5
q_5	q_2	q_6
q_6	q_6	q_4
q_7	q_6	q_2

Q6. Construct a regular expression for given languages over the alphabet {a, b}. 03 Marks
i. Language of all words of length **4**
ii. Language of all words starting with **ab** and ending with **bba**.
iii. Language of all the strings that contains at least one **a** and at least one **b**.

For Solutions Refer Notice Board at the end of class test.

Fig. B.2.2.2d: Class Test Question Paper Template

C. Evidence of COs coverage in class test/ mid-term tests (5):

PERC Committee is formed to check the level and quality of the question papers, which has to meet the standards of the University Examination pattern. Following are the members of PERC Committee:

1.	Dr. Rakesh Ahuja	Head of Committee
2.	Mr. Vikas Kumar	Member
3.	Mr. Anurag Malik	Member
4	Dr. Neelaksh Sheel	Member
5	Mr. Puneet Rai	Member
6	Ms. Shweta Agarwal	Member

Selection of question paper is done by the PERC members in synchronization with COs. Submission of approved set of question paper in the required number is done to CT Committee by the faculty members.

Test copies are properly marked and evaluated in the time frame allotted by the controller of examination (CoE). The solutions are discussed and displayed on department notice boards. The answers sheets are displayed to the students promptly and sessional marks uploaded on ERP.

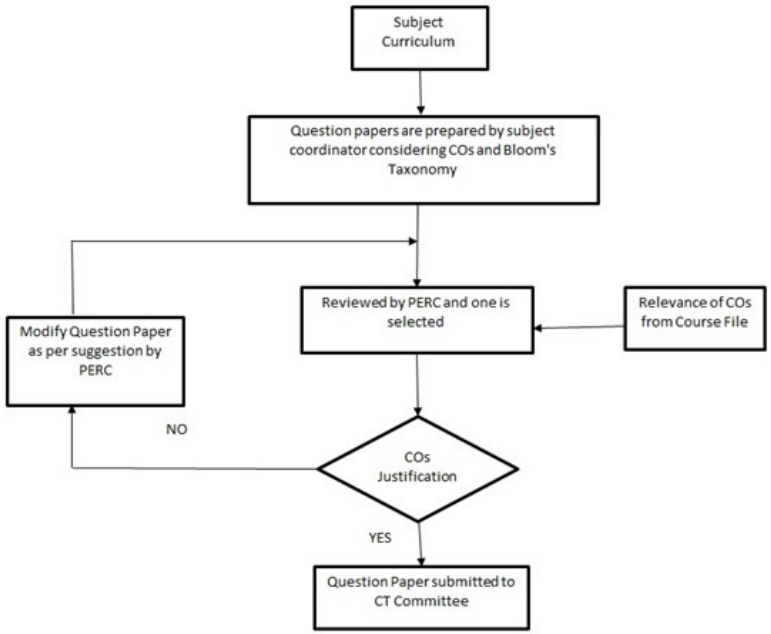


Fig. B.2.2.2e Process to ensure quality of Question Papers & CO Coverage

D. Quality of Assignments and its relevance to COs:

Faculty members prepare COs for allocated subject. They then prepare their tutorials and assignments according to these COs using Bloom's Taxonomy levels. They also submit mapping of COs with POs and PSOs.

PERC checks whether the assignments and tutorials are in synchronization with the defined COs. One assignment per unit is given to students in each subject. Difficult questions are discussed by the faculty member in respective tutorial class. A week's time is given to the students to submit the assignment. The assignments submitted by the students are evaluated by the faculty members and marked. Marks are given as per student's performance and record is maintained in the course files and attendance registers.

In order to bridge the gap in curriculum, some topics beyond the syllabus are also covered in the assignments. Surprise tests and quizzes are conducted randomly by the concerned faculty member. Question bank of important and expected questions is also prepared by faculty members. Video links of some useful topics are also provided to students for deep learning.

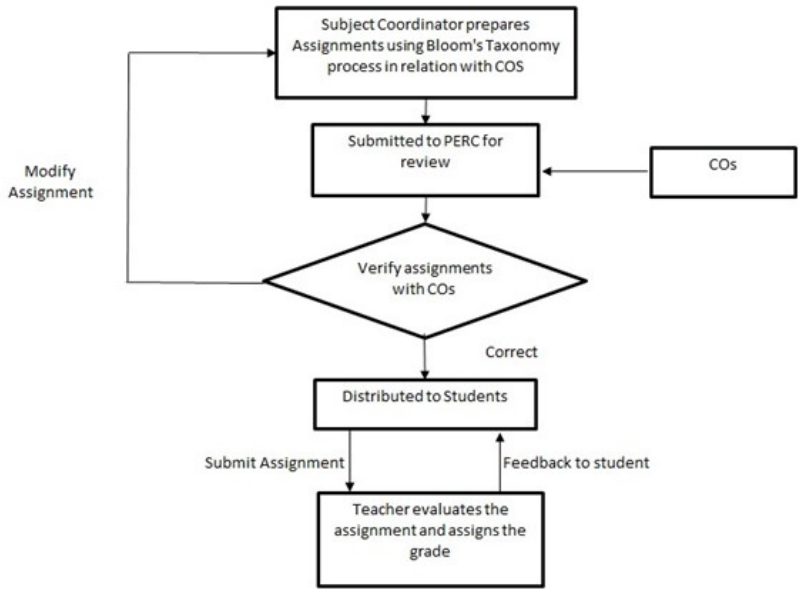


Fig. B.2.2.2f: Quality of Assignments and its relevance to COs

2.2.3 Quality of student projects (25)

Institute Marks : 25.00

The students carry out their project work in seventh and eighth semesters. The department follows standard procedures to ensure that students do the quality projects. The students select a project in-line with their interest. Students are encouraged to do project work on real world examples. Appropriate methodologies exist to monitor the project work continuously till the end of project in the eight semester. At the end of the project, the department organizes project exhibition and encourages student groups to participate in it and also the students are encouraged to publish a paper in journal or conference.

Project Group:

- The Students are allowed to form groups consisting of minimum three or maximum five members.
- If the students are not able to form the group, then the project coordinator will help them to form the group.

A. Identification of projects and allocation methodology to faculty member

The project coordinator and project assessment committee (PAC) ensures the quality of student's projects. The PAC follows the guidelines set by the department in the following manner:

1. The project coordinator displays a list of faculty members along with their areas of expertise on notice board.
2. A list of previous year's projects is displayed at notice board and also available in the departmental library, which ensures no repetition of project work.
3. Students select the suitable area, form their group of minimum 3 and maximum 5 and contact the concerned faculty member.
4. If any group is failing to submit the guide name than project coordinator will assign the guide to the groups.
5. Students can choose/come out with a problem for the project. If they are not able to come out with the problem, then the supervisor will give a problem to the students for execution of the project work.
6. Committee finally allots the projects by considering various parameters like relevance to POs, originality, feasibility, technology and resource required.
7. The supervisor monitors the progress of the project work on a regular basis and keeps the track record. In case, the performance of the students group is not satisfactory, the matter is reported to PAC for required action.
8. The supervisor encourages students to publish their project work in national and international journal/conference.
9. The supervisor ensures the compliance of university format for submission of the project report.

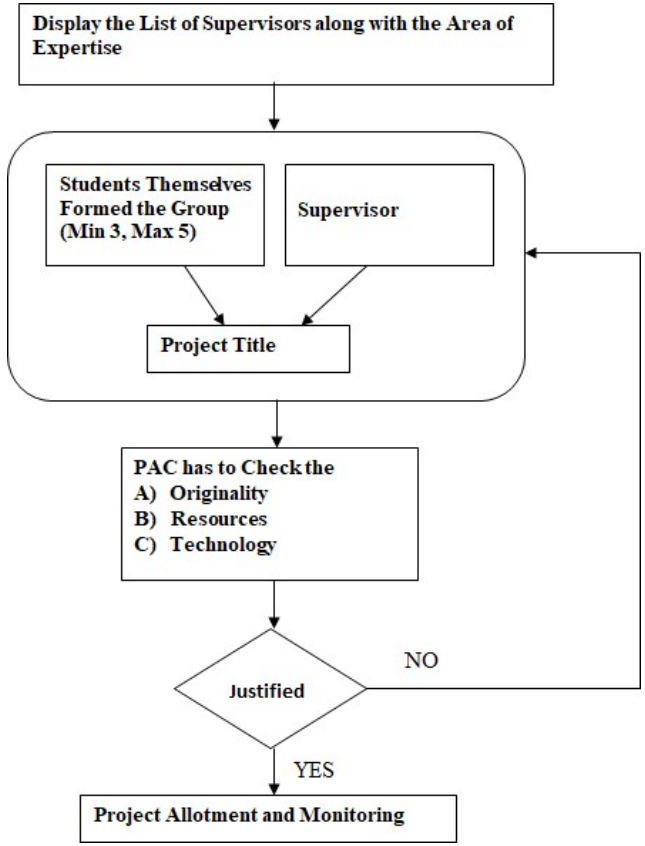


Fig. B.2.2.3a Identification of projects and allocation methodology

B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs

The projects in computer science and engineering are broadly classified into various categories namely artificial intelligence, machine learning and pattern recognition, visual information processing, multimedia and graphics, data mining and big data, computer networks and security, internet of things, web, mobile and standalone applications. The categories of projects in last three years are shown below:

Table B.2.2.3a Types of final year student's projects in last three years

Broad Category of project	No. of Projects in Each Category		
	2016-17	2017-18	2018-19
Artificial Intelligence, Machine learning and Pattern Recognition	8	6	6
Visual Information Processing, Multimedia and Graphics	4	6	7
Internet of Things	1	3	7
Data Mining and Big Data	2	4	4
Computer Networks and Security	4	1	3

Web, Mobile and Standalone Applications	18	16	8
Total No. Projects	37	36	35

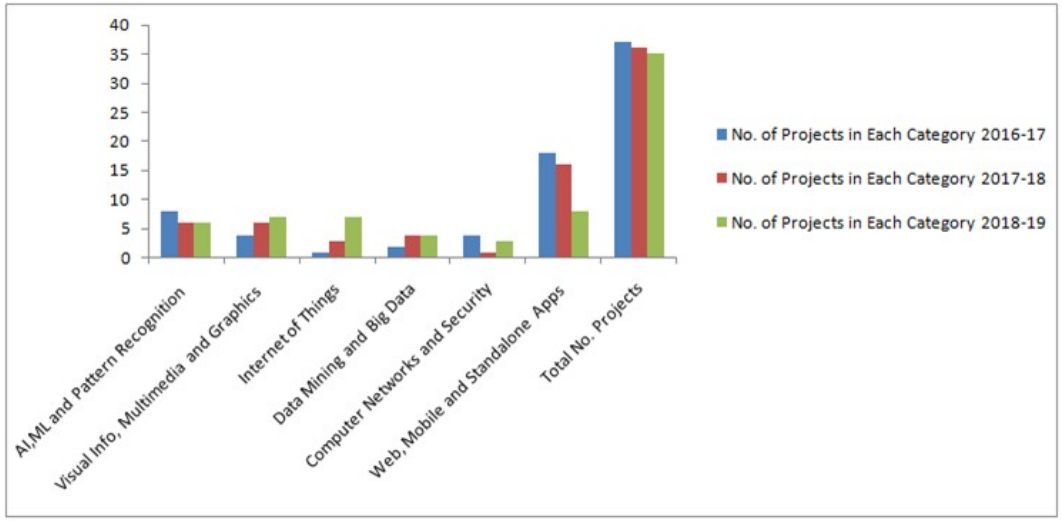


Fig. B.2.2.3b Types of final year student's projects in last three years

To ensure the relevance of projects, the need for the development of the project in the current technological context should be verified by the team consisting of project guide and project assessment committee members and also the projects are mapped to PO's and PSO's.

Course Objectives:

1. To provide an opportunity for applying the knowledge gained at the time of study.
2. The students are expected to develop higher order skills, where in they analyze, evaluate and create.
3. To prepare students to solve/implement/upgrade the issues of the safety/ public health/ environmental/societal by application of computer science concepts or principles.

Course Outcomes:

1. **Select/Identify** suitable project work for which industry/community is waiting for solution. This will help the students in securing employment or starting their own enterprises.
2. **Divide entire project** into sub tasks, to be carried out for completing the project and allocating the responsibilities towards its completion. The group may also select a team leader and everybody in the group should work under the direction of the team leader.
3. **Prepare** the software requirement specification (SRS) of the project that describes the analysis and design of the project based on the requirements.
4. **Measure/test** the performance of the undergoing project in different conditions with the help of different parameters.
5. **Prepare** a report/poster/presentation/research paper about the project work undertaken by the student groups.

Program Specific Outcomes (PSOs):

PSO1: Comprehend the core subjects of CSE and apply them to resolve domain specific tribulations.

PSO2: Extrapolate the fundamental concepts in engineering and to apply latest technology with programming language skills to develop, test, implement and maintain software products.

Table B.2.2.3b Mapping of CO with PO and PSO

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	-	-	-	2	2	2	3	-	2	3	3	3

CO2	2	2	-	-	-	1	-	-	3	2	2	2	3	3
CO3	2	2	3	2	1	2	2	2	3	2	3	2	3	3
CO4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Procedure of CO Attainment

1. All the performace indiacator parameters/ Rubrics are mapped with course outcome.
2. Percentage of marks in each CO for every student is calculated.
3. Percentage of student securing more than a threshold percentage (increase every year for continious improvement of performance) in internal and external evaluation is calculated which shown a certain level of CO achievment.

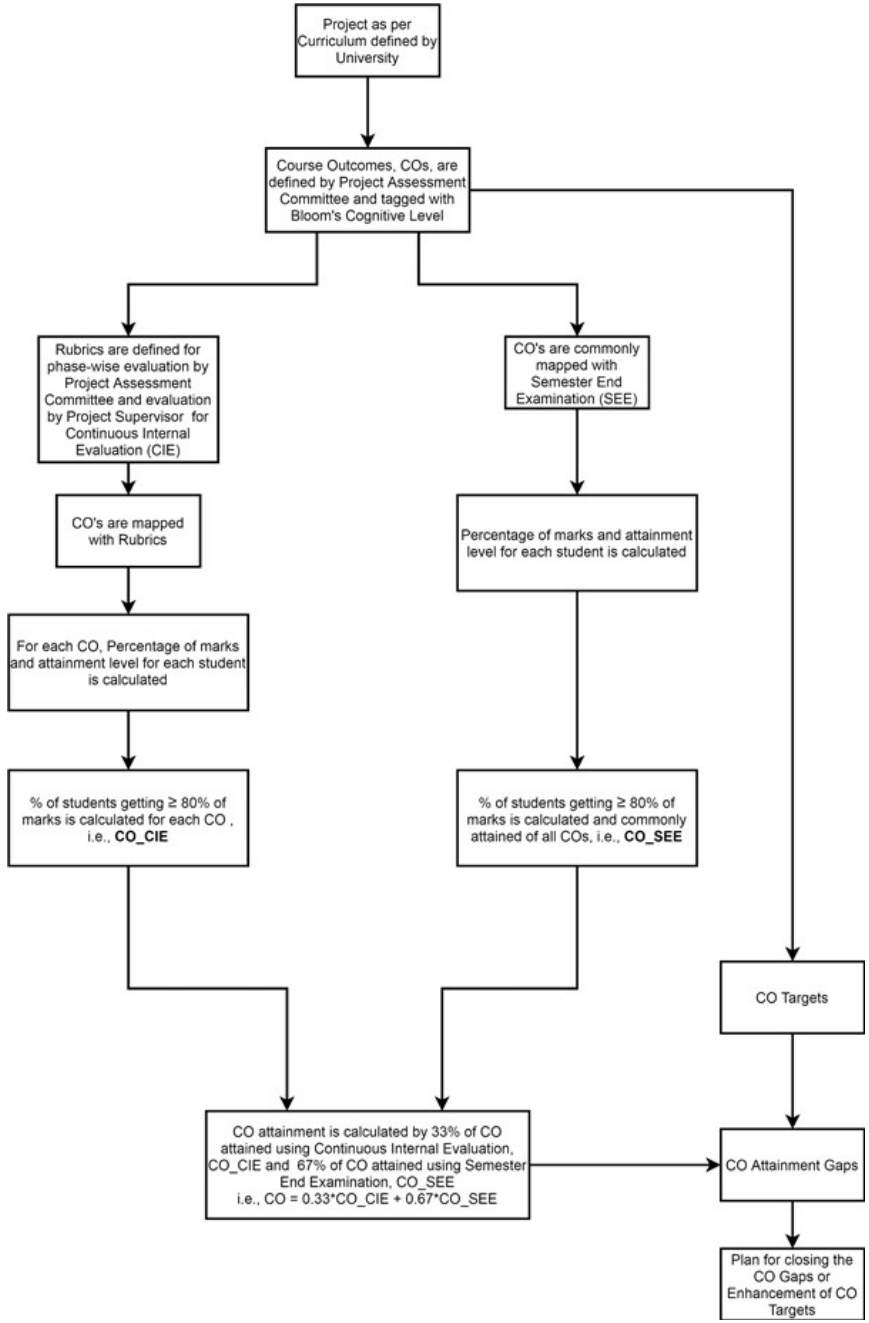


Fig. B.2.2.3c Procedure of CO attainment

Table B.2.2.3c Mapping of projects (PR1-PR35) – 2018-19 with PO and PSO

Group No.	Project Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO2
PR1	Image Reincarnation	Y	Y	Y	Y	Y				Y	Y	Y	Y	Y	Y
PR2	Digital Fuel Analyzer	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR3	Identification and Classification of object in Images	Y	Y	Y	Y	Y				Y	Y	Y	Y	Y	Y
PR4	LUCAN Depistage (An Algorithm that detects lung cancer)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR5	Road Accident Analysis	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
PR6	Symbolic Linguistic Translator	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR7	An Application that convert any signboard into English	Y	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y
PR8	Heart Disease Detection	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR9	Road Safety	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR10	Agriculture Crop Yield Prediction	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR11	Demand forecasting for production of Food items	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR12	Application to Estimate Road Conditions using Accelerometer & Gyro meter	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
PR13	Securing Computer Folders with Rijndael Security Extension and Bluetooth Enabled Mobile Phone	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
PR14	Development of an Android Application for Recognizing Handwritten Text on Mobile Devices	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
PR15	Computer Aided Diagnosis System for Segmentation of Brain Tumor	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR16	Student Alumni Portal	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
PR17	Real Time Object Detection and Text Extraction	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
PR18	Technology Trend analysis of Stack Overflow using Hadoop	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
PR19	Stock Market Analysis	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
PR20	The Lightning Man Alive: 3D Game	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
PR21	ATLAS AID	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
PR22	Smart irrigation system	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR23	Smart Mirror	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
PR24	Phishing Detection using ML	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y

PR25	Diabetic Retinopathy detection from Retinal images	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
PR26	Steganography in Audio and Video	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
PR27	Texture Recognition using Image Processing	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
PR28	Optical Abider	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR29	Smart City Water System	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR30	Dexterous Uncovering & Synergy in Mixed Service Oriented System	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR31	Smart irrigation system Android Application with IOT device using NODEEMCU	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
PR32	Smart cane for Blinds	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
PR33	Diagnosis of Malignant Pulmonary Tumors	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
PR34	Following Luggage	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
PR35	Smart Trolley	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y

Table B.2.2.3d Mapping of projects (B1-B15, C1-C13, D1-D8) – 2017-18 with PO and PSO

Group No.	Project Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO2
B1	Making Airport Noise Free	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y
B2	System to Detect Suspicious Activity through expression	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B3	YouTube Monetization	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
B4	Toll Naka System	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B5	App to Connect Farmer to Retailer	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B6	Reporting Infrastructure related complaints in college & School	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
B7	UP state Tourister	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
B8	Suraksha 24/7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B9	Cleanareo and Jameo- A Beginning of New Era !	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B10	Wild Life App	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
B11	AnyBody Can Do Database Management	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
B12	Traductuer	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
B13	HandSpeak	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y

B14	SAHARA - Campus Mapped	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
B15	Visual Cryptography & Secret Image Sharing	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
C1	Conveyer APP	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
C2	Skill India APP	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
C3	Clean City with Smart Dustbin	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C4	Exprto- Expert Discovery and Interaction in Mixed service oriented system	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
C5	Pvaner (Personal Voice Assistant for News Entertainment and Reminder)	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
C6	IOT based Digital Door Locking System	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
C7	Smart city Travel Tour Guide	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
C8	1st person shooting Game	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
C9	Advance Anti-Theft with smart suspect recognition system	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
C10	A visual cryptography based robust digital watermarking	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
C11	Automatic Smart Parking System	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C12	Robot Navigation	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
C13	Advance Home Automation Using Bluemix	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
D1	Web Interfaced Data Collection App for AGRI-Parameters	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
D2	App for Ministry of AYUSH	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
D3	Implementation and Analysis of visual cryptographic techniques	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
D4	Adaptive Artificial BEE Colony Algorithm for solving the capacitated vehicle routing Problem	Y	Y	Y	Y	Y			Y	Y	Y	Y	Y	Y	Y
D5	Save a Life	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
D6	Utility Bazaar	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
D7	Online Doctor Appointment	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y
D8	Smart Agent Helpline App	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y

Table B.2.2.3e Mapping of projects (B1-B16 , C1-C15 and D1-D6) – 2016-17 with PO and PSO

Group No.	Project Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO2
B1	Real Time Sentimental Analysis of Twitter Data using Hadoop Framework	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B2	MIT Sharebook	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B3	Voice Assistant Intelligent Bot	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B4	e-Healthcare	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B5	e-Governance	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B6	Hospital Management System	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B7	MIT Alumni Management System	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B8	An Edge Detection Approach for Enhanced Human Skin Detection	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
B9	Drug Abuse analysis using Hadoop Technology	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B10	Robust Face Name Graph Matching Identification for movie character	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
B11	Home Automation System	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y
B12	Vote at Home	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B13	Locale Reminder and Journey Planner	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y
B14	Patrolling -Bot	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y
B15	Dynamically Intelligent Speech Handset Assistant	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
B16	Virtual Train Control System	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
C1	Intelligent Examination System	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C2	Advance File Organizer	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
C3	Hindi Speech Recognition using ANN	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C4	Smart Time Table Scheduler	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
C5	Online collaboration System	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C6	Reduction of Password Guessing Attacks using Point Clicks	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C7	Merchants of Monochrome	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y

C8	INFORMICA	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C9	MIT Student Attendance Planner	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y
C10	MYSTIFIER	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y
C11	Athlete Monitoring System	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y
C12	Augmented Real E-Commerce	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y
C13	Robust Correlation of Encrypted Attack Traffic through Stepping Stones	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C14	Gait Based Authentication System	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
C15	Smart Puzzle	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y
D1	Location Tracking System	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
D2	LAN Based CHESS	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y		Y	Y
D3	Instrument - O - Gram	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	Y
D4	Content Based Video Authentication	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y
D5	Robo Cleaner	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
D6	Law and Order Automation	Y	Y	Y		Y	Y	Y	Y		Y	Y	Y	Y	Y

C. Process for monitoring and evaluation

The process for monitoring and evaluation of the projects is shown in Fig. B.2.2.3d

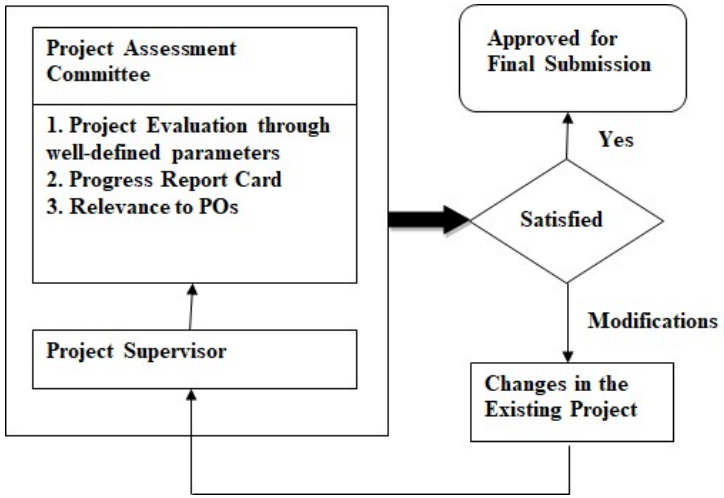


Fig. B.2.2.3d Process for monitoring & evaluation of projects

Steps to monitor the final year project work by Project Assessment Committee:

1. The project work is spanned over one year as per university evaluation scheme. Progress is continuously monitored by supervisor and project assessment committee. The supervisor monitors the progress of the

project and maintains the record of progress.

2. The internal marks are awarded on the basis of continuous evaluation presentation for assessment and supervisor of the Project.

3. At the end of even semester, the project report is submitted by the students' group. Final evaluation of individual and team performance is based on the presentation, report submitted, and model/prototype developed and external viva-voce in the presence of external examiner.

Phases of evaluation (semester 7th)

Evaluation by project assessment committee

Phase-1

S. No.	Performance Indicator/Rubric	Internal Marks	Matched CO
1	Title & Feasibility	5	CO1
2	Abstract & Depth of Knowledge	10	CO1
3	Presentation as team and as an Individual	5	CO5
4	Questions and Answer	10	CO5

Phase -2

S. No	Performance Indicator/Rubric	Internal Marks	Matched CO
1	Design, Analysis and Work Distribution among Team Members	10	CO2,CO3
2	Implementation strategy	10	CO3
3	Presentation as team and as an Individual	5	CO5
4	Questions and Answer	5	CO5

Evaluation by the supervisor

S.No.	Performance Indicator/Rubric	Internal Marks	Matched CO
1	Assessed Project Progress upto satisfaction level	10	CO4
2	Individual Contribution	10	CO2
3	Sincerity towards Work as Team	10	CO2
4	Questions and Answer	10	CO5

Rubrics used for evaluation

Rubrics	No.	Rubrics	No.	Rubrics	No.
Title & Feasibility	R1	Abstract & Depth of Knowledge	R2	Presentation as team and as an Individual	R3

Questions and Answer	R4	Design, Analysis and Work Distribution among Team Members	R5	Implementation strategy	R6
Assessed Project Progress upto satisfaction level	R7	Individual Contribution	R8	Sincerity towards Work as Team	R9

Marks awarded as per the level of achievement on different rubrics **Note:** Marks are given on a scale of 10.				
Rubrics for phase-wise evaluation by project assessment committee				
Rubric	**Excellent (9-10)**	**Good (7-8)**	**Average (5-6)**	**Unacceptable and Need updates (3-4)**
Title & Feasibility	Detailed and extensive explanation of the purpose and need of the project. Complete study of the limitations of the existing systems.	Collects a great deal of information and good study about the existing systems.	Moderate study of the existing systems.	Minimal explanation of the specification and the limitations of the existing systems.
Abstract & Depth of Knowledge	All objectives of the proposed work are well defined; Steps to be followed to solve the defined problem are clearly specified.	Collects a great deal of information and good study of the existing systems; Good justification to the objectives; Methodology to be followed is specified but detailing is not done.	Incomplete justification to the objectives proposed; Steps are mentioned but unclear; without justification to objectives.	Only Some objectives of the proposed work are well defined; Steps to be followed to solve the defined problem are not clearly mentioned.
Presentation as team and as an Individual	Contents of presentations are appropriate and well arranged Proper eye contact with audience and clear voice with good spoken language.	Contents of presentations are appropriate but not well arranged. Satisfactory demonstration, clear voice with good spoken language but eye contact not proper.	Contents of presentations are appropriate but not well arranged. Eye contact with few people and unclear voice.	Contents of presentations are not well organized. Eye contact not proper and unclear voice.
Questions and Answer	Exact justification of any query arise by the PAC Proper eye contact with great confidence and clear voice with good answers.	Good justification of any query arise by the PAC with confidence and clear voice.	Some questions are answered clearly.	Need more study as most of the queries are not deal properly.

Design, Analysis and Work Distribution among Team Members	Division of problem into modules and good selection of computing framework, appropriate design methodology with properly justification. Modules are divided among the team members appropriately.	Division of problem into modules but design methodology not properly justified. Modules are divided among the team members to work in parallel.	Partial division of problem into modules and inappropriate selection of computing framework. Design methodology not defined properly	Modular approach not adopted, design methodology not defined. Uneven distribution of project work and no synchronization between modules.
Implementation strategy	Distribution of modules among the team members with specified deadlines followed completely.	Distribution of modules among the team members with specified deadlines followed partly.	Some team members are overburden due to improper distribution of modules with specified deadlines followed partly.	Improper distribution of modules among the team members with no specified deadlines.
Rubrics for evaluation by the supervisor				
Assessed Project Progress upto satisfaction level	Complete explanation and partial implementation of some modules and strong description of the technical requirements for rest of the modules of the project.	Complete explanation and partial implementation of some modules but in-sufficient description of the technical requirements for rest of the modules of the project.	Incomplete explanation and partial implementation of some modules and in-sufficient description of the technical requirements for rest of the modules of the project.	Inappropriate explanation of the key concepts and no module is implemented and poor description of the modules.
Individual Contribution	Extensive knowledge, awareness and participated in the development of every module of the project.	Satisfactory participation, awareness and participated in the development of every module of the project.	Knowledge and awareness of only allocated module of the project.	Lacks sufficient knowledge and Awareness of allocated module of the project.
Sincerity towards Work as Team	Discuss every module during the development and help others team members of the project.	Discuss modules with the team members and partial knowledge of each module in the project.	Only some team members have complete knowledge of every module of the project.	Team members have poor coordination and every member know only the module allocated to him.

Phases of evaluation (semester 8th)
Evaluation by project assessment committee

Phase-3

S. No	Performance Indicator/Rubric	Internal Marks	Matched CO
1	Refine the Requirements to Incorporate Suggestions	5	CO3
2	Objectives Meet/ Results as per the Expected time plan	5	CO4

3	Presentation as team and as an Individual	5	CO5
4	Questions and Answer	5	CO5

Phase-4

S. No	Performance Indicator/Rubric	Internal Marks	Matched CO
1	Final Report	10	CO5
2	Final Demonstration	10	CO4
3	Presentation as team and as an Individual	10	CO5
4	Questions and Answer	5	CO5
5.	Research Paper Writing Based on Project	5	CO5

Evaluation by the supervisor

S.No.	Performance Indicator/Rubric	Internal Marks	Matched CO
1	Assessed Project Progress	10	CO4
2	Development of Prototype/ Model upto satisfaction level	10	CO5
3	Individual Contribution	10	CO2
4	Sincerity towards Work as Team	5	CO2
5	Project Report/Demo Preparation as per Guidelines	5	CO5

Rubrics used for evaluation

Rubrics	No.	Rubrics	No.	Rubrics	No.
Refine the Requirements to Incorporate Suggestions	R1	Objectives Meet/ Results as per the Expected time plan	R2	Presentation as team and as an Individual	R3
Questions and Answer	R4	Final Report	R5	Final Demonstration	R6
Research Paper Writing Based on Project	R7	Assessed Project Progress	R8	Development of Prototype/ Model upto satisfaction level	R9
Individual Contribution	R10	Sincerity towards Work as Team	R11	Project Report/Demo Preparation as per guidelines	

Marks awarded as per the level of achievement on different rubrics

Note: Marks are given on a scale of 10.

Rubrics for phase-wise evaluation by project assessment committee				
Rubric	**Excellent (9-10)**	**Good (7-8)**	**Average (5-6)**	**Unacceptable and Need updates (3-4)**
Refine the Requirements to Incorporate Suggestions	Changes are made as per modifications suggested by PAC given during the previous evaluation of project progress and new innovations added with proper justification.	Changes are made as per modifications suggested by PAC given during the previous evaluation of project progress with few new innovations added.	All major changes are made as per modifications suggested by PAC.	Suggestions given by PAC are not incorporated completely.
Objectives Meet/ Results as per the Expected time plan	All defined objectives are achieved with in the specified time frame.	All defined objectives are partially achieved, time frame being followed partly.	Only some of the defined objectives are achieved with in defined time frame.	Only some objectives are partially achieved in the specified time frame.
Presentation as team and as an Individual	Contents of presentations are appropriate and well arranged. Proper eye contact with audience and clear voice with good spoken language.	Contents of presentations are appropriate but not well arranged Clear voice with good spoken language but eye contact not proper.	Contents of presentations are appropriate but not well Arranged Eye contact with few people and unclear Voice.	Contents of presentations are not well organized. Eye contact not proper and unclear voice.
Questions and Answer	Exact justification of any query arises by the PAC Proper eye contact with great confidence and clear voice with good answers.	Good justification of any query arises by the PAC with confidence and clear voice.	Some questions are answered clearly.	Need more study as most of the queries are not deal properly.
Final Report	Project report is according to the specified format. References and citations are appropriate.	Project report is according to the specified format, but not well prepared, references are missing.	Project report is according to the specified format but some mistakes. In-sufficient references and citations.	Project report not prepared according to the specified format. References and citations are not appropriate.
Final Demonstration	All defined objectives are achieved. Each module working well and properly demonstrated. All modules of project are well integrated and system working is accurate.	All defined objectives are achieved system working is not very satisfactory. Each module working well and properly demonstrated. Integration of all modules not done.	All defined objectives are achieved. Modules are working well in isolation and properly demonstrated. Modules of project are not properly integrated.	Only some of the defined objectives are achieved. Modules are not in proper working form that further leads to failure of integrated system.

Research Paper Writing Based on Project	A research paper based on the project report is prepared according to the specified format. References and citations are appropriate .	A research paper based on the project report is prepared according to the specified format. Structure of some sections and references are inappropriate .	A unstructured research paper based on the project report is prepared. References are also inappropriate .	An unstructured research paper based on the project report is prepared. Data included in different sections are completely unsatisfactory.
Rubrics for evaluation by the supervisor				
Assessed Project Progress	Complete explanation and partial implementation of some modules and strong description of the technical requirements for rest of the modules of the project.	Complete explanation and partial implementation of some modules but in-sufficient description of the technical requirements for rest of the modules of the project.	Incomplete explanation and partial implementation of some modules and in-sufficient description of the technical requirements for rest of the modules of the project.	Inappropriate explanation of the key concepts and no module is implemented and poor description of the modules.
Development of Prototype/ Model upto satisfaction level	Project work is well summarized and a prototype/model is developed. Excellent results are presented through the developed prototype/model.	Project work is well summarized and a prototype/model is developed. Satisfactory results are presented through the developed prototype/model.	Project work is well summarized and a prototype/model is partially developed. Results presented through the developed prototype/model are not much satisfactory..	A prototype/model is partially developed. Results presented are not satisfactory.
Individual Contribution	Extensive knowledge, awareness and participated in the development of every module of the project.	Satisfactory participation, awareness and participated in the development of every module of the project	Knowledge and awareness of only allocated module of the project.	Lacks sufficient knowledge and Awareness of allocated module of the project.
Sincerity towards Work as Team	Discuss every module during the development and help others team members of the project.	Discuss modules with the team members and partial knowledge of each module in the project.	Only some team members have complete knowledge of every module of the project.	Team members have poor coordination and every member know only the module allocated to him.
Project Report/Demo Preparation as per guidelines	Project report is according to the specified format. All modules of project are well integrated and system working is accurate.	Project report is according to the specified format but some references are missing. Integration of all modules not done.	Project report is according to the specified format with some mistakes. Modules of project are not properly integrated.	Project report not prepared according to the specified format. Modules are not in proper working form that further leads to failure of integrated system.

D. Process to assess individual and team performance

Evaluation of individual and team performance is based on the presentation, contribution in development of working model, coordination among the team members and viva-voce in front of PAC and project guide. The process to assess individual and team performance is shown in Fig. 2.2.3e

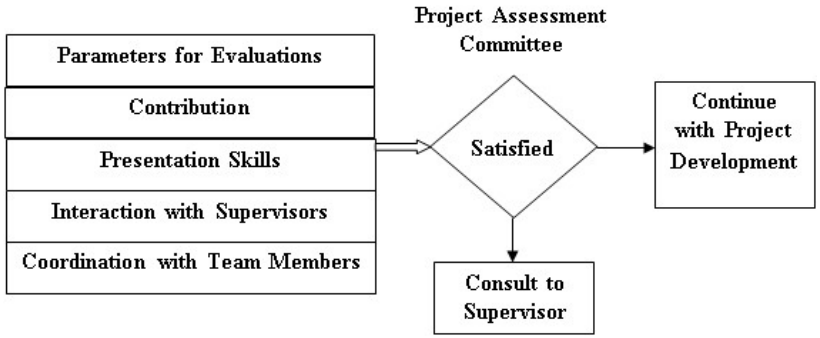


Fig B.2.2.3e Process to access individual and team performance

E. Quality of completed projects/working prototypes

A committee consisting of Head of the Department, Faculty members and Project assessment committee are responsible to arrange a Project Exhibition and select the best project each year based on the following parameters.

S. No	Performance Indicator	Marks
1	Problem Statement and Impact to Society	(10)
2	Design Aspects / Tool or Technology	(10)
3	% of Objective Meet	(10)
4	Questions and Answer	(10)

Best three projects 2018-19			
Group No.	**Students Name**	**Supervisor Name**	**Name of Project**
PR22	Nikhil Gold Shikhar Gupta Rajat Sharma Manish Kumar Singh	Mr. Puneet Kumar	Smart Agriculture System based on the concept of IOT
PR35	Shubham Jain Somya Gupta Taiyyab Hussain Siddhartha Gautam	Mr. Zubair Iqbal	Smart Trolley
PR25	Muskan Johri Shanvi Sharma Mansi Bhatnagar Mohd Abaan Khan	Mr. Puneet Rai	Diabetic Retinopathy detection from Retinal images

Best three projects 2017-18			
Group No.	**Students Name**	**Supervisor Name**	**Name of Project**
C9	Prakash Ahuja Pranjay Gupta Ritik Rana Sanchit Varshney Shivam Saxena	Mr. Shivanshu Rastogi	Advanced Antitheft with Smart Suspect recognition System
C13	Robin Singh Sarthak Goyal Shobhit Bhatnagar Shubham Sethi Mohd. Asif	Ms. Kanchan	Advanced Home Automation using Bluemix
C5	Neha Chauhan Princy Goel Sambhav Goel Samia Shamreen Siddhima Mehrotra	Mr. Vikas Bhatnagar	Personal Voice Assistant for News Entertainments and Reminders

Best three projects 2016-17			
Group No.	**Students Name**	**Supervisor Name**	**Name of Project**
B15	Kulveer Singh Praful Sharma Abhishek Choudhary Mayank Dhankar	Mr. Puneet Kumar	Dynamically Intelligent Speech Handset Assistant
B3	Anmol Ayush Saxena Anmol Nijhawan Arpan Arora	Mr. Manoj Kumar Singh	Voice Assistant Intelligent Bot
B9	Anshika Gupta Aayushi Deep Anshika Deval Anurag Vats	Mr. Mohd. Ilyas	Drug Abuse Analysis using Hadoop Technology

F. Evidences of Papers Published / Presented /Awards Received by Projects:

(2018-19)

Award / Grant

1. Project “Automated detection of diabetic retinopathy and its diagnosis” received a financial grant of Rs 10,000.00 /- from CST UP ENGINEERING STUDENTS PROJECT GRANT SCHEME 2018-19.

Conference

1. Isha Madan, Disha Sharma, Ashar Ali , Lal Pratap Verma, Vikas Kumar,” Demand Forecasting for Food Items”, National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
2. Prachi Gupta, Aishwarya Gupta, Akash Dubey, Abhimanyu Thakur, Hemant Kaushik,” Digital Fuel Analyzer”, National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
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10. Sonali Verma,Vidhi Agarwal,Vidushi Tandon, Anam Noori ,Prabal Bhatnagar.” Adaptive Artificial Bee Colony Algorithm for solving the Capacitated Vehicle Routing Problem-A Survey”, TSNSI-2017, MIT Moradabad, September 2017.
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16. Shiwani Agarwal, Harshit Goel , Dharmendra Singh , Ashutosh , Arpan Singh “AnyBody Can do Database Management(ABCDM) ”, TSNSI, 24-25 Sep, 2017.
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18. Jeetesh Rathore, Ms. Priyanka Goel, Aanchal Verma, Aditi Tandon, Deepika Mathur,” Video Surveillance through Facial Expression and Eye Movements : A Review” TSNSI-2017, MIT Moradabad, September 2017.
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20. Zubair Iqbal, Deepa Chaudhary, Kanika Jain, Garima Agarwal, Goura Jain,” Voice Based Campus Navigation System”, TSNSI-2017, MIT Moradabad, September 2017.
21. Samia Sharmeen , Siddhima Mehrotra, Neha Chauhan, Princy Goel, Sambhav Goel, “PVANER: Personal Voice Assistant for News Entertainment and Reminder”, TSNSI-2017, MIT Moradabad, September 2017.

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2.2.4 Initiative related to industry interaction (15) Institute Marks : 15.00

A. **Industry Supported Laboratories**

The industry supported laboratories develop best learning process using a comprehensive understanding of industry's best practices for both students and faculty members.

Table B.2.2.4a: Industry supported laboratories

S.No.	Industry- attached laboratories	Name of the company/organization	Objective	Outcomes/Relevance to PO/PSOs
1.	Robotics Lab (e-Yantra)	e-Yantra Lab Set-up Initiative (eLSI), IIT Bombay	It is a college level program under which different colleges are encouraged to setup robotics labs. It is designed as a scalable and sustainable approach that addresses infrastructure creation and teacher training – to create an eco-system at the colleges to impart effective engineering education. The aim of robotics lab is to train students and faculty members in different areas of robotics such that embedded C programming, control the Firebird V robots such as I/O buzzer, LCD interfacing, motor interfacing etc.	**Relevance to POs:** PO1, PO3, PO5, PO9, PO11, PO12 **PSOs:** PSO1,PSO2 **Outcomes:** 1. A team of 04 faculty members won TBT-2019 (Task based Train challenge organized by IIT Mumbai in 2019. 2. Two teams of CSE students cleared round 1 of Robotics Studen organized by IIT Mumbai in 2019.
2.	IoT Lab	Innovians Technologies Pvt. Ltd.	The aim of IoT lab is to involve faculty members and students on various projects related to IoT which gives a sound knowledge in the field of Internet of Things. This lab also trains the students in Traditional fields of - (i) Embedded systems, (ii) Wireless sensor networks, (iii) Control systems, (iv) Automation	**Relevance to POs:** PO1, PO3, PO4, PO5, PO9, PO11, PO12 **PSOs:** PSO1,PSO2 **Outcomes:** 06 faculty members and 42 students had been trained and receive certificate. 16 final year projects developed by students in IoT.
3.	Microsoft Imagine Academy	Microsoft India Pvt. Ltd.	To teach students about IT skills which they required for careers in today's technology-centered job market. Areas of training include Computer Science, Data Science, Productivity, IT Infrastructure tools and software. It also provides the professional development resources to the institute which can be used in the classroom teaching. Students will be benefitted by preparing for Microsoft certification. Microsoft Certifications validate a broad set of skills on the latest Microsoft technologies.	**Relevance to POs:** PO1, PO3, PO4, PO5, PO11, PO12 **PSOs:** PSO1,PSO2

The institute has also signed MoU/Tie-ups with the industries to train our students and faculty members. The details of such MoU/Tie-ups are given below:

Name of the organization	Year of signing MoU	Duration	List of activities
De Facto Infotech Pvt. Ltd.	2018	2 year	Job assistance provided to the students.
Cyber Defence Intelligence Consulting (CDI)	2018	2 year	Delivered Expert lecture/Keynote speech

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

The institute has signed MoU with Innovians Technologies Pvt. Ltd. This industry involves in designing the course for a program, depute the trainers to train faculty members and students of our institution. The curriculum of industrial training (RCS-753) in Internet of things is as follows:

Industrial Training (RCS 753): INTERNET OF THINGS (IoT)

Detailed Syllabus

Semester: 7 **L T P**

Credits: 2 **0 0 3**

Marks: 100

Course Outcomes: At the end of the course, the students will be able to:

CO1	Understand and implement building blocks of Internet of Things.
CO2	Implement Arduino based programs for running applications on board.
CO3	Analyze and evaluate the data received through sensors in IoT.
CO4	Implement a mobile controlled robot car through IoT.

Course Contents:

S.No	Topics	Course Outcomes
1.	Introduction about Internets of Things (IoT) and study sensors, digital Sensors, actuators, wireless Sensors networks.	CO1
2.	Study and install IDE of Arduino and different types of Arduino.	CO2
3.	Write program using Arduino IDE for blink LED.	CO2
4.	Write program for RGB LED using Arduino.	CO2
5.	Study the temperature sensor and write program for monitor temperature using Arduino.	CO2
6.	Study and implement RFID, NFC using Arduino.	CO3
7.	Study and implement MQTT protocol using Arduino.	CO3
8	Study and configure Raspberry Pi.	CO4
9	WAP for LED blink using Raspberry Pi.	CO4

Text Books:

1. AdrianMcEwen, “Designing the Internet of Things”, Wiley Publishers, 2013, ISBN: 978-1-118-43062-0
2. 2. Daniel Kellmereit, “The Silent Intelligence: The Internet of Things”. 2013, ISBN 0989973700

Mapping of Course Outcome to Program Outcome:

Course Code	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
IOT LAB	CO1	3				3				2		
	CO2	3		3	2	3				2		2
	CO3	3			3	3				2		
	CO4	3		3	2	3				3		3

Industrial Training (RCS 753): e-YANTRA ROBOTICS LAB

Detailed Syllabus

Semester: 7 **L T P**

Credits: 2 **0 0 3**

Marks: 100

Course Outcomes: At the end of the course, the students will be able to:

CO1	Understand the basics of Embedded C, digital logics, Atmel Studio 6 and Firebird V ATmega 2560 robot.
CO2	Understand and implement basic programs in Embedded C on Atmel studio 6 using buzzer interfacing and I/O interfacing.
CO3	Implement timers, delay function and analog to digital conversion.
CO4	Implement seven segment display interfacing, stepper motor interfacing and keypad interfacing.

Course Contents:

S.No	Topics	Course Outcomes
1.	Introduction to Embedded C, digital logic, Atmel Studio 6 and Introduction to Firebird V ATmega 2560 robot.	CO1
2.	I/O on ATmega2560 and Buzzer Interfacing.	CO2
3.	Interrupts.	CO3
4.	I/O interfacing on AVR.	CO2
5.	Study the temperature sensor and LCD interfacing for Firebird V robot.	CO3
6.	Introduction to timers and delay generation.	CO3
7.	Analog-to-digital conversion and white line following.	CO3
8	Seven Segment display interfacing.	CO4
9	Stepper motor interfacing.	CO4
10.	Keypad interfacing.	CO4
11.	Temperature sensor interfacing.	CO3

Text Books:

1. Michael barr,"Programming Embedded in C and C++", Shroff Publishers & Distrubuters, 2004, ISBN: 81736607X.
2. Grace,"ATMEL AVR Microcontrollers",Cengage Learning, 2015, ISBN: 9781305509993.

Mapping of Course Outcome to Program Outcome:

Course Code	CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
ROBOTICS LAB	CO1	3				2				2		

	CO2	3		3		3				3		2
	CO3	3		3		3				3		3
	CO4	3		3		3				3		3

C. **Impact analysis of industry-institute interaction and action taken thereof:**

- Suggestions from industry professionals helped the department to improve facilities & provide trainings on new technologies beyond the AKTU curriculum.
- Interaction with professionals helps in grooming students/faculty members.
- Students get inspiration to begin their own start-ups.
- Trainings, expert lectures, workshops, industrial visits help students in overall developments.
- Improve personality and communication skills which help students to develop their employability skills.

Institute is keen to do more MoU/tie-ups with industries in near future and set up more innovative labs in collaboration with technology related other industries.

2.2.5 Initiative related to industry internship/summer training (15)

Institute Marks : 15.00

A. Industrial Visit:

Industrial Visit/Industrial Tour among the engineering students is a vital event as per their curriculum where the students need to visit a company. In reality, as a part of their engineering or professional graduation, students must visit industries in order to get a proper insight into how the real working environment of a company is and the functionality at different levels. With an aim to go beyond academics, these visits are arranged to develop the insights of the students – attaining practical knowledge and their theoretical applications thereof.

Objectives of Industrial Visits:

- An opportunity to get exposure to real workstations, machines, and systems.
- Acquaint students with interesting facts and new technologies.
- Expert briefing about the functioning of machines and systems.
- Increase practical awareness of various industrial sectors.
- Opportunity to have a face to face session with technical or administrative experts of the organization to ask questions and clarify doubts.
- Understand the end-to-end process at all levels.
- Opportunity to understand policies and practices of Industry in terms of production, quality, and service management.

Keeping these objectives at hand, the department organizes excursion tours cum industrial visits which are within the framework of the curriculum. The excursions and industrial visits are for the third year students which are relevant to the stream of study of the program.

Table B.2.2.5a Industrial Visits by students

S. NO	Academic Year	Batch	Name of company visited	Date of visit	No. Of students
1.	**2018-19**	2016-20	Aptron Solutions Pvt Ltd, Noida	15-03-2019	84
2.	**2017-18**	2015-19	Indovision Consultancy Pvt. Ltd, Noida	17-03-2018	103
3.	**2017-18**	2015-19	India Expo Mart, Greater Noida, UP	14-03-2018	96
4.	**2016-17**	2014-18	Aptron Solutions Pvt Ltd, Noida	18-03-2017	76

After each industry visit, the department takes students feedback. Feedback is considered to do further improvement for the same. The format of feedback is shown below in Figure B.2.2.5a

Moradabad Institute of Technology
Department of Computer Science and Engineering
FEEDBACK: INDUSTRY VISIT

Name: _____ **Roll No.:**_____ **Semester:** _____
Date: _____

Name of Industry:

For each of the following questions, please select (✓) your ratings (level of experience). Higher the score better the perception/experience.

S.NO.	Parameters	Poor (1)	Good (2)	Very Good (3)	Excellent (4)
1.	Technical Aspects covered during visit.				
2.	Whether practical aspects were covered during visit?				
3.	Hospitality received during visit.				
4.	Knowledge gained				
5.	Do you suggest this visit should continue for your juniors in coming years?				

Any Suggestions:

.....
.....
.....

Student Signature:

Figure B.2.2.5a Format of student feedback on industrial visit

B. Industrial/Internship/Summer Training of more than two weeks and post training Assessment:

Six weeks industrial training is also included in the curriculum provided by the university for the 3rd year students. Department of computer science and engineering provides guidelines, suggestions, and scope of Industry Internship/Summer Training. The Training and placement cell and department help students to choose industry for summer training.

Initiatives/Implementation of Industrial Training:

1. Proper guidelines, suggestions, and scope of industry internship/summer training are provided to students.
2. Help students to select the industry for summer training.
3. Based on the inputs by students, few industries are identified by the training and placement department of the institute. Proper communication is carried out with the concerned industry. Students are allowed to do summer training in the industry for a maximum duration of 2 months (as per the university norms).
4. Students have to fill and submit the summer training application Form (Figure B.2.2.5b) provided by the training and placement department. It also provides the recommendation letter (Figure B.2.2.5c) and other necessary support to students.
5. The convener of alumni association constantly interacts with alumni working in different industries and requests them to provide necessary guidelines and support for summer training/internship of students.
6. Many students prefer to do some industry-specific training from organizations near their homes. Such students are advised on the kind of training programs they should prefer.
7. Department organizes in-house training program(s) in collaborations with some industry for students willing to do industrial training within campus.
8. In-house training programs are completely designed & monitored at the department level.
9. All the students are required to submit their training reports along with a certificate from the concerned industry.

Moradabad Institute of Technology
Summer Training Application Form
(To be filled by the student)

Name : _____
Branch: _____
Batch: _____

Sex: **M / F** ☐ **University Roll No.** : _____

Agg. % Marks: 1st Sem. _____ 2nd Sem. _____ 3rd Sem. _____
4th Sem. _____ 5th Sem. _____ 6th Sem. _____

Father's Name : _____
Date of Birth : DD_____MM _____YYYY_____
Present Address : _____
_____
Tel No. (with STD Code): _____ Mobile: _____
E-mail ID : _____
Permanent Address : _____
_____
Tel No. (with STD Code): _____ Mobile_____
Summer Training Details: **If Training is confirmed provide details:**

Summer Training Details: - Tick ☑ **Provide date & Period of Training**

Arranged By T&P Dept. : ☐ From (Date):_____To (Date):_____

Arranged by own : ☐ **Name of Company:** _____
Address: _____

Contact No.:_____ **E-mail:** _____
If training is not confirmed, list the companies where applying for training:-
Company's Name : _____
Address (with Trg. I/C. Tel No. etc.): (1)
_____
Company's Name : _____
Address (with Trg. I/C. Tel No. etc.): (2)
_____
Company's Name : _____
Address (with Trg. I/C. Tel No. etc.): (3)
_____
Company's Name : _____
Address (with Trg. I/C. Tel No. etc.): (4)
_____

I undertake that I will follow all the rules and regulation laid down by M.I.T., Moradabad, and the organization providing training.

( )

Date:

Name & Signature of Student

Figure B.2.2.5b Summer training application form

Recommendation Letter for Industrial/Summer Training

To,

Date:

_____
_____
_____

Sub: Industrial Training of our students as a part of their curriculum in your organization during July/August 2018

Dear Sir/Madam

Moradabad Institute of Technology is providing higher technical and engineering education since 1996. The institute is approved by A.I.C.T.E. New Delhi. M.I.T. fulfills National & International Quality norms & Caters to the growing needs of industries and corporate houses. Our Institute offers B.Tech. Degree courses of 4 years duration in the following disciplines:-

- Computer Science & Engineering
- Civil Engineering
- Electronics & Communication Engineering
- Electrical Engineering
- Mechanical Engineering

All the courses conducted by M.I.T. are duly approved by A.I.C.T.E. and U.P. State Government M.I.T. is affiliated to Dr. A.P.J. Abdul Kalam Technical University, Lucknow formerly known as U.P. Technical University, Lucknow.

Our Students are required to undergo industrial training as an integral part of their curriculum. We are forwarding the candidature of **Mr.** _____ student of VI Semester _____ branch, to undergo industrial training in your esteemed organization. We undertake that our student will follow all the rules and regulations laid down by your organization.

It is requested to support our Institute and our students in achieving the necessary educational objectives and oblige. A brief C.V. of the candidate is attached herewith.

With warm regards

(Ritesh Kumar Srivastava)
Head- T, P & C.A.

Figure B.2.2.5c Recommendation letter for industrial/summer training

Post Training Assessment

After the completion of the training, the students are required to give a presentation and submit a report based on their training. In order to find the effectiveness of their training students are evaluated based on the following rubrics:

Knowledge and understanding of core topics of training (10 marks)	Organization of presentation (10 marks)	Presentation Skills (10 marks)	Questions/Answers handled (10 marks)	Training Report (10 marks)

Table B.2.2.5b Industry Internship Details (2018-19)

Sr. No.	Roll No.	Name of Student	Topic /Subject	Name of Industries/Institute
1.	1508210001	Aakash Kumar	Development of Mobile apps on android platform	NIIT MBD
2.	1508210002	Aakriti Gupta	Word Cloud Generator	Aptron New Delhi
3.	1508210003	Aanchal Gupta	Conduent Business Services	Conduent Business Services India Noida
4.	1508210004	Aanchal Saxena	Android	Cetpa Infotech Pvt Ltd, Noida
5.	1508210005	Aastha Agarwal	Audio Compression and Decompression	Info solution Pvt. Ltd. Meerut
6.	1508210007	Abhijeet Raghuvanshi	Bakery Website	Info solution Pvt. Ltd. Meerut
7.	1508210008	Abhimanyu Thakur	Android	Cetpa Infotech Pvt Ltd, Noida
8.	1508210009	Abhishek Sharma	Android	Cetpa Infotech Pvt Ltd, Noida
9.	1508210010	Aditya Kumar	Wiki Picky	CETPA Info solutions pvt. Ltd Noida
10.	1508210011	Aishwarya Gupta	TCIL Android App	Telecommunication Consultants India Limited New Delhi
11.	1508210012	Ajay Kumar	Web Design in DSPL India	Ducadd Solutions Pvt. Ltd. MBD
12.	1508210013	Akarsh Saxena	TCIL Android App	Telecommunication Consultants India Limited New Delhi
13.	1508210014	Akash Dubey	Development of Mobile apps on android platform	NIIT MBD
14.	1508210015	Akshat Rathor	Diesel Locomotive Works	Indian Railway Varanasi
15.	1508210017	Alok Kumar Srivastava	Colour Detection	Ducat, Noida
16.	1508210018	Aman Singh	Ethical Hacking	Aptron New Delhi
17.	1508210019	Aman Singh Pawar	Stock Market Analysis using Linear Regression	Aptron Pvt. Ltd. Delhi
18.	1508210021	Ananya Gupta	Breast Cancer Detection	Aptron New Delhi
19.	1508210023	Ankit Kumar	Android	Cetpa Infotech Pvt Ltd, Noida
20.	1508210024	Ankita Upadhyay	Thug Life Meme Maker	HCL Learning Ltd Noida
21.	1508210026	Anshika Sharma	Android	Cetpa Infotech Pvt Ltd, Noida
22.	1508210027	Anshul Varshney	Android	Cetpa Infotech Pvt Ltd, Noida
23.	1508210028	Arisha Shahid	Encrytion & Decryption Application	NIIT New Delhi

24.	1508210029	Arjun Sharma	Development of Mobile apps on android platform	NIIT MBD
25.	1508210030	Arti Gupta	Development of Mobile apps on android platform	NIIT MBD
26.	1508210031	Ashar Ali	CHATBOT	The Indus Byte Technologies Lucknow
27.	1508210032	Ashutosh Singh	Wiki Fetch	Info solution Pvt. Ltd. Meerut
28.	1508210036	Ayushi Chauhan	Development of Mobile apps on android platform	NIIT MBD
29.	1508210037	Babita	Development of Mobile apps on android platform	NIIT MBD
30.	1508210038	Chirag Dewal	Development of Mobile apps on android platform	NIIT MBD
31.	1508210040	Deepanshu Gupta	Breast Cancer Detection	Aptron New Delhi
32.	1508210042	Dhruv Singhal	Quizaire	MobiBiz Solution India pvt. Ltd. Gurgaon
33.	1508210043	Km Disha Chauhan	Salary Prediction	Ducat Noida
34.	1508210044	Disha Sharma	Encryption and Decryption	HCL learning Ltd. Noida
35.	1508210045	Divya Gupta	DND Application	TCE Infosolutions Pvt. Ltd/ Meerut
36.	1508210046	Divyanshi Agarwal	Car Dodge Game	Nescant Delhi
37.	1508210047	Firoj Khan	ChatBot	RAPS Consultancy Services Private Ltd. Chandigarh
38.	1508210048	Gargi Dhyani	Development of Mobile apps on android platform	NIIT MBD
39.	1508210049	Gauri Agarwal	Iris Flower Species Recognition	Aptron Private Ltd Delhi
40.	1508210050	Gourang Kukreriya	Restaurant Management System	HCL Learning Ltd Noida
41.	1508210051	Harshit Kumar	Android	Cetpa Infotech Pvt Ltd, Noida
42.	1508210052	Harshita Gupta	Review System	HCL Learning Ltd. Noida
43.	1508210053	Hemant Kaushik	Development of Mobile apps on android platform	NIIT MBD
44.	1508210055	Himanshu Yadav S/O Ds	Android	Cetpa Infotech Pvt Ltd, Noida
45.	1508210056	Himanshu Yadav S/O Lky	Student Attendance System	Maverics Technical Pvt. Ltd. Ghaziabad
46.	1508210057	Isha Madan	Text Classification on 20 Newsgroups	HCL Learning Ltd. Noida

47.	1508210058	Janral Pyare Singh	Message Encryption and Decryption	Cetpa Infotech Pvt Ltd, Noida
48.	1508210059	Jyoti Gupta	Diabetes prediction Model	TCE Infosolutions Pvt. Ltd/ Meerut
49.	1508210060	Kirtija Rastogi	Sales Prediction	Ducat Noida
50.	1508210062	Krishna Kumar Singh	Auto Summarize Rule Based	RAPS Consultancy Services Private Ltd. Chandigarh
51.	1508210063	Krishna Shrivastva	Android	Cetpa Infotech Pvt Ltd, Noida
52.	1508210064	Lakshit Rana Agnivanshi	Map Reduce Task In Hadoop	Aptron Private Ltd Delhi
53.	1508210065	Lucky Verma	Netprophet Cyber work Private Limited	NetProphets Cyberworks pvt. Ltd. Noida
54.	1508210066	Manas Agarwal	Prediction of Buying A Car	HCL Learning Ltd. Noida
55.	1508210067	Manish Kumar Singh	Android	Cetpa Infotech Pvt Ltd, Noida
56.	1508210068	Manisha Kumari	Face Emotion Recognition	Ducat Noida
57.	1508210069	Manpreet Singh	Android	RCPL Noida
58.	1508210070	Mansi Bhatnagar	Android	RCPL Noida
59.	1508210071	Manvi Raheja	Android	RCPL Noida
60.	1508210072	Manvi Rastogi	Android	RCPL Noida
61.	1508210074	Mayuri Dubey	MAP Reduce Task In Hadoop	Cetpa Infotech Pvt Ltd, Noida
62.	1508210076	Mohammad Akbar	SAM The Virtual Assistant	Cetpa Infotech Pvt Ltd, Noida
63.	1508210078	Mohammad Salman	Android	Cetpa Infotech Pvt Ltd, Noida
64.	1508210079	Mohd Abaan Khan	Restaurant Management System	Cetpa Infotech Pvt Ltd, Noida
65.	1508210080	Mohd Ahmer	Space Invaders	KVCH Noida
66.	1508210081	Mohd Ahtesham	Railway Enquiry	Cetpa Infotech Pvt Ltd, Noida
67.	1508210082	Mohd Faizan	PUBG Data Analysis Using Hadoop	Cetpa Infotech Pvt Ltd, Noida
68.	1508210085	Mohd Ubaid	Message Converter and App Automation	CETPA Pvt. Ltd Noida
69.	1508210086	Muskan Johri	Android	RCPL Noida
70.	1508210087	Nikhil Gold	DKOP Labs	Infosolution pvt. ltd. Meerut
71.	1508210088	Nikunj Krishan	Data Analysis	BHEL Haridwar
72.	1508210090	Nishit Kumar Jain	Data Analysis With Python	Infosolution pvt. ltd. Meerut
73.	1508210092	Nitish Johri	BSNL	BSNL MBD
74.	1508210093	Pallav Bansal	House Pricing in python	Cetpa Infotech Pvt Ltd, Noida
75.	1508210094	Parth Gahlot	Python	Infosolution pvt. ltd. Meerut

76.	1508210095	Piyush Kumar Saini	Android	RCPL Noida
77.	1508210096	Pourush Sirohi	Data Analysis	HCL Learning Pvt. Ltd. Noida
78.	1508210097	Km Prachi Sisodiya	DND Application	Infosolution pvt. ltd. Meerut
79.	1508210098	Pragya Gupta	Data Analytics of Breast Cancer Data Set	Aptron Solution Pvt. Ltd Delhi
80.	1508210099	Prajjwal Bhardwaj	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
81.	1508210101	Pranjal Gupta	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
82.	1508210102	Pranshi Saxena	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
83.	1508210103	Prashant Shukla	Gallery Project	HathBerry Corp, New Delhi
84.	1508210105	Priya Gupta	Motion Detection	TCE InfoSolutions pvt. Ltd. Meerut
85.	1508210106	Pukar Chauhan	Sudoku	HCL Learning pvt. Ltd. Noida
86.	1508210108	Rajat Rastogi	Notepad in Java	HCL Learning pvt. Ltd. Noida
87.	1508210109	Rajat Saini	Character Recognition	Aptron Solution Pvt. Ltd Delhi
88.	1508210110	Rajat Sharma	Character Recognition	Aptron Solution Pvt. Ltd Delhi
89.	1508210111	Rashi Sharma	Student’s Desk	Cetpa Infotech Pvt Ltd, Noida
90.	1508210112	Rayyan Amanat	TIC TAC TOE	Infosolution pvt. ltd. Meerut
91.	1508210113	Rishabh Agarwal	Restaurant Management System	TCE InfoSolutions pvt. Ltd. Meerut
92.	1508210116	Rohit Kumar	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
93.	1508210118	Sahin Parveen	Call Talker App	TCE InfoSolutions pvt. Ltd. Meerut
94.	1508210119	Saksham Chaudhary	Demonstration of MAP Reduce Tasks In Hadoop	Cetpa Infotech Pvt Ltd, Noida
95.	1508210120	Sakshi Bhalla	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
96.	1508210121	Sakshi Gupta	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
97.	1508210122	Sanjay Saini	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
98.	1508210123	Sarthak Mahajan	Review System App	TCE InfoSolutions pvt. Ltd. Meerut
99.	1508210124	Saumya Gupta	Railway Enquiry	Cetpa Infotech Pvt Ltd, Noida

100.	1508210126	Shanvi Sharma	Face Recognition Using open computer Vision Classifiers	TCE InfoSolutions pvt. Ltd. Meerut
101.	1508210127	Shareshth Sharma	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
102.	1508210128	Shikhar Gupta	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
103.	1508210129	Shivam Saxena	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
104.	1508210131	Shreet Bhatnagar	Android Musical App	TCE InfoSolutions pvt. Ltd. Meerut
105.	1508210132	Shreya Agarwal	Cloud Uploader & Streamer	Infosolution pvt. ltd. Meerut
106.	1508210135	Shubham Jain	Diesel Locomotive Works	Indian Railway Varanasi
107.	1508210136	Shubham Kumar Saini	Android	Ducat Noida
108.	1508210139	Siddhant Kumar	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
109.	1508210140	Siddharth Rastogi	Sniff Out	Infosolution pvt. ltd. Meerut
110.	1508210141	Siddhartha Gautam	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
111.	1508210142	Simran Arora D/O Ka	Prediction of the Buying of ASUS Car	HCL Learning Ltd. Noida
112.	1508210143	Simran Arora D/O Sa	Face Recognition	Infosolution pvt. ltd. Meerut
113.	1508210144	Simran Pasrija	Android	CDAC
114.	1508210145	Snowy Agarwal	JSP Signup & Login Form	CETPA Pvt. Ltd. Noida
115.	1508210146	Somya Gupta	Daily Expenses	HCL Learning Ltd. Noida
116.	1508210147	Sonu	Bachelor of Technology	Ducat Noida
117.	1508210148	Sukriti Agarwal	DLA	DLA Varanasi
118.	1508210149	Sumith Kumar	Sniff out	Infosolution pvt. ltd. Meerut
119.	1508210150	Surbhi Bhatnagar	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
120.	1508210151	Swati	Cloud Storage App	TCE InfoSolutions pvt. Ltd. Meerut
121.	1508210152	Swati Singh	Server Client Chatting in Java	BHEL Haridwar
122.	1508210153	Taiyyab Hussain	House Pricing in python	Cetpa Infotech Pvt Ltd, Noida
123.	1508210154	Tanvi Sharma	Android	CDAC
124.	1508210155	Tanya Gupta	Audio Compression and Decompression	TCE infosolutuoin pvt. Ltd Meerut

125.	1508210157	Tushar Rastogi	Audio Compression and Decompression	TCE Infosolutions pvt. Ltd Meerut
126.	1508210159	Ujjwal Rastogi	Android	CDAC
127.	1508210160	Utkarsha Garg	Twitter data Analysis	Ducat Noida
128.	1508210161	Vikas Sahni	Diesel Locomotive Works	Info solution pvt. ltd. Meerut
129.	1508210163	Yash Verma	Diesel Locomotive Works	Info solution pvt. ltd. Meerut
130.	1508210164	Zain Raza	Diesel Locomotive Works	Info solution pvt. ltd. Meerut
131.	1408210137	Sparsh Saxena	Diesel Locomotive Works	Info solution pvt. ltd. Meerut
132.	1408210108	Rohit Kumar	Online Personal Assistant	TCE Info Solutions pvt. Ltd. Meerut
133.	1408210053	Divya Katyal	Diesel Locomotive Works	Info solution pvt. ltd. Meerut
134.	1508200061	Prachi Singh	Android Apps	TCE Info Solutions pvt. Ltd. Meerut
135.	1608210901	Mohd Murshad	Diesel Locomotive Works	Info solution pvt. ltd. Meerut

Table B.2.2.5c Industry Internship Details (2017-18)

Sr. No.	Roll No.	Name of Student	Topic /Subject	Name of Industries/Institute
1.	1408210001	Aakash Tripathi	Android	TCE Info Solutions Pvt. Ltd. Meerut
2.	1408210002	Aanchal Verma	Big Data & Hadoop	Morling Global Pvt. Ltd.
3.	1408210003	Aashika Kaushik	Twitter Data Fetching	Aptron Solution Pvt. Ltd. Gwalior
4.	1408210004	Aayushi Agarwal	Android	HP Haryana
5.	1408210005	Abhijeet Sejwal	Audio Recorder	HathBerry Corp, New Delhi
6.	1408210006	Abhinandan Srivastava	Android	Hindustan Aeronautics Limited P.O. Korwa dist. Amethi UP
7.	1408210007	Abhishek	Text To Speech	HathBerry Corp, New Delhi
8.	1408210009	Abhishek Kumar	Android	HathBerry Corp, New Delhi
9.	1408210010	Aditi Srivastava	Diesel Locomotive Works	Infosolution pvt. ltd. Meerut
10.	1408210011	Aditi Tandon	Big Data & Hadoop	Morling Global Pvt. Ltd.
11.	1408210012	Afzal Ahmad	Speech to Text	HathBerry Corp, New Delhi
12.	1408210014	Akhil Srivastava	Big Data & Hadoop	Morling Global Pvt. Ltd.
13.	1408210015	Aman Gaur	Big Data & Hadoop	Aptron
14.	1408210016	Aman Raj	Python	KVCH Pvt. Ltd. Noida

15.	1408210017	Amber Saxena	MySQL Meta store Integration With Hive	Aptron
16.	1408210018	Amit Kumar	Blood Bank App	NIIT MBD
17.	1408210019	Amit Maurya	Big Data & Hadoop	Microsoft technology Associate
18.	1408210020	Anamika Sharma	Android	RCPL Noida
19.	1408210021	Anand Yadav	Android	HP Haryana
20.	1408210022	Ananya Bhatnagar	Android	NIIT MBD
21.	1408210023	Anchit Gupta	Blood Bank	TCE InfoSolutions Pvt. Ltd. Meerut
22.	1408210024	Anjali Parmar	Big Data & Hadoop	Aptron
23.	1408210025	Ankit Kumar	Image & Video Recorder	TCE InfoSolutions Pvt. Ltd. Meerut
24.	1408210026	Ankur Varshney	Online Music	HathBerry Corp, New Delhi
25.	1408210027	Anshika Pandey	ASP. Net	HathBerry Corp, New Delhi
26.	1408210028	Anukriti Agarwal	Online Music	Hathberry Corp. New Delhi
27.	1408210029	Anushree Gupta	Android	RCPL Noida
28.	1408210030	Apoorv Mehrotra	Carlet	Wipro
29.	1408210031	Apoorv Sharma	SAP (System application and products	AVADH UNIT SEOHARA District Bijnor
30.	1408210033	Arjun Singh	CHAT Application	Aasthan ISET
31.	1408210034	Arpan Singh	Java	NIIT MBD
32.	1408210035	Arpita Arora	Android	CETPA
33.	1408210036	Ashutosh	CCNA	Network Bulls Delhi
34.	1408210037	Ashwani Kumar	Java Technology	Ducat Noida
35.	1408210038	Aviral Vishnoi	Notepad In Java	HathBerry Corp, New Delhi
36.	1408210039	Avneesh Kaushik	Prospector	TCE InfoSolutions Pvt. Ltd. Meerut
37.	1408210040	Ayush Kr Gupta	JDBC Application for performing CURD operation in Java	MPCEI Saket Colony Sambhal Gate Chandausi
38.	1408210041	Ayush Verma	Blood Bank	Enbake Consulting Pvt Ltd Delhi
39.	1408210042	Ayushi Rastogi	Android	Hindustan Aeronautics Limited P.O. Korwa dist. Amethi UP
40.	1408210043	Bhawna Sharma	.Net Technology	UJVN Ltd. Dehradun

41.	1408210044	Chetan Kumar	MAPS	TCE InfoSolutions Pvt. Ltd. Meerut
42.	1408210045	Deepa Chaudhary	Cam & Video App	HathBerry Corp, New Delhi
43.	1408210046	Deepa Gusain	Sudoku	HathBerry Corp, New Delhi
44.	1408210047	Deepika Mathur	Android	Cetpa Infotech Pvt Ltd, Noida
45.	1408210048	Devangna Rastogi	Android	Cetpa Infotech Pvt Ltd, Noida
46.	1408210049	Dharmendra Singh	Big Data and Hadoop	Aptron
47.	1408210050	Diksha Pushpak	Android	RCPL Noida
48.	1408210054	Ekanshu Balyan	Softphone	BHEL UK
49.	1408210055	Garima Agarwal	Panic Alert App	RCPL Network
50.	1408210056	Goura Jain	Android	RCPL Noida
51.	1408210058	Harshit Goel	Python and Data Science From Pandas	Ruzivo Technology Pvt. Ltd. Delhi
52.	1408210059	Himanshi Gupta	Your Assistant	TCE Info Solutions Pvt. Ltd. Meerut
53.	1408210060	Himanshu Bhatnagar	Time Buddy	TCE Info Solutions Pvt. Ltd. Meerut
54.	1408210061	Ikra	Android	ADORE InfoTech GZB
55.	1408210062	Ishika Pant	Android	Cetpa Infotech Pvt Ltd, Noida
56.	1408210063	Jatin Gandhi	Android	Cetpa Infotech Pvt Ltd, Noida
57.	1408210064	Jeetesh Rathore	Listener n Speaker App	Cetpa Infotech Pvt Ltd, Noida
58.	1408210065	Kanika Jain	Diesel Locomotive Works	Info solution pvt. ltd. Meerut
59.	1408210066	Kirti Raizada	Android	Cetpa Infotech Pvt Ltd, Noida
60.	1408210069	Mahima Singh	Android	RCPL NOIDA
61.	1408210070	Manant Bansal	Android	Cetpa Infotech Pvt Ltd, Noida
62.	1408210071	Manisha Bharti	Android	RCPL Noida
63.	1408210072	Megha Singh	PHP	KVCH
64.	1408210073	Mohammad Arshad Khan	Employee Record management System	TAVA API PVT. LTD. Bijnor Road Gajraula
65.	1408210074	Mohammad Asif	Android	TCE Info Solutions Pvt. Ltd.
66.	1408210075	Mohd Maroof	Text To Speech	TCE Info Solutions Pvt. Ltd.
67.	1408210076	Mohd Shahwaz	Text To Speech	TCE Info Solutions Pvt. Ltd.
68.	1408210077	Mohd Talib	Time Buddy	TCE Info Solutions Pvt. Ltd.
69.	1408210079	Mudrika Sharma	Online Pizza Delivery	NIIT MBD

70.	1408210080	Nandita Agarwal	Android	RCPL Noida
71.	1408210081	Neha Chauhan	Android	RCPL Noida
72.	1408210082	Neha Chauhan	Android	RCPL Noida
73.	1408210083	Nidhi Sharma	Android	RCPL Noida
74.	1408210085	Nimish Garg	Speech to Text	Hathberry Corp, New Delhi
75.	1408210086	Nishi	TODO	Hathberry Corp, New Delhi
76.	1408210087	Nishtha Mishra	Cloud Computing	RCPL Noida
77.	1408210088	Nitin Kumar	Online Attendance Management System	BHEL Haridwar
78.	1408210089	Nitin Kumar Saini	Time Buddy	TCE Info solutions Meerut
79.	1408210090	Ojasvini Bhatnagar	Development of Mobile apps on android platform	NIIT MBD
80.	1408210091	Parth Mehrotra	Time Buddy	TCE Info solutions Meerut
81.	1408210093	Prakash Ahuja	Data Analytics with R and SAS	HP Haryana
82.	1408210094	Prakhar Gupta	Online Attendance System	BHEL Ltd. Haridwar
83.	1408210095	Pranjay Gupta	R Programming	RCPL Noida
84.	1408210096	Princy Goel	Android	Cetpa Infotech Pvt Ltd, Noida
85.	1408210097	Priyanka Shishodia	Android	HP Haryana
86.	1408210098	Priyanshi Chauhan	Android	NIIT Moradabad
87.	1408210100	Rajat Dubey	Android	RCPL Noida
88.	1408210101	Rajendar	Android	Aptron
89.	1408210102	Reetu Saini	Android (Expense Manager app)	Aptron
90.	1408210103	Richa Gupta	Android (Expense Manager App	RCPL F39 sector 6 Uday Nagar Noida
91.	1408210104	Rishabh Kumar	Bookshop.com	Skill Worth Tech pvt. Ltd.
92.	1408210105	Rishabh Singh	Web designing	TEC Info solutions Meerut
93.	1408210106	Ritik Rana	Android	HathBerry Corp, New Delhi
94.	1408210107	Robin Singh	Cloud Computing	Cetpa Infotech Pvt Ltd, Noida
95.	1408210109	Rupali Jain	Client Server Chatting	HathBerry Corp, New Delhi
96.	1408210111	Sahil Vij	Android	Hindustan Aeronautics Limited P.O. Korwa dist. Amethi UP
97.	1408210112	Sakshi Agarwal	Android App	NIIT MBD

98.	1408210113	Salim Nabi	Time Buddy	TCE Info solution Pvt. Ltd. Meerut
99.	1408210114	Sambhav Goel	Android	RCPL Noida
100.	1408210115	Samia Sharmeen	Android	NIIT MBD
101.	1408210116	Sanchit Varshney	Android	HathBerry Corp, New Delhi
102.	1408210117	Sanya Verma	Restaurant Management System	RCPL NOIDA
103.	1408210118	Sarthak Goyal	Android	CMC IT Training Institute Mumbai
104.	1408210119	Shelly Rastogi	Android	RCPL Noida
105.	1408210120	Shivam Saxena	Android	RCPL Noida
106.	1408210121	Shivam Saxena	Big Data and Hadoop	Aptron
107.	1408210122	Shivangi	PHP	KVCH Noida
108.	1408210123	Shivani Choudhary	Android	RCPL Noida
109.	1408210124	Shivani Siddhu	Android	RCPL Noida
110.	1408210125	Shivi Sharma	Android	HP Haryana
111.	1408210126	Shobhit Bhatnagar	Android	CMC IT Training Institute Mumbai
112.	1408210127	Shreya Agarwal	Expense Manager	Sunries Technologies Meerut
113.	1408210128	Shreyesh Yadav	Android	HP Haryana
114.	1408210129	Shruti Agarwal	PHP Web Programming	CMS IT Centre training Institute ND
115.	1408210130	Shubham Sethi	Big Data & Hadoop	Aptron
116.	1408210131	Siddhima Mehrotra	Android	Cetpa Infotech Pvt Ltd, Noida
117.	1408210132	Simmi Chaudhary	Android	HP Haryana
118.	1408210133	Simran Bhatia	Quiz Application	KVCH
119.	1408210134	Skand Agarwal	Music Shala	TCE Info Solutions Pvt. Ltd. Meerut
120.	1408210135	Sonali Verma	Android	RCPL Noida
121.	1408210136	Sparsh Rastogi	Blood Bank App	PHLOX IT GLOBAL Pvt Ltd. MBD
122.	1408210138	Stuti Bhatnagar	Text & Speech Recognition	KVCH IBM CE, Noida
123.	1408210139	Sunny Kumar	Your Assistant	TCE Info Solutions Pvt. Ltd. Meerut
124.	1408210140	Surbhi Sharma	Android	RCPL Noida
125.	1408210141	Surya Pratap Singh	PHP Web Programming	CMS IT Training Institute
126.	1408210142	Swasti Singh	Your Assistant	TCE Info solution Pvt. Ltd. Meerut

127.	1408210143	Syed Mohd Ovais	Face Play	CMS IT Training Institute
128.	1408210144	Tanya Sharma	Employee Database Management	NIIT MBD
129.	1408210145	Umang Bhatnagar	JAVA	WIPRO
130.	1408210146	Umang Gupta	Android	RCPL
131.	1408210147	Utkarsh Joshi	Android	BHEL Haridwar
132.	1408210149	Vansh Gupta	Time Buddy	TCE Info solution Pvt. Ltd. Meerut
133.	1408210150	Vibhav Kr Chauhan	Online Examination System	CETPA InfoTech Pvt. Ltd.
134.	1408210151	Vidhi Agarwal	VB.NET	ZABITI SOFTVER Noida
135.	1408210152	Vidushi Tandon	Advisor Desktop	NIIT MBD
136.	1408210153	Vikas Gupta	Android	RCPL Noida
137.	1408210154	Vikas Singh Chauhan	Android	HP Haryana
138.	1408210155	Vishank Kumar	Android	HathBerry Corp, New Delhi
139.	1408210156	Vivek Yadav	Android App Development	HathBerry Corp, New Delhi
140.	1408210158	Yash Rastogi	Android	HathBerry Corp, New Delhi
141.	1408210159	Yash Verma	Python	KVCH pvt. Ltd
142.	1308210027	Ayush Kumar Pal	ASP. NET	HathBerry Corp, New Delhi
143.	1308210073	Prashi Sharma	Android	RCPL Noida
144.	1308210048	Karan Duggal	TCP IP CHAT Server	TCE Info Solutions Pvt. Ltd. Meerut
145.	1508210901	Anam Noori	Android	Cetpa Infotech Pvt Ltd, Noida
146.	1508210902	Ashutosh Rai	Android	Cetpa Infotech Pvt Ltd, Noida
147.	1508210903	Deepak Gupta	Library Management System	Cetpa Infotech Pvt Ltd, Noida
148.	1508210904	Himdev Vishnoi	Android	Cetpa Infotech Pvt Ltd, Noida

Table B.2.2.5d Industry Internship Details (2016-17)

Sr. No.	Roll No.	Name of Student	Topic /Subject	Name of Industries/Institute
1.	1308210001	Aaditya Narayan Shakya	CCNA Routing & Switching	Network Bulls Gurgaon Haryana
2.	1308210002	Aanchal Gupta	Informatica	Ducat Noida
3.	1308210003	Aayushi Deep	Apache Hadoop	Ducat Noida

4.	1308210004	Abhimanyu Sikka	Tour & Travel	Ducat Noida
5.	1308210005	Abhimanyu Singh	Cyber Security	Logicore IT Services pvt. ltd. Gurgaon Haryana
6.	1308210006	Abhishek Choudhary	Library Management	TCE Infosolutions Pvt. Ltd. Meerut
7.	1308210007	Abhishek Garg	Automobile Vehicle System	Ducat Noida
8.	1308210008	Adeeb Qamar	Employee Management	Livewire For Live Careers MBD
9.	1308210009	Akanksha Bhalla	Student Information System	NIIT MBD
10.	1308210011	Aman Agarwal	Automobile Vehicle Services	NIIT MBD
11.	1308210013	Ambika Vishnoi	e- Exam	Ducat Noida
12.	1308210014	Amit Kumar	Notepad Application	Ducat Noida
13.	1308210015	Anamika Chavhan	Online Mobile Shop	Ducat Noida
14.	1308210016	Anmol	Fun & Food	WebTek Labs Pvt. Ltd. Delhi
15.	1308210017	Anmol Nijhawan	MOBCART E- Commerce Website	Ducat Noida
16.	1308210018	Anshika Deval	RIDE	Ducat Noida
17.	1308210019	Anshika Gupta D/o DKG	Student Information System	Pitney Bowes Software India pvt. ltd. new Delhi
18.	1308210020	Anshika Gupta D/o AKG	A Tour & Travels	Ducat Noida
19.	1308210021	Anurag Kumar Vats	Android	Ducat Noida
20.	1308210022	Anuroop Gupta	Expense Manger Application	Hewlett Pakered Enterprises Gurgaon Haryana
21.	1308210023	Arpan Arora	Fun & Food	WebTek labs Pvt. Ltd. Delhi
22.	1308210024	Arushi Singhal	Student Information System	Pitney Bowes Software India pvt. Ltd. New Delhi
23.	1308210025	Atul Diwaker	Network Implementation	HathBerry Corp, New Delhi
24.	1308210026	Ayan Rastogi	The Client Server Chat System	TCE Info Solution Pvt. Ltd. Meerut
25.	1308210027	Ayush Kumar Pal	Your Assistant	HathBerry Corp, New Delhi Corporation
26.	1308210028	Ayush Rastogi	Shoe Time	Web Tek Labs Pvt. Ltd. Delhi
27.	1308210029	Ayush Saxena	Software Testing	Ducat Noida
28.	1308210030	Ayushee Bhardwaj	Online Travel Agency	TCE Info Solution Pvt. Ltd. Meerut

29.	1308210031	Ayushi Agarwal	Apache Hadoop	Ducat Noida
30.	1308210032	Deeksha Agarwal	Online Cab Services	Ducat Noida
31.	1308210033	Deepak Bharti	Notepad Application	TCE InfoSolutions Pvt. Ltd. Meerut
32.	1308210034	Devansh Singh Chahal	Online Cab Services	TCE InfoSolutions Pvt. Ltd. Meerut
33.	1308210035	Divya Bhatnagar	Airline Reservation System	Ducat Noida
34.	1308210036	Faizan Asif	Employee Management	Livewire for live Careers Chennai
35.	1308210037	Gourangi Agrawal	E- Exam	Ducat Noida
36.	1308210038	Gursimran Kaur Sondhi	Air Traffic Control & Management	Ducat Noida
37.	1308210039	Hardik Sharma	MY Doc	Ducat Noida
38.	1308210040	Hirah Choudhary	Civil Registry	Ducat Noida
39.	1308210041	Ishika Agarwal	Apache Hadoop	Ducat Noida
40.	1308210042	Ishika Singh	Development of website for Satellite Earth Station ONGC	ONGC Dehradun
41.	1308210043	Ishita Gupta	Internet Mail System	Ducat Noida
42.	1308210044	Jalaj Katyal	Network Implementation	Network Bulls Gurgaon Haryana
43.	1308210045	Jhalak Rani	Student Information system	NIIT MBD
44.	1308210046	Jyoti Chauhan	Tic-Tac- Toe	Ducat Noida
45.	1308210047	Kanika Sharma	Chess	Ducat Noida
46.	1308210049	Kriti Mathur	Contact Book	Ducat Noida
47.	1308210050	Kulveer Singh	Employee Management	TCE InfoSolutions Pvt. Ltd. Meerut
48.	1308210051	Mahima Jain	Shopping Mart	Ducat Noida
49.	1308210052	Mansi Varshney	Automobile Vehicle System	Ducat Noida
50.	1308210053	Mayank Dhankar	Address Book	TCE Info solutions Pvt. Ltd. MBD
51.	1308210054	Meenakshu Tyagi	Network Simulation	Network Bulls Gurgaon Haryana
52.	1308210055	Meghna Agarwal	Account Tracker	Globalsoft IT Academy Bangalore
53.	1308210056	Milan Mehrotra	RIDE	WebTek Labs Pvt. Ltd.

54.	1308210057	Mudit Kapoor	Tic-Tac- Toe	Ducat Noida
55.	1308210058	Mudrika Mittal	Apache Hadoop	Ducat Noida
56.	1308210059	Mukund Agarwal	Study of Network & Implementation	Network Bulls Gurgaon Haryana
57.	1308210060	Naveen Kumar Saini	Bus Navigator	Ducat Noida
58.	1308210061	Navratan Yadav	Pic Puzzle Game	TCE InfoSolutions Pvt. Ltd. Meerut
59.	1308210062	Neeti Sharma	Online Book Store	TCE InfoSolutions Pvt. Ltd. Meerut
60.	1308210063	Neha Parveen	Online Mobile Shop	Ducat Noida
61.	1308210064	Nisha Kumari	Online Book Store	TCE info solution pvt. Ltd. Meerut
62.	1308210065	Palak Agarwal	Tic-Tac-Toe	Ducat Noida
63.	1308210066	Pankaj Kumar	Ping pong	Ducat Noida
64.	1308210067	Paras Gupta	Ping pong	Ducat Noida
65.	1308210068	Praful Sharma	Online Web Builder	RAKSH Ram ganga Vihar MBD
66.	1308210069	Pragati Agarwal	Tic-Tac-Toe	Ducat Noida
67.	1308210070	Prakash Tiwari	Snake & Ladder Game	NIIT MBD
68.	1308210071	Prakhar Nandan	Tic-Tac-Toe	PMD Info Pro Technology Bijnor
69.	1308210072	Prashant Saxena	Snake & Ladder Game	NIIT, Moradabad
70.	1308210073	Prashi Sharma	Text To Speech	KVCH IBM CE, NOIDA
71.	1308210074	Prince Dhanwan	Software Testing	QA Crestech Software System Pvt. Ltd. Noida
72.	1308210075	Priyank Kumar Verma	Tic-Tac- Toe	Livewire Chennai
73.	1308210076	Priyanka Sharma	Embedded System	Livewire, MBD
74.	1308210077	Pulkit Wadhwa	Invoice System	Incluso, Noida
75.	1308210078	Radhika Rathi	Android	Ducat Noida
76.	1308210079	Rahi Singh	Hostel Management System	Ducat Noida
77.	1308210081	Rahul Singh	Computer Science Department Portal	Morling Global Noida
78.	1308210082	Rajat Pratap Singh	NOTEPAD	Morling Global Noida
79.	1308210083	Rashi Saxena	Safe Cab Services	Morling Global Noida
80.	1308210084	Ravi Basil	DePaul	TCE Info Solution Pvt. Ltd. Meerut

81.	1308210086	Rohan Khanna	Tic Tac Toe	Ducat Noida
82.	1308210087	Saatvika Tandon	Online Travel Agency	TCE Info Solution Pvt. Ltd. Meerut
83.	1308210088	Sakshi Singh	Project Tracking System	e. Soft Technologies ltd. Mumbai
84.	1308210089	Salvi Shahzad	Embedded System	Livewire Moradabad
85.	1308210090	Sanket Tandon	Music Mania	TCE InfoSolutions Pvt. Ltd. Meerut
86.	1308210091	Saurabh Chauhan	Client Server Chat	Morling Global Noida
87.	1308210092	Saurabh Kumar Rajput	Ping Pong Game	Ducat, Noida
88.	1308210093	Shabnam Ali	Tic-Tac- Toe	Ducat Noida
89.	1308210094	Shilpi Tyagi	Online Examination	TCE InfoSolutions Pvt. Ltd. Meerut
90.	1308210095	Shiva Sharma	Online Examination	TCE Infosolutions Pvt. Ltd. Meerut
91.	1308210096	Shivangi Agarwal	Show Time	Web Tek Labs Pvt. Ltd. Delhi
92.	1308210097	Shobhit	Software testing Techniques	BSNL New Delhi
93.	1308210098	Shraddha Sharma	Notepad Plus	TCE Infosolutions Pvt. Ltd. Meerut
94.	1308210099	Shreya Agarwal	Test Automobile using Robot Framework	ION Trading India Pvt. Ltd new Delhi
95.	1308210101	Shubham Chauhan	Vocalise The verse	TCE Info solutions Pvt. Ltd. MBD
96.	1308210102	Shubham Chauhan	Tic-Tac- Toe	Ducat Noida
97.	1308210103	Shubham Gupta	Tic Tac Toe	PMD Info Pro Technology Bijnor
98.	1308210104	Shubham Mehrotra	Bug Tracking System	Ducat Noida
99.	1308210105	Shubhanshu Arora	Android	Cetpa Infotech Pvt Ltd, Noida
100.	1308210106	Shubhi Agarwal	E- work Solutions	Ducat Noida
101.	1308210107	Shubhi Shukla	Tic-Tac- Toe	TCE Infosolutions Pvt. Ltd. Meerut
102.	1308210108	Somya Agarwal	Delhi Bus Navigator	Newgen Sofware Technologies Ltd New Delhi
103.	1308210109	Somya Rastogi	Android	Cetpa Infotech Pvt Ltd, Noida
104.	1308210110	Sonali Chaudhary	Online Travel Agency	TCE Infosolutions Pvt. Ltd. Meerut

105.	1308210111	Srishti Singh	Online Course Portal	Ducat Noida
106.	1308210112	Sugam Bhatnagar	Music Mania	TCE Infosolutions Pvt. Ltd. Meerut
107.	1308210113	Sugandh Ahlawat	Sudoku	Ducat Noida
108.	1308210114	Vaishali Saxena	Hostel Management System	Ducat Noida
109.	1308210115	Vali Ahamad	Employee Management System	Livewire Chennai
110.	1308210116	Vanshika Rastogi	E-Work Solutions	Ducat Noida
111.	1308210118	Vatsal Agarwal	Hit The Ball Game	TCE Infosolutions Pvt. Ltd. Meerut
112.	1308210119	Vijay Bhasin	Pingpong	Ducat Noida
113.	1308210120	Virendra Katyal	Android	Cetpa Infotech Pvt Ltd, Noida
114.	1308210121	Vivek Kumar	Market Analytics Using R	CDAC Mumbai
115.	1308210122	Warisha Azmi	Tic Tac Toe	Ducat Noida
116.	1308210123	Yash Agarwal	Android	Cetpa Infotech Pvt Ltd, Noida
117.	1308210124	Yashvi Mittal	Memory Game	Ducat Noida
118.	1308210125	Yavneet Kaur	Online Mobile Store	Ducat Noida
119.	1308210126	Zebul Zareef	Hit The Ball Game	Ducat Noida
120.	1208210038	Atul Kumar	Tic Tac Toe	PMD Info Pro Technology Bijnor
121.	1208210115	Rahul Kumar	Android	Cetpa Infotech Pvt Ltd, Noida
122.	1208210131	Shaweta Sharma	Student Management	TCE InfoSolutions Pvt. Ltd. Meerut
123.	1208210089	Mohit Vishnoi	Online Examination System	Seed Infotech Ltd. pune
124.	1408210901	Naina Goley	Online IT Examination	DUCAT Noida
125.	1408210902	Neha Kumari	Online IT Examination	Ducat Noida
126.	1408210903	Rishabh Gupta	Android	Cetpa Infotech Pvt Ltd, Noida
127.	1408210904	Shailesh Kumar	Core Java	Phlox IT Global Pvt. Ltd.
128.	1408210905	Shamshad Hasan	Number Puzzle Game	Morling Global Pvt. Ltd, Noida
129.	1408210907	Vartika Verma	Android	Cetpa Infotech Pvt Ltd, Noida
130.	1308210906	Sunita Sagar	Tour and Travel	Microsyst IT Education & Training Center MBD
131.	1308213001	Aashish Gossel	Android	Cetpa Infotech Pvt Ltd, Noida

132.	1308213003	Damini Bhola	Notepad	TCE Info solutions Pvt. Ltd. MBD
133.	1308213004	Deeksha Rathaur	Online Cab Services	Ducat Noida
134.	1308213007	Himanshu Nailwal	Linux System Administration on RHEL7	Networks Nuts New Delhi
135.	1308213008	Ishu Banga	Android	Cetpa Infotech Pvt Ltd, Noida
136.	1308213010	Megha Jain	Civil Registry	Cetpa Infotech Pvt Ltd, Noida
137.	1308213011	Mohammad Atif Husain	Employee Management System	ALFA MBD
138.	1308213012	Naved Sultan	NOTEPAD	TCE Infosolutions Pvt. Ltd. Meerut
139.	1308213013	Nikhil Saxena	Employee Management System	ALFA Infocomp System Pvt. Ltd. MBD
140.	1308213014	Nitish Joshi	CCNA Routing and Switching	Network Bulls Gurgaon Haryana
141.	1308213015	Pratichi Srivastava	Online Cab Services	Ducat Noida
142.	1308213016	Priteshtha	MIT College Website	Ducat Noida
143.	1308213017	Rachit Gupta	Employee Management	ALFA pvt. Ltd. MBD
144.	1308213018	Rachit Srivastava	Data Handling Using Tableau Desktop Tool	Q3 Technologies Building Quality Software Gurgaon
145.	1308213019	Rajat Saxena	e- Exam	TCE Info solutions Pvt. Ltd. MBD
146.	1308213021	Shaifali Goyal	HIDE APP	Ducat Noida
147.	1308213022	Shekhar Tomar	Loan Approval	Ducat Noida
148.	1308213023	Shubham Kumar	Employee Management	ALFA MBD
149.	1308213024	Simran Agrawal	Online cab Services	Ducat Noida
150.	1308213025	Surbhi Chaudhary	Billing System	Institute for Advanced computer Technology Delhi
151.	1308213026	Tanuj Singh	Network Implantation	Ducat Noida
152.	1308213029	Vishal Kumar S/ o VT	HIDE App	Ducat Noida
153.	1308213030	Vishal Kumar S/o MK	Employee Management	ALFA Infocomp System Pvt. Ltd. MBD
154.	1308213031	Yatin Khurana	File Compression Tool	Microsoft IT Academy
155.	1308213032	Zuhaib Ali	File Compression Tool	Livewire Haryana Gurgaon
156.	1308210901	Aishwarya Vaish	Online Examination System	Seed InfoTech Ltd, Pune

C. Impact analysis of Industrial Training

- These training programs have helped students in the development of good projects in their final year.
- Most of the student's undergone training has got placed through campus recruitments.
- Students learn the industry standards and workplace culture.
- Students gain the basic needed skills for the development of real-world projects.
- Gain valuable work experience.
- Students gain confidence.
- The communication skills of the students improved.

D. Student Feedback on Initiatives

Effectiveness of this process is analyzed through feedback from students. Every student of the department submits a feedback on the industrial interactions he had during visits, training programs and internships, soon after the completion of the same. The feedbacks obtained from the students are used effectively in strengthening the industrial relations of the department and also as a guideline for the junior batches of students. A format of student feedback is shown below in Figure B.2.2.5d.

Moradabad Institute of Technology
Department of Computer Science and Engineering
Student Feedback: Industry Training/Initiatives

Name: _____ **Roll No.:**_____ **Semester:** _____
Date: _____

For each of the following questions, please select (✓) your ratings (level of experience). Higher the score better the perception/experience.

Name of Industry:
Dates of Training:
From: _____ **to:** _____

S.NO.	Parameters	Poor (1)	Good (2)	Very Good (3)	Excellent (4)
1.	College initiatives in selecting industry				
2.	Support received from College				
3.	Work Environment of Industry				
4.	Skill Development				
5.	Interpersonal Relationship development				
6.	Learning benefits				
7.	Communication Skills Development				
8.	Recommend the company for future students				

Any Suggestions:

.....
.....
.....

Student Signature:

Figure B.2.2.5d Student feedback form on industrial training/initiatives

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120)

Total Marks 120.00

Define the Program specific outcomes

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

Total Marks 20.00

:

PSO1	Comprehend the core subjects of CSE and apply them to resolve domain specific tribulations.
PSO2	Extrapolate the fundamental concepts in engineering and to apply latest technology with programming language skills to develop, test, implement and maintain software products.

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) (5)

Institute Marks : 5.00

Note : Number of Outcomes for a Course is expected to be around 6.

Course Name :	C2 03	Course Year :	2016-2017

Items	2019-20
C2 03.1	Implement and explain how arrays and linked lists are represented in memory, used by the algorithms and their common applications.
C2 03.2	Implement and use linear data structures stacks and queues in computer science applications.
C2 03.3	Implement the concept of recursion, application of recursion and removal of recursion.
C2 03.4	Implement and analyze searching and sorting techniques.
C2 03.5	Organize the data using non-linear data structures Trees and Graphs.

Course Name :	C2 16	Course Year :	2016-2017

Items	2019-20
C2 16.1	Design Finite Automata (NFA, DFA, ε-NFA, Minimized DFA) from given Language/ equivalent FA.
C2 16.2	Obtain Regular Expression from FA using Arden's Theorem and FA from regular expression using Kleene's Theorem.
C2 16.3	Construct Context free Grammar (CFG, Unambiguous CFG, Simplified CFG, CFG in Normal Form) from Equivalent CFG/ given language/FA.
C2 16.4	Design Pushdown Automata (NPDA, DPDA) for given language/CFG/FA.
C2 16.5	Design Turing Machine for given language/computation function and Test decidability using Turing Machine.

Course Name :	C3 02	Course Year :	2017-2018

Items	2019-20
C3 02.1	Understand Relational Data Model, Network Data Model and Hierarchical Data Model and Design new relational schema using Entity relationship diagrams to create normalized relations to manage information of company database.
C3 02.2	Construct queries in relational algebra, tuple, domain calculus and SQL construct, and by applying integrity, key and referential integrity key constraints to manage information of company database.
C3 02.3	Design a database’s schema to solve the problem of null values, redundancy and anomaly by applying process of normalization.
C3 02.4	Understand the dirty read, incorrect summary and lost update problem in transactions and examine serializability and recoverability of schedule for concurrent execution of transactions and apply in central and distributed database environment.
C3 02.5	Understand 2-phase Locking, Time Stamp Ordering, Validation based and multi-version protocol to control concurrency.

Course Name :	C3 13	Course Year :	2017-2018

Items	2019-20
C3 13.1	Distinguish different SDLC Models like Water Fall Model, Prototype Model, Spiral Model.
C3 13.2	Identify software requirements of a client.
C3 13.3	Interpret principles of software architecture like modularization, interfaces and design strategies.
C3 13.4	Compare various testing techniques, including unit testing, functional testing, and structural testing.
C3 13.5	Explain concepts of software maintenance.

Course Name :	C4 02	Course Year :	2018-2019

Items	2019-20
C4 02.1	Identify distributed system characteristics and familiar with concepts of logical and vector clocks.
C4 02.2	Analyze the advantages and challenges in designing distributed algorithms for different primitives like mutual exclusion and deadlock detection.
C4 02.3	Outline the design concepts of Distributed File Systems and Distributed Shared memory.
C4 02.4	Differentiate between different types of faults and failure recovery techniques in order to implement fault tolerant systems.
C4 02.5	Explain the importance of security concepts like transaction and concurrency control in distributed systems.

Course Name :	C4 11	Course Year :	2018-2019

Items	2019-20
C4 11.1	Understand image formation and concepts of Digital Image processing system & evaluation techniques for image enhancement.
C4 11.2	Analyze images in frequency domain using transform
C4 11.3	Understand and interpret restoration techniques for images
C4 11.4	Design and analysis of structure of images using Morphological techniques
C4 11.5	Understand the concept of image registration and analysis of segmentation and feature extraction techniques.

3.1.2 CO-POmatrices of courses selected in 3.1.1(Six matrices to be mentioned; one per semester from 3rd to 8th semester) (5) Institute Marks : 5.00

1 . course name : C203

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203.1	1	1	-	-	1	-	-	-	1	1	-	-
C203.2	1	1	-	-	1	-	-	-	1	1	-	-
C203.3	1	1	-	-	1	-	-	-	1	1	-	-
C203.4	1	1	-	-	1	-	-	-	1	1	-	-
C203.5	1	1	-	-	1	-	-	-	1	1	-	-
Average	**3.00**	**1.00**	**0.00**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**1.00**	**1.00**	**0.00**	**0.00**

2 . course name : C216

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C216.1	2	2	3	-	-	-	-	-	-	-	-	2
C216.2	-	-	2	-	-	-	-	-	-	-	-	-
C216.3	-	-	2	-	-	-	-	-	-	-	-	-
C216.4	2	2	3	-	-	-	-	-	-	-	-	2
C216.5	2	2	3	-	-	-	-	-	-	-	-	2
Average	**3.00**	**2.00**	**2.60**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.00**

3 . course name : C302

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C302.1	1	1	2	-	3	-	-	-	1	1	-	-
C302.2	2	2	2	-	3	-	-	-	1	1	-	-
C302.3	2	2	2	-	2	-	-	-	1	1	-	-
C302.4	1	1	2	-	2	-	-	-	1	1	-	-
C302.5	1	1	2	-	2	-	-	-	1	1	-	-
Average	**3.00**	**1.40**	**2.00**	**0.00**	**2.40**	**0.00**	**0.00**	**0.00**	**1.00**	**1.00**	**0.00**	**0.00**

4 . course name : C313

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12

C313.1	-	-	1	-	-	2	-	-	-	-	-	-
C313.2	2	2	1	-	-	3	-	-	-	-	-	-
C313.3	1	1	2	-	-	1	-	-	-	-	-	-
C313.4	2	2	-	1	-	2	-	-	-	-	-	-
C313.5	2	2	-	1	-	3	-	-	-	-	-	-
Average	**3.00**	**1.75**	**1.33**	**1.00**	**0.00**	**2.20**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5 . course name : C402

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C402.1	2	2	3	-	1	-	-	-	-	-	-	-
C402.2	2	2	3	-	1	-	-	-	-	-	-	-
C402.3	2	2	2	-	1	-	-	-	-	-	-	-
C402.4	2	2	2	-	1	-	-	-	-	-	-	-
C402.5	2	2	2	-	1	-	-	-	-	-	-	-
Average	**3.00**	**2.00**	**2.40**	**0.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

6 . course name : C411

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C411.1	2	2	-	-	-	1	-	-	-	2	-	-
C411.2	2	2	2	2	-	2	-	1	-	-	-	-
C411.3	1	1	1	2	-	-	-	1	-	-	-	-
C411.4	2	2	3	2	-	-	-	-	-	-	-	-
C411.5	2	2	3	-	-	1	-	-	-	-	-	-
Average	**2.80**	**1.80**	**2.25**	**2.00**	**0.00**	**1.33**	**0.00**	**1.00**	**0.00**	**2.00**	**0.00**	**0.00**

1 . Course Name : C203

Course	PSO1	PSO2
C203.1	3	3
C203.2	3	3
C203.3	3	3
C203.4	3	3
C203.5	3	3
Average	**3.00**	**3.00**

2 . Course Name : C216

Course	PSO1	PSO2
C216.1	3	-
C216.2	3	-
C216.3	3	-
C216.4	3	-
C216.5	3	-
Average	**3.00**	**0.00**

3 . Course Name : C302

Course	PSO1	PSO2
C302.1	3	3
C302.2	3	3
C302.3	3	3
C302.4	3	3
C302.5	3	3
Average	**3.00**	**3.00**

4 . Course Name : C313

Course	PSO1	PSO2
C313.1	3	3

C313.2	3	3
C313.3	3	3
C313.4	3	3
C313.5	3	3
Average	**3.00**	**3.00**

5 . Course Name : C402

Course	PSO1	PSO2
C402.1	3	1
C402.2	3	2
C402.3	3	2
C402.4	3	2
C402.5	3	2
Average	**3.00**	**1.80**

6 . Course Name : C411

Course	PSO1	PSO2
C411.1	2	2
C411.2	3	2
C411.3	2	2
C411.4	2	3
C411.5	3	2
Average	**2.40**	**2.20**

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

Institute Marks : 10.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
AUC001	PO1	PO2	1	PO4	PO5	1.2	PO7	2.2	PO9	1	PO11	1.4
AUC002	2.75	2.75	2.6	2	2.75	1.25	1.67	2	PO9	2.5	1	PO12
NAS101	2.75	2.25	2	1.75	2.25	PO6	PO7	PO8	PO9	2	PO11	2.75
NAS102	2.4	2	PO3	1	1	1	1.5	PO8	PO9	1	PO11	1.6

NAS103	3	2	PO3	1	PO5	PO6	PO7	PO8	PO9	1	PO11	1
NAS151	3	1.6	PO3	1.8	1.2	PO6	PO7	PO8	2.2	PO10	1	1
NAS152	2.2	1.6	1	1.2	2	1	1.75	PO8	PO9	1	PO11	1
NAS201	2.75	2.25	2	1.75	2.25	PO6	PO7	PO8	PO9	2	PO11	2.75
NAS203	3	2	PO3	1	PO5	PO6	PO7	PO8	PO9	1	PO11	1
NAS204	1.4	1.2	PO3	PO4	PO5	1.4	PO7	1.2	PO9	3	PO11	1.2
NAS205	1.25	1.75	1	1	PO5	1	3	2	PO9	1	PO11	1.25
NAS254	1.4	1.2	PO3	PO4	PO5	1.4	PO7	1.2	PO9	3	PO11	1.2
NAS401	3	2	PO3	1	PO5	PO6	PO7	PO8	PO9	1	PO11	1
NCE251	3	2.2	2	2	3	2	1	PO8	2	3	3	2
NCS066	3	2.33	2.75	3	3	2	PO7	PO8	PO9	1	PO11	PO12
NCS071	2.6	PO2	1	PO4	PO5	PO6	PO7	1	PO9	1	PO11	PO12
NCS082	3	1.6	2.4	PO4	PO5	2	PO7	PO8	PO9	2.4	PO11	3
NCS085	3	1	1.6	PO4	PO5	PO6	PO7	PO8	PO9	1.6	PO11	PO12
NCS201	3	1	2.8	PO4	2	PO6	PO7	PO8	1	1	PO11	PO12
NCS251	3	1	2	PO4	2	PO6	PO7	PO8	1	1	PO11	PO12
NCS301	3	1	PO3	PO4	1	PO6	PO7	PO8	1	1	PO11	PO12
NCS302	3	1	2	PO4	1	PO6	PO7	PO8	PO9	1	PO11	PO12
NCS303	2	3	PO3	PO4	1	PO6	PO7	PO8	1	PO10	PO11	PO12
NCS351	3	1	2.4	PO4	2	PO6	PO7	PO8	1.8	1.4	PO11	PO12
NCS353	3	3	2	PO4	2	PO6	PO7	PO8	1	PO10	PO11	PO12
NCS355	2.8	1.8	2.2	PO4	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
NCS401	3	2.8	3	2.8	2.2	1	PO7	PO8	PO9	1.6	1	1
NCS402	3	2	2.6	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2
NCS403	2.5	1	2.25	PO4	1	2	PO7	PO8	PO9	PO10	PO11	PO12
NCS451	3	1	3	PO4	1	PO6	PO7	PO8	1	2	PO11	PO12
NCS453	3	1	2	PO4	2	PO6	PO7	PO8	PO9	1	PO11	PO12
NCS455	3	1.33	2.33	PO4	2.33	PO6	PO7	PO8	1	PO10	PO11	PO12
NCS501	2.6	2.6	2.6	PO4	PO5	PO6	PO7	PO8	2.8	2.2	PO11	PO12
NCS502	3	1.4	2	PO4	2.4	PO6	PO7	PO8	1	1	PO11	PO12

NCS503	2	2	1.33	2.5	1.75	PO6	PO7	PO8	1.33	1.5	1.5	1.5
NCS504	2.6	2.2	3	PO4	2.6	1.4	PO7	PO8	1.5	2.2	1.2	PO12
NCS505	3	PO2	2.67	PO4	PO5	PO6	PO7	PO8	PO9	1	PO11	PO12
NCS551	3	1	2	PO4	2	PO6	PO7	PO8	1	1	PO11	2.2
NCS552	3	1.4	2.8	PO4	3	PO6	PO7	PO8	1	PO10	1	1
NCS553	3	1.2	1.6	PO4	1.8	PO6	PO7	PO8	1	1	PO11	PO12
NCS554	3	2	3	PO4	2	PO6	PO7	PO8	1	1	PO11	PO12
NCS601	2.75	2.75	2.67	2.8	2.25	PO6	PO7	PO8	PO9	2	1.33	1.8
NCS602	3	1.75	1.33	1	PO5	2.2	PO7	PO8	PO9	PO10	PO11	PO12
NCS603	3	1	PO3	PO4	PO5	PO6	PO7	PO8	1	1	PO11	PO12
NCS651	3	2	2	PO4	1.8	PO6	PO7	PO8	PO9	PO10	1	1
NCS652	3	3	2	PO4	2.6	PO6	PO7	PO8	1.8	1.4	PO11	PO12
NCS653	3	1	2	PO4	1	PO6	PO7	PO8	1	1	PO11	PO12
NCS654	3	PO2	PO3	3	2	PO6	PO7	3	2	3	PO11	3
NCS701	3	2	2.4	PO4	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
NCS702	3	2	2.2	1.6	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
NCS751	2	2	2.33	PO4	1	PO6	PO7	PO8	1	PO10	PO11	PO12
NCS752	2.6	2.6	3	2.67	2.33	2.2	2.5	2.5	3	2.5	2.6	2.6
NCS753	3	3	PO3	PO4	2	PO6	PO7	3	2	3	2	3
NCS801	2.8	1.8	2.25	2	PO5	1.33	PO7	1	PO9	2	PO11	PO12
NCS851	3	1	PO3	1	3	PO6	PO7	2	2	3	PO11	3
NCS852	2.6	2.6	3	2.67	2.33	2.2	2.5	2.5	3	2.5	2.6	2.6
NEC101	2.8	PO2	2.6	PO4	PO5	PO6	PO7	PO8	2	2.2	PO11	PO12
NEC309	3	2	1.75	PO4	1	PO6	PO7	PO8	1	PO10	PO11	PO12
NEC359	3	PO2	2	PO4	2	PO6	PO7	PO8	1	1	PO11	PO12
NEC409	2.6	2.4	2	2.2	1.8	PO6	PO7	PO8	2	PO10	PO11	3
NEC459	3	2	2.6	2	PO5	PO6	PO7	PO8	2.2	PO10	PO11	2
NEE101	3	1	2	PO4	2.8	PO6	PO7	PO8	2.6	2.2	PO11	PO12
NEE151	3	1	2.2	2.8	PO5	1	PO7	PO8	2	2.6	PO11	2.2
NHU301	PO1	1	1	PO4	PO5	1.6	PO7	1.25	PO9	1.25	PO11	1.25

NHU402	1	1	1.33	PO4	PO5	1.33	1	2	PO9	1.67	PO11	1.5
NHU501	2	2	2	PO4	PO5	2	PO7	PO8	1	2	3	PO12
NHU601	2	PO2	3	PO4	PO5	3	PO7	PO8	1	2	3	PO12
NIT701	3	2.4	3	2.33	PO5	1.8	PO7	1.5	PO9	PO10	PO11	PO12
NME101	3	3	2.5	2.5	1.5	1	1	PO8	1	1	1	1
NME202	3	3	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
NME252	2	2	2.4	2.6	1.8	PO6	PO7	PO8	1	1	PO11	PO12
NOE033	2.6	3	1.8	2.6	PO5	PO6	PO7	PO8	PO9	1.5	PO11	2.8
NOE081	1	PO2	1.5	PO4	PO5	2	1.75	PO8	PO9	1	PO11	PO12
NSC063	2.6	1.75	1.8	PO4	PO5	PO6	PO7	PO8	PO9	1	PO11	PO12
NWS151	2	1	1	1	1.4	2	1	1	2	1	PO11	2.4

3.1.3 - B Program level Course-PSO matrix of all courses INCLUDING first year courses :

Course	PSO1	PSO2
AUC001	PSO1	PSO2
AUC002	3	2.4
NAS101	PSO1	PSO2
NAS102	PSO1	PSO2
NAS103	PSO1	PSO2
NAS151	PSO1	PSO2
NAS152	PSO1	PSO2
NAS201	PSO1	PSO2
NAS203	PSO1	PSO2
NAS204	PSO1	PSO2
NAS205	PSO1	PSO2
NAS254	PSO1	PSO2
NAS401	PSO1	PSO2
NCE251	PSO1	PSO2
NCS063	3	2.4
NCS066	2.8	2.4
NCS071	2.8	2.6

NCS082	3	PSO2
NCS085	3	PSO2
NCS201	3	3
NCS251	3	3
NCS301	3	3
NCS302	3	PSO2
NCS303	2	1
NCS351	3	3
NCS353	3	2
NCS355	3	2
NCS401	3	1
NCS402	3	PSO2
NCS403	3	2
NCS451	3	3
NCS453	3	2
NCS455	3	2.33
NCS501	3	3
NCS502	3	3
NCS503	2.8	2.4
NCS504	3	3
NCS505	3	PSO2
NCS551	3	3
NCS552	3	3
NCS553	3	2.2
NCS554	3	1
NCS601	3	2.8
NCS602	3	3
NCS603	3	3
NCS651	3	3
NCS652	3	3

NCS653	3	3
NCS654	3	3
NCS701	3	1.8
NCS702	3	3
NCS751	2	1
NCS752	3	3
NCS753	3	3
NCS801	2.4	2.2
NCS851	3	2
NCS852	3	3
NEC101	PSO1	PSO2
NEC309	2	PSO2
NEC359	2	PSO2
NEC409	PSO1	PSO2
NEC459	PSO1	PSO2
NEE101	PSO1	PSO2
NEE151	PSO1	PSO2
NHU301	PSO1	PSO2
NHU402	PSO1	PSO2
NHU501	PSO1	PSO2
NHU601	PSO1	PSO2
NIT701	2.2	2
NME101	PSO1	PSO2
NME202	PSO1	PSO2
NME252	PSO1	PSO2
NOE033	PSO1	PSO2
NOE081	PSO1	PSO2
NWS151	PSO1	PSO2

3.2 Attainment of Course Outcomes (50) Total Marks 50.00

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10)

Institute Marks : 10.00

Moradabad Institute of Technology is affiliated to the Dr. A. P. J. Abdul Kalam Technical University and the program computer science and engineering has predefined curriculum given by the university. Courses are categorized broadly as theory courses, practical courses, project, seminar and industrial training.

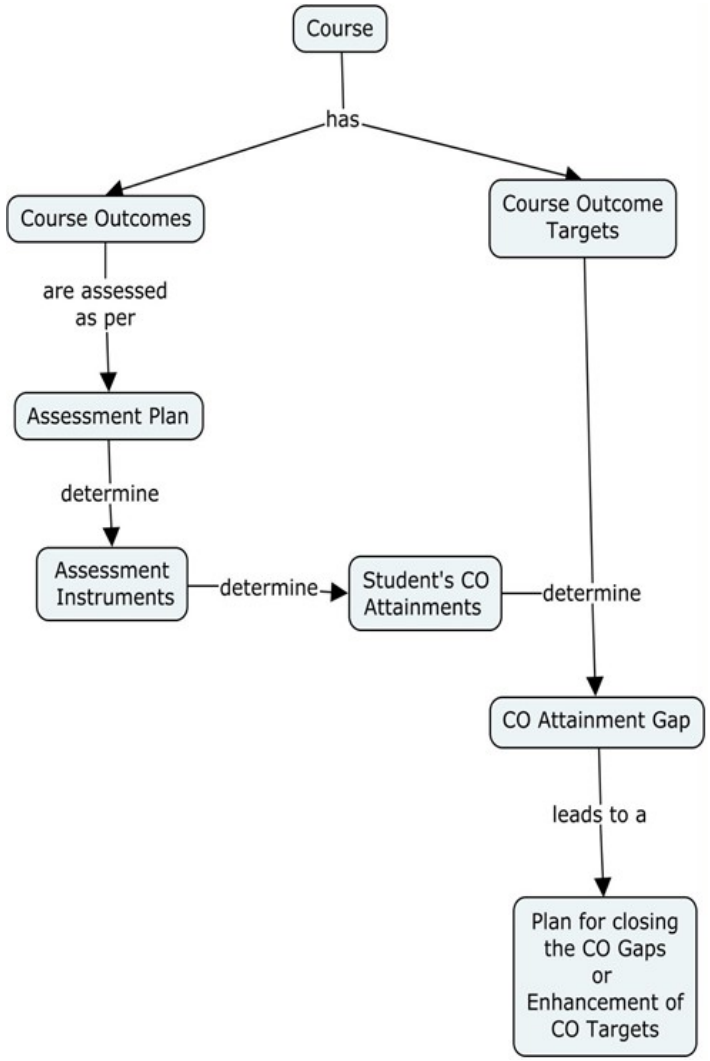

Figure B.3.2.1a An overview of CO attainment process

For each course, course outcomes (COs) are defined for the course by faculty member at the beginning of the semester using revised Bloom's taxonomy and tagged with cognitive levels.Targets for course outcomes are defined in terms of percentage of students getting greater than or equal to set percentage of marks.

Assessment is carried out as per assessment plan, that is, Continuous Internal Evaluation(CIE), Semester End Examination (SEE) and Course Exit Survey(CES) using assessment instruments as sessional exams/class tests and assignments/quizzes as in theory course and similarly rubrics-based evaluation is done in other courses, mentioned in Table B.3.2.1a. COs are mapped with rubrics in courses other than Theory course.

Table B.3.2.1a Assessment plan and assessment instruments for CO attainment

Courses	**Assessment Plan**	**Assessment Instruments**	**Attainment calculations (% of students getting ≥ set percentage of marks)**
Theory Courses	Continuous Internal Evaluation (CIE)	Sessional Exams/Class Tests (Questions are tagged with COs), and Assignments/Quizzes (on each CO)	Direct CO attainment is calculated using CIE, **CO_CIE** Direct CO attainment is calculated using SEE, **CO_SEE** Direct attainment, **CO_Direct = 0.33*CO_CIE + 0.67*CO_SEE** Indirect CO attainment is calculated using CES, **CO_Indirect** CO attainment, **CO = 0.9*CO_Direct + 0.1*CO_Indirect** (Process in Figure B.3.2.1b)
	Semester End Examination (SEE)	Conducted by university.	
	Course Exit Survey (CES)	Survey on each CO taken from students at the end of course.	
Practical Courses	Continuous Internal Evaluation (CIE)	Rubrics based Lab Continuous Evaluation and Lab Internal Examination; (Rubrics are given in Table B.3.2.1b)	CO Attainment is calculated using CIE, **CO_CIE** CO Attainment is calculated using SEE, **CO_SEE** CO Attainment, **CO = 0.4*CO_CIE + 0.6*CO_SEE** (Process in Figure B.3.2.1c)
	Semester End Examination (SEE)	Conducted by university.	
Project	Continuous Internal Evaluation (CIE)	Rubrics based Phase-wise Evaluation by Project Assessment Committee, and Evaluation by Project Supervisor; (Rubrics are given in Table B.3.2.1c)	CO Attainment is calculated using CIE, **CO_CIE** CO Attainment is calculated using SEE, **CO_SEE** CO Attainment, **CO = 0.33*CO_CIE + 0.67*CO_SEE** (Process in Figure B.3.2.1d)
	Semester End Examination (SEE)	Conducted by university.	

Seminar	Internal Evaluation	Rubrics based evaluation of Seminar; (Rubrics are given in Table B.3.2.1d)	CO Attainment is calculated using Internal Evaluation. (Process in Figure B.3.2.1e)
Industrial Training	Internal Evaluation	Rubrics based evaluation of knowledge and skills attained during Industrial Training; (Rubrics are given in Table B.3.2.1e)	CO Attainment is calculated using Internal Evaluation (Process in Figure B.3.2.1f)

For each course outcome, CO, percentage of marks and attainment level of each student is calculated, and CO attainment is calculated. CO attainment gaps are determined though CO attainment with respect to CO targets. For the next offering of course an action plan is prepared to bridge the CO gap or enhancement is done in CO targets.

Process carried out by the department from start of course and till the closure of quality loop is mention in Figure B.3.2.1a.

CO attainment process of theory courses, practical courses, project, seminar and industrial training are explained further in more details.

CO attainment process for theory courses

1. Course Outcomes, COs, are defined by the faculty member for the allotted course and tagged with cognitive levels.
2. Calculation of Direct CO Attainment using Continuous Internal Evaluation (CIE).
    a. Questions in sessional exams and assignments/quizzes are tagged with relevant COs.
    b. For each CO, percentage of marks and attainment level is calculated for each student after the conduction and evaluation of sessional exams and assignments/quizzes.
    c. % of students getting ≥ 60% of marks is calculated for each CO, CO_CIE.
3. Calculation of Direct CO Attainment using Semester End Examination (SEE).
    a. Question-wise marks obtained are not provided by university, so here it is assumed that COs are commonly mapped with total marks.
    b. Percentage of marks and attainment level is calculated for each student after results of semester end examination.
    c. % of students getting ≥ 60% of marks is calculated and commonly attained of all CO, CO_SEE.
4. Direct CO Attainment is calculated as 33% of CO attained using Continuous Internal Evaluation, CO_CIE and 67% of CO attained using Semester End Examination, CO_SEE, that is, CO_Direct = 0.33*CO_CIE + 0.67*CO_SEE.
5. Calculation of Indirect CO Attainment using Course Exit Survey (CES).
    a. Course Exit survey on COs are taken from students at the end of course.
    b. For each CO, percentage of rating and attainment level of each student is calculated.
    c. % of students rating ≥ 60% of ratings is calculated for each CO, CO_Indirect.
6. CO Attainment is calculated as 90% of Direct CO attainment and 10% of Indirect CO Attainment, that is, CO = 0.9*CO_Direct + 0.1*CO_Indirect.
7. CO Attainment gaps is determined by comparing CO attainments with CO targets.
8. Action Plan is prepared for next offering of course in case of gaps, otherwise targets are enhanced.

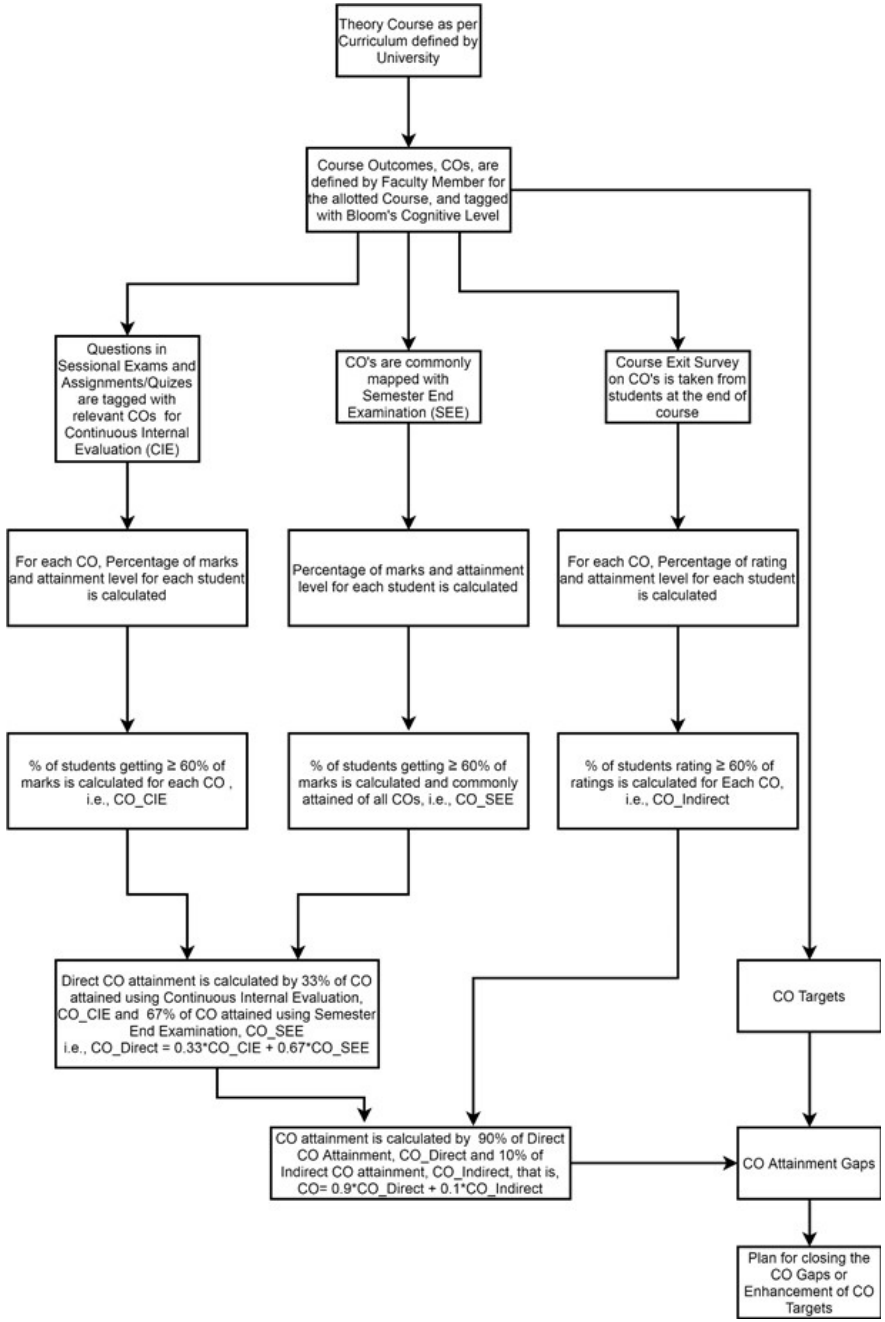

Figure B.3.2.1b CO attainment process for theory courses

CO attainment process for practical courses

1. Course Outcomes, COs, are defined by the faculty member and tagged with cognitive levels.
2. Calculation of CO Attainment using Continuous Internal Evaluation (CIE).
    a. Rubrics are defined for Lab Continuous Evaluation and Lab Internal Examination.
    b. COs are mapped with rubrics.
    c. For each CO, percentage of marks and attainment level is calculated for each student.
    d. % of students getting ≥ 80% of marks is calculated for each CO, CO_CIE.
3. Calculation of CO Attainment using Semester End Examination (SEE).
    a. Rubrics/CO-wise marks obtained are not provided by university, so here it is assumed that COs are commonly mapped with total marks.
    b. Percentage of marks and attainment level is calculated for each student after semester end examination results.
    c. % of students getting ≥ 80% of marks is calculated and commonly attained of all CO, CO_SEE.
4. CO Attainment is calculated as 40% of CO attained using Continuous Internal Evaluation, CO_CIE and 60% of CO attained using Semester End Examination, CO_SEE, that is, CO = 0.4*CO_CIE + 0.6*CO_SEE.
5. CO Attainment gaps is determined by comparing CO attainments with CO targets.
6. Action Plan is prepared for next offering of course in case of gaps, otherwise targets are enhanced.

Table B.3.2.1b Rubrics for practical courses

Continuous Internal Evaluation of Practical Courses	**Rubrics**
Lab Continuous Evaluation	R1: Conduction
	R2: File Record
	R3: Regularity
Lab Internal Examination	R4: Execution
	R5: Write-up
	R6: Viva-Voce

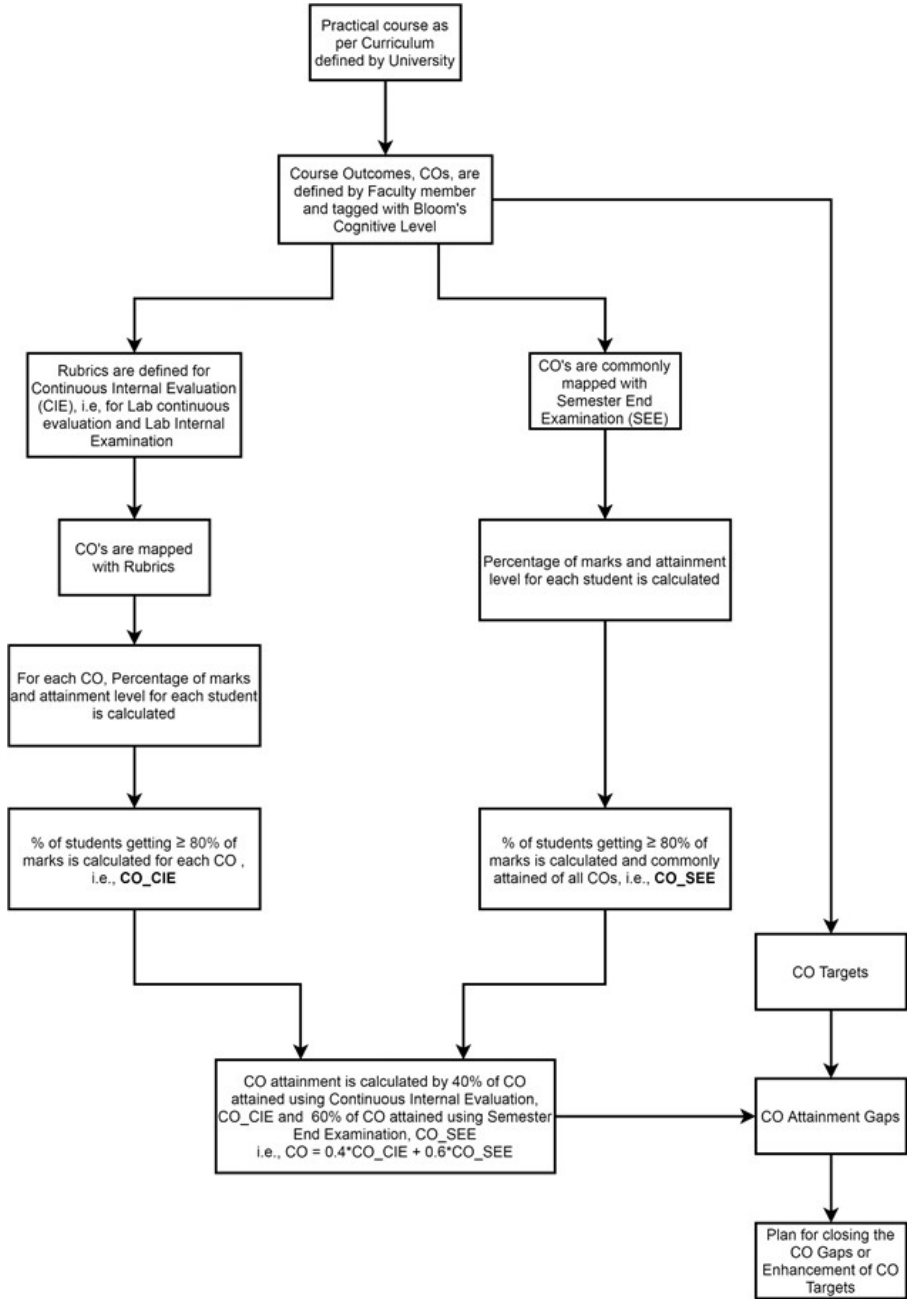

Figure B.3.2.1c CO attainment process for practical courses

CO attainment process for project

1. Course Outcomes, COs, are defined by Project Assessment Committee and tagged with cognitive levels.

2. Calculation of CO Attainment using Continuous Internal Evaluation (CIE).
    a. Rubrics are defined for phase-wise Evaluation by Project Assessment committee and Evaluation by Project Supervisor.
    b. COs are mapped with rubrics.
    c. For each CO, percentage of marks and attainment level is calculated for each student.
    d. % of students getting ≥ 80% of marks is calculated for each CO, CO_CIE.
3. Calculation of CO Attainment using Semester End Examination (SEE).
    a. Rubrics/CO-wise marks obtained are not provided by university, so here it is assumed that COs are commonly mapped with total marks.
    b. Percentage of marks and attainment level is calculated for each student after semester end examination results.
    c. % of students getting ≥ 80% of marks is calculated and commonly attained of all CO, CO_SEE.
4. CO Attainment is calculated as 33% of CO attained using Continuous Internal Evaluation, CO_CIE and 67% of CO attained using Semester End Examination CO_SEE, that is, CO = 0.33*CO_CIE + 0.67*CO_SEE.
5. CO Attainment gaps is determined by comparing CO attainments with CO targets.
6. Action Plan is prepared for next offering of course in case of gaps, otherwise targets are enhanced.

Table B.3.2.1c Rubrics for project

Continuous Internal Evaluation of Project	**Rubrics**	
Evaluation by Project Assessment Committee	Phase 1	R1: Refine the Requirements to Incorporate Suggestions
		R2: Objectives Meet/ Results as per the Expected time plan
		R3: Presentation as team and as an Individual
		R4: Questions and Answer
	Phase 2	R5: Final Report
		R6: Final Demonstration
		R7: Presentation as team and as an Individual
		R8: Questions and Answer
		R9: Research Paper Writing Based on Project
Evaluation by Project Supervisor	R10: Assessed Project Progress	
	R11: Development of Prototype/ Model up to satisfaction level	
	R12: Individual Contribution	
	R13: Sincerity towards Work as Team	
	R14: Project Report/Demo Preparation as per guidelines	

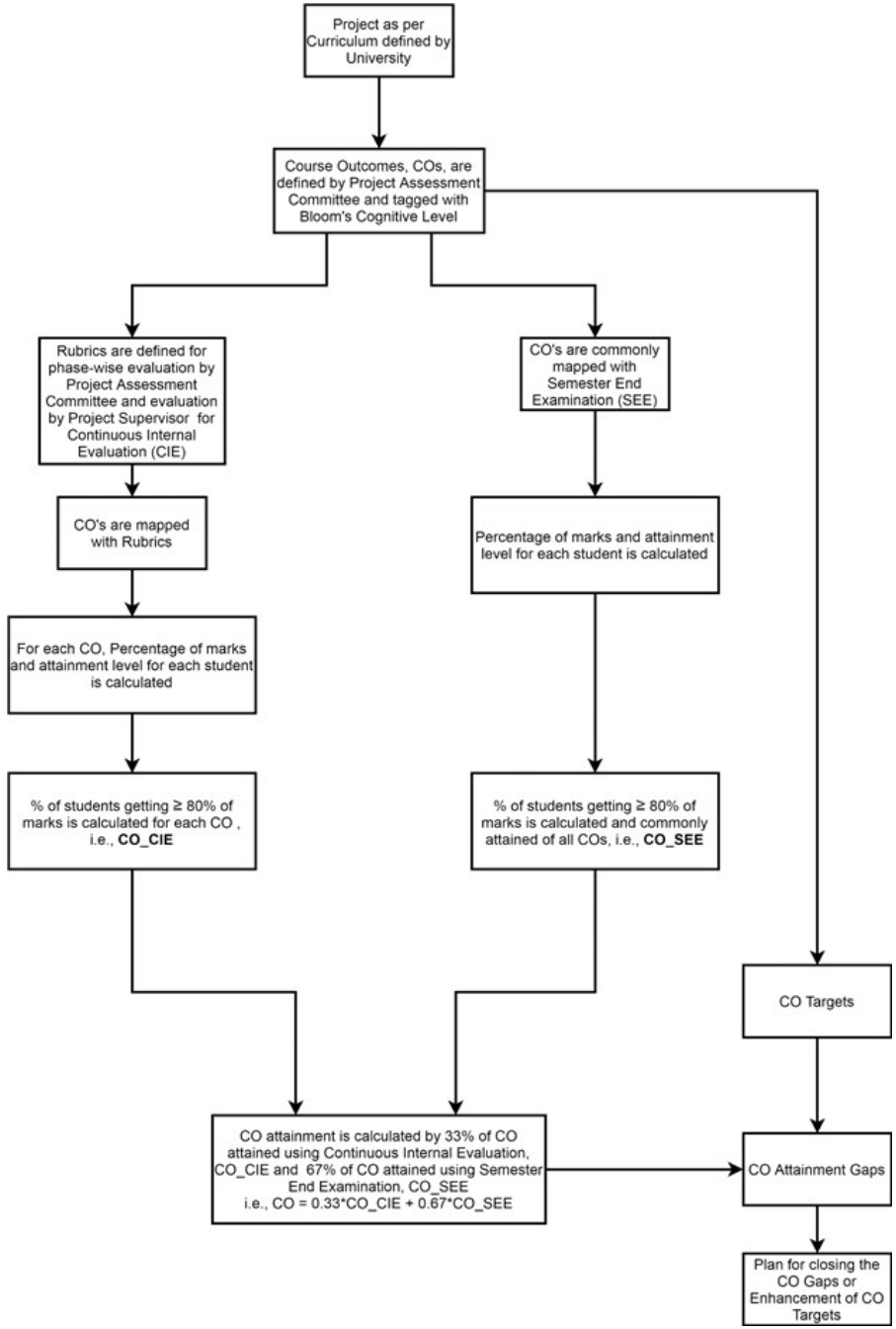

Figure B.3.2.1d CO attainment process for project

CO attainment process for seminar

1. Course Outcomes, COs, are defined and tagged with cognitive levels.
2. Calculation of CO Attainment using Internal Evaluation (IE).
    a. Rubrics are defined for evaluation of seminar.
    b. COs are mapped with rubrics.
    c. For each CO, percentage of marks and attainment level is calculated for each student.
    d. % of students getting ≥ 80% of marks is calculated for each CO, CO.
3. CO Attainment gaps is determined by comparing CO attainments with CO targets.
4. Action plan is prepared for next offering of course in case of gaps, otherwise targets are enhanced.

Table B.3.2.1d Rubrics for Seminar

Internal Evaluation of Seminar	**Rubrics**
Internal Evaluation	R1: Understanding of the topic.
	R2: Organization of Presentation.
	R3: Presentation Skills.
	R4: Question and Answers.
	R5: Seminar Report

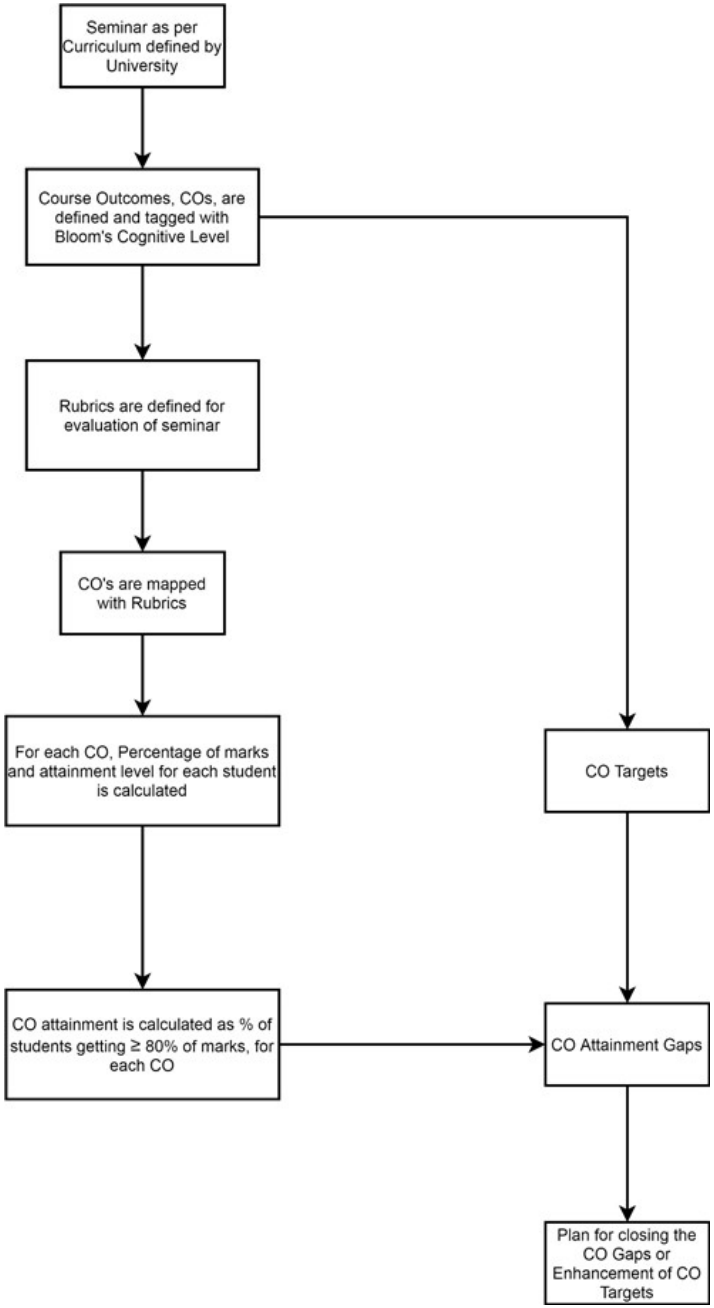

Figure B.3.2.1e CO attainment process for seminar

CO Attainment Process for Industrial Training

1. Course Outcomes, COs, are defined and tagged with cognitive levels.

2. Calculation of CO Attainment using Internal Evaluation (IE).
    a. Rubrics are defined for evaluation of knowledge and skills attained during industrial training.
    b. COs are mapped with rubrics.
    c. For each CO, percentage of marks and attainment level is calculated for each student.
    d. % of students getting ≥ 80% of marks is calculated for each CO, CO.
3. CO Attainment gaps is determined by comparing CO attainments with CO Targets.
4. Action Plan is prepared for next offering of course in case of gaps, otherwise Targets are enhanced.

Table B.3.2.1e Rubrics for industrial training.

Internal Evaluation of Seminar	**Rubrics**
Internal Evaluation	R1: Knowledge and understanding of core topics of training.
	R2: Organization of Presentation.
	R3: Presentation Skills.
	R4: Question / Answers handled.
	R5: Training Report

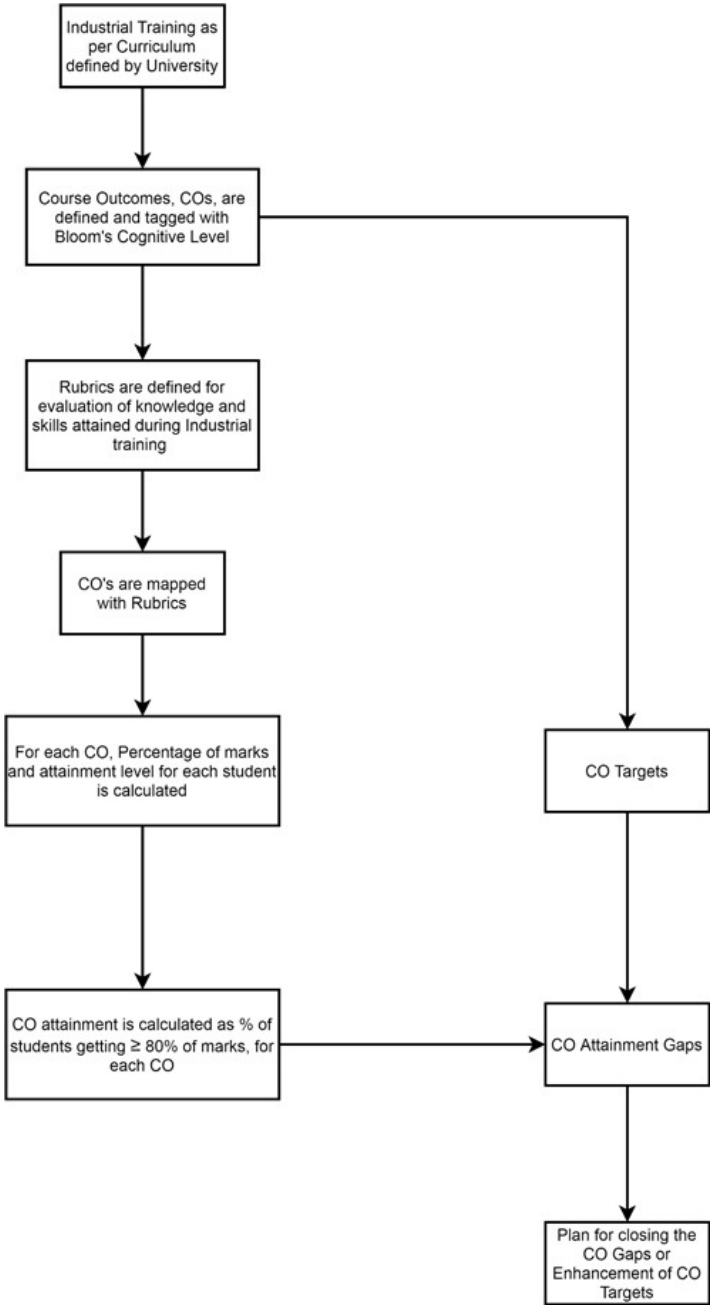

Figure B.3.2.1f CO attainment process for industrial training

Attainment Levels

Attainment level are measured in terms of students' performance with respect to course outcomes.

For theory courses, set attainment levels are

Attainment level 3: 60% or more students are getting ≥ 60% of marks.

Attainment level 2: 40% or more students are getting ≥ 60% of marks.

Attainment level 1: otherwise.

For courses other than theory courses, set attainment levels are

Attainment level 3: 80% or more students are getting ≥ 80% of marks.

Attainment level 2: 60% or more students are getting ≥ 80% of marks.

Attainment level 1: otherwise.

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

Institute Marks : 40.00

Table B.3.2.2 Record of attainments of course outcomes of all courses.

Course Outcome	Course Outcome Target (%)	Course Outcome Attainment (%)	Attainment Level
Engg. Mathematics I - NAS103			
NAS103.1	50	53.44	2
NAS103.2	50	53.38	2
NAS103.3	50	53.51	2
NAS103.4	50	53.51	2
NAS103.5	50	53.51	2
Electronics Engg. - NEC101			
NEC101.1	47	40.32	2
NEC101.2	47	40.32	2
NEC101.3	47	40.46	2
NEC101.4	47	40.53	2
NEC101.5	47	40.39	2
Engg. Chemistry - NAS102			
NAS102.1	45	46.81	2
NAS102.2	45	46.81	2
NAS102.3	45	46.88	2
NAS102.4	45	46.95	2
NAS102.5	45	46.95	2
Basic Electrical Engg. - NEE101			
NEE101.1	45	55.02	2
NEE101.2	45	55.02	2
NEE101.3	45	55.16	2
NEE101.4	45	55.23	2
NEE101.5	45	55.09	2
Engg. Physics I - NAS101			
NAS101.1	52	53.72	2
NAS101.2	52	53.51	2
NAS101.3	52	53.58	2
NAS101.4	52	53.65	2
Basic Manufacturing Processes - NME101			
NME101.1	50	51.39	2
NME101.2	50	51.87	2
NME101.3	50	51.87	2
NME101.4	50	51.94	2
Engg. Chemistry Lab - NAS152			
NAS152.1	75	92.11	3
NAS152.2	75	87.48	3
NAS152.3	75	83.95	3
NAS152.4	75	82.59	3
NAS152.5	75	85.31	3

Basic Electrical Engg. Lab - NEE151			
NEE151.1	77	93.34	3
NEE151.2	77	91.43	3
NEE151.3	77	84.08	3
NEE151.4	77	81.36	3
NEE151.5	77	80.27	3
Workshop Practice - NWS151			
NWS151.1	77	96.19	3
NWS151.2	77	91.56	3
NWS151.3	77	87.21	3
NWS151.4	77	81.77	3
NWS151.5	77	82.58	3
Engg. Physics Lab - NAS151			
NAS151.1	72	85.03	3
NAS151.2	72	82.31	3
NAS151.3	72	77.41	2
NAS151.4	72	74.15	2
NAS151.5	72	75.78	2
Engg. Mathematics II - NAS203			
NAS203.1	45	47.43	2
NAS203.2	45	47.36	2
NAS203.3	45	47.77	2
NAS203.4	45	47.84	2
NAS203.5	45	47.77	2
Professional Communication - NAS204			
NAS204.1	47	49.35	2
NAS204.2	47	49.76	2
NAS204.3	47	49.89	2
NAS204.4	47	49.96	2
NAS204.5	47	49.82	2
Engg. Mechanics - NME202			
NME202.1	45	46.06	2
NME202.2	45	46.00	2
NME202.3	45	45.93	2
NME202.4	45	45.79	2
NME202.5	45	45.86	2
Computer System and Programming in C - NCS201			
NCS201.1	47	56.59	2
NCS201.2	47	56.66	2
NCS201.3	47	56.80	2
NCS201.4	47	56.86	2
NCS201.5	47	56.80	2
Engg. Physics II - NAS201			
NAS201.1	55	65.55	3
NAS201.2	55	64.66	3

NAS201.3	55	65.55	3
NAS201.4	55	64.73	3
Environment & Ecology - NAS205			
NAS205.1	50	52.83	2
NAS205.2	50	53.51	2
NAS205.3	50	53.99	2
NAS205.4	50	53.10	2
Engg. Mechanics Lab - NME252			
NME252.1	76	86.53	3
NME252.2	76	84.90	3
NME252.3	76	81.36	3
NME252.4	76	78.10	2
NME252.5	76	80.27	3
Computer Programming Lab - NCS251			
NCS251.1	77	91.89	3
NCS251.2	77	92.34	3
NCS251.3	77	92.79	3
NCS251.4	77	93.46	3
NCS251.5	77	93.69	3
Computer Aided Engg. Graphics Lab - NCE251			
NCE251.1	80	89.39	3
NCE251.2	80	86.40	3
NCE251.3	80	83.40	3
NCE251.4	80	84.76	3
NCE251.5	80	86.40	3
Professional Communication Lab - NAS254			
NAS254.1	80	92.79	3
NAS254.2	80	87.89	3
NAS254.3	80	87.89	3
NAS254.4	80	85.99	3
NAS254.5	80	88.71	3
Laser Systems and Applications - NOE033			
NOE033.1	52	54.74	2
NOE033.2	52	54.67	2
NOE033.3	52	54.81	2
NOE033.4	52	54.88	2
NOE033.5	52	54.74	2
Digital Logic Design - NEC309			
NEC309.1	52	57.64	2
NEC309.2	52	57.57	2
NEC309.3	52	57.71	2
NEC309.4	52	57.64	2
NEC309.5	52	57.71	2
Data Structures Using C - NCS301			
NCS301.1	55	45.63	2

NCS301.2	55	46.06	2
NCS301.3	55	45.56	2
NCS301.4	55	46.21	2
NCS301.5	55	46.06	2
Discrete Structures and Graph Theory - NCS302			
NCS302.1	54	55.25	2
NCS302.2	54	55.32	2
NCS302.3	54	55.47	2
NCS302.4	54	55.47	2
NCS302.5	54	55.40	2
Industrial Psychology - NHU301			
NHU301.1	52	64.22	3
NHU301.2	52	64.14	3
NHU301.3	52	64.36	3
NHU301.4	52	64.43	3
Computer Based Numerical and Statistical Techniques - NCS303			
NCS303.1	55	50.84	2
NCS303.2	55	50.91	2
NCS303.3	55	50.70	2
NCS303.4	55	50.63	2
NCS303.5	55	50.99	2
Cyber Security - AUC002			
AUC002.1	52	40.92	2
AUC002.2	52	41.13	2
AUC002.3	52	39.05	1
AUC002.4	52	41.13	2
AUC002.5	52	40.99	2
Digital Logic Design Lab - NEC359			
NEC359.1	73	66.76	2
NEC359.2	73	64.46	2
NEC359.3	73	65.03	2
NEC359.4	73	64.75	2
NEC359.5	73	66.47	2
Data Structures Using C Lab - NCS351			
NCS351.1	78	82.67	3
NCS351.2	78	73.88	2
NCS351.3	78	80.06	3
NCS351.4	78	76.50	2
NCS351.5	78	82.67	3
Numerical Techniques Lab - NCS353			
NCS353.1	72	65.46	2
NCS353.2	72	63.74	2
NCS353.3	72	65.46	2

NCS353.4	72	66.62	2
NCS353.5	72	70.64	2
Advance Programming Lab - NCS355			
NCS355.1	75	90.27	3
NCS355.2	75	90.03	3
NCS355.3	75	89.32	3
NCS355.4	75	88.13	3
NCS355.5	75	92.88	3
Mathematics III - NAS401			
NAS401.1	52	63.78	3
NAS401.2	52	63.64	3
NAS401.3	52	63.50	3
NAS401.4	52	63.57	3
NAS401.5	52	63.42	3
Industrial Sociology - NHU402			
NHU402.1	54	55.77	2
NHU402.2	54	55.91	2
NHU402.3	54	55.77	2
NHU402.4	54	55.62	2
Introduction to Microprocessor - NEC409			
NEC409.1	52	49.76	2
NEC409.2	52	49.98	2
NEC409.3	52	50.41	2
NEC409.4	52	49.69	2
NEC409.5	52	50.34	2
Operating System - NCS401			
NCS401.1	55	61.98	3
NCS401.2	55	61.90	3
NCS401.3	55	61.76	3
NCS401.4	55	61.83	3
NCS401.5	55	61.69	3
Introduction to Automata and Formal Languages - NCS402			
NCS402.1	50	56.99	2
NCS402.2	50	56.92	2
NCS402.3	50	57.06	2
NCS402.4	50	57.06	2
NCS402.5	50	57.13	2
Computer Graphics - NCS403			
NCS403.1	52	50.99	2
NCS403.2	52	50.99	2
NCS403.3	52	50.91	2
NCS403.4	52	50.84	2
Human Values & Professional Ethics - AUC001			

AUC001.1	50	54.04	2
AUC001.2	50	53.75	2
AUC001.3	50	53.82	2
AUC001.4	50	53.89	2
AUC001.5	50	53.46	2
Microprocessor Lab - NEC459			
NEC459.1	78	82.02	3
NEC459.2	78	80.58	3
NEC459.3	78	82.02	3
NEC459.4	78	82.88	3
NEC459.5	78	84.03	3
Operating System Lab - NCS451			
NCS451.1	75	76.83	2
NCS451.2	75	78.56	2
NCS451.3	75	77.12	2
Computer Graphics Lab - NCS453			
NCS453.1	78	87.19	3
NCS453.2	78	81.15	3
NCS453.3	78	83.74	3
NCS453.4	78	89.50	3
NCS453.5	78	91.80	3
Functional and Logic Programming Lab - NCS455			
NCS455.1	77	75.68	2
NCS455.2	77	70.79	2
NCS455.3	77	85.18	3
Design and Analysis of Algorithm - NCS501			
NCS501.1	58	62.98	3
NCS501.2	58	62.62	3
NCS501.3	58	61.08	3
NCS501.4	58	56.83	2
NCS501.5	58	51.62	2
Database Management System - NCS502			
NCS502.1	57	59.58	2
NCS502.2	57	54.66	2
NCS502.3	57	58.41	2
NCS502.4	57	58.27	2
NCS502.5	57	51.59	2
Principle of Programming Language - NCS503			
NCS503.1	57	52.76	2
NCS503.2	57	53.80	2
NCS503.3	57	54.09	2
NCS503.4	57	54.23	2

NCS503.5	57	52.92	2
Web Technology - NCS504			
NCS504.1	58	60.27	3
NCS504.2	58	60.71	3
NCS504.3	58	57.48	2
NCS504.4	58	59.90	2
NCS504.5	58	60.48	3
Computer Architecture - NCS505			
NCS505.1	55	61.62	3
NCS505.2	55	59.64	2
NCS505.3	55	57.52	2
NCS505.4	55	56.63	2
Engineering Economics - NHU501			
NHU501.1	58	62.85	3
NHU501.2	58	62.78	3
NHU501.3	58	62.93	3
NHU501.4	58	62.93	3
Design and Analysis of Algorithm Lab - NCS551			
NCS551.1	71	70.96	2
NCS551.2	71	70.96	2
NCS551.3	71	72.15	2
NCS551.4	71	72.45	2
NCS551.5	71	74.52	2
DBMS Lab - NCS552			
NCS552.1	77	75.26	2
NCS552.2	77	70.82	2
NCS552.3	77	74.37	2
NCS552.4	77	72.89	2
NCS552.5	77	73.78	2
Principle of Programming Language Lab - NCS553			
NCS553.1	78	84.74	3
NCS553.2	78	81.48	3
NCS553.3	78	82.96	3
NCS553.4	78	82.96	3
NCS553.5	78	83.26	3
Web Technology Lab - NCS554			
NCS554.1	72	84.45	3
NCS554.2	72	81.48	3
NCS554.3	72	82.37	3
NCS554.4	72	82.07	3
NCS554.5	72	83.26	3
Computer Networks - NCS601			
NCS601.1	57	63.83	3
NCS601.2	57	63.83	3

NCS601.3	57	59.90	2
NCS601.4	57	63.83	3
NCS601.5	57	63.83	3
Software Engineering - NCS602			
NCS602.1	58	73.24	3
NCS602.2	58	72.28	3
NCS602.3	58	71.26	3
NCS602.4	58	71.47	3
NCS602.5	58	74.27	3
Compiler Design - NCS603			
NCS603.1	57	48.73	2
NCS603.2	57	46.97	2
NCS603.3	57	53.27	2
NCS603.4	57	49.75	2
NCS603.5	57	36.92	1
Parallel Algorithm - NCS063			
NCS063.1	56	58.29	2
NCS063.2	56	57.20	2
NCS063.3	56	56.02	2
NCS063.4	56	52.51	2
NCS063.5	56	52.94	2
Data Warehousing and Data Mining - NCS066			
NCS066.1	60	58.49	2
NCS066.2	60	60.48	3
NCS066.3	60	61.00	3
NCS066.4	60	57.17	2
NCS066.5	60	58.71	2
Industrial Management - NHU601			
NHU601.1	58	65.93	3
NHU601.2	58	66.08	3
NHU601.3	58	66.51	3
NHU601.4	58	66.44	3
Computer Networks Lab - NCS651			
NCS651.1	78	69.78	2
NCS651.2	78	70.37	2
NCS651.3	78	68.00	2
NCS651.4	78	70.67	2
NCS651.5	78	71.85	2
Software Engineering Lab - NCS652			
NCS652.1	76	97.92	3
NCS652.2	76	91.41	3
NCS652.3	76	94.37	3
NCS652.4	76	94.08	3
NCS652.5	76	98.82	3
Compiler Design Lab - NCS653			

NCS653.1	76	86.37	3
NCS653.2	76	79.56	2
NCS653.3	76	80.15	3
NCS653.4	76	80.74	3
NCS653.5	76	88.74	3
Seminar - NCS654			
NCS654.1	72	91.11	3
NCS654.2	72	65.93	2
NCS654.3	72	68.15	2
Distributed System - NCS701			
NCS701.1	62	78.26	3
NCS701.2	62	78.33	3
NCS701.3	62	78.26	3
NCS701.4	62	78.11	3
NCS701.5	62	78.41	3
Artificial Intelligence - NCS702			
NCS702.1	60	70.53	3
NCS702.2	60	68.76	3
NCS702.3	60	69.13	3
NCS702.4	60	70.45	3
NCS702.5	60	70.68	3
Software Testing and Audit - NCS071			
NCS071.1	65	68.96	3
NCS071.2	65	69.18	3
NCS071.3	65	69.04	3
NCS071.4	65	69.04	3
NCS071.5	65	68.96	3
Cryptography & Network Security - NIT701			
NIT701.1	63	66.10	3
NIT701.2	63	66.32	3
NIT701.3	63	66.39	3
NIT701.4	63	65.08	3
NIT701.5	63	67.57	3
Distributed System Lab - NCS751			
NCS751.1	77	95.70	3
NCS751.2	77	93.04	3
NCS751.3	77	94.82	3
Project - NCS752			
NCS752.1	70	97.78	3
NCS752.2	70	96.30	3
NCS752.3	70	80.00	3
NCS752.4	70	100.00	3
NCS752.5	70	88.15	3
Industrial Training - NCS753			
NCS753.1	72	79.26	2

NCS753.2	72	86.67	3
NCS753.3	72	77.78	2
NCS753.4	72	77.78	2
NCS753.5	72	80.00	3
Non-Conventional Energy Resources - NOE081			
NOE081.1	68	74.45	3
NOE081.2	68	74.45	3
NOE081.3	68	74.45	3
NOE081.4	68	74.45	3
Digital Image Processing - NCS801			
NCS801.1	67	68.28	3
NCS801.2	67	67.63	3
NCS801.3	67	66.53	3
NCS801.4	67	66.75	3
NCS801.5	67	67.48	3
Real Time System - NCS082			
NCS082.1	60	69.18	3
NCS082.2	60	69.55	3
NCS082.3	60	69.26	3
NCS082.4	60	68.82	3
NCS082.5	60	68.97	3
Data Compression - NCS085			
NCS085.1	65	84.59	3
NCS085.2	65	84.44	3
NCS085.3	65	84.08	3
NCS085.4	65	84.59	3
NCS085.5	65	83.79	3
Seminar - NCS851			
NCS851.1	75	88.15	3
NCS851.2	75	81.48	3
NCS851.3	75	82.22	3
Project - NCS852			
NCS852.1	78	100.00	3
NCS852.2	78	86.31	3
NCS852.3	78	100.00	3
NCS852.4	78	99.76	3
NCS852.5	78	99.27	3

3.3 Attainment of Program Outcomes and Program Specific Outcomes (50) Total Marks 50.00

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

Institute Marks : 10.00

Moradabad Institute of Technology is affiliated to Dr. A. P. J. Abdul Kalam Technical University, Lucknow. Program Computer Science and Engineering follows the curriculum given by university. Program Outcomes (POs), specified by NBA, are graduate attributes that an engineer should possesses after the completion of engineering. Program Specific Outcomes (PSOs), defined by the program, are attributes specific for computer science and engineering graduates. The attainment of program outcomes (POs) and program specific outcomes (PSOs) are computed by Direct Assessment of student performance in theory courses, practical courses, project, seminar and industrial training, i.e., from attainment of course outcomes, (Direct Attainment) and by Indirect Assessment using Student's exit survey, Alumni survey and Employer survey (Indirect Attainment) as shown in Table B.3.3.1. Theory courses includes core courses and elective courses, some elective courses are excluded from the PO attainment calculation, if that elective course does not opt by all students.

Table B.3.3.1 Assessment Instruments and Assessment Plan

Assessment Plan	**Assessment Instruments**	**Attainment calculations**
Direct Assessment	Theory courses	PO/ PSO attainment is calculated for each course. For Each PO/PSO, PO/PSO Attainment = (Actual mapping strength/ Maximum mapping strength) * average of attainments of relevant COs. Direct PO/PSO Attainment = Average attainments of POs/ PSOs.
	Practical courses	
	Project	
	Seminar	
	Industrial training	
Indirect Assessment	Student's exit survey	Indirect PO/PSO Attainment = 70% of attainment from Student's Exit Survey + 20% of attainment from Alumni Survey + 10% of attainment from Employer Survey.
	Alumni survey	
	Employer survey	

Process of PO/PSO Attainment is further explained in details as shown in Figure B.3.3.1.

Process for PO/PSO Attainment

1. Program outcomes (POs) are given by National Board of Accreditation (NBA) and Program specific outcomes (PSOs) are defined by department.
2. Curriculum given by university is adopted by program.
3. PSO/PO Targets are defined for program.
4. Calculation of Direct attainment of POs/PSOs
    a. For each course, PO attainment is calculated as
        i. Course outcomes are defined by faculty and tagged with cognitive levels.
        ii. CO are mapped with POs and PSOs.
        iii. Mapping strength of each PO and PSO is computed.
        iv. CO attainment is computed as per process mentioned in sub-criterion 3.2.1
        v. For each PO/PSO, relevant COs are identified.
        vi. For each PO/PSO, PO/PSO attainment = (Actual mapping strength/ Maximum mapping strength) * Average of attainment of relevant COs.
    b. Direct attainment = Average of attainments of POs and PSOs.
5. Calculation of Indirect attainment of POs/PSOs.
    a. Student's exit survey for all POs/PSOs is taken from graduating students.
    b. Attainment from student's exit survey is computed by taking average of all entries for each PO/PSO.
    c. Alumni survey for all POs/PSOs is taken from alumni.
    d. Attainment from alumni Survey is computed by taking average of all entries for each PO/PSO.
    e. Employer survey for all POs/PSOs is taken from employers.

f. Attainment from employer survey is computed by taking average of all entries for each PO/PSO.

g. Indirect attainment = 70% of attainment from student's exit survey + 20% of attainment from alumni survey + 10% of attainment from employer Survey.

6. For each PO/PSO, Total attainment = 80% of direct attainment + 20% of indirect attainment.

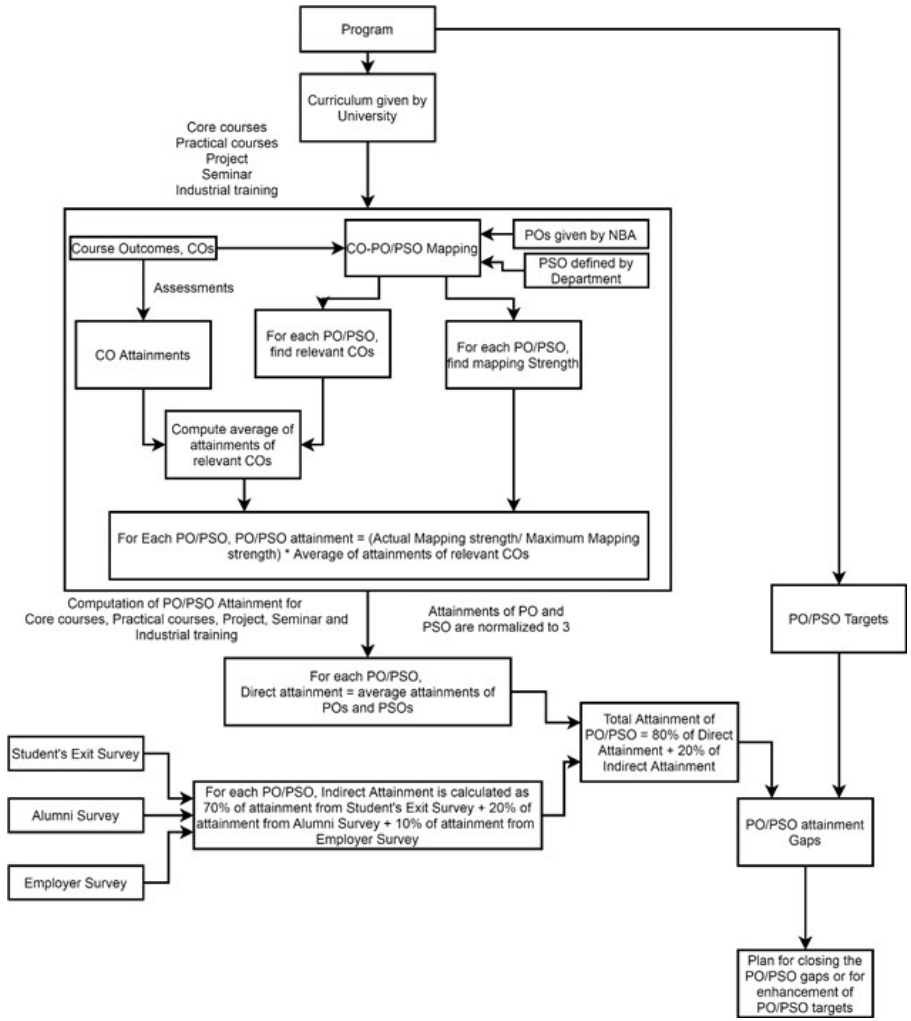

Figure B.3.3.1 PO/PSO attainment process

3.3.2 Provide results of evaluation of PO&PSO (40)

Institute Marks : 40.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
AUC001	PO1	PO2	0.54	PO4	PO5	0.65	PO7	1.18	PO9	0.54	PO11	0.75

AUC002	1.12	1.12	1.06	0.81	1.12	0.51	0.67	0.82	PO9	1.03	0.41	PO12
NAS101	1.47	1.21	1.07	0.94	1.21	PO6	PO7	PO8	PO9	1.07	PO11	1.47
NAS102	1.13	0.94	PO3	0.47	0.47	0.47	0.7	PO8	PO9	0.47	PO11	0.75
NAS103	1.6	1.07	PO3	0.54	PO5	PO6	PO7	PO8	PO9	0.53	PO11	0.53
NAS151	2.37	1.26	PO3	1.42	0.95	PO6	PO7	PO8	1.74	PO10	0.78	0.76
NAS152	1.9	1.38	0.84	1.04	1.71	0.88	1.5	PO8	PO9	0.86	PO11	0.87
NAS201	1.79	1.47	1.3	1.14	1.47	PO6	PO7	PO8	PO9	1.31	PO11	1.79
NAS203	1.43	0.95	PO3	0.48	PO5	PO6	PO7	PO8	PO9	0.48	PO11	0.48
NAS204	0.7	0.6	PO3	PO4	PO5	0.7	PO7	0.6	PO9	1.49	PO11	0.6
NAS205	0.67	0.93	0.54	0.53	PO5	0.53	1.6	1.06	PO9	0.53	PO11	0.67
NAS254	1.24	1.06	PO3	PO4	PO5	1.24	PO7	1.06	PO9	2.66	PO11	1.06
NAS401	1.91	1.27	PO3	0.64	PO5	PO6	PO7	PO8	PO9	0.64	PO11	0.64
NCE251	2.58	1.89	1.73	1.72	2.57	1.72	0.86	PO8	1.72	2.58	2.58	1.72
NCS063	1.44	0.96	PO3	PO4	PO5	PO6	PO7	PO8	PO9	0.55	PO11	PO12
NCS066	1.78	1.37	1.62	1.79	1.77	1.14	PO7	PO8	PO9	0.59	PO11	PO12
NCS071	1.79	PO2	0.69	PO4	PO5	PO6	PO7	0.69	PO9	0.69	PO11	PO12
NCS082	2.07	1.11	1.66	PO4	PO5	1.38	PO7	PO8	PO9	1.66	PO11	2.08
NCS085	2.53	0.84	1.35	PO4	PO5	PO6	PO7	PO8	PO9	1.35	PO11	PO12
NCS201	1.7	0.57	1.59	PO4	1.13	PO6	PO7	PO8	0.57	0.57	PO11	PO12
NCS251	2.78	0.93	1.86	PO4	1.86	PO6	PO7	PO8	0.93	0.93	PO11	PO12
NCS301	1.38	0.46	PO3	PO4	0.46	PO6	PO7	PO8	0.46	0.46	PO11	PO12
NCS302	1.66	0.55	1.11	PO4	0.55	PO6	PO7	PO8	PO9	0.55	PO11	PO12
NCS303	1.02	1.52	PO3	PO4	0.51	PO6	PO7	PO8	0.51	PO10	PO11	PO12
NCS351	2.37	0.79	1.9	PO4	1.58	PO6	PO7	PO8	1.43	1.11	PO11	PO12
NCS353	1.99	1.99	1.33	PO4	1.33	PO6	PO7	PO8	0.66	PO10	PO11	PO12
NCS355	2.52	1.62	1.98	PO4	1.8	PO6	PO7	PO8	PO9	PO10	PO11	PO12
NCS401	1.85	1.73	1.85	1.73	1.36	0.62	PO7	PO8	PO9	0.99	0.62	0.62
NCS402	1.71	1.14	1.48	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.14
NCS403	1.27	0.51	1.15	PO4	0.51	1.02	PO7	PO8	PO9	PO10	PO11	PO12
NCS451	2.33	0.77	2.33	PO4	0.77	PO6	PO7	PO8	0.77	1.55	PO11	PO12
NCS453	2.6	0.87	1.73	PO4	1.73	PO6	PO7	PO8	PO9	0.87	PO11	PO12
NCS455	2.32	1.03	1.8	PO4	1.8	PO6	PO7	PO8	0.77	PO10	PO11	PO12

NCS501	1.53	1.53	1.53	PO4	PO5	PO6	PO7	PO8	1.65	1.3	PO11	PO12
NCS502	1.7	0.79	1.13	PO4	1.36	PO6	PO7	PO8	0.56	0.56	PO11	PO12
NCS503	1.07	1.08	0.71	1.35	0.94	PO6	PO7	PO8	0.71	0.8	0.8	0.8
NCS504	1.55	1.31	1.79	PO4	1.55	0.84	PO7	PO8	0.89	1.31	0.72	PO12
NCS505	1.77	PO2	1.59	PO4	PO5	PO6	PO7	PO8	PO9	0.59	PO11	PO12
NCS551	2.17	0.72	1.44	PO4	1.44	PO6	PO7	PO8	0.72	0.72	PO11	1.59
NCS552	2.2	1.03	2.06	PO4	2.2	PO6	PO7	PO8	0.73	PO10	0.73	0.73
NCS553	2.49	1	1.33	PO4	1.5	PO6	PO7	PO8	0.83	0.83	PO11	PO12
NCS554	2.48	1.65	2.48	PO4	1.65	PO6	PO7	PO8	0.83	0.83	PO11	PO12
NCS601	1.73	1.73	1.67	1.77	1.41	PO6	PO7	PO8	PO9	1.28	0.83	1.13
NCS602	2.18	1.27	0.96	0.73	PO5	1.6	PO7	PO8	PO9	PO10	PO11	PO12
NCS603	1.41	0.47	PO3	PO4	PO5	PO6	PO7	PO8	0.47	0.47	PO11	PO12
NCS651	2.1	1.4	1.4	PO4	1.26	PO6	PO7	PO8	PO9	PO10	0.71	0.71
NCS652	2.86	2.86	1.91	PO4	2.48	PO6	PO7	PO8	1.72	1.33	PO11	PO12
NCS653	2.49	0.83	1.66	PO4	0.83	PO6	PO7	PO8	0.83	0.83	PO11	PO12
NCS654	2.36	PO2	PO3	2.73	1.36	PO6	PO7	1.98	1.5	2.01	PO11	2.04
NCS701	2.35	1.57	1.88	PO4	0.78	PO6	PO7	PO8	PO9	PO10	PO11	PO12
NCS702	2.1	1.4	1.54	1.12	0.69	PO6	PO7	PO8	PO9	PO10	PO11	PO12
NCS751	1.89	1.89	2.2	PO4	0.95	PO6	PO7	PO8	0.95	PO10	PO11	PO12
NCS752	2.4	2.4	2.68	2.39	2.08	2.03	2.29	2.29	2.77	2.28	2.4	2.4
NCS753	2.41	2.41	PO3	PO4	1.56	PO6	PO7	2.44	1.59	2.41	1.61	2.41
NCS801	1.89	1.21	1.51	1.34	PO5	0.9	PO7	0.67	PO9	1.37	PO11	PO12
NCS851	2.54	0.88	PO3	0.88	2.47	PO6	PO7	1.63	1.64	2.46	PO11	2.47
NCS852	2.52	2.52	2.99	2.66	2.32	2.14	2.49	2.49	2.91	2.41	2.52	2.52
NEC101	1.13	PO2	1.05	PO4	PO5	PO6	PO7	PO8	0.81	0.89	PO11	PO12
NEC309	1.73	1.15	1.01	PO4	0.58	PO6	PO7	PO8	0.58	PO10	PO11	PO12
NEC359	1.96	PO2	1.31	PO4	1.31	PO6	PO7	PO8	0.65	0.65	PO11	PO12
NEC409	1.3	1.2	1	1.1	0.9	PO6	PO7	PO8	1.01	PO10	PO11	1.5
NEC459	2.47	1.65	2.14	1.65	PO5	PO6	PO7	PO8	1.81	PO10	PO11	1.64
NEE101	1.65	0.55	1.1	PO4	1.54	PO6	PO7	PO8	1.43	1.21	PO11	PO12
NEE151	2.58	0.86	1.89	2.41	PO5	0.86	PO7	PO8	1.72	2.24	PO11	1.89
NHU301	PO1	0.64	0.64	PO4	PO5	0.96	PO7	0.8	PO9	0.8	PO11	0.8

NHU402	0.56	0.56	0.74	PO4	PO5	0.74	0.56	1.11	PO9	0.93	PO11	0.84
NHU501	1.26	1.26	1.26	PO4	PO5	1.26	PO7	PO8	0.63	1.26	1.89	PO12
NHU601	1.32	PO2	1.99	PO4	PO5	1.99	PO7	PO8	0.66	1.32	1.98	PO12
NIT701	1.99	1.59	1.98	1.54	PO5	1.19	PO7	0.99	PO9	PO10	PO11	PO12
NME101	1.55	1.55	1.29	1.29	0.78	0.52	0.52	PO8	0.52	0.52	0.52	0.52
NME202	1.38	1.38	0.92	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.46
NME252	1.64	1.64	1.97	2.14	1.48	PO6	PO7	PO8	0.82	0.82	PO11	PO12
NOE033	1.42	1.64	0.99	1.42	PO5	PO6	PO7	PO8	PO9	0.82	PO11	1.53
NOE081	0.74	PO2	1.12	PO4	PO5	1.49	1.3	PO8	PO9	0.74	PO11	PO12
NWS151	1.76	0.88	0.88	0.88	1.23	1.76	0.88	0.88	1.76	0.88	PO11	2.11

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO Attainment	2.02	1.53	1.72	1.64	1.62	1.45	1.51	1.60	1.47	1.44	1.58	1.57
Direct Attainment	1.83	1.23	1.48	1.36	1.35	1.12	1.22	1.29	1.11	1.10	1.27	1.26
InDirect Attainment	2.79	2.74	2.7	2.77	2.71	2.77	2.68	2.84	2.9	2.79	2.81	2.82

PSO Attainment

Course	PSO1	PSO2
AUC001	PSO1	PSO2
AUC002	1.22	0.98
NAS101	PSO1	PSO2
NAS102	PSO1	PSO2
NAS103	PSO1	PSO2
NAS151	PSO1	PSO2
NAS152	PSO1	PSO2
NAS201	PSO1	PSO2
NAS203	PSO1	PSO2
NAS204	PSO1	PSO2
NAS205	PSO1	PSO2
NAS254	PSO1	PSO2
NAS401	PSO1	PSO2
NCE251	PSO1	PSO2

NCS063	1.66	1.33
NCS066	1.66	1.42
NCS071	1.93	1.79
NCS082	2.07	PSO2
NCS085	2.53	PSO2
NCS201	1.7	1.7
NCS251	2.78	2.78
NCS301	1.38	1.38
NCS302	1.66	PSO2
NCS303	1.02	0.51
NCS351	2.37	2.37
NCS353	1.99	1.33
NCS355	2.7	1.8
NCS401	1.85	0.62
NCS402	1.71	PSO2
NCS403	1.53	1.02
NCS451	2.33	2.33
NCS453	2.6	1.73
NCS455	2.32	1.8
NCS501	1.77	1.77
NCS502	1.7	1.7
NCS503	1.5	1.29
NCS504	1.79	1.79
NCS505	1.77	PSO2
NCS551	2.17	2.17
NCS552	2.2	2.2
NCS553	2.49	1.83
NCS554	2.48	0.83
NCS601	1.89	1.77
NCS602	2.18	2.18
NCS603	1.41	1.41
NCS651	2.1	2.1

NCS652	2.86	2.86
NCS653	2.49	2.49
NCS654	2.25	2.25
NCS701	2.35	1.41
NCS702	2.1	2.1
NCS751	1.89	0.95
NCS752	2.77	2.77
NCS753	2.41	2.41
NCS801	1.62	1.48
NCS851	2.52	1.68
NCS852	2.91	2.91
NEC101	PSO1	PSO2
NEC309	1.15	PSO2
NEC359	1.31	PSO2
NEC409	PSO1	PSO2
NEC459	PSO1	PSO2
NEE101	PSO1	PSO2
NEE151	PSO1	PSO2
NHU301	PSO1	PSO2
NHU402	PSO1	PSO2
NHU501	PSO1	PSO2
NHU601	PSO1	PSO2
NIT701	1.46	1.33
NME101	PSO1	PSO2
NME202	PSO1	PSO2
NME252	PSO1	PSO2
NOE033	PSO1	PSO2
NOE081	PSO1	PSO2
NWS151	PSO1	PSO2

PSO Attainment Level

Course	PSO1	PSO2
CO Attainment	2.16	1.95

Direct Attainment	2.01	1.76
InDirect Attainment	2.74	2.71

4 STUDENTS' PERFORMANCE (150) Total Marks 121.80

:

Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2019-20 (CAY)	2018-19 (CAYm1)	2017-18(CAYm2)	2016-17(CAYm3)	2015-16(CAYm4)	2014-15 (CAYm5)	2013-14 (CAYm6)
Sanctioned intake of the program(N)	180	180	180	180	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)	171	171	171	182	163	159	125
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	6	4	7	2	7	7
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	171	177	175	189	165	166	132

Table 4.2

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
2019-20 (CAY)	171	0	0	0	0
2018-19 (CAYm1)	177	102	0	0	0
2017-18 (CAYm2)	175	109	92	0	0
2016-17 (CAYm3)	189	127	113	104	0
2015-16 (LYG)	165	89	78	78	78
2014-15 (LYGm1)	166	81	79	76	76
2013-14 (LYGm2)	132	108	101	94	92

Table 4.3

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
2019-20 (CAY)	171	0	0	0	0
2018-19 (CAYm1)	177	159	0	0	0
2017-18 (CAYm2)	175	167	167	0	0
2016-17 (CAYm3)	189	177	178	177	0
2015-16 (LYG)	165	150	133	132	132
2014-15 (LYGm1)	166	147	148	146	146
2013-14 (LYGm2)	132	122	126	124	124

4.1 Enrolment Ratio (20)

Total Marks 20.00

Institute Marks : 20.00

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2019-20 (CAY)	180	171	95.00
2018-19 (CAYm1)	180	171	95.00
2017-18 (CAYm2)	180	171	95.00

Average [(ER1 + ER2 + ER3) / 3] : 95.00

Assessment : 20.00

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

Total Marks 26.60

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

Institute Marks : 13.50

Item	Latest Year of Graduation, LYG (2015-16)	Latest Year of Graduation minus 1, LYGm1 (2014-15)	Latest Year of Graduation minus 2 LYGm2 (2013-14)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	165.00	166.00	132.00
Y Number of students who have graduated without backlogs in the stipulated period	78.00	76.00	92.00
Success Index [SI = Y / X]	0.47	0.46	0.70

Average SI [(SI1 + SI2 + SI3) / 3] : 0.54

Assessment [25 * Average SI] : 13.50

4.2.2 Sucess rate in stipulated period (15)

Institute Marks : 13.10

Item	Latest Year of Graduation, LYG (2015-16)	Latest Year of Graduation minus 1, LYGm1 (2014-15)	Latest Year of Graduation minus 2 LYGm2 (2013-14)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	165.00	166.00	132.00
Y Number of students who have graduated in the stipulated period	132.00	146.00	124.00
Success Index [SI = Y / X]	0.80	0.88	0.94

Average SI[(SI1 + SI2 + SI3) / 3]: 0.87

Assessment [15 * Average SI] : 13.10

Note : If 100% students clear without any backlog 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)

Total Marks 10.70

Institute Marks : 10.70

Academic Performance	CAYm3 (2016-17)	LYG (2015-16)	LYGm1 (2014-15)
Mean of CGPA or mean percentage of all successful students(X)	7.38	6.94	7.27
Total number of successful students(Y)	177.00	132.00	146.00
Totalnumber of students appeared in the examination(Z)	178.00	133.00	148.00
API [X*(Y/Z)]:	7.34	6.89	7.17

Average API [(AP1 + AP2 + AP3)/3] : 7.13

Assessment [1.5 * AverageAPI] : 10.70

4.4 Academic Performance in Second Year (15)

Total Marks 9.97

Institute Marks : 9.97

Academic Performance	CAYm2 (2017-18)	CAYm3 (2016-17)	LYG (2015-16)
Mean of CGPA or mean percentage of all successful students(X)	7.15	7.35	6.69
Total number of successful students (Y)	167.00	178.00	133.00
Total number of students appeared in the examination (Z)	171.00	184.00	152.00
API [X * (Y/Z)]	6.98	7.11	5.85

Average API [(AP1 + AP2 + AP3)/3] : 6.65

Assessment [1.5 * AverageAPI] : 9.97

4.5 Placement, Higher Studies and Entrepreneurship (40)

Total Marks 34.53

Institute Marks : 34.53

Item	LYG (2015-16)	LYGm1 (2014-15)	LYGm2 (2013-14)
Total No of Final Year Students(N)	132.00	146.00	124.00
No of students placed in the companies or government sector(X)	118.00	105.00	97.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	3.00	8.00	7.00
No of students turned entrepreneur in engineering/technology (Z)	4.00	2.00	1.00
x + y + z =	125.00	115.00	105.00
Placement Index [(X+Y+Z)/N] :	0.95	0.79	0.85

Average Placement [(P1 + P2 + P3)/3] : 0.86

Assessment [40 * Average Placement] : 34.53

Program Name : Mechanical Engg.
Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	AAKASH KUMAR	150821020404	Tech. Mahindra	OL/TM/18-19/001, 15.10.2019
2	AAKRITI GUPTA	150821020405	Tata Consultancy Services	TCSL/CT20182363041/Delhi, 26.06.19
3	AANCHAL GUPTA	150821020406	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2210, 17.04.19
4	AANCHAL SAXENA	150821020407	Money Capital Height	OL/MCH/18-19/001, 19.02.19
5	AASTHA AGARWAL	150821020408	Wipro Technologies	OL/WIP/2018-19/001, 12.01.19
6	ABHIMANYU THAKUR	150821020411	Money Capital Height	OL/MCH/18-19/002, 19.02.19
7	ABHISHEK SHARMA	150821020412	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2212, 17.04.19
8	ADITYA KUMAR	150821020413	Tata Consultancy Services	OL/TCS/2018-19/003, 20.07.18
9	AISHWARYA GUPTA	150821020414	Tata Consultancy Services	TCSL/CT20172209514/Delhi. 09.10.18
10	AJAY KUMAR	150821020415	Pie Infocomm Pvt. Ltd.	Employee code – 2227
11	AKARSH SAXENA	150821020416	Tata Consultancy Services	TCSL/CT20172195364/Delhi, 30.08.18
12	AKASH DUBEY	150821020417	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2213, 17.04.19
13	AKSHAT RATHOR	150821020418	Cognizant Technologies	OL/COGZ/18-19/001, 31.05.19
14	ALOK KUMAR SRIVASTAVA	150821020420	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2214, 17.04.19
15	AMAN SINGH	150821020421	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2215, 17.04.19
16	AMAN SINGH PAWAR	150821020422	Tata Consultancy Services	TCSL/CT20182362250/Delhi, 09.10.18
17	ANANYA GUPTA	150821020424	Tata Consultancy Services	TCSL/CT20182362231/Delhi. 09.10.18
18	ANKITA UPADHYAY	150821020427	Wipro Technologies	OL/WIP/2018-19/002, 12.01.19
19	ANSHIKA SHARMA	150821020429	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2211, 17.04.19
20	ANSHUL VARSHNEY	150821020430	Wipro Technologies	OL/WIP/2018-19/003, 12.01.19
21	ARISHA SHAHID	150821020431	Tata Consultancy Services	TCSL/CT20182362801/Delhi, 09.10.18
22	ARTI GUPTA	150821020433	Pie Infocomm Pvt. Ltd.	Employee code – 2236
23	ASHAR ALI	150821020434	Tech. Mahindra	OL/TM/18-19/002, 15.10.2019
24	ASHUTOSH SINGH	150821020435	Tata Consultancy Services	TCSL/CT20172209919/Delhi, 09.10.18
25	AYUSHI CHAUHAN	150821020439	Money Capital Height	OL/MCH/18-19/017, 19.02.19
26	BABITA	150821020440	Money Capital Height	OL/MCH/18-19/015, 19.02.19
27	CHIRAG DEWAL	150821020441	Pie Infocomm Pvt. Ltd.	Employee code – 2219
28	DEEPANSHU GUPTA	150821020443	Tata Consultancy Services	TCSL/CT20172209629/Delhi, 09.10.18
29	DHRUV SINGHAL	150821020445	Wipro Technologies	OL/WIP/2018-19/004, 12.01.19
30	DISHA SHARMA	150821020447	Wipro Technologies	OL/WIP/2018-19/005, 12.01.19
31	DIVYA GUPTA	150821020448	Money Capital Height	OL/MCH/18-19/016, 19.02.19

32	DIVYANSHI AGARWAL	150821020449	Pie Infocomm Pvt. Ltd.	Employee code – 2216
33	GARGI DHYANI	150821020451	Pie Infocomm Pvt. Ltd.	Employee code – 2214
34	GAURI AGARWAL	150821020452	Tata Consultancy Services	TCSL/CT20172211232/Delhi, 26.06.19
35	GOURANG KUKRERIYA	150821020453	Money Capital Height	OL/MCH/18-19/018, 19.02.19
36	HARSHIT KUMAR	150821020454	Tata Consultancy Services	TCSL/DT20184585915/Delhi 09.10.18
37	HARSHITA GUPTA	150821020455	Tech. Mahindra	OL/TM/18-19/003, 15.10.2019
38	HEMANT KAUSHIK	150821020456	Money Capital Height	OL/MCH/18-19/003, 19.02.19
39	HIMANSHU YADAV	150821020458	Pie Infocomm Pvt. Ltd.	Employee code – 2226
40	HIMANSHU YADAV	150821020459	Wipro Technologies	OL/WIP/2018-19/006, 12.01.19
41	ISHA MADAN	150821020460	Tata Consultancy Services	TCSL/DT20184225998/Delhi, 09.10.18
42	JYOTI GUPTA	150821020462	Tata Consultancy Services	TCSL/CT20172209939/Delhi, 09.10.18
43	KIRTIJA RASTOGI	150821020463	Wipro Technologies	OL/WIP/2018-19/007, 12.01.19
44	KRISHNA KUMAR SINGH	150821020465	Marquis Technologies Ltd.	OL/MAR/18-19/001
45	KRISHNA SHRIVASTVA	150821020466	Pie Infocomm Pvt. Ltd.	Employee code – 2225
46	LAKSHIT RANA AGNIVANSHI	150821020467	Pie Infocomm Pvt. Ltd.	Employee code – 2215
47	LUCKY VERMA	150821020468	The White Hatter	OL/WH/2018-19/005, 13.05.19
48	MANAS AGARWAL	150821020469	Wipro Technologies	OL/WIP/2018-19/8, 12.01.19
49	MANISH KUMAR SINGH	150821020470	Pie Infocomm Pvt. Ltd.	Employee code – 2224
50	MANISHA KUMARI	150821020471	Cognizant Technologies	OL/COGZ/18-19/002, 18.03.19
51	MANPREET SINGH	150821020472	Wipro Technologies	OL/WIP/2018-19/008, 12.01.19
52	MANSI BHATNAGAR	150821020473	Tech. Mahindra	OL/TM/18-19/004, 15.10.2019
53	MANVI RAHEJA	150821020474	Pie Infocomm Pvt. Ltd.	Employee code – 2223
54	MANVI RASTOGI	150821020475	Tech. Mahindra	OL/TM/18-19/005, 15.10.2019
55	MAYURI DUBEY	150821020477	Pie Infocomm Pvt. Ltd.	Employee code – 2222
56	MOHAMMAD AKBAR	150821020479	The White Hatter	OL/WH/2018-19/006, 13.05.19
57	MOHAMMAD SALMAN	150821020481	Money Capital Height	OL/MCH/18-19/004, 19.02.19
58	MOHD. AHMER	150821020483	Pie Infocomm Pvt. Ltd.	Employee code – 2221
59	MOHD AHTESHAM	150821020484	Money Capital Height	OL/MCH/18-19/012, 19.02.19
60	MOHD FAIZAN	150821020485	Tata Consultancy Services	OL/TCS/2018-19/005, 20.07.18
61	MOHD UBAID	150821020488	Tata Consultancy Services	TCSL/CT20182362383/Delhi, 09.10.18
62	MUSKAN JOHRI	150821020489	Tata Consultancy Services	TCSL/DT20184226645/Delhi, 09.10.18
63	NIKHIL GOLD	150821020490	Tata Consultancy Services	TCSL/CT20172209745/Delhi, 26.06.19

64	NIKUNJ KRISHAN	150821020491	Wipro Technologies	OL/WIP/2018-19/009, 12.01.19
65	NISHIT KUMAR JAIN	150821020493	Tata Consultancy Services	TCSL/CT20182362712/Delhi, 09.10.18
66	NITISH JOHRI	150821020495	Money Capital Height	OL/MCH/18-19/005, 19.02.19
67	PALLAV BANSAL	150821020496	Money Capital Height	OL/MCH/18-19/020, 19.02.19
68	PIYUSH KUMAR SAINI	150821020498	Cognizant Technologies	OL/COGZ/18-19/003, 18.03.19
69	POURUSH SIROHI	150821020499	Wipro Technologies	OL/WIP/2018-19/010, 12.01.19
70	KM PRACHI SISODIYA	150821020500	Money Capital Height	OL/MCH/18-19/019, 19.02.19
71	PRAGYA GUPTA	150821020501	Tata Consultancy Services	OL/TCS/2018-19/002, 20.07.18
72	PRAJJWAL BHARDWAJ	150821020502	Pie Infocomm Pvt. Ltd.	Employee code – 2233
73	PRANJAL GUPTA	150821020504	Tata Consultancy Services	TCSL/CT20172209717/Delhi, 09.10.18
74	PRANSHI SAXENA	150821020505	Wipro Technologies	OL/WIP/2018-19/011, 12.01.19
75	PRIYA GUPTA	150821020508	Tata Consultancy Services	TCSL/CT20182363186/Delhi, 26.06.2019
76	PUKAR CHAUHAN	150821020509	Tata Consultancy Services	TCSL/CT20172211234/Delhi, 09.10.18
77	RAJAT RASTOGI	150821020511	Cognizant Technologies	OL/COGZ/18-19/004, 15.03.19
78	RAJAT SAINI	150821020512	Wipro Technologies	OL/WIP/2018-19/012, 12.01.19
79	RAJAT SHARMA	150821020513	Money Capital Height	OL/MCH/18-19/006, 19.02.19
80	RASHI SHARMA	150821020514	Tata Consultancy Services	TCSL/CT20182362750/Delhi, 09.10.18
81	RAYYAN AMANAT	150821020515	Pie Infocomm Pvt. Ltd.	Employee code – 2220
82	RISHABH AGARWAL	150821020516	Money Capital Height	OL/MCH/18-19/007, 19.02.19
83	ROHIT KUMAR	150821020519	Marquis Technologies Ltd.	OL/MAR/18-19/002, 16.04.19
84	SAHIN PARVEEN	150821020521	Pie Infocomm Pvt. Ltd.	Employee code – 2218
85	SAKSHAM CHAUDHARY	150821020522	Wipro Technologies	OL/WIP/2018-19/013, 12.01.19
86	SAKSHI BHALLA	150821020523	Money Capital Height	OL/MCH/18-19/008, 19.02.19
87	SAKSHI GUPTA	150821020524	Cognizant Technologies	OL/COGZ/18-19/005, 30.05.19
88	SANJAY SAINI	150821020525	Money Capital Height	OL/MCH/18-19/009, 19.02.19
89	SARTHAK MAHAJAN	150821020526	Pie Infocomm Pvt. Ltd.	Employee code – 2217
90	SAUMYA GUPTA	150821020527	Wipro Technologies	OL/WIP/2018-19/016, 12.01.19
91	SHANVI SHARMA	150821020529	Money Capital Height	OL/MCH/18-19/010, 19.02.19
92	SHARESHTH SHARMA	150821020530	Pie Infocomm Pvt. Ltd.	Employee code – 2229
93	SHIKHAR GUPTA	150821020531	Tata Consultancy Services	TCSL/CT20172209593/Delhi, 09.10.18
94	SHREET BHATNAGAR	150821020534	Wipro Technologies	OL/WIP/2018-19/014, 12.01.19
95	SHREYA AGARWAL	150821020535	Capgemini	OL/CAP/18-19/001, 31.05.19

96	SHUBHAM JAIN	150821020538	Global Logic	OL/GL/18-19/001, 31.03.19
97	SIDDHARTH RASTOGI	150821020543	Wipro Technologies	OL/WIP/2018-19/015, 12.01.19
98	SIDDHARTHA GAUTAM	150821020544	Tech. Mahindra	OL/TM/18-19/009, 15.10.2019
99	SIMRAN ARORA	150821020545	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2219, 17.04.19
100	SIMRAN ARORA	150821020546	Capgemini	OL/CAP/18-19/001, 20.04.19
101	SIMRAN PASRIJA	150821020547	Cognizant Technologies	OL/COGZ/18-19/006, 18.03.19
102	SNOWY AGARWAL	150821020548	Emeis Technologies	OL/EMT/18-19/004
103	SOMYA GUPTA	150821020549	Money Capital Height	OL/MCH/18-19/011, 19.02.19
104	SONU	150821020550	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2218, 17.04.19
105	SUKRITI AGARWAL	150821020551	Tata Consultancy Services	TCSL/CT20184225861/Delhi, 09.10.18
106	SURBHI BHATNAGAR	150821020553	Pie Infocomm Pvt. Ltd.	Employee code – 2213
107	SWATI	150821020554	Money Capital Height	OL/MCH/18-19/013, 19.02.19
108	SWATI SINGH	150821020555	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2217, 17.04.19
109	TAIYYAB HUSSAIN	150821020556	Money Capital Height	OL/MCH/18-19/014, 19.02.19
110	TANVI SHARMA	150821020557	Wipro Technologies	OL/WIP/2018-19/017, 12.01.19
111	TANYA GUPTA	150821020558	Tata Consultancy Services	TCSL/CT20172209919/Delhi, 09.10.18
112	TUSHAR RASTOGI	150821020560	Wipro Technologies	OL/WIP/2018-19/018, 12.01.19
113	UJJWAL RASTOGI	150821020562	Pie Infocomm Pvt. Ltd.	Employee code – 2212
114	UTKARSHA GARG	150821020563	Wipro Technologies	OL/WIP/2018-19/019, 12.01.19
115	VIKAS SAHNI	150821020564	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2216, 17.04.19
116	YASH VERMA	150821020566	Mphasis	OL/MPS/18-19/001, 16.05.19
117	ZAIN RAZA	150821020567	Tech. Mahindra	OL/TM/18-19/010, 15.10.2019
118	PRACHI SINGH	150820020364	Tech. Mahindra	OL/TM/18-19/007, 15.10.2019

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	AAKASH TRIPATHI	140821020112	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2114, 14.12.17
2	AANCHAL VERMA	140821020113	Mobiloite	OL/Mobi/17-18/001, 12.07.18
3	AASHIKA KAUSHIK	140821020114	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2143, 14.12.17
4	AAYUSHI AGARWAL	140821020115	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2161, 14.12.17
5	ABHIJEET SEJWAL	140821020116	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2154, 14.12.17
6	ABHISHEK	140821020118	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2165, 14.12.17
7	ABHISHEK KUMAR	140821020120	Pie Infocomm Pvt. Ltd.	Employee code- 888
8	ADITI SRIVASTAVA	140821020121	Collabera	Collabera/NOI/HR/COL/114,
9	ADITI TANDON	140821020122	Pie Infocomm Pvt. Ltd.	Employee code- 925
10	AFZAL AHMAD	140821020123	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2144, 14.12.17
11	AKHIL SRIVASTAVA	140821020125	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2176, 14.12.17
12	AMAN GAUR	140821020126	Smart Data	OL/SD/17-18/001, 29.05.18
13	AMAN RAJ	140821020127	Smart Data	OL/SD/17-18/002, 29.05.18
14	AMBER SAXENA	140821020128	Optimus Information	OL/OPT/17-18/002, 15.03.18
15	AMIT KUMAR	140821020129	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2145, 14.12.17
16	AMIT MAURYA	140821020130	Mobiloite	OL/Mobi/17-18/002, 12.07.18
17	ANAMIKA SHARMA	140821020131	Pie Infocomm Pvt. Ltd.	Employee code- 923
18	ANAND YADAV	140821020132	Pie Infocomm Pvt. Ltd.	Employee code- 906
19	ANKIT KUMAR	140821020136	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2155, 14.12.17
20	ANSHIKA PANDEY	140821020138	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2146, 14.12.17
21	ANUSHREE GUPTA	140821020140	Genpact	OL/GEN/17-18//002
22	APOORV MEHROTRA	140821020141	U-Certify	OL/UC/17-18/001, 27.11.17
23	APOORV SHARMA	140821020142	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2169, 14.12.17
24	ARJUN SINGH	140821020144	Pie Infocomm Pvt. Ltd.	Employee code- 920
25	ARPAN SINGH	140821020145	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2173, 14.12.17
26	ARPITA ARORA	140821020146	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2117, 14.12.17
27	ASHWANI KUMAR	140821020148	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2125, 14.12.17
28	AVIRAL VISHNOI	140821020149	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2175, 14.12.17
29	AVNEESH KAUSHIK	140821020150	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2156, 14.12.17
30	AYUSHI RASTOGI	140821020153	Optimus Information	OL/OPT/17-18/004, 15.03.18
31	CHETAN KUMAR	140821020155	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2179, 14.12.17

32	DEEPA CHAUDHARY	140821020156	Mobiloite	OL/Mobi/17-18/003, 12.07.18
33	DEVANGNA RASTOGI	140821020159	Signity	OL/SINT/17-18/001, 29.03.18
34	DHARMENDRA SINGH	140821020160	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2147, 14.12.17
35	DIKSHA PUSHPAK	140821020161	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2148, 14.12.17
36	GARIMA AGARWAL	140821020166	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2119, 14.12.17
37	GOURA JAIN	140821020167	Trinity Global Tech	US_IT/11/1-619
38	HARSHIT GOEL	140821020169	Mobiloite	OL/Mobi/17-18/004, 12.07.18
39	HIMANSHU BHATNAGAR	140821020171	Mobiloite	OL/Mobi/17-18/005, 12.07.18
40	IKRA	140821020172	Pie Infocomm Pvt. Ltd.	Employee code- 940
41	ISHIKA PANT	140821020173	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2121, 14.12.17
42	JATIN GANDHI	140821020174	Pie Infocomm Pvt. Ltd.	Employee code- 923
43	JEETESH RATHORE	140821020175	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2149, 14.12.17
44	KANIKA JAIN	140821020176	Trinity Global Tech	US_IT/11/1-609
45	KIRTI RAIZADA	140821020177	Collabera	Collabera/NOI/HR/COL/106,
46	MAHIMA SINGH	140821020180	Collabera	Collabera/NOI/HR/COL/105,
47	MANANT BANSAL	140821020181	Collabera	Collabera/NOI/HR/COL/107,
48	MANISHA BHARTI	140821020182	Pie Infocomm Pvt. Ltd.	Employee code- 896
49	MEGHA SINGH	140821020183	Genpact	OL/GEN/17-18/006
50	MOHAMMAD ARSHAD KHAN	140821020184	Mobiloite	OL/Mobi/17-18/006, 12.07.18
51	MOHD MAROOF	140821020186	Collabera	Collabera/NOI/HR/COL/118,
52	MOHD SHAHWAZ	140821020187	Collabera	Collabera/NOI/HR/COL/108,
53	MUDRIKA SHARMA	140821020190	Pie Infocomm Pvt. Ltd.	Employee code- 944
54	NANDITA AGARWAL	140821020191	Trinity Global Tech	US_IT/11/1-620
55	NEHA CHAUHAN	140821020192	Pie Infocomm Pvt. Ltd.	Employee code- 905
56	NIDHI SHARMA	140821020194	Pie Infocomm Pvt. Ltd.	Employee code- 898
57	NIMISH GARG	140821020196	Mobiloite	OL/Mobi/17-18/007, 12.07.18
58	KUMARI NISHI	140821020197	Collabera	Collabera/NOI/HR/COL/109,
59	NISHTHA MISHRA	140821020198	Mobiloite	OL/Mobi/17-18/008, 12.07.18
60	NITIN KUMAR	140821020199	Collabera	Collabera/NOI/HR/COL/110,
61	NITIN KUMAR SAINI	140821020200	Pie Infocomm Pvt. Ltd.	Employee code- 897
62	PRANJAY GUPTA	140821020206	Sopra Steria	OL/Sopra/17-18/003, 26.03.18
63	PRINCY GOEL	140821020207	Pie Infocomm Pvt. Ltd.	Employee code- 895

64	RAJENDAR	140821020212	Collabera	Collabera/NOI/HR/COL/111,
65	REETU SAINI	140821020213	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2181, 14.12.17
66	RICHA GUPTA	140821020214	Mobiloite	OL/Mobi/17-18/009, 12.07.18
67	RISHABH KUMAR	140821020215	Collabera	Collabera/NOI/HR/COL/113,
68	RISHABH SINGH	140821020216	Pie Infocomm Pvt. Ltd.	Employee code- 949
69	RITIK RANA	140821020217	Collabera	Collabera/NOI/HR/COL/112,
70	RUPALI JAIN	140821020220	Collabera	Collabera/NOI/HR/COL/115,
71	SAHIL VIJ	140821020222	Collabera	Collabera/NOI/HR/COL/116,
72	SAKSHI AGARWAL	140821020223	Collabera	Collabera/NOI/HR/COL/117,
73	SAMBHAV GOEL	140821020225	Sopra Steria	OL/Sopra/17-18/001, 26.03.18
74	SAMIA SHARMEEN	140821020226	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2129, 14.12.17
75	SANCHIT VARSHNEY	140821020227	Pie Infocomm Pvt. Ltd.	Employee code- 919
76	SANYA VERMA	140821020228	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2185, 14.12.17
77	SARTHAK GOYAL	140821020229	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2150, 14.12.17
78	SHELLY RASTOGI	140821020230	Trinity Global Tech	US_IT/11/1-625
79	SHIVAM SAXENA	140821020231	Pie Infocomm Pvt. Ltd.	Employee code- 904
80	SHIVAM SAXENA	140821020232	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2152, 14.12.17
81	SHIVANGI	140821020233	Pie Infocomm Pvt. Ltd.	Employee code- 903
82	SHIVANI CHAUDHARY	140821020234	Pie Infocomm Pvt. Ltd.	Employee code- 952
83	SHIVANI SIDDHU	140821020235	Pie Infocomm Pvt. Ltd.	Employee code- 902
84	SHIVI SHARMA	140821020236	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2187, 14.12.17
85	SHREYESH YADAV	140821020239	Pie Infocomm Pvt. Ltd.	Employee code- 901
86	SHRUTI AGARWAL	140821020240	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2151, 14.12.17
87	SHUBHAM SETHI	140821020241	Smart Data	OL/SD/17-18/006, 29.05.18
88	SIDDHIMA MEHROTRA	140821020242	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2136, 14.12.17
89	SIMMI CHAUDHARY	140821020243	Bhilwara Infotechnology Pvt. Ltd.	BIL-NOI/HR/COL/2153, 14.12.17
90	SIMRAN BHATIA	140821020244	Mobiloite	OL/Mobi/17-18/010, 12.07.18
91	SKAND AGARWAL	140821020245	Smart Data	OL/SD/17-18/007, 29.05.18
92	SONALI VERMA	140821020246	Pie Infocomm Pvt. Ltd.	Employee code- 917
93	STUTI BHATNAGAR	140821020249	Trinity Global Tech	US_IT/11/1-603
94	SURBHI SHARMA	140821020251	Pie Infocomm Pvt. Ltd.	Employee code- 880
95	SWASTI SINGH	140821020253	Trinity Global Tech	US_IT/11/1-623

96	UMANG GUPTA	140821020257	Pie Infocomm Pvt. Ltd.	Employee code- 881
97	UTKARSH JOSHI	140821020258	Smart Data	OL/SD/17-18/008, 29.05.18
98	VANSH GUPTA	140821020260	Mobiloite	OL/Mobi/17-18/011, 12.07.18
99	VIDHI AGARWAL	140821020262	Pie Infocomm Pvt. Ltd.	Employee code- 912
100	VIDUSHI TANDAON	140821020263	Trinity Global Tech	US_IT/11/1-610
101	VIVEK YADAV	140821020267	Pie Infocomm Pvt. Ltd.	Employee code- 911
102	YASH RASTOGI	140821020269	Smart Data	OL/SD/17-18/001, 29.05.18
103	ANAM NOORI	150821020568	Pie Infocomm Pvt. Ltd.	Employee code- 899
104	DEEPAK GUPTA	150821020570	Pie Infocomm Pvt. Ltd.	Employee code- 908
105	HIMDEV VISHNOI	150821020571	Pie Infocomm Pvt. Ltd.	Employee code- 900

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	AADITYA NARAYAN SHAKYA	130821014470	Money Capital Height	OL/MCH/16-17/001, 10.03.17
2	AANCHAL GUPTA	130821014471	Money Capital Height	OL/MCH/16-17/074, 05.06.17
3	ABHIMANYU SIKKA	130821014473	Money Capital Height	OL/MCH/16-17/005, 10.03.17
4	ABHIMANYU SINGH	130821014474	Genpact	OL/GEN/16-17/002, 16.11.16
5	ABHISHEK CHOUDHARY	130821014475	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1390, 11.04.17
6	ABHISHEK GARG	130821014476	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/14001, 11.04.17
7	AKANKSHA BHALLA	130821014478	Smart Data	OL/SD/16-17/001, 25.11.16
8	AMAN AGARWAL	130821014480	Teleperformance	OL/TPM/16-17/05, 12.04.17
9	AMBIKA VISHNOI	130821014482	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1391, 11.04.17
10	AMIT KUMAR	130821014483	Money Capital Height	OL/MCH/16-17/076, 05.06.17
11	ANAMIKA CHAVHAN	130821014484	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1392, 11.04.17
12	ANMOL	130821014485	Money Capital Height	OL/MCH/16-17/016, 10.03.17
13	ANMOL NIJHAWAN	130821014486	Smart Data	OL/SD/16-17/002, 25.11.16
14	ANSHIKA DEVAL	130821014487	Money Capital Height	OL/MCH/16-17/017, 10.03.17
15	ANSHIKA GUPTA	130821014488	Smart Data	OL/SD/16-17/003, 25.11.16
16	ANSHIKA GUPTA	130821014489	Genpact	OL/GEN/16-17/006, 16.11.16
17	ANURAG KUMAR VATS	130821014490	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1418, 11.04.17
18	ARPAN ARORA	130821014492	Smart Data	OL/SD/16-17/004, 25.11.16
19	ARUSHI SINGHAL	130821014493	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1352, 11.04.17
20	AYAN RASTOGI	130821014495	Money Capital Height	OL/MCH/16-17/068, 05.06.17
21	AYUSH RASTOGI	130821014497	Expris IT Pvt. Ltd.	EXPRIT/16-17/003, 20.06.17
22	AYUSH SAXENA	130821014498	Money Capital Height	OL/MCH/16-17/020, 10.03.17
23	AYUSHEE BHARDWAJ	130821014499	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1355, 11.04.17
24	AYUSHI AGARWAL	130821014500	Genpact	OL/GEN/16-17/007, 17.11.16
25	DEEKSHA AGARWAL	130821014501	Money Capital Height	OL/MCH/16-17/069, 05.06.17
26	DEEPAK BHARTI	130821014502	Money Capital Height	OL/MCH/16-17/077, 05.06.17
27	DIVYA BHATNAGAR	130821014504	Money Capital Height	OL/MCH/16-17/078, 05.06.17
28	FAIZAN ASIF	130821014505	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1421, 11.04.17
29	GOURANGI AGRAWAL	130821014506	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1361, 11.04.17
30	GURSIMRAN KAUR SONDHI	130821014507	Genpact	OL/GEN/16-17/012, 17.11.16
31	HARDIK SHARMA	130821014508	Money Capital Height	OL/MCH/16-17/025, 10.03.17

32	ISHIKA SINGH	130821014511	Teleperformance	OL/TPM/16-17/07, 12.04.17
33	ISHITA GUPTA	130821014512	Expris IT Pvt. Ltd.	EXPRIT/16-17/001, 20.06.17
34	JALAJ KATYAL	130821014513	CMS IT Services	CMSIT/2016-17/001, 16.06.2017
35	JHALAK RANI	130821014514	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1393, 11.04.17
36	JYOTI CHAUHAN	130821014515	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/14002, 11.04.17
37	KANIKA SHARMA	130821014516	Acadecraft Pvt. Ltd.	OL/APL/16-17/007, 24.11.16
38	KRITI MATHUR	130821014518	Teleperformance	OL/TPM/16-17/08, 12.04.17
39	KULVEER SINGH	130821014519	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1394, 11.04.17
40	MAHIMA JAIN	130821014520	Syscom Softech Pvt. Ltd.	OL/SSP/16-17/01, 23.12.16
41	MANSI VARSHNEY	130821014521	Teleperformance	OL/TPM/16-17/09, 12.04.17
42	MAYANK DHANKAR	130821014522	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1425, 11.04.17
43	MEENAKSHU TYAGI	130821014523	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1428, 11.04.17
44	MEGHNA AGARWAL	130821014524	Money Capital Height	OL/MCH/16-17/033, 10.03.17
45	MUDIT KAPOOR	130821014526	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1366, 11.04.17
46	MUKUND AGARWAL	130821014528	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1431, 11.04.17
47	NAVRATAN YADAV	130821014530	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1434, 11.04.17
48	NEETI SHARMA	130821014531	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/14003, 11.04.17
49	NEHA PARVEEN	130821014532	Money Capital Height	OL/MCH/16-17/034, 10.03.17
50	PALAK AGARWAL	130821014534	Genpact	OL/GEN/16-17/018, 17.11.16
51	PANKAJ KUMAR	130821014535	Teleperformance	OL/TPM/16-17/11, 12.04.17
52	PARAS GUPTA	130821014536	Money Capital Height	OL/MCH/16-17/036, 10.03.17
53	PRAFUL SHARMA	130821014537	PIE Infocomm	Employee code- 431, 01.04.17
54	PRAGATI AGARWAL	130821014538	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1395, 11.04.17
55	PRAKASH TIWARI	130821014539	Money Capital Height	OL/MCH/16-17/070, 05.06.17
56	PRAKHAR NANDAN	130821014540	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1396, 11.04.17
57	PRASHANT SAXENA	130821014541	PIE Infocomm	Employee code- 430, 01.04.17
58	PRINCE DHANWAN	130821014543	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1371, 11.04.17
59	PRIYANK KUMAR VERMA	130821014544	Smart Data	OL/SD/16-17/006, 25.11.16
60	PRIYANKA SHARMA	130821014545	Fonantrix Solutions Pvt. Ltd.	OL/FSP/16-17/003, 29.11.16
61	RADHIKA RATHI	130821014547	Aegis Global	OL/AEG/16-17/001, 22.02.17
62	RAHI SINGH	130821014548	Money Capital Height	OL/MCH/16-17/041, 10.03.17
63	RAHUL SINGH	130821014550	PIE Infocomm	Employee code- 428, 01.04.17

64	RASHI SAXENA	130821014552	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1384, 15.05.17
65	RAVI BASIL	130821014553	Money Capital Height	OL/MCH/16-17/073,05.06.17
66	ROHAN KHANNA	130821014555	PIE Infocomm	Employee code- 432, 01.04.17
67	SAATVIKA TANDON	130821014556	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1375, 11.04.17
68	SAKSHI SINGH	130821014557	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1377, 11.04.17
69	SALVI SHAHZAD	130821014558	Fonantrix Solutions Pvt. Ltd.	OL/FSP/16-17/005, 29.11.16
70	SAURABH CHAUHAN	130821014560	Smart Data	OL/SD/16-17/007, 25.11.16
71	SAURABH KUMAR RAJPUT	130821014561	PIE Infocomm	Employee code- 434, 01.04.17
72	SHABNAM ALI	130821014562	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1376, 11.04.17
73	SHILPI TYAGI	130821014563	Money Capital Height	OL/MCH/16-17/072,05.06.17
74	SHIVANGI AGARWAL	130821014565	Smart Data	OL/SD/16-17/008, 25.11.16
75	SHRADDHA SHARMA	130821014567	PIE Infocomm	Employee code- 435, 01.04.17
76	SHREYA AGARWAL	130821014568	Aegis Global	OL/AEG/16-17/002, 22.02.17
77	SHUBHAM CHAUHAN	130821014570	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1382, 11.04.17
78	SHUBHAM CHAUHAN	130821014571	PIE Infocomm	Employee code- 429, 01.04.17
79	SHUBHAM GUPTA	130821014572	PIE Infocomm	Employee code- 437, 01.04.17
80	SHUBHI AGARWAL	130821014575	Money Capital Height	OL/MCH/16-17/071,05.06.17
81	SOMYA RASTOGI	130821014578	PIE Infocomm	Employee code- 425, 01.04.17
82	SONALI CHAUDHARY	130821014579	Genpact	OL/GEN/16-17/024, 17.11.16
83	SRISHTI SINGH	130821014580	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1386, 11.04.17
84	SUGAM BHATNAGAR	130821014581	Money Capital Height	OL/MCH/16-17/055, 10.03.17
85	VAISHALI SAXENA	130821014583	Money Capital Height	OL/MCH/16-17/060, 10.03.17
86	VANSHIKA RASTOGI	130821014585	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1383, 15.05.17
87	VATSAL AGARWAL	130821014587	Tata Consultancy Services	TCSL/CT20151618534/Delhi, 24.10.16
88	VIJAY BHASIN	130821014588	Money Capital Height	OL/MCH/16-17/063, 10.03.17
89	VIRENDRA KATYAL	130821014589	Bhilwara Infotec Pvt. Ltd.	BIL-NOI/HR/COL/1389, 11.04.17
90	VIVEK KUMAR	130821014590	Tata Consultancy Services	TCSL/CT20151610120/Delhi, 24.10.16
91	WARISHA AZMI	130821014591	Money Capital Height	OL/MCH/16-17/066, 10.03.17
92	YASH AGARWAL	130821014592	PIE Infocomm	Employee code- 438, 01.04.17
93	YASHVI MITTAL	130821014593	PIE Infocomm	Employee code- 424, 01.04.17
94	NAINA GOLEY	140821020271	PIE Infocomm	Employee code- 433, 01.04.17
95	RISHABH GUPTA	140821020273	Money Capital Height	OL/MCH/16-17/045, 10.03.17

96	SHAMSAD HASAN	140821020275	PIE Infocomm	Employee code- 427, 01.04.17
97	VARTIKA VERMA	140821020277	Smart Data	OL/SD/16-17/010, 25.11.16

4.6 Professional Activities (20) Total Marks 20.00

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

Institute Marks : 5.00

For professional development of the students, the department of computer science and engineering is having following professional societies/chapters for students as mentioned in table B.4.6.1a.

Table B. 4.6.1a: List of Professional Societies/Chapters

S. No.	Professional societies/chapters	Activity carried out
1	IEEE Student Branch, UP Section	6
2	Institution of Engineers, India (IEI)	5
3	Computer Science Student Society(CSSS) (A department level society)	17
	Total	28

Table B.4.6.1b: List of Professional Societies/Chapters and Organizing Engineering Events

S. No.	Session	Date	Name of Professional Society/ Chapter	Events	Brief Description about the Activity	Resource Person/coordinator	Level
1	2020-2021	5th July, 2020	Institution of Engineers, India (IEI)	National Webinar on “Compute is Shaping New Engineering	Webinar	Prof. Rajat Moona, Director, IIT Bhilai	National
2	2019-2020	12th June 2020	Institution of Engineers, India (IEI)	Webinar on Differential Human Psychology After Lockdown	Webinar	Er. Sudhir Gupta, IEI, Bareilly Local Centre, Bareilly	National
3	2019-2020	16th October-2019	IEEE Student Branch, MIT Moradabad	Technology Aware Workshop	Awareness about the Technology Trades	Dr. L. P Verma, Dr.Neelaksh Sheel	Institute
4	2019-2020	1st October-2019	IEEE Student Branch, MIT Moradabad	Technical Quiz	Online Quiz on C Programming	Dr. L. P Verma, Dr.Neelaksh Sheel	Institute
5	2019-2020	06th – 07th September - 2019	Institution of Engineers, India (IEI)	National Conference on Emerging Trends in Engineering, Science & Technology 2K19 (ETEST-2K19)	Keynote and Paper Presentation	1. Prof. P.S. Grover, University of Delhi, Delhi 2. Er. K.B. Agarwal, Founder Chairman, IEI, BLC, Bareilly 3. Dr. Pankaj Sharma, Hony. Secretary, IEI, BLC, Bareilly 4.Dr. Vinay Rishiwal, Rohilkhand University, Bareilly	National
6			IEEE Student Branch, MIT			5. Dr. Sudhir Kumar, GNIT, Greater Noida	

			Moradabad			6. Prof. Ramchandra, IIT Delhi, Delhi 7. Prof. Ashwani Gupta, IET, Bareilly	
7	2019-2020	8th August-2019	IEEE Student Branch, MIT Moradabad	Green Plantation	Plantation of Tree in various Villages	Dr. L. P Verma, Dr.Neelaksh Sheel	Institute
8	2018-2019	10th April 2019	CSSS	MIT Fiesta	In this event, CSSS members had stalls of different games along with one food stall where participants came to play and enjoyed a lot	Ms. Neha,Ms. Priyanka, Ms. Shiwani	Institute
9	2018-2019	8th March 2019	CSSS	#SHE	It was women day celebration	Ms. Neha, Ms. Priyanka, Ms. Shiwani	Institute
10	2018-2019	2nd March 2019	CSSS	Pro Gaming League	It was a series of fun games	Ms. Shiwani Agarwal	Institute
11	2018-2019	20th February 2019	CSSS	Coder 5.0	This was technical programming based event	Ms. Priyanka Goel	Institute
12	2018-2019	6th February 2019	CSSS	Alpha Battle	In this event, participants had to make collage based on alphabets	Ms. Neha Gupta	Institute
13	2018-2019	3rd November 2018	CSSS	Counter Strike	It was online game where students participated in the group of five	Ms. Neha Gupta	Institute
14	2018-2019	10th October 2018	CSSS	Are you true MITian?	It was a two round event where events consisted of MIT campus activities.	Ms. Priyanka Goel	Institute
15	2018-2019	6th October 2018	CSSS	Detective Raju	This was three rounds event in which students had to play treasure hunt game within the campus.	Ms. Shiwani Agarwal	Institute
16	2018-2019	8th September 2018	CSSS	Show Your Talent	In this event, students have to show their hidden talent on stage.	Ms. Priyanka Goel	Institute
17	2018-2019	15th May 2019	IEEE Student Branch, MIT Moradabad	A Project Exhibition: A Talent Show of MIT students	Project Exhibition	Dr. Alok Prakash Mittal	Institute

18	2018-2019	10th May 2019	IEEE Student Branch, MIT Moradabad	IEEE Student Activities Awareness Workshop	Workshop about IEEE activity and events	Dr. Vinay Rishiwal	Institute
19	2017-2018	20th – 21st April - 2018	Institution of Engineers, India (IEI)	All India Seminar on Recent Advances in Electronics Design, Technologies and Applications 2K18 (EDTA-2K18)	Keynote and paper presentation	1. Prof. S. S. Bedi, FET, MJPR University, Bareilly 2. Er. K. B. Agarwal, FIE, Bareilly 3. Shri Satish Chandra, S.P. Traffic, Moradabad 4. Shri Ambrish Kumar, R.T.O. Moradabad	National
20	2017-2018	2th March 2018	CSSS	Counter Strike	It was a online game.	Ms. Priyanka Goel	Institute
21	2017-2018	21th February 2018	CSSS	Dress to Impress	In this event, students had a dress wearing competition where the dress should be designed from waste newspapers	Ms. Neha Gupta	Institute
22	2017-2018	10th February 2018	CSSS	Coder 4.0	This was technical programming based event	Ms. Neha Gupta	Institute
23	2017-2018	14th November 2017	CSSS	Bachpan Reloaded	This was the event to cherish the memories of childhood games	Ms. Neha Gupta	Institute
24	2017-2018	15th September 2017	CSSS	Overhaul	It was an event based on Engineers Day where students had to deal with rounds related to Engineering objects	Ms. Priyanka Goel	Institute
25	2017-2018	26th August 2017	CSSS	Logo Pogo	In logo students were given with Google time of 15 minutes and then they had to make a logo of their branch/department without plagiarism n explain it too	Ms. Neha Gupta	Institute
26	2016-2017	7th – 8th April - 2017	Institution of Engineers, India (IEI)	All India Seminar on Recent Advances in Electronics Design, Technologies and Applications 2K17 (EDTA-2K17)	Keynote and paper presentation	1. Dr. L. Venkatesh Lu, Commissioner, Moradabad 2. Er. Prem Prakash Gupta, IEI, Bareilly Local Centre, Bareilly 3. Er. Sudhir Gupta, IEI, Bareilly Local Centre, Bareilly	National

						4. Prof. A.K. Gupta, MJPRU, Bareilly 5. Sh. R.P. Singh,Sr. Divisional Engineer, Indian Railways, Moradabad 6. Dr. Manish Rai, MJPRU, Bareilly	
27	2016-2017	25th January 2017	CSSS	Canvas-e-Republic	It was the event based on Republic Day	Ms. Prachi Gupta	Institute
28	2016-2017	13th August 2016	CSSS	Nation Call	It was the event based on Independence Day	Ms. Prachi Gupta	Institute

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

Institute Marks : 5.00

Table B. 4.6.2a : List of different types of publications

S. No.	Publication Type	Name	Publishers	Frequency
1	Magazine	VOYAGER	MIT Moradabad	Yearly
2	Newsletter	BITS & BYTES	CSE department, MIT Moradabad	Half Yearly
3	Journal	MIT International Journal of Computer Science & Information Technology	MIT Publications	Yearly
4	Journal	MIT- Transaction : An International Journal of Advance Engineering Science And Technology	MIT Publications	Yearly

Magazine:

Table B.4.6.2b : List of Magazines with editorial board

S. No.	Name of Magazine	Session	Students as member of Editorial Board

1	VOYAGER	2018-2019	Shubham Sharma (Chief Editor) Mansi Tyagi(Co-editor) Utkarsh Saxena(Member) Utsav Singh(Member) Sakshi Agarwal(Member)
2	VOYAGER	2017-2018	Shubham Sharma (Chief Editor)
3	VOYAGER	2016-2017	Shreya Agarwal (Chief Editor) Shubham Sharma (Co-editor)
4	VOYAGER	2015-2016	Shiv Kulshreshtha (Chief Editor) Shubham Katta(Chief Editor) Abhinav Gupta (Co-editor) Himadri Agarwal (Co-editor) Shreya Agarwal (Member)
5	VOYAGER	2014-2015	Shiv Kulshreshtha (Chief Editor) Shubham Kumar (Chief Editor) Vansh Johri (Co-editor) Ashwarya jethi (Co-editor) Abhinav Gupta (Member) Anmol Goel (Member) Himadri Agarwal (Member)

Table B.4.6.2c: List of articles published by CSE students

S. No.	Name of students	Article name	Page no.
2018-2019			
1	Shubham Sharma	SOLI	6
2	Sakhi Agarwal	Autonomous Car	10
3	Utkarsh Saxena	Block chain	14
4	Vaibhav Kumar	Progressive Web Application	16
5	Surbhi Bhatnagar	Technology	17

2016-2017			
1	Sumit Kumar, Siddharth Rastogi Siddant Thakur	Creations: Language Used-Purely C	9
2	Salvi Shahzad	Neuron Evolution	10
2015-2016			
1	Prafful Sharma	Scurty Language	2
2	Avantika Gupta	Gadgets from the future	3
3	Aksah Kumar	Free Basics versus save the Internet	5
4	Shiv Kulshreshtha	Free Basics, Really Free?	8
5	Shubham Gupta	FACEBOOK: The Revolutionary Social Network	10
6	Shiv Kulshreshtha	Graphology-Handwriting Analysis	15
2014-2015			
1	Avantika Gupta	Staying up late with your gadgets can be dangerous	2
2	Prafful Sharma	SCURTY	4
3	Shiva Kumshreshtha	Common Financial Terms but not seen common	6
4	Ashwarya Jethi	NoSQL	7
5	Ramesha Naaz	Window 10	9
6	Krishna Kumar	Google search for cancer with new pill	10
7	Himadri Agarwal	Raspberry Pi	11
8	Shiv Kulshreshtha	MongoDB	12

News Letter:

Table B.4.6.2d: List of Newsletters with editorial board

S. No.	Name	Issue/ Session	Students as member of Editorial Board	Link

1.	BITS & BYTES	Issue-1 (2019-20)	Geetika Gupta (Chief editor) Sanskriti Agarwal (Co-editor) Anubhav Mishra (Section editor)	https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-1-2019-20.pdf (https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-1-2019-20.pdf)
2.	BITS & BYTES	Issue-2 (2019-20)		https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-2-2019-20.pdf (https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-2-2019-20.pdf)
3.	BITS & BYTES	Issue-1 (2018-19)	Shreya Mishra (Chief editor) Geetika Gupta (Co-editor)	https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-1-2018-19.pdf (https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-1-2018-19.pdf)
4.	BITS & BYTES	Issue-2 (2018-19)		https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-2-2018-19.pdf (https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-2-2018-19.pdf)
5.	BITS & BYTES	Issue-1 (2017-18)	Anukriti Agarwal (Chief editor) Akshita Sharma (Co-editor)	https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-1-2017-18.pdf (https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-1-2017-18.pdf)
6.	BITS & BYTES	Issue-2 (2017-18)		https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-2-2017-18.pdf (https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-2-2017-18.pdf)
7.	BITS & BYTES	Issue-1 (2016-17)	Anshika Gupta (Chief-editor) Anukriti Agarwal (Co-editor	https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-1-2016-17.pdf (https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-1-2016-17.pdf)
8.	BITS & BYTES	Issue-2 (2016-17)		https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-2-2016-17.pdf (https://www.mitmoradabad.edu.in/wp-content/uploads/2020/07/Issue-2-2016-17.pdf)

MIT International Journal of Computer Science & Information Technology:

Table B.4.6.2e: List of Volume/Issue of MIT International Journal of Computer Science & Information Technology

Sr. No.	Volume/Issue	Month/ Year	Session	Link
1.	Vol.8, No.1	January 2019	2018-2019	http://mitpublications.org/cat1.php?s=29 (http://mitpublications.org/cat1.php?s=29)
2.	Vol.7, No.1	January 2018	2017-2018	
3.	Vol.6, No.2	August 2016	2016-2017	

Table B.4.6.2f: List of papers published by CSE students

S. No.	Title	Page
	Vol.8, No.1, January 2019	
01	*RoadSense: An Android Application for Guessing Conditions of Road by Making use of Gyroscope and Accelerometer* Author: Richa Saxena, Anshul Yadav	1-5
02	*Myocardial Infarction Detection using Multi Biomedical Sensors* Author: Akash Patel, Pratiksha Sahani, Sakshi Saxena, Samarth Goel, Vikas Bhatnagar	6-12
03	*Web Based Accident Reporting And Tracking System* Author: Shivanshu Rastogi, Anmol Arora, Arun kumar Gautam, Anmol Vaish, Mohd Umar	13-16
04	*A Simulation of Car Accident Tracking & Detection System* Author: Shubham Sharma, Anurag Malik, Vivek Shrestha, Varun Kumar Tomar	17-21
05	*Analysis of Market Demand and Forecasting for Eatables using Machine Learning* Author: Isha Madan, Disha Sharma, Ashar Ali, Vikas Kumar, Lal Pratap Verma	22-25
	Vol.7, No.1, January 2018	
01	*Image Text Translation* Author: Vikas Bhatnagar, Gargi Dhyani, Himanshu Yadav, Harshita Gupta	1-4
02	*Machine Learning Approach for Crop Yield Prediction and Crop Variety Recommendation in Android Application* Author: Jyoti Gupta, Ayushi Chauhan, Aastha Agarwal, Abhijeet Singh Ranghuvanshi, Richa Saxena	5-9
03	*Prediction of Math winners of IPL using Machine Learning Algorithm* Author: Dev Karan Singh, Sarthak Agarwal, Sanjeev Gupta, Manisha Singh, Utkarsh Saxena	10-12
04	*Securing Computer Folders* Author: Kanchan, Shilpi Rani ,Krishna Kumar Singh,Aanchal Gupta, Firoj Khan, Aman Singh	13-17
05	*Technology Trend Analysis of Stack Overflow Using Hadoop* Author: Saksham Chaudhary, Sakshi Bhalla, Mohd Faizan, Rishabh Agrawal, Mohd Ilyas	18-21
	Vol.6, No.2, August 2016	
01	*Mobile Tracking System* Author: Taruna Singh,Navita Agarwal,Pulkit Verma	53-55
02	*Image Encryption using Fusion Technique* Author: Prachi Agarwal,Jasdeep Kaur,Khushboo Agarwal	56-62
03	*Routing Issues and Performance of Different Opportunistic Routing Protocols in Delay Tolerant Network* Author: Ankur Upadhyay, Abhishek Kumar Mishra	72-76

04	*Security of Transaction in DBMS by using Intrusion Detection and Intrusion Prevention System* Author: Aarti Verma, Lipika Goel, Akanksha Rai, Priya Awasthi	77-80
05	*Medical Health App Based on GPS using Android* Author: Ayushi Bansal, Chinmai Tyagi, Karishma Agrawal, Dinesh Kumar	81-82
06	*Detection of Forged and Unsolicited Mails* Author: Shiva Kulshreshtha, Shubham Katta, Sarthak Gupta, Rishabh Singh, Anurag Malik	83-87

MIT TRANSACTION - An International Journal of Advance Engineering Science And Technology:

Table B.4.6.2g: List of Volume/Issue of MIT TRANSACTION - An International Journal of Advance Engineering Science And Technology

Sr. No.	Volume/Issue	Month/ Year	Session	Link
1.	Vol.3, No.2	August 2020	2020-2021	http://mitpublications.org /cat11.php?s=28 (http://mitpublications.org /cat11.php?s=28)
2.	Vol.2, No.1	January 2019	2018-2019	
3.	Vol.1, No.1	January 2018	2017-2018	

Table B.4.6.2h: List of papers published by CSE students

S. No.	Title	Page No.
Vol.3, No.2 , August 2020		
1	*SMART (System for Managing Access Point to Reduce Time) Shopping* Author: Vikash Kumar, Shreya Mishra, Sugandh Sisodia, Hardik Kumar Singh, Neelaksh Sheel	68-71
2	*Design and Monitor Smart e-Challan Automation using Derivative Edge Detection Algorithm, Neural Network and Optical Character Recantation* Author: Richa Saxena, Anubhav Baliyan	72-75
Vol.2, No.1 , January 2019		
1	*3D First Person Shooting Game Based on Direct X* Author: Rishabh Kumar, Richa Saxena, Pratham Mehrotra, Rishabh Singh	9-11
2	*IOT Based Digital Door Locking System* Author: Ojasvini Bhatnagar, Shweta Agarwal, Sanya Verma, Nidhi Sharma	12-14
Vol.1, No.1 , January 2018		
1	*Automated Toll Cash Collection System for Road Transportation* Author: Arjun Singh, Amit Kumar, Aayushi Agarwal, Diksha Pushpak, Manoj Kumar Singh	12-16

4.6.3 Participationininter-institute events by students of the program of study (10)

Institute Marks : 10.00

Table B.4.6.3a: List of participation in inter-institute events by CSE students

Academic Year	2019-2020	2018-2019	2017-2018	2016-2017
Total no. of students participation	584	182	258	301
Total no. of students who got prize/award in the events (within the state)	33	10	11	26
Total no. of students who got prize/award in the events (outside the state)	14	1	3	3

5 FACULTY INFORMATION AND CONTRIBUTIONS (200)

Total Marks 152.85

Institute Marks :

Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Designated as Prof/Assoc. Prof.).	Initial Date of Joining	Association Type	At present working with the Institution(Yes/No)	In case of NO, Date of Leaving	IS HOD?
Vikas Kumar	AGJPK1112E	M.E/M.Tech	16/07/2005	Handwriting Recognition	04	00	0	Associate Professor	01/08/2009	12/12/1996	Regular	Yes		No
Anurag Malik	AIYPM9648Q	M.E/M.Tech	29/11/2006	Ad hoc Networks	06	0	0	Associate Professor	01/09/2010	19/09/2001	Regular	Yes		No
Himanshu Agarwal	AHBPA3333L	M.E/M.Tech	20/02/2013	Information Security	04	0	0	Assistant Professor		01/03/2005	Regular	Yes		No
Vikas Bhatnagar	ALMPB3917C	M.E/M.Tech	20/02/2013	Computer Network	02	0	0	Assistant Professor		05/07/2005	Regular	Yes		No
Puneet Rai	AIDPR9610A	M.E/M.Tech	27/09/2013	Digital Image Processing	02	0	0	Assistant Professor		29/08/2005	Regular	No	06/05/2020	No
Prachi Gupta	AMFPG9933P	M.E/M.Tech	27/12/2010	Ad hoc Networks	02	0	0	Assistant Professor		29/05/2006	Regular	Yes		No
Manoj Kumar Singh	BQGPS3266R	M.E/M.Tech	10/06/2010	Mobile Ad hoc Network	03	0	0	Assistant Professor		29/05/2006	Regular	Yes		No
Richa Saxena	BOKPS9824R	M.E/M.Tech	10/07/2013	Watermarking	04	0	0	Assistant Professor		27/08/2007	Regular	Yes		No
Kanchan	APIPR0860G	M.E/M.Tech	15/06/2011	Genetic Algorithm	07	0	0	Assistant Professor		15/10/2007	Regular	Yes		No
Mohd. Ilyas	AAQPI5639D	M.E/M.Tech	01/05/2017	Database Management System	03	0	0	Assistant Professor		16/10/2007	Regular	Yes		No
Neha Gupta	ASNPG4365M	M.E/M.Tech	21/10/2013	Image Security	01	0	0	Assistant Professor		02/09/2008	Regular	Yes		No
Puneet Kumar	BKCPK8484P	M.E/M.Tech	21/10/2013	Mobile Ad hoc network	00	0	0	Assistant Professor		14/01/2009	Regular	Yes		No
Shivanshu Rastogi	AKGPR4645G	M.E/M.Tech	25/09/2012	IoT	07	0	0	Assistant Professor		20/07/2009	Regular	Yes		No
Navita Agarwal	APWPA0923P	M.E/M.Tech	21/10/2013	Image Security	04	0	0	Assistant Professor		21/07/2009	Regular	Yes		No
Zubair Iqbal	ABCPI1955R	M.E/M.Tech	20/02/2013	Adhoc Networks	06	0	0	Assistant Professor		17/02/2010	Regular	Yes		No
Prabal Bhatnager	AQMPB6343B	M.E/M.Tech	20/02/2013	Algorithms	01	0	0	Assistant Professor		17/02/2010	Regular	Yes		No

Sanjeev Gupta	ALMPG6001C	M.E/M.Tech	21/10/2013	Data Mining	01	0	0	Assistant Professor		18/02/2010	Regular	Yes		No
Shweta Agarwal	AHFPA6151Q	M.E/M.Tech	21/10/2013	Algorithms	01	0	0	Assistant Professor		19/02/2010	Regular	No	10/01/2020	No
Praveen Saini	CEPPS1424B	M.E/M.Tech	16/08/2007	Software Engineering	03	0	0	Assistant Professor		06/02/2012	Regular	Yes		No
Shilpi Rani	ALJPR3794A	M.E/M.Tech	21/10/2014	Image Processing	06	0	0	Assistant Professor		16/07/2012	Regular	Yes		No
Prachi Agarwal	AVHPA1373Q	M.E/M.Tech	21/10/2013	Image Processing	04	0	0	Assistant Professor		16/07/2012	Regular	Yes		No
Abhinav Gupta	AJMPG8188Q	M.E/M.Tech	21/10/2013	Cryptography	01	0	0	Assistant Professor		07/08/2012	Regular	Yes		No
Priyanka Goel	BCJPG1868G	M.E/M.Tech	21/10/2013	Swarm Intelligence Algorithms	02	0	0	Assistant Professor		08/08/2012	Regular	Yes		No
Ravish Dubey	BLIPD5830P	M.E/M.Tech	17/11/2016	Digital Watermarking	02	0	0	Assistant Professor		08/08/2012	Regular	Yes		No
Dr. Rakesh Ahuja	AFKPA8219E	ME/M. Tech and PhD	27/02/2018	Multimedia security	01	0	01	Associate Professor	01/09/2010	19/09/2000	Regular	No	13/05/2019	No
Yukti Varshney	AEXPV1525N	M.E/M.Tech	08/06/2016	Computer science	00	0	0	Assistant Professor		23/08/2019	Regular	Yes		No
Anurag Pandey	ASOPP5853E	M.E/M.Tech	07/08/2012	Digital watermarking	00	0	0	Assistant Professor		07/02/2005	Regular	No	31/05/2019	No
Ranjan Baghel	ANKPB1092J	M.E/M.Tech	20/11/2013	Data Mining	01	0	0	Assistant Professor		29/05/2006	Regular	No	09/06/2018	No
Sunil Kumar	AVCPK4644D	M.E/M.Tech	19/02/2014	Web Technology	00	0	0	Assistant Professor		01/08/2007	Regular	No	03/05/2018	No
Hari Shankar	CAMPS2155J	M.E/M.Tech	10/08/2017	Pattern Recognition	01	0	0	Assistant Professor		15/10/2007	Regular	No	09/06/2018	No
Dr. Neelaksh Sheel	BSKPS2452R	ME/M. Tech and PhD	19/11/2016	web services	02	0	0	Associate Professor	01/02/2018	01/02/2018	Regular	Yes		No
Dr. L.P Verma	AZFPP3165M	ME/M. Tech and PhD	14/03/2018	Network Communication	09	0	0	Associate Professor	28/08/2018	28/08/2018	Regular	Yes		No
Dr. Somesh Kumar	AIFPK0455N	ME/M. Tech and PhD	23/06/2011	Soft Computing	04	0	0	Professor	22/05/2019	22/05/2019	Regular	Yes		Yes

Dr Manish Gupta	AGZPG8560A	ME/M. Tech and PhD	26/02/2020	Speech and Image signal processing	08	0	01	Associate Professor	04/08/2020	05/08/2003	Regular	Yes		No

5.1 Student-Faculty Ratio (20)

Total Marks 14.00

Institute Marks : 14.00

UG

No. of UG Programs in the Department 1

B.Tech Computer Science & Engineering						
Year of Study	**CAY (2019-20)**		**CAYm1 (2018-19)**		**CAYm2 (2017-18)**	
	Sanction Intake	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**
2nd Year	180	6	180	4	180	7
3rd Year	180	4	180	7	180	2
4th Year	180	7	180	2	180	7
Sub-Total	**540**	**17**	**540**	**13**	**540**	**16**
Total	**557**		**553**		**556**	

Grand Total	557	553	556

PG

No. of PG Programs in the Department 0

Grand Total			

SFR

No. of UG Programs in the Department 1

No. of PG Programs in the Department 0

Description	**CAY(2019-20)**	**CAYm1 (2018-19)**	**CAYm2 (2017-18)**
Total No. of Students in the Department(S)	557 **Sum total of all (UG+PG) students**	553 **Sum total of all (UG+PG) students**	556 **Sum total of all (UG+PG) students**
No. of Faculty in the Department(F)	28 **F1**	29 **F2**	30 **F3**
Student Faculty Ratio(SFR)	19.89 **SFR1=S1/F1**	19.07 **SFR2=S2/F2**	18.53 **SFR3=S3/F3**
Average SFR	19.16 **SFR=(SFR1+SFR2+SFR3)/3**		
F=Total Number of Faculty Members in the Department (excluding first year faculty)			

Note: 75% should be Regular/full time faculty and the remaining shall be Contractual Faculty/Adjust Faculty/Resource persons from industry as per AICTE norms and standards. The contractual faculty will be considered for assessment only if a faculty is drawing a salary as prescribed by the concerened State Government for the contractual faculty in the respective cadre.

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

	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY(2019-20)	28	0
CAYm1(2018-19)	29	0
CAYm2(2017-18)	30	0

Average SFR for three assessment years : 19.16

Assessment SFR : 14

5.2 Faculty Cadre Proportion (25)

Total Marks 11.00

Institute Marks : 11.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2019-20)	3.00	1.00	6.00	2.00	18.00	25.00
CAYm1(2018-19)	3.00	0.00	6.00	3.00	18.00	26.00
CAYm2(2017-18)	3.00	0.00	6.00	0.00	18.00	30.00
Average Numbers	3.00	0.33	6.00	1.67	18.00	27.00

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 11.00

5.3 Faculty Qualification (25)

Total Marks 11.85

Institute Marks : 11.85

	X	Y	F	FQ = 2.5 x [(10X + 4Y) / F)]
2019-20(CAY)	3	25	27.00	12.04
2018-19(CAYm1)	3	26	27.00	12.41
2017-18(CAYm2)	0	30	27.00	11.11

Average Assessment : 11.85

5.4 Faculty Retention (25)

Total Marks 20.00

Institute Marks : 20.00

Description	2018-19	2019-20
No of Faculty Retained	27	24
Total No of Faculty	30	30
% of Faculty Retained	90	80

Average : 85.00

Assessment Marks : 20.00

5.5 Innovations by the Faculty in Teaching and Learning (20) Total Marks 20.00

Institute Marks : 20.00

Modern Teaching Aid:

1. Use of modern teaching aids like power point presentation, internet enabled computer labs, smart lecture rooms with projector, white board, pen digitizer, smart board, smart podium and Wi-Fi in class conduction etc.
2. WhatsApp and email groups for the distribution of curriculum material including PPTs, lecture notes, previous year question papers, tutorials and quick communication with the students.

E-resource:

3. MIT had developed E-resource Access Center as a separate lab in B-216 as a part of MIT Library. It serves the purpose of accessing online resources of NPTEL video lectures and SWAYAM PRABHA DTH channel for faculty members and students.
4. The department maintains its FTP server (ftp://192.168.1.9/ (ftp://192.168.1.9/)) for their students to access last year's project reports, placement preparation materials of various companies etc.
5. The department also maintains its online portal (//192.168.1.5/onlineexam (file://192.168.1.5/onlineexam)) for placement Mock test preparation.

Collaborative Learning and Knowledge Sharing:

6. In order to promote collaborative learning the department initiate group formation of students where they can carry a task co-operatively, think together, enhance ability to adjust, respect to others and get the experience of belonging to a groups, such as final year project groups.
7. The department has its own students society named as CSSS (Computer Science Student Society) which organizes various technical and cultural events.
8. Project exhibition is conducted every year, where final year students present their projects and other students can learn from them.
9. Department organizes Mini Hackathon for the project teams who wish to apply for Smart India Hackathon. This is conducted under the supervision of team consisting of senior faculty members.

Mentor-Mentee System

10. The department follows the concept of mentors-mentee system throughout the academic degree of a student which includes interaction/discussion with individual student to solve the problem of their academics as well as personal domain.

Industry Interaction:

11. The department invites various experts from industry/academic to enlighten the faculty and the students by their expert knowledge and experience.
12. Alumnus around the globe visits MIT and presents their expert talk by sharing the latest trends and technologies in the current scenario of the industry.
13. Faculty members and students visits industries of various domains for exploring the knowledge of different domains.
14. The students undergo internship in the domain of their interest in various IT industries.

E-learning:

15. The faculty also takes Classes (lectures, lab, and tutorial) of students over online platforms like MS Team, virtual lab, Google class room, and respective class WhatsApp groups. etc.
16. The faculty members records their lecture and uploaded on their YouTube channels and website which the students can watch as and when required.

Simulation Based Learning:

17. The faculty members utilize different simulators/tools for innovative teaching such as:

    - Atanua, WinBreadboard as software simulator uses in computer organization.
    - Digital Trainer Kit as hardware simulator uses in computer organization.
    - NS2, Wireshark uses in computer network.
    - JFLAP uses in theory of automata and formal languages.
    - Weka tool uses in data warehousing and data mining.

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

Total Marks 15.00

Institute Marks : 15.00

Name of the faculty	Max 5 Per Faculty		
	2018-19 (CAYm1)	2017-18 (CAYm2)	2016-17 (CAYm3)
Vikas Kumar	5.00	5.00	5.00
Anurag Malik	3.00	5.00	3.00
Dr. Neelaksh Sheel	5.00	0.00	0.00
Dr. L.P. Verma	5.00	0.00	0.00
Dr.Manish Gupta	5.00	5.00	0.00
Himanshu Agarwal	3.00	5.00	5.00
Vikas Bhatnagar	3.00	3.00	3.00
Puneet Rai	5.00	5.00	5.00
Prachi Gupta	5.00	5.00	0.00
Manoj Kumar Singh	5.00	5.00	3.00
Richa Saxena	5.00	5.00	0.00
Kanchan	5.00	3.00	3.00
Mohd. Ilyas	5.00	5.00	3.00
Neha Gupta	5.00	5.00	5.00
Puneet Kumar	5.00	5.00	0.00
Shivanshu Rastogi	3.00	5.00	5.00
Navita Agrawal	5.00	3.00	0.00
Zubair Iqbal	5.00	3.00	3.00
Prabal Bhatnagar	3.00	0.00	5.00
Sanjeev Gupta	5.00	5.00	3.00
Shweta Agarwal	5.00	5.00	3.00
Praveen Saini	5.00	5.00	3.00

Shilpi Rani	5.00	0.00	3.00
Prachi Agarwal	5.00	5.00	3.00
Abhinav Gupta	5.00	3.00	5.00
Priyanka Goel	5.00	5.00	5.00
Ravish Kumar Dubey	5.00	3.00	0.00
Sum	125.00	103.00	73.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	27.85	27.65	27.80
Assessment [3*(Sum / 0.5RF)]	26.93	22.35	15.76

Average assessment over 3 years: 21.68

5.7 Research and Development (30) Total Marks 21.00

5.7.1 Academic Research (10)

Institute Marks : 10.00

Research Paper Publications

Table B. 5.7.1a: Summary of Research Paper Publications

Year	Journals		Conferences		Total
	International Journals	National Journals	International Conferences	National Conferences	
2019-20	17	01	03	15	36
2018-19	11	-	03	-	14
2017-18	08	-	03	17	28
2016-17	04	-	04	02	10
Total	40	01	13	34	88

List of Research Paper Publications:

2019-2020

Journals

1. *Ramesh Chandra Sahoo, Sateesh Kumar Pradhan, Somesh Kumar, "Study Of Hopfield Neural Network For Fingerprint Verification Based On Fast Fourier Transform", International Journal of Scientific & Technology Research, July 2019, ISSN: 2277-8616.*
2. *Ramesh Chandra Sahoo, Sateesh Kumar Pradhan, Somesh Kumar, "Application of Depthwise Separable Convolutional Neural Network for Distorted Fingerprint Images", International Journal of Control and Automation, December 2019, Vol. 12, No. 6, pp. 448-455, ISSN: 2005-4297.*
3. *Abhishek Singh, Ashmit Narayan Rai, Ayushi Saxena, Diti Gupta, Prabal Bhatnagar, " You Tube Data Analysis Using Hadoop",International Journal of Creative Research Thoughts (IJCRT), Volume 8, Issue 4 April 2020, ISSN:2320-2882.*
4. *Antriksh Singh, Anushka Krishnatreya, Astha Saxena, ayushi Mathur, Yashika agarawal, Dr, Neelaksheel, "THIRST, The Hardware Based Irrigation Through Rainwater Using Smart Tank", International Journal of Creative Research Thoughts IJCRT", Volume 8, Issue 6 June 2020 | ISSN: 2320-2882.*
5. *Ayushi Gupta, Somesh Kumar, "A Study on Biomedical Engineering in Healthcare", International Journal of Machine Learning and Networked Collaborative Engineering, Vol. 03, No. 4,(2019),182–191, ISSN:2581-3242.*
6. *Abdul Azeem, Ankit Verma, Akansha Bhatnagar, Harsh Choudhary, Ms. Kanchan Singh, " ATTENDANCE SYSTEM USING CASCADE CLASSIFIER", International Journal of Creative Research Thoughts, Vol 8, Issue 5,May 2020, ISSN:2320-2882*
7. *Mrs. Shilpi Rani, Shubham Chitransh, Priyam Tyagi, Prashant Varshney, " Eye Controlled Wheel Chair", International Journal of Scientific Research & Engineering Trends, Volume 6, Issue 3, May-June-2020, ISSN (Online): 2395-566X.*
8. *Akanksha Gupta, Anukriti Agarwal, Piyushi Saraswat, Satyam Agarwal, Zubair Iqbal , "A SMART HEALTH CARE SYSTEM", International Journal of Creative Research Thoughts (IJCRT), ISSN:2320-2882, Volume.8, Issue 6, pp.3398-3403, June 2020.*
9. *Ankit Agarwal, Abhishek Kumar, Akshita Sharma, Ashish, Zubair Iqbal, "VISION: A DRONE FOR EMERGENCY OPERATIONS", International Journal of Creative Research Thoughts (IJCRT), ISSN:2320-2882, Volume.8, Issue 6, pp.936-940, June 2020.*
10. *Zubair Iqbal, Prachi Gupta and Kamal Kumar Gola, "Visualization of COVID-19 Data using Jupyter Notebook" Dogo Rangsang Research Journal, Vol-10 Issue-07 No. 1 July 2020 , ISSN : 2347-7180.*
11. *V. K. Sharma, L. P. Verma, M. Kumar, R. K. Naha, A. Mahanti, "A-CAFDSP: An Adaptive-Congestion Aware Fibonacci Sequence based Data Scheduling Policy", Computer Communications, Vol. 158, Pages 141-165, 15 May 2020,*
12. *L.P Verma, M. Kumar "An IoT based Congestion Control Algorithm", Internet of Things 9 (2020) 100157, International Journal ,Elseveir 9, March 2020, https://doi.org/10.1016/j.iot.2019.100157* (https://doi.org/10.1016/j.iot.2019.100157).
13. *Isha Sethi , Shilpi Rani , Muskan, Muskan Mathur, Rashi Sharma, "An Efficient Approach To Traffic Violation Detection And Fine Generation", International Research Journal of Modernization in Engineering Technology and Science. Volume:02/Issue:06/June-2020, e-ISSN: 2582-5208.*
14. *Milan Vishnoi, Kshitiz Saxena, Mohammad Anas , Sachin Singh, Navita Agarwal, "Smart Lab with Automated Access", International Journal of Science and Management Studies (IJSMS), May to June 2020, Volume: 3 Issue: 3, E-ISSN: 2581-5946.*

15. *Manish Gupta, Shambhu Shankar Bharti, Suneeta Agarwal, "Gender-based speaker recognition from speech signals using GMM model", Modern Physics Letter B, World Scientific Publishing Company, Vol 33, No. 0, August 2019.*
16. *Navita Agarwal , Shubham Bhatt, Shubham Gupta, Rishabh Agarwal, Mohd. Anzar, "MIPT JACKET (Mentally Illed Patient Tracking)", International Journal of Science and Management Studies (IJSMS), July to August 2020, Volume: 3 Issue: 4, E-ISSN: 2581-5946.*
17. *Paras Dhawan, Manik Agarwal, Nikhil Kumar, Manish Singh Bisht, Prachi Agarwal, "Self-Driving Car", International Journal of Sciearince and Management Studies (IJSMS), July to August 2020, Volume: 3 Issue: 4, E-ISSN: 2581-5946.*
18. *Mansi Tyagi, Ayushi Gupta, Shubham Chauhan, Megha Gunjan, Anurag Malik, "License Plate Detection And Lane Detection System", International Journal Of Advance Research And Innovative Ideas In Education, Aug 2020, Vol-6 Issue-4 2020, IJARIIE-ISSN(O)-2395-4396*

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1. *Lal Pratap Verma, Neelaksh Sheel, Chandra Shekhar Yadev ,"Concurrent Multipath Transfer using Delay Aware Scheduling" ICICV-2020, School of Computing & Information Technology, Manipal University, Jaipur, Rajasthan, 17-19 January 2020.*
2. *N. Mishra, L. P. Verma, and M. Kumar "Comparative Analysis of Transport Layer Congestion Control Algorithms", International Conference on Cutting-edge Technologies in Engineering (ICon-CuTE), 46-49, Nov. 2019.*
3. *Dr. Somesh Kumar," Design of IoT based Smart Illumination System in Smart Cities", 3rd International Conference on Computing Informatics & Networks ((ICCIN)-2020,. Bhagwan Parshuram Institute of Technology - [BPIT], New Delh, 29th-30th July 2020.*
4. Shilpi Rani ,Kanchan ,Shiwani Agarwal, ". Medical Diagnostic System", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
5. Shiwani Agarwal, Shilpi Rani, Kanchan," LUCAN Depistage (An Algorithm that Detects Lung Cancer)", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
6. Isha Madan, Disha Sharma, Ashar Ali , Lal Pratap Verma, Vikas Kumar, " Demand Forecasting for Food Items", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
7. Ms Richa Saxena, Mr Anshul Yadav, "RoadSense: Smartphone Application to Estimate Road Conditions Using Accelerometer and Gyroscope", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
8. Prachi Agarwal , Shreya Agarwal, Rohit Kumar, Sahin Parveen , Pallav Bansal, " Image Text Extraction & Object Recognition", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
9. Himanshu Agarwal, Arisha Shahid, Harshit Kumar, Himanshu Yadav, Krishna Shrivastva, "Symbolic Linguistic Translator using LMC", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
10. Kanchan , Shiwani Agarwal, Shilpi Rani, " Securing Computer Folders With Rijndael Security Extension And Your Bluetooth Enabled Mobile Phone", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
11. Ms. Richa Saxena , Mr. Arpit Chauhan ," Road Safety Measures & Approaches By Using Android, IOT, Machine Vision, Gps, Sqlite Database And Black Box", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
12. Vikas Kumar, Ritvik Rastogi, Yuvraj Singh Rana, Falak Mujeeb, Sakshi Agarwal, " News Extraction From Live Tweets", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
13. Abhinav Gupta, Akash Gupta, Harsh Verma, Nishant Pal, Nishkarsh Krishan, " Automated Rotatory Multilevel Parking System with Solar Tracker", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
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15. Mukesh Kumar Singh, Navita Agarwal , Simran Pasrija, Tanya Gupta , Ujjwal Rastogi, Swati Singh, "Sensor Based Stick For Visually Impaired", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
16. Priyanka Goel , Manas Agarwal, Lucky Verma, Lakshit Rana, Agnivanshi Gourang Kukreriya, "Heart Attack Prediction System", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
17. Ravish Kumar Dubey, Dhruv Bhatt, Ashi Verma, Geetanjali Wadhwa, Bharat Bajaj, "Study of Diagnosis Using Machine Learning", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.
18. Mansi Tyagi, Ayushi Gupta, Megha Gunjan, Shubham Chauhan, Anurag Malik, " Vocational Maquette on License Plate Detection and Lane Detection", National Conference on Emerging Trends in Engineering, Science &Technology (ETEST -2K19), MIT, Moradabad, 6-7 September 2019.

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1. *L.P Verma, I. Verma, M. Kumar , "An Adaptive Congestion Control Algorithm", Modelling, Measurement and Control A (MMC_A), March 2019, ISSN :1259-5985*
2. *V.K. Sharma, L. P. Verma, and M. Kumar, "CL-ADSP: Cross-Layer Adaptive Data Scheduling Policy in Mobile Ad-hoc Networks", Future Generation Computer Systems, March 2019, 0167-739X*

3. *S S Bharti, Manish Gupta, S Agarwal, "A novel approach for audio steganography by processing of amplitudes and signs of secret audio separately, Multimedia Tools and Applications", Springer, April 2019, ISSN: 1380-7501 (Print) 1573-7721 (Online).*
4. *S S Bharti, Manish Gupta, S Agarwal, "SVM based Voice Activity Detection by fusing a new acoustic feature PLMS with some existing acoustic features of speech", Journal of Intelligent & Fuzzy Systems, August 2018, ISSN 1064-1246(P),ISSN 1875-8967 (E).*
5. *Manish Gupta, S S Bharti, S Agarwal, "Emotion Recognition from Speech using wavelet packet transform and prosodic features", Journal of Intelligent & Fuzzy Systems, August 2018, ISSN 1064-1246 (P),ISSN 1875-8967 (E).*
6. *Ojasvini Bhatnagar, Shweta Agarwal, Sanya Verma, Nidhi Sharma, "IOT Based Digital Door Locking System", MIT TRANSACTION: International Journal of Advance Engineering Science & Technology, January 2019.*
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8. *Akash Patel, Pratiksha Sahani, Sakshi Saxena, Samarth Goel, Vikas Bhatnagar "Myocardial Infarction Detection using Multi Biomedical Sensors",* MIT International Journal of Computer Science & Information Technology, Vol. 8 No. 1 , pp. 6-12, January 2019, ISSN 2230 – 7621.
9. *Shivanshu Rastogi, Anmol Arora, Arun kumar Gautam, Anmol Vaish, Mohd Umar, "Web Based Accident Reporting And Tracking System",* MIT International Journal of Computer Science & Information Technology, Vol. 8 No. 1 , pp. 13-16, January 2019, ISSN 2230 – 7621.
10. *Shubham Sharma, Anurag Malik , Vivek Shrestha, Varun Kumar Tomar,, "A Simulation of Car Accident Tracking & Detection System",* MIT International Journal of Computer Science & Information Technology, Vol. 8 No. 1 , pp. 17-21, January 2019, ISSN 2230 – 7621.
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2. *Vikas Kumar, Kshitij Shinghal, "Handwritten Character Recognition: Issues", IEEE International Conference on Electrical, Communication, Electronics, Instrumentation and Computing (ICECEIC-2019), IEEE Computer Society,30-31st January 2019, CFP19R88-PRJ:978-1-7281-0173-6.*
3. *Himanshu Agarwal, Farooq Hussain, Praveen Saini, "Next Generation Noise and Affine Invariant Video Watermarking Scheme Using Harris Feature Extraction", Advances in Computing and Data Sciences, ICACDS 2019, Moradabad Institute of Technology, Moradabad Springer Nature, , Communications in Computer and Information Science, April 12-13 2019, Vol. 1046,978-981-13-9941-1/ 1865-0929.*

2017- 2018

Journals

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Ph. D. Awarded during the assessment period while working in the institute

Table B.5.7.1b: Summary of Ph. D. awarded during the assessment period

S. No	Name	Guide	Topic	Enrollment No.	University	Year of Admission	Year of Completion
1.	Rakesh Ahuja	Prof. S.S. Bedi	Design of Secure Watermarking Scheme for video	R111019	IFTM University, Moradabad	2012	2018
2.	Manish Gupta	Prof. Suneeta Agarwal	Novel techniques for speaker recognition along with his/her emotion	2014RCS09	MNNIT Allahabad, Prayagraj	2014	2020

5.7.2 Sponsored Research (5)

Institute Marks : 1.00

2018-19 (CAYm1)

Project Title	Duration	Funding Agency	Amount
Implementation and Optimization of Illumination of Switching Patterns in Smart Cities Using IoT	01 year	Collaborative Research and Innovation Program(CRIP) Through TQIP-III of AKTU	300000.00
Receiver Buffer Blocking in Multipath Communication	01 year	Collaborative Research and Innovation Program(CRIP) Through TQIP-III of AKTU	300000.00
			Total Amount(X): 600000.00

2017-18 (CAYm2)

Project Title	Duration	Funding Agency	Amount
0	0	0	0.00
			Total Amount(Y): 0.00

2016-17 (CAYm3)

Project Title	Duration	Funding Agency	Amount
0	0	0	0.00
			Total Amount(Z): 0.00

Cumulative Amount(X + Y + Z) = 600000.00

5.7.3 Development Activities (10)

Institute Marks : 10.00

Product Development:

Table B.5.7.3a List of developed products

S. No.	Name of the Product	Application	Faculty Incharge and his/her team	Year of Development
1.	Record Analyzer & Visualizer	Record Analyzer Tool (RAT) is a solution to a problem faced by the saviors of society, Police. The issue was exhibited by Bureau of Police Research And Development (BPRD) at SIH-2020. RAT is not limited to just visualize records but also analyze the data for over 45 different possible criteria and aspects.	**Guide Name:** Mr. Sanjeev Gupta **Team Members:** Mr. Ritvik Dayal Mr. Ritvik Rastogi Ms. Shivangi Arora Mr. Shubham Chauhan Mr. Arpit Tyagi Mr. Nitin Chauhan	2019-2020
2.	Smart Searching	An online web portal where user can upload the pdf and image file from which he wishes to Extract and search the data. The portal provides an interactive user interface and it displays the desired data from pdf/images with the help of OCR and Machine Learning.	**Guide Name:** Mr. Mohammad Ilyas **Team Members:** Mr. Abhishek Kumar Mr. Ashish Mr. Ritik Gupta Ms. Harshita Madhok Mr. Abhishek Khatri Mr. Rishabh Chauhan	2019- 2020
3.	Automated detection of Diabetic Retinopathy and its Diagnosis	It is an applications which automatically perform the detection of diabetic retinopathy and do its diagnosis accordingly.	**Guide Name:** Dr. Rakesh Ahuja **Team Members:** Ms. Mansi Bhatnagar Ms. Shanvi Sharma	2018-2019
4.	MIT LMS	A learning management system (LMS) is a software application for the administration, documentation, tracking, reporting, automation and delivery of educational courses, training programs, or learning and development programs.	**Guide Name:** Dr. Neelaksheel **Team Members:** Mr. Ritvik Dayal Mr. Arpit Tyagi	2018-2019

5.	MIT website	This website helps the students, faculties, staff and parents of students and outside entity who can access the Website for academic purposes and getting new updates about college activities.	**Guide Name:** Dr. Neelaksheel. **Team Members:** Mr. Ritvik Dayal Mr. Arpit Tyagi	2018-2019
6.	Zila Vikas Manch (ZIVIMA)-District Development Portal	The project tries to automate the services provided by Nagar Nigam of a city including automation of date of birth certificate, death certificate, water tax, house tax. Main focus was on automation of public grievance and its escalation to higher authorities in systematic and timely manner.	**Guide Name:** Mr. Vikas Bhatnagar **Team Members:** Mr. Rachit Gahlot Mr. Surya Pratap Singh Ms. Sparsh Saxena Mr. Krishna Kr. Singh Ms. Ekta Sharma Mr. Vaibhav Kumar	2017-2018
7.	An App to provide Relevant information to STs	An App to provide Relevant information to STs (Scheduled Tribes) about available Laws Protecting them from Atrocities and Subjugation.	**Guide Name:** Mr. Ravish Dubey **Team Members:** Mr. Nikhil Gold Mr. Saarthak Goel Ms. Isha Madan Mr. Rajat Rastogi Ms. Shreya Agarwal Ms. Khushboo Goswami (EC)	2017-2018
8.	An App that will give GPS based Dengue Risk Index.	It is an App that will give GPS location of a Dengue infected person in the form of index. A GPS enabled Smartphone owner can find the susceptibility to dengue infection at the location where he/she is at present.	**Guide Name:** Mr. Manoj Kr. Singh **Team Members:** Mr. Akarsh Saxena Ms. Simran Arora Mr.Sarthak Mahajan Mr Manas Agarwal Ms. Kirtija Rastogi Ms. Jyoti Gupta	2017-2018

9.	System to Track advancement in the skill/ Equipment's requirement	It is an Application System to Track advancement in the skill/Equipment's requirement.	**Guide Name:** Ms Priyanka goel **Team Members:** Mr. Kavish Baghel(CE) Mr. Shivam Saxena Mr. Shobhit Bhatnager Mr. Abhishek Kumar Mr. Ashish Mr. Arun Gautam	2017-2018
10.	Common Mobility App	The objective behind this app is to deliver right information at the right time that can boost usage of public transport system. This will help government to understand people's mobility needs, public transport usage & adaptability.	**Guide Name:** Mr. Praveen Saini **Team Members:** Mr. Siddhant Singh Mr. Siddharth Rastogi Mr. Sumith Kumar Ms. Aarti Gupta Mr. Pranjal Gupta Mr. Shubham Sharma	2017-2018
11.	Skill India App	This app developed to bring all skill centers and students at one place so that they can search for each other. If any student want to search for nearest center for the relevant skill then he or she can do so. There were different search criteria's on which student can do so.	**Guide Name:** Mr. Sanjeev Gupta **Team Members:** Mr. Mohd. Salman Mr. Rajat Saini Mr. Saksham Choudhary, Mr. Mohd. Akbar Ms. Manvi Raheja Mr. Rajendra	2017-2018

12.	A Software where old age pension applications are queued up and pulled up	This software developed to manage the applications of old age persons related to their pension.	**Guide Name:** Mr. Zubair Iqbal **Team Members:** Mr. Lucky verma Mr. Aman Singh Pawar Ms. Disha Chauhan Ms. Disha Sharma Mr. Manpreet Singh Chahal Ms. Aishwarya Gupta	2017-2018

Research Laboratories:

Moradabad Institute of Technology supports research and development activities with a vision to pursue and promote research in frontier technologies. A research lab (R&D Cell) has been established in Moradabad Institute of Technology for the following functions:

1. To strengthen and expand the research activities in the institute
2. To enhance the research output of the institute by research paper publication in referred journals and reputed conferences
3. To provide basic software for doing research and writing research articles
4. Faculty members and students can check the plagiarism of their research articles using Turnitin.

Software Available in Research Lab:

Table B.5.7.3b List of Available Softwares

S.No.	Software Name	Domain
1.	Anaconda	Python language learning
2.	R (R-CLI & R Studio)	Data Analytics
3.	OpenCV	Image Processing
4.	NS3, NS2	Networking
5.	Arduino IDE	IOT
6.	MySQL	DBMS
7.	MS office 2013	Office Documentation

Major areas of research include:

- Cloud Computing
- Big Data Analytics
- Computer Network
- Machine Intelligence
- Image Processing

Instructional materials:

1. Lecture Notes
2. Video Lectures
3. NPTEL lectures.
4. Spoken tutorial Lectures.
5. AKTU e-learning Resources.
6. Lab manuals of various labs.
7. IoT lab manual.
8. Robotics lab manual.
9. Machine Learning lab Manual.
10. Placement preparation material.
11. Library:

- More than 82,000 documents which include books and bound volumes of periodicals.
- **Available E-Resources:** IEEE, Sciencedirect, Springer, ASCE, ASME, Emrald, Tylor Francis, J-Stor, McGraw-Hill.
- Electronic resources access lecture including 25 computers with high speed internet in MITEARC.
- A LED TV to watch channels of **Swayam Prabha,** IGNOU, NCERT and NIOS.
- The **NDL** (National Digital Library of India) includes more than 7 lakhs e-books, 3 lakhs article, 95,000 thesis, 18,000 video lectures, 3300 question papers etc.

Working models /charts/monograms :

1. Outcome based education (OBE) flow chart
2. C-Map of various Subjects:
    - Theory of Automata
    - Cyber Security
    - Computer Network
    - Computer Graphics
    - Web Technologies
    - Data Compression
    - Programming for problem solving
    - Data Structures
    - Computer Organizational Architecture
    - Operating System
    - Digital Image Processing
    - Microprocessor
3. Charts of various Concepts:
    - Logic Gates,
    - Circuit Diagram 4*1 Multiplexer using Logic Gates
    - Circuit Diagram of Half Adder and Full Adder
    - Types of data structure and their concepts
    - E-R diagram of University database and a company database
    - Data Compression Techniques
    - Stack organization and General Register Organization
    - Types of parser and Phases of compilation
    - IoT Architecture
    - Architecture of UML
    - Deployment Models and Service Models of Cloud Computing

5.7.4 Consultancy(from Industry) (5) Institute Marks : 0.00

2018-19 (CAYm1)

Project Title	Duration	Funding Agency	Amount
nil	nil	nil	0.00
			Total Amount(X): 0.00

2017-18 (CAYm2)

Project Title	Duration	Funding Agency	Amount
nil	nil	nil	0.00
			Total Amount(Y): 0.00

2016-17 (CAYm3)

Project Title	Duration	Funding Agency	Amount
nil	nil	nil	0.00
			Total Amount(Z): 0.00

Cumulative Amount(X + Y + Z) = 0.00

5.8 Faculty Performance Appraisal and Development System (FPADS) (30) Total Marks 30.00

Institute Marks : 30.00

The College/Department encourages a positive method to measure the strengths and weaknesses for maximizing performance and expanding professional growth of faculty members. The self appraisal is an inherent part of this process by which administration can accomplish these objectives which is filled by the faculty members every year in which they have to mention their annual progress of last academic session as per the following guidelines:

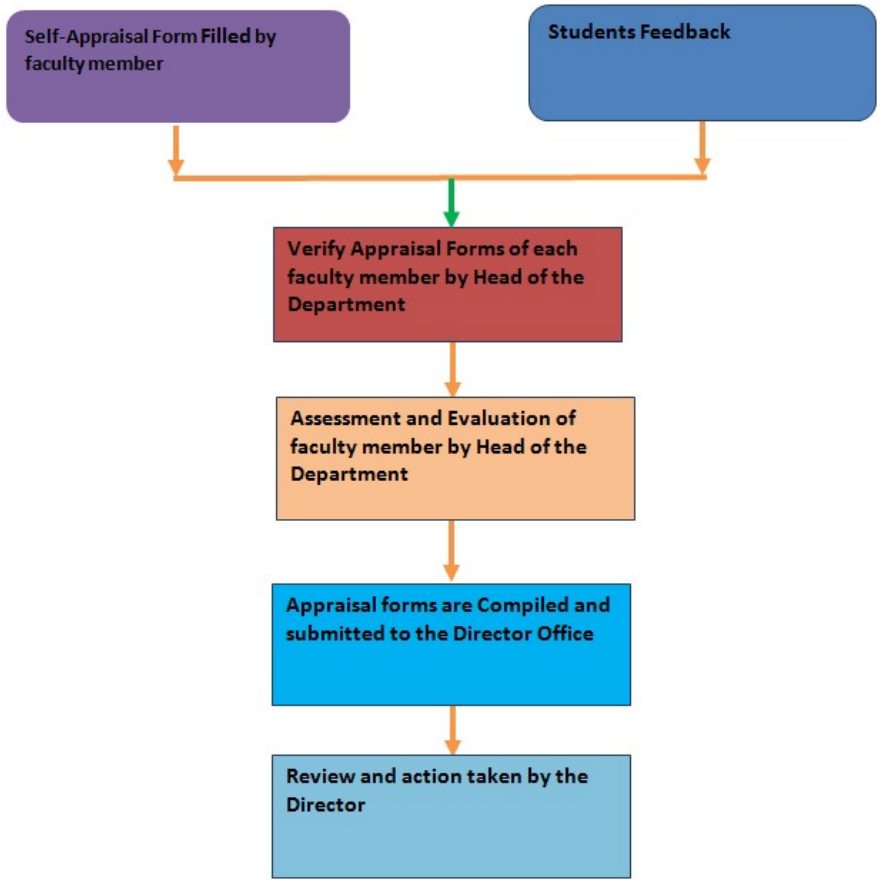


Fig. B.5.8a : Performance appraisal and development system for faculty members

Following guidelines are used for effective implementation of appraisal system:

1. After the end semester exams (even semester) of every session the appraisal forms are distributed to the faculty members through respective department Heads.
2. Faculty members are given 20 days time to carefully fill the self appraisal form and submit to respective HODs as per the guidelines.
3. HODs of respective department verify the details filled by the individual faculty member. He also compiles and makes a summary sheet of the self appraisal form.
4. On the basis of scores in summary sheet, HOD gives his recommendations as per table-A to the Director MIT.
5. Director MIT receives the summary sheet along with specific recommendation for each faculty member and cross verifies.
6. Action as per Table B.5.8a (self appraisal + HOD appraisal) is taken for corrective as well as appreciation of the individual faculty.

Table B.5.8a: Appraisal criteria based on scores

Level	Score	Process of Appraisal
Level-1*	<50	Warning letter & improvement procedure followed in Level-2

Level-2	50<60	Motivation for improvement counseling & guidance by team of senior faculty members
Level-3	60 to 75	Motivation for further improvement FDP, Counseling session training
Level-4	75 and above	Appreciation letter

*For level -1, failure to improve for successive 3 years will call for termination or other administrative measures.

Parts of Appraisal System:

1. Self Appraisal (80 Credit Points)
2. Appraisal by Director/HOD (20 Credit Points)

1. Self Appraisal (80 Credit Points): This Section is completely filled by faculty members, in which post filling their personal information, they precede to their participation in the professional activities during academic year in order to maximize the performance. Such details included as in the form given below –

MORADABAD INSTITUTE OF TECHNOLOGY, MORADABAD

Self Appraisal (Session 2019-20)

Deptt:……

1. **Name of Faculty : ……..……..Designation …….**
2. **Highest Qualification: ……..……**
3. **External Sponsored R&D Projects/ Consultancy:**

Sr. No.	Title of R&D Project	Completed/ Ongoing	Duration		Funding Agency	Amount in lakhs	Role		Credit Points (out of 10)
			From	To			As PI or Co PI	Total No. of Co PIs for the project	
1.									
								Total	

4. **Patent Details:-**

Sr. No.	Patent Title	Status	Details	Role		Credit Points (out of 5)
		Applied/ Granted	No. & Date of application/ grant	Principal Inventor or Co Inventor	Total No of Co Inventors in the patent	
1.						
					Total	

5. **Ph.D. supervised /U.G./P.G. Dissertation:-**

Sr. No.	Name of Research Scholar	Level	Status (Submitted /Awarded)	Date of Submission/ award	Role	Credit Points (out of 5)
					As Main/ Co Supervisor	
1.						
2.						
					Total	

6. **Papers/ Book/ Book chapter published in SCI/Scopus/ICI/WOS Journal/conference :-**

Sr.	Title	Category		Indexed	Role	Credit Points (out of

No.			Published In	in	As First Author/ Main Supervisor/ Other Authors	Total No of Other Authors	10)
1.							
2.							
						Total	
						Total	

7. **Administrative Assignments:-**

(HOD/Dean/Chief Warden/Warden/Mess Warden/Chief Proctor/Proctor/Conveners/Co-conveners/AS/CS/OCs) etc.

Sr. No.	Assignment	Credit Points (out of 15)
1.		
2.		
	Total	

8. **Workshop /FDP / STTP/EAC/EDP/NPTEL course attended (minimum two days):-**

Sr. No.	Title	Category	Duration		Total no. of Days/hours	Venue	Credit Points (out of 5)
			From	To			
2							
						Total	

9. **Establishment of new labs/Outreach activity/Guest Lecture delivered/Member of Panel Organized FDP/ Training/EAC/EDP/Conference:-**

Sr No	Activity	Role	Department concerned	Venue	Credit Points (out of 5)
1					
2					
				Total	

10. **Result analysis:-**

Sr. No.	Academic Year	Semester	Percentage	Credit Points (out of 15)
1		Odd		
		Even		

11. **Membership of Professional Society**

Sr. No.	Name of the Society	Membership no.	Level of Membership	Credit Points (out of 5)
1				
2				
3				
4				

12. **Students feedback :-**

Sr. No.	Students Feedback	Credit Points (out of 5)

Total Credit Points : …….. Signature

2. **Appraisal by Director/HOD (20 Credit Points):** In this Section, the Director/HOD will award scores on the parameters taking into consideration of Self Appraisal filled by the Faculty and also on the basis of his/her own judgment.

APPRAISAL BY HOD

S.No.	Performance Parameter	Credit points Out of (04)
1.	Support to Department and Admission work	
2.	Competence as a teacher & Commitment to Quality Education	
3.	Interpersonal Relations & behavior	
4.	Attitude to Learning & handling New subjects	
5.	Commitment to Organization, Sincerity & Integrity	
	Grand Total (20)	

Total Score (out of 100) = **Self Appraisal (80)** + **HOD (20)**

Comments (If any): **Signature of HOD**

Director assessment: **Signature of Director**

Fig. B.5.8b: Template of Self-Appraisal form

Guidelines for Self Appraisal Form

The following Credit points can be given while filling the self-appraisal form:

1.. External Sponsored R&D Projects/Consultancy (> 5 lakhs only) completed/ongoing:

Status of Externally Funded Project	Role	Credit
Completed	PI	10
Completed	Co-PI	8
Ongoing	PI	8
Ongoing	Co-PI	6
Applied	PI	5
Applied	Co-PI	3

2.For each Patent details:

Status of Patent	Role	Credit
Grant	PI	5
Grant	Co-PI	4
Applied	PI	3
Applied	Co-PI	2

3. For each Ph.D. Supervised (Included Thesis Submitted)

·Main Supervisor for each research scholar --- 5 Credit

·Co-supervisor for each research scholar --- 4 Credit

·UG/PG Dissertation (Completed) : For each UG Project Guide : 03 Credit

For each PG Project Guide : 04 Credit

4. For each Paper in National/International SCI/Scopus/ICI/WOS Indexed Journal:

SCI/Scopus Journal	Role	Credit (10)

SCI/Scopus/IEEE/ICI/Springer	Main Author	07
SCI/Scopus/IEEE/ICI/Springer	Co-Author	06
Others	Main Author	05
Others	Co-Author	04

5. Conferences: -

Conference	Role	Credit (5)
SCI/Scopus/IEEE/Springer	Main Author	5
SCI/Scopus/IEEE/Springer	Co-Author	4
Others	Main Author	4
Others	Co-Author	3

Book Published: International: 5 Credit National: 4 Credit Per book published

Chapter Published: International: 3 Credit National: 2 Credit Per chapter Published

6. For each Administrative Assignments:

Assignment	Credit (15)
HoD/Dean	15
Chief Proctor/Chief Warden/Convener in different committee/CS/AS	13
Co-Convener/Proctors/Members/OCs	10

7. For each workshop/FDP/STTP/EAC/EDP/NPTEL attended:

Assignment	Credit
>=5 days	5
< 5	2

8. For each International/National Conference Organized:

Assignment	Credit
* Chairman/In charge	05 Credit
* Co-chairman/Convener	05 Credit
* Co-convener/Member	04 Credit

2 Marks per activity and 5 Marks for new lab development

9. Result Analysis: By Dean Academic as per policy decided in Administrative committee

10. Member of any professional society: 2 Credit / Professional Society (National)

3 Credit/Professional Society (International)

Fig. B.5.8.c: Templates for assigning different self appraisal points

MIT GROUP OF INSTITUTIONS

STUDENTS' RESPONSE FORM - B

Your teacher in this course is anxious to do everything possible to help you in your job of learning. Please give your honest opinion by checking (✓) against the following points.

Teacher's Name.....Semester: .....Section.....Session:.....

Rating ⇨ / Subject ⇩		(Below Average) 1	(Average) 2	(Good) 3	(Very Good) 4	(Excellent) 5
A	CLASS CONTROL					
1.	Punctuality in the Class					
2.	Regularity in taking Classes					
3.	Effective conduction of the class					
4.	Students' participation in the class					
5.	Skills of addressing inappropriate behaviour of student					
	Sub Total (A)					
B.	PRESENTATION OF SUBJECT MATTER					
1.	Preparation for Lectures/Lab/Tutorials					
2.	Beginning & ending of Lab/Classes					
3.	Ability to speak clearly & audibly					
4.	Ability to explain subject					
5.	Ability to create interest in the subject					
6.	Ability to answer questions					
7.	Teacher has enhanced my thinking ability					
	Sub Total (B)					
C.	ATTITUDE/BEHAVIOUR/PERSONAL					
1.	Helping approach towards varied academic interests of students					
2.	Helps students facing physical, emotional and learning challenges					
3.	Approach towards developing professional skills among students					
4.	Helps students in realizing career goals					
5.	Helps students in realizing their strengths and developmental needs					
	Sub Total (C)					
D.	OVERALL ASSESSMENT					
1.	Overall effectiveness of teaching					
2.	Enhancement of learning process					
3.	Enhancement of analytical ability					
	Sub Total (D)					
	Total (A+B+C+D)					

Additional Remarks (if any): .....

.....

Fig. B.5.8d: Students Response Form

5.9 Visiting/Adjunct/Emeritus Faculty etc. (10) Total Marks 10.00

Institute Marks : 10.00

The institute has a well-defined policy for appointing visiting/adjunct/emeritus faculty members to improve the employability of the students. Faculty members are hired by Moradabad Institute of Technology (MIT), Moradabad to teach but is not a full member of the faculty. Adjunct faculty member are part time instructor. These may be academician/professionals or retired persons whose primary employment activity is outside the institution and who are not interested in seeking full time appointment with the institution, but shall contribute to teaching in MIT Moradabad.

Qualification and experience: An Adjunct Faculty/ resource person shall be a faculty retired from technical institution or a person of eminence, with or without a post graduate or Ph.D. Qualifications having 10 to 15 years of experience from industry/organization/academic institution.

There shall be no upper age limit. She/he shall satisfy the following norms:

1. Teaching and research organization of state /central government institutions/universities.
2. Central and state public sector undertakings (PSUs).
3. Reputed Industries.
4. Civil servants (IAS/PCS/Officials from central and provincial services) and professionals.

Professor Emeritus is invited by the department to give lecturers for content beyond syllabus and develop professional and personal competency in research, publications, innovation and teaching among faculties and students. Following are the list of Professor Emeritus during last three years:.

Table B.5.9a Visiting/Adjunct/Emeritus Faculty list

S. No.	Visiting/ Adjunct/ Emeritus Faculty	Organization	Technology / Topics cover during visit	Duration (Hrs)
2018-19				
1.	Mr. Sandeep Sharma	Free Lancer	Coding and Mock Interview Preparation	26
2.	Prof. P.S. Grover	Retired from University of Delhi	Outcome Based Learning and Project Management	30
2017-18				
3.	Mr. Rahul Varshney	Sopra Group	Middleware in the IT world:B2BI,EDI,EAI,MFT	24
1. 4.	Mr. Divya Prakash Aneja	Sapient	Career in Computer Science: Beyond Conventional IT Consulting	32
2016-17				
5.	Mr. Rahul Varshney	Sopra Group	CI/CD,AWS,API Gateway	30
2. 6.	Mr. Divya Prakash Aneja	G4S	IBM DB2, AJAX,JQUERY,COGNOS	26

Outcomes of appointment of Visiting/Adjunct/Emeritus Faculty:

Table B.5.9b List of outcomes

S. No.	Particulars	2019-20	2018-19	2017-18
1.	Smart India Hackathon and other competition Participated by the students	18	2	42
2.	GATE exam qualified by the students	11	04	04
3.	STC/FDP/Workshop/conference attended by the faculty	124	112	54
4.	No. of Placement	104	118	105
5.	Participation in inter-institute events by students	584	182	258
6.	Paper published by faculty	36	14	28

6 FACILITIES AND TECHNICAL SUPPORT (80)

Total Marks 80.00

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

Total Marks 30.00

Institute Marks : 30.00

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	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
1	Data Warehousing and Data/ Mining Lab (B-101)	20	Computers (25.), Linux Ubuntu 18.4 WEKA	20 Hrs. (Even Sem.)	Mr. Rajesh Sharma	Lab Assistant	Graduation , CCC, DCA
2	Python Language Programming Lab / Project Lab (B-102)	20	Computers (25), Windows 7 Pro	14 Hrs. (Even Sem.)	Mr. Sumit Kumar	Lab Assistant	Graduation, Diploma in Computer Hardware and Networking
3	Operating System Lab (B-103)	20	Computers (25), Windows 7 Pro, TURBO C++, Java	18 Hrs. (Even Sem.)	Mr. Sumit Kumar	Lab Assistant	Graduation, Diploma in Computer Hardware and Networking
4	Project Lab (B-106)	20	Computers (35), Windows 10, Python	21 Hrs. (Even Sem.)	Mr. Brahmpal Singh Saini	Lab Assistant	Graduation, Diploma in Computer Hardware and Networking
5	Data Warehousing and Data Mining Lab (B-109)	20	Computers (25), Linux Ubuntu 18.4, WEKA	22 Hrs. (Even Sem.)	Mr. Brahmpal Singh Saini	Lab Assistant	Graduation, Diploma in Computer Hardware and Networking
6	Compiler Design/ Computer Graphics Lab(B-113)	20	Computers (25), Linux Ubuntu 18.4 Gcc, Libgraph	18 Hrs. (Even Sem)	Mr. Suresh Yadav	Lab Assistant	Graduation, Diploma in Computer
7	Computer Graphics/Compiler Design/ Python Lab(B-114)	20	Computers (25), Linux Ubuntu 18.4 Gcc, Libgraph, Python	12Hrs. (Even Sem)	Mr. Suresh Yadav	Lab Assistant	Graduation, Diploma in Computer
8	Compiler Design/ Project Lab (B-117)	20	Computers (26), Linux Ubuntu 18.4, Gcc	18 Hrs. (Even Sem)	Mr. Om Prakash	Lab Assistant	Graduation, CCC
9	Compiler Design/ Project Lab (B-118)	20	Computers (26), Linux Ubuntu 18.4, Gcc	08 Hrs. (Even Sem)	Mr. Om Prakash	Lab Assistant	Graduation, CCC
10	Data Mining/Problem Solving Lab(B-123)	20	Computers (24), Linux Ubuntu18.4, WEKA, Gcc	14 Hrs. (Even Sem.)	Mr. Rajesh Sharma	Lab Assistant	Graduation, CCC, DCA

11	Server Room (B-106)	0	NA	NA	Mr. Muneesh Bhatnagar	Manager IT	MBA IT, DCNA, MCSA
12	Server Room (B-106)	0	NA	NA	Mr. Subhash Babu	Assistant Computer Maintenance Engineer	MCA, M.Sc., Microsoft IT Professional (MCITP)
13	Server Room (B-106)	0	NA	NA	Mr. Pradeep Singh	Network Administrator	Graduation, Certification in Computer Network, Microsoft Certified Professional
14	Hardware Maintenance Lab (B-105)	0	NA	NA	Mr. Sanjay Sharma	Lab Technician	Intermediate
15	Hardware Maintenance Lab (B-105)	0	NA	NA	Mr. Jay Prakash	ENC	High School, ITI

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

Total Marks 25.00

Institute Marks : 25.00

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	Internet	Internet facility is provided in every computer lab	Internet is helpful in searching application and examples of related topics	Internet is used to give real working examples to students when it is required	Access e-journals, online content, video lectures etc.	PO8, PO10, PO12
2	Projector	Projectors are installed and operative in computer labs (B-101,B-102,B-106)	Student can understand certain topics better when they are presented in front of them in the form of PowerPoint presentations, images, and videos	Faculty members use projector to explain topics to students in the form of of PowerPoint presentations, images, and videos	Modern IT skills through animated slides and videos	PO10
3	White Board	White boards have been fixed in every labs	Boards are helpful in explaining topics which require calculation and flow	Faculty members use white boards to explain topics to students	Work flow/design and mathematical calculations	PO10
4	Robotics Lab	5 Spark V Robot, 4 Fire Bird V 2560, 1 Raspberry-Pi3	Project development using robots	Training & certification on robotics technology	Problem solving using robots	PO1,PO2, PO3, PO4, PO5, PO6, PO9, PO11, PO12, PSO1, PSO2
5	Internet of Things Lab	5-Computer System (Hewlett Packard Core i7, 8GB RAM, 120 GB SSD, HP 18” TFT, USB Keyboard, USB Mouse) 10-Arduino Uno Kit, 10- Raspberry Pi Kit	Project development using Arduino Uno and Raspberry Pi	Training & sertification on Arduino Uno and Raspberry Pi	Problem solving using Arduino Uno and Raspberry Pi	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO12, PSO1, PSO2

6.3 Laboratories: Maintenance and overall ambiance (10)

Total Marks 10.00

Institute Marks : 10.00

Each laboratory maintains a stock register with details of the equipment. The maintenance is carried out on both preventive and breakdown basis. One lab assistant is assigned for two labs. Laboratories run on a centralized online UPS of 40 KVA, which is maintained through annual maintenance contract (AMC).

Maintenance of laboratory equipment

Preventive maintenance is taken care as follows:

- Some tasks are done on day-to-day basis, some on weekly basis; some on monthly basis and rest are taken care in the beginning of semester.
- Basic and minor maintenance is done by the lab technicians.
- Breakdown maintenance is done on the basis of requirement. The requirement which cannot be fulfilled by the staff is done by outsourcing.
- Regular maintenance is done by the lab technicians.
- Network administrator looks after the networking, Wi-Fi connectivity.
- Computer Maintenance Engineer looks after the computer systems hardware/software maintenance.

Overall ambience

- Laboratory area is spacious and furnished with ergonomically designed furniture.
- All laboratories are equipped with air-conditioning facility.
- All laboratories have sufficient natural light and good ventilation.
- Labs are also equipped with notice boards, white boards and projector (B-101, B-102 and B-106).
- Dusting and cleaning is done on regular basis.

6.4 Project laboratories (5) Total Marks 5.00

Institute Marks : 5.00

The department has three dedicated project labs. The project labs have licensed software such as Turbo C++, MY SQL, Java, Oracle, Adobe Photoshop, GIF Animator Pro, PDC Visual Prolog 7.0, Microsoft Campus Agreement, Antivirus software etc. We also promote the use of open source software such as Ubuntu, Network Simulators-2, Network Simulators-3, Wireshark, SWI-Prolog, Python, Atanua, etc. The project labs are equipped with computer system, Internet facility and white board.

Details of computer system are mentioned below:

Table B.6.4: Project laboratory

S. No.	Name of equipment	Number of equipment's	Lab name	Model and specification
1	Computers	35	Project Lab 1 (B-106)	Computer System (Hewlett Packard Core i7, 8GB RAM, 120 GB SSD, HP 18" TFT, USB Keyboard, USB Mouse)
2	Computers	25	Project Lab 2 (B-103)	Computer System (Core i5 CPU 2.90 GHz, 8 GB RAM, 120 GB SSD Hard Disk, 19.5" TFT ACER, USB Keyboard 15, HCL PS2 Keyboard 10, USB MOUSE)
3	Computers	25	Project Lab 3 (B-109)	Computer System(Acer Core i5, 4GB DDR-3 Ram, 500GB HDD SATA, Acer TFT 18.5", USB Keyboard, USB Mouse)

Project lab utilization

- Project labs are utilized for project work by students.
- The students utilize the lab facility for development of mini and major projects given by the faculty members. In the free time the students utilize the lab facilities to develop new software/application website/IoT etc. based project.

6.5 Safety measures in laboratories (10)

Total Marks 10.00

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
1	B-101 B-102 B-103 B-106 B-109 B-113 B-114 B-117 B-118 B-123	1) Safety instructions are placed in Lab notice board. 2) The fire extinguishers are installed in labs area and staff is trained to use them in case of an emergency. 3) The Technician checks all the systems and electrical fitting frequently. 4) In case of some electrical issue MCVs are fitted in all power lines. Separate earthling for each lab has been provided. 5) The power supplied through online UPS with safety measures. Separate earthling also has been provided for online UPS. 6) Water house reels are provided in the corridor in case of some major fire situations

7 CONTINUOUS IMPROVEMENT (50)

Total Marks 50.00

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

Total Marks 20.00

Institute Marks : 20.00

POs Attainment Levels and Actions for Improvement- (2018-19)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	1.95	2.02	Target achieved due to sound knowledge of mathematics and engineering concepts.
Action 1: Faculty members were advised to use ICT tools in teaching learning process effectively and also to put maximum efforts on clearing the concepts. Action 2: More emphasis done on assignments containing complex problems.			
PO 2 : Problem Analysis			
PO 2	1.74	1.53	It is observed that the emphasis given for identification, formulation, review research literature and analyses of complex problems was inadequate.
Action 1: Students were encouraged to identify and solve real life problems. Action 2: More emphasis was given for identifying literature review and analysis through project work, which enables students to accomplish solutions to computer science & engineering problems.			
PO 3 : Design/development of Solutions			
PO 3	1.71	1.72	Target achieved.
Action 1: Motivated students to work on Smart India, Swatch Bharat project, hackathons etc. Action 2: Incorporation of lab sessions over and above the curriculum for practical based subjects.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.65	1.64	1. Exposure of students towards creation of the information design of experiments, investigation and interpretation of data related to computer engineering was lagging. 2. In course NCS066 students performance was low with respect to some COs.
Action 1: More emphasis was given on laboratory of subject like computer organization, data warehousing and data mining, IoT etc. Action 2: Guest Lecture was conducted on Machine Learning and IoT by Mr. Abhey Kumar Bains, Director HR and Mr. Aman Kumar Singh, CRC Manager, Scope Telecom, Chandigarh on 28-01-2020. Action 3: Emphasis given on models and data mining techniques of classification , clustering and association rules, etc.			
PO 5 : Modern Tool Usage			
PO 5	1.65	1.62	Software skills and IT tools for addressing engineering solutions were lagging due to inability to learn, select and apply appropriate techniques and modern engineering tools to real world problems.
Action 1: Planned and executed java / IoT / Machine Leaning based training for students. Action 2: Guest Lecture on DevSecOps by Mr. Kavish Baghel, Associate Infrastructure Engineer, Thought2Binary, Gurugram on 05-10-2019.			
PO 6 : The Engineer and Society			
PO 6	1.50	1.45	It is observed that incorporation of responsibilities towards solving societal and health issues needs to be focused.
Action 1: Projects based on environment, healthcare, security and social issues was emphasized. Action 2: NSS activities such as Plastic free campaign, Health camp, Jal sarankshann were organized.			
PO 7 : Environment and Sustainability			
PO 7	1.56	1.51	Not attained due to lack of emphasis on environment related contents in the curriculum.
Action 1. Students were motivated to do projects in which they apply their technical knowledge to resolve issues related to environment and sustainability.			
PO 8 : Ethics			
PO 8	1.56	1.60	1. Target achieved. 2. Demonstrated ethical values in final year project work.

Action 1. A course on 'human values & professional ethics' was added in AKTU curriculum as mandatory course and faculty members were encouraged to attend workshops on Universal Human Values and Professional Ethics to deliver this course efficiently. Action 2. Students were encouraged to participate in ethical development programmes.			
PO 9 : Individual and Team Work			
PO 9	1.50	1.47	It was observed that effective involvement of students as a team needs to be strengthened.
Action 1: Professional societies and other committees organized many curricular / extra curricular activities such as final year project exhibition, mini hackathon, Dosto ki mehfil, CODER 6.0 etc. to promote the exhibition of individual and team talents.			
PO 10 : Communication			
PO 10	1.50	1.44	Skills of documentation, effective communication, presentation during project and seminar were not satisfactory.
Action 1: Classes related to communication skills were conducted as per plan. Action 2: The students were encouraged to participate in different literary events like essay writing, debate, group discussion etc.			
PO 11 : Project Management and Finance			
PO 11	1.56	1.58	1. Target achieved. 2. Ability to apply engineering and management principles in projects demonstrated.
Action 1: Guest Lecture conducted on Apache Airflow by Mr. Shivam Kumar, Software Engineer, Accolite Software India Pvt. Ltd., Gurugram on 23/05/2020. Action 2: Entrepreneurship Awareness Camps were organized by ED cell.			
PO 12 : Life-long Learning			
PO 12	1.56	1.57	1. Target achieved. 2. Ability for life-long learning demonstrated by students.
Action 1: Students were encouraged to attend MOOCS courses such as NPTEL, Spoken tutorial etc., to enhance self-learning skills of the students. Action 2: Students were motivated to read standard books, magazines and research papers etc.			

PSOs Attainment Levels and Actions for Improvement- (2018-19)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Comprehend the core subjects of CSE and apply them to resolve domain specific tribulations.			
PSO 1	1.95	2.16	Target achieved due to sound knowledge of mathematics and engineering concepts.
Action 1: Students were motivated to apply knowledge of core CSE subjects and current technological context in their projects. Action 2: Faculty members motivated the bright students to solve high difficulty level problems and weak students are guided to solve questions of previous year's papers.			
PSO 2 : Extrapolate the fundamental concepts in engineering and to apply latest technology with programming language skills to develop, test, implement and maintain software products.			
PSO 2	1.86	1.95	Target achieved.
Action 1: Students were advised to get trained on latest programming languages and use them in their projects. Action 2: Students were encouraged to carryout multidisciplinary projects related to AI and IoT.			

7.2 Academic Audit and actions taken thereof during the period of Assessment (10) Total Marks 10.00

Institute Marks : 10.00

The main objective of an academic audit is to ascertain departments have put in place adequate and operative excellence assurance mechanisms in terms of procedures, their applicability, that ensures quality inputs and subsequently quality outputs; their agility in ensuring continuous improvements along with review of available resources, their optimal utilization, additional resource requirements for providing quality education.

Academic Audit

The institute has well defined process of academic audit to evaluate the performance of different departments of the Institute such as; teaching process, laboratory maintenance and various departmental activities. In the implementation of this process, the Internal Quality Assurance Cell (IQAC) constitutes an Academic Audit Committee (AAC) to audit each department twice in a semester, i.e., one at just before the commencement of semester while the other is just before the end of that semester. The members of AAC are given below:

1. Chairperson of IQAC.
2. Coordinator of IQAC.
3. One Professor/Associate Professor from the respective department.
4. One Professor/Associate Professor from the other department

In the starting of the semester, AAC check the readiness of the semester through following points;

PART- A (Theory Subject)

1. Load Distribution as per curriculum of AKTU

2. Time table

3. Academic Calendar

4. Course File

    4.1 Course & Faculty Details

    4.2 Vision & Mission of Institute

    4.3 Vision & Mission of Department

    4.4 Program Educational Objectives

    4.5 Program Outcomes

    4.6 Program Specific Outcomes

    4.7 Course Evaluation Scheme

    4.8 Course Syllabus as per University

    4.9 Syllabus adopted by the Program

    4.10 Question Bank

    4.11 Course Outcomes

    4.12 Course Delivery Method

    4.13 Course Scheme& Exam Scheme

    4.14 Mapping

    4.15 Lecture Plan

    4.16 Assignments

    4.17 List of Students

    4.18 Previous Year Question Papers

    4.19 Class Notes

PART- B (Lab Subject)

1. Lab manual
2. Lab Plan
3. List of Experiments as per University curriculum
4. List of Experiments as per the Department
5. Software and Hardware requirements

In the ending of the semester, AAC check the following points;

PART- A (Theory Subject)

1. Adherence to Lecture plan
2. Attendance Register
3. Sessional test papers and marks distribution
4. List of weak students
5. Record of action taken for weak students

PART- B (Lab Subject)

1. Adherence to Lab plan
2. Attendance register
3. Practical files & viva record
4. Course Outcome of Practical

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

Total Marks 10.00

Institute Marks : 10.00

Table B.7.3a Summary of placement, higher studies and entrepreneurs.

	Placement		No. of students who qualified GATE	No. of students admitted in higher studies	Entrepreneurs
	Number of placed students	Average package (Lacs per annum)			
2019-20	154	3.14	10	-	-
2018-19	118	3.06	4	3	4
2017-18	105	2.44	4	8	2
2016-17	97	2.75	1	7	1

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

Total Marks 10.00

Institute Marks : 10.00

Item		2019-20	2018-19	2017-18
National Level Entrance Examination	No of students admitted	0	0	0
JEE	Opening Score/Rank	0	0	0
	Closing Score/Rank	0	0	0
State/ University/ Level Entrance Examination/ Others	No of students admitted	45	56	54
UPSEE	Opening Score/Rank	7268	7105	5370
	Closing Score/Rank	81614	99999	98935
Name of the Entrance Examination for Lateral Entry or lateral entry details	No of students admitted	1	1	2
UPSEE	Opening Score/Rank	4329	2283	4205
	Closing Score/Rank	4329	2283	6189
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		65	67	73

8 FIRST YEAR ACADEMICS (50)

Total Marks 46.17

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

Total Marks 5.00

Institute Marks : 5.00

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

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
							CAY	CAYm1	CAYm2			
Dr. Vijendra Sir	AILPS2916E	M.Sc. and PhD	20/02/1971	Fluid Dynamics	Professor	16/04/2005	100	100	100	Yes	Regular	
Dr. Deepti Gup	AGPPG8057L	M.Sc. and PhD	03/02/2006	Topology and OR	Associate Professor	11/07/1998	100	100	100	Yes	Regular	
Dr. Lalit Mohan	AGHPT3339E	M.Sc. and PhD	18/03/2007	Operation Research	Assistant Professor	22/08/2006	100	100	100	Yes	Regular	
Dr. Sachin Aga	AKKPA2407M	M.Sc. and PhD	16/12/2019	Operations Research	Assistant Professor	01/08/2007	100	100	100	Yes	Regular	
Mr. Khilendra S	CBSPS6198E	M.Sc	27/01/2007	Operations Research	Assistant Professor	27/08/2007	100	100	100	Yes	Regular	
Dr. Navneet Ro	AIDPR9607F	M.Sc. and PhD	24/12/2010	Operations Research	Assistant Professor	27/01/2011	0	100	100	No	Regular	08/06/2019
Dr. Riddhi Garg	AEJPG3046B	M.Sc. and PhD	10/11/2014	MAths	Assistant Professor	01/10/2001	0	100	100	No	Regular	04/05/2019
Dr. Pardeep Ra	BNJPK8660D	M.Sc. and PhD	28/07/2014	Fixed Point	Assistant Professor	13/07/2011	0	100	100	No	Regular	04/05/2019
Dr. Manish Sax	ANGPS2664B	M.Sc. and PhD	06/08/1995	Optical Memory	Associate Professor	12/12/1996	100	100	100	Yes	Regular	
Dr. Pratosh Kul	ALDPA0943Q	M.Sc. and PhD	19/10/2012	Fractured Mechanics	Assistant Professor	03/02/2006	100	100	100	Yes	Regular	
Dr. Shilpa Gupt	AHAPV9090Q	M.Sc. and PhD	20/10/2014	Physics	Assistant Professor	18/08/2008	100	100	100	Yes	Regular	
Dr. Animesh Ag	AFGPA4593K	M.Sc. and Ph.D.(Chemistry)	13/06/1998	Chromatography	Associate Professor	27/01/1997	100	100	100	Yes	Regular	
Mr. Atul Kukret	ANXPK1043R	M.Sc	31/12/1987	Material Science	Assistant Professor	26/07/2010	0	100	100	No	Regular	08/06/2019
Dr. Harendra K	AXAPK4809J	M.Sc. and Ph.D.(Chemistry)	17/04/2009	Complexometric Titration	Assistant Professor	03/04/2007	100	100	100	Yes	Regular	
Dr. Megha Aga	AMTPA4028R	M.Sc. and Ph.D.(Chemistry)	27/08/2016	Chemistry	Assistant Professor	01/09/2009	0	100	100	No	Regular	04/05/2019
Dr. Nitin Kumar	ATRPA4633K	M.Sc. and Ph.D.(Chemistry)	23/04/2009	Natural Product	Assistant Professor	09/08/2010	100	100	100	Yes	Regular	
Dr. Sangeeta M	AGXPM8460H	M.A and Ph.D	14/02/2015	English	Assistant Professor	03/04/2007	100	100	100	Yes	Regular	

Dr. Archana Sa	BLTPS2378N	M.Sc. and Ph.D.(Chemistry)	30/07/2007	Chemistry	Assistant Professor	08/02/2007	0	100	100	No	Regular	04/05/2019
Dr. Mayank Sh	AVYPS3781K	MBA & Ph.D	27/01/2007	Commernce	Assistant Professor	25/07/2012	0	100	100	No	Regular	04/05/2019
Dr. Rajeev Gup	AHQPG9155R	MBA & Ph.D	12/12/2017	Management	Assistant Professor	25/07/2012	0	100	100	No	Regular	08/06/2019
Dr. Manuj Kum	AFUPA2935H	M.Sc. and PhD	14/11/2019	Chalcogenide Glasses	Assistant Professor	01/06/2006	100	100	100	Yes	Regular	
Dr. Nishi Chaul	ANIPC5534H	M.A and Ph.D	07/11/2008	English	Assistant Professor	11/01/2011	0	100	100	No	Regular	08/06/2019
Ms. Richa Agai	AIKPA1726H	M.Sc	23/05/2013	Maths	Assistant Professor	23/08/2019	100	0	0	No	Regular	05/06/2020
Mr. Alok Saxen	BOCPS6444B	M.Sc	31/12/2004	Maths	Assistant Professor	22/08/2006	0	100	100	No	Regular	04/05/2019
Ms. Akansha A	IRMPS0960L	M.Sc	13/12/2008	Maths	Assistant Professor	23/08/2019	100	0	0	No	Regular	01/06/2020
Dr. Jyoti Agarw	AGPPA2715H	M.Sc. and PhD	14/12/2010	Maths	Assistant Professor	25/08/2003	0	100	100	No	Regular	04/05/2019
Mr. Sachin Ras	AGNPR4675B	M.Sc	31/12/2004	Maths	Assistant Professor	23/08/2019	100	0	0	No	Regular	03/06/2020
Dr. Sugandha A	AIRPA8809N	M.A and Ph.D	26/08/2008	American Literature	Assistant Professor	07/04/2007	100	100	100	Yes	Regular	
Dr. Ahmad Jah	CGEPK2377L	M.Sc. and Ph.D.(Chemistry)	12/07/2012	Chemistry	Assistant Professor	23/08/2019	100	0	0	No	Regular	03/06/2020
Ms. Priti Singh	AWHPS3876M	MA	21/06/2002	English	Assistant Professor	23/08/2019	100	0	0	No	Regular	05/06/2020
Dr. Modika Gup	AHAPG7592C	MBA & Ph.D	01/05/2007	Economics	Assistant Professor	01/02/2003	100	100	100	Yes	Regular	
Ms. Deepti Aga	AESPA0069D	MA	08/06/2001	English	Assistant Professor	23/08/2019	100	0	0	No	Regular	01/06/2020

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)	*Assessment=(5*20)/FYSFR(Limited to Max.5)
2017-18(CAYm2)	510	26	20	5
2018-19(CAYm1)	390	26	15	5
2019-20(CAY)	390	21	19	5
Average	430	24	18	5

8.2 Qualification of Faculty Teaching First Year Common Courses (5) Total Marks 4.67

Institute Marks : 4.67

Year	x (Number Of Regular Faculty with Ph.D)	y (Number Of Regular Faculty with Post graduate Qualification)	RF (Number Of Faculty Members required as per SFR of 20:1	Assessment Of Faculty Qualification [(5x + 3y) / RF]
2017-18	20	3	25	4.00
2018-19	21	3	19	6.00
2019-20	13	6	19	4.00

Average Assessment: 4.67

8.3 First Year Academic Performance (10)

Total Marks 6.50

Institute Marks : 6.50

Academic Performance	2019-20	2018-19	2017-18
Mean of CGPA or mean percentage of all successful students(X)	6.95	6.59	6.79
Total Number of successful students(Y)	159.00	167.00	177.00
Total Number of students appeared in the examination(Z)	171.00	171.00	182.00
API [X*(Y/Z)]	6.46	6.43	6.60

Average API[(AP1+AP2+AP3)/3] : 6.50

Assessment [1.5 * Average API] : 6.50

8.4 Attainment of Course Outcomes of first year courses (10)

Total Marks 10.00

8.4.2 Record the attainment of Course Outcomes of all first year courses (5)

Institute Marks : 5.00

Table B.8,4,2a Summary of CO Attainment of First Year Courses (2018-19)

SN	Courses	Course Code	CO Targets					CO Attainment				
			CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5
1	Engineering Physics	KAS101	50	50	50	50	50	48.64	48.45	51.14	48.84	47.19
2	Engineering Chemistry	KAS102	55	55	55	55	55	51.89	52.17	51.53	48.35	50.67
3	Engineering Mathematics-I	KAS103	55	55	55	55	55	63.33	64.34	62.79	64.95	63.66
4	Basic Electrical Engineering	KEE101	55	55	55	55	55	42.94	41.49	43.42	41.11	42.56
5	Programming for Problem Solving	KCS101	55	55	55	55	55	60.24	57.59	61.22	60.86	61.32
6	Engineering Graphics & Design	KCE101	75	75	75	75	75	67.79	67.79	63.46	67.31	64.43
7	Workshop Practices	KWS101	75	75	75	75	75	97.09	98.55	98.84	98.84	98.84
8	Engineering Physics Lab	KAS101P	75	75	75	75	75	73.79	78.16	74.76	79.13	78.64
9	Engineering Chemistry Lab	KAS102P	75	75	75	75	75	98.84	98.84	99.13	99.13	99.42
10	Basic Electrical Engineering Lab	KEE101P	75	75	75	75	75	92.24	97.58	97.58	97.58	97.58
11	Programming for Problem Solving Lab	KCS101P	75	75	75	75	75	87.5	87.79	87.21	87.21	87.21
12	Engineering Physics	KAS201	55	55	55	55	55	49.39	49.04	49.39	48.86	50.39
13	Engineering Chemistry	KAS202	55	55	55	55	55	49.66	50.26	49.66	48.48	49.76
14	Mathematics-II	KAS203	55	55	55	55	55	55.86	55.34	55.05	55.42	55.05
15	Basic Electrical Engineering	KEE201	55	55	55	55	55	58.64	57.58	59.92	59.74	59.86
16	Programming for Problem Solving	KCS201	50	50	50	50	50	59.3	57.11	58.2	58.1	59.2
17	Engineering Graphics & Design	KCE201	75	75	75	75	75	67.46	65.68	63.61	65.98	63.61
18	Workshop Practices	KWS201	75	75	75	75	75	94.32	96.59	96.59	96.59	96.59
19	Professional English	KAS204	50	50	50	50	50	53.26	54.17	54.5	54.13	54.1
20	Engineering Physics Lab	KAS201P	70	70	70	70	70	65.48	67.86	70.54	73.81	67.86
21	Engineering Chemistry Lab	KAS202P	75	75	75	75	75	98.5	98.5	98.5	98.5	99

22	Basic Electrical Engineering Lab	KEE201P	75	75	75	75	75	96.16	98.82	98.82	98.82	98.82
23	Programming for Problem Solving Lab	KCS201P	70	70	70	70	70	80.5	80.5	80.5	81	80.5

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) Institute Marks : 5.00

CO Attainment Process for Theory Courses

1. Course Outcomes, COs, are defined by the faculty member for the allotted course and tagged with cognitive levels.
2. Calculation of Direct CO Attainment using Continuous Internal Evaluation (CIE).
    a. Questions in sessional exams and assignments/quizzes are tagged with relevant COs.
    b. For each CO, percentage of marks and attainment level is calculated for each student after the conduction and evaluation of sessional exams and assignments/quizzes.
    c. % of students getting ≥ set percentage of marks is calculated for each CO, CO_CIE.
3. Calculation of Direct CO Attainment using Semester End Examination (SEE).
    a. Question-wise marks obtained are not provided by university, so here it is assumed that COs are commonly mapped with total marks.
    b. Percentage of marks and attainment level is calculated for each student after results of semester end examination.
    c. % of students getting ≥ set percentage of marks is calculated and commonly attained of all CO, CO_SEE.
4. Direct CO Attainment is calculated as 33% of CO attained using Continuous Internal Evaluation, CO_CIE and 67% of CO attained using Semester End Examination, CO_SEE, that is, CO_Direct = 0.33*CO_CIE + 0.67*CO_SEE.
5. Calculation of Indirect CO Attainment using Course Exit Survey (CES).
    a. Course Exit survey on COs are taken from students at the end of course.
    b. For each CO, percentage of rating and attainment level of each student is calculated.
    c. % of students rating ≥ set percentage of ratings is calculated for each CO, CO_Indirect.
6. CO Attainment is calculated as 90% of Direct CO attainment and 10% of Indirect CO Attainment, that is, CO = 0.9*CO_Direct + 0.1*CO_Indirect.
7. CO Attainment gaps is determined by comparing CO attainments with CO targets.
8. Action Plan is prepared for next offering of course in case of gaps, otherwise targets are enhanced.

CO Attainment Process for Practical Courses

1. Course Outcomes, COs, are defined by the faculty member and tagged with cognitive levels.
2. Calculation of CO Attainment using Continuous Internal Evaluation (CIE).
    a. Rubrics are defined for Lab Continuous Evaluation and Lab Internal Examination.
    b. COs are mapped with rubrics.
    c. For each CO, percentage of marks and attainment level is calculated for each student.
    d. % of students getting ≥ set percentage of marks is calculated for each CO, CO_CIE.
3. Calculation of CO Attainment using Semester End Examination (SEE).
    a. Rubrics/CO-wise marks obtained are not provided by university, so here it is assumed that COs are commonly mapped with total marks.
    b. Percentage of marks and attainment level is calculated for each student after semester end examination results.
    c. % of students getting ≥ set percentage of marks is calculated and commonly attained of all CO, CO_SEE.
4. CO Attainment is calculated as 40% of CO attained using Continuous Internal Evaluation, CO_CIE and 60% of CO attained using Semester End Examination, CO_SEE, that is, CO = 0.4*CO_CIE + 0.6*CO_SEE.
5. CO Attainment gaps is determined by comparing CO attainments with CO targets.
6. Action Plan is prepared for next offering of course in case of gaps, otherwise targets are enhanced.

8.5 Attainment of Program Outcomes from first year courses (20) Total Marks 20.00

8.5.1 Indicate results of evaluation of ezch relevant PO and/ or PSO, if applicable (15)

Institute Marks : 15.00

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
KAS101	1.47	1.28	0.53	0.65	PO5	PO6	PO7	PO8	PO9	0.79	PO11	1.1
KAS102	0.98	0.82	PO3	0.69	1.07	1.07	1.49	PO8	PO9	PO10	PO11	0.68
KAS103	1.91	0.85	PO3	0.85	PO5	PO6	PO7	PO8	PO9	0.85	PO11	0.85
KEE101	1.27	1.27	1.11	0.56	1.11	PO6	PO7	PO8	0.95	PO10	PO11	PO12
KCS101	1.81	1.81	1.57	0.8	1.57	PO6	PO7	PO8	1.57	0.97	PO11	PO12
KCE101	1.98	1.07	0.21	0.88	0.22	0.88	PO7	PO8	1.27	1.98	0.88	0.88
KWS101	2.95	0.33	1.31	PO4	1.31	PO6	PO7	PO8	1.31	PO10	PO11	PO12
KAS101P	2.31	0.83	PO3	1.39	1.03	PO6	PO7	PO8	1.24	PO10	PO11	1.05
KAS102P	1.6	1.01	1.32	1.32	1.33	1.32	1.32	PO8	PO9	PO10	PO11	1.32
KEE101P	2.9	1.04	1.29	PO4	1.29	PO6	PO7	PO8	1.29	PO10	PO11	PO12
KCS101P	2.62	1.17	1.17	PO4	1.17	PO6	PO7	PO8	1.17	PO10	PO11	PO12
KAS201	1.48	1.29	0.53	0.66	PO5	PO6	PO7	PO8	PO9	0.8	PO11	1.11
KAS202	0.95	0.8	PO3	0.67	1.04	1.04	1.47	PO8	PO9	PO10	PO11	0.66
KAS203	1.66	1.11	PO3	1.11	PO5	PO6	PO7	PO8	PO9	1.1	PO11	1.11
KEE201	1.77	1.77	1.55	0.79	1.55	PO6	PO7	PO8	1.33	PO10	PO11	PO12
KCS201	1.75	1.75	1.53	0.78	1.53	PO6	PO7	PO8	1.53	0.94	PO11	PO12
KCE201	1.96	1.05	0.21	0.87	0.22	0.87	PO7	PO8	1.25	1.96	0.87	0.87
KWS201	2.88	0.32	1.28	PO4	1.28	PO6	PO7	PO8	1.28	PO10	PO11	PO12
KAS204	0.35	0.46	PO3	PO4	PO5	0.35	PO7	1.04	PO9	1.62	PO11	0.72
KAS201P	2.07	0.75	PO3	1.22	0.92	PO6	PO7	PO8	1.11	PO10	PO11	0.9
KAS202P	1.59	1.01	1.31	1.31	1.32	1.32	1.32	PO8	PO9	PO10	PO11	1.32
KEE201P	2.95	1.06	1.31	PO4	1.31	PO6	PO7	PO8	1.31	PO10	PO11	PO12
KCS201P	2.42	1.07	1.07	PO4	1.07	PO6	PO7	PO8	1.07	PO10	PO11	PO12

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	1.90	1.04	1.08	0.91	1.13	0.98	1.40	1.04	1.26	1.22	0.88	0.97
CO Attainment	1.90	1.04	1.08	0.91	1.13	0.98	1.40	1.04	1.26	1.22	0.88	0.97

PSOs Attainment:

Course	PSO1	PSO2
KCS101	1.81	1.81
KCS101P	2.62	2.62
KCS201	1.75	1.75
KCS201P	2.42	2.42

PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	2.15	2.15
CO Attainment	2.15	2.15

8.5.2 Actions taken based on the results of evaluation of relevant POs (5) Institute Marks : 5.00

POs Attainment Levels and Actions for Improvement- (2018-19)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	1.5	1.9	Target achieved.
Action 1: Continuous efforts were made to achieve the target. Action 2: Through faculty mentors, students were counseled for their academic and other problems.			
PO 2 : Problem Analysis			
PO 2	1.2	1.04	Curriculum designed for first-year did not contain literature research and analysis of the problem.
Action 1: Students were motivated to participate in science project exhibition for developing an analytical mind that can work towards problem-solving. Action 2: Students were motivated for optimum utilization of E-Resources to enhance their knowledge. Action 3: Students were encouraged to solve more numerical problems.			
PO 3 : Design/development of Solutions			
PO 3	1.2	1.08	The first-year curriculum includes only basic knowledge of Engineering and sciences.
Action 1: Students were encouraged to work on mini projects and models. Action 2: Students were encouraged to study the related material through available books/internet.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.2	0.91	Students lagged knowledge of engineering subjects and other related aspects.
Action 1: Students were motivated to use E-Resources and register themselves in online courses. Action 2: In subsequent years, the students will gain knowledge through current technological needs.			
PO 5 : Modern Tool Usage			
PO 5	1.2	1.13	Students need better practical exposure.
Action 1: Students were encouraged to view suggested latest live videos through YouTube channels.			
PO 6 : The Engineer and Society			
PO 6	1.2	0.98	Students need more exposure towards social obligations.
Action 1: The students were encouraged to participate in social activities like NSS activities etc. Action 2: The Faculties were advised to relate their relevant topics with social aspects.			
PO 7 : Environment and Sustainability			
PO 7	1.31	1.40	1. Target level was achieved. 2. Most of the students are familiar with environmental issues and its impact.
Action 1: Students were sensitized about Govt. initiatives such as SWACHH BHARAT ABHIYAN, SMART CITY, DIGITAL INDIA.			
PO 8 : Ethics			
PO 8	1.2	1.04	Awareness of engineering ethics with a sense of responsibility needs to be enhanced.
Action 1: Time to time, faculty members check the professional ethics aspects during assignments, lab files, execution of experiments and other projects.			
PO 9 : Individual and Team Work			
PO 9	1.27	1.26	1. Target level was almost achieved. 2. Some students have fear to participate in group activities.
Action 1: Students were encouraged to participate in different group exercises during classes and labs. Action 2: PDP classes were arranged to develop confidence in the students.			
PO 10 : Communication			

PO 10	1.38	1.22	Some students are lacking due to rural background. Written and verbal communication needs to be improved
Action 1: The students having poor communication were given remedial classes through linguistic labs.			

PO 11 : Project Management and Finance

PO 11	1.2	0.88	Leadership quality needs to be improved.
Action 1: Students will subsequently enter into project management and financial courses in upcoming sessions. Action 2: Annual Project exhibition was organized in the institute where first-year students learn the basics of project handling and finance.			

PO 12 : Life-long Learning

PO 12	1.2	0.97	The students were ignorant about the significance of the subject in the broader context of life.
Action 1: Students were encouraged for self-learning through online courses. Action 2: Information related to such platforms was extended to students. Action 3: Students were mentored to work for better achievement forever. Action 4: Students were motivated to improve their participation in technical/social/extra-curricular activities.			

PSOs Attainment Levels and Actions for Improvement- (2018-19)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Comprehend the core subjects of CSE and apply them to resolve domain specific tribulations.			
PSO 1	1.95	2.15	Target achieved due to knowledge of fundamentals concepts of computers.
Action 1: Faculty members motivate bright students to solve high difficulty level problems and slow learners are guided to solve questions of previous year's papers			
PSO 2 : Extrapolate the fundamental concepts in engineering and to apply latest technology with programming language skills to develop, test, implement and maintain software products.			
PSO 2	1.95	2.15	Target achieved due to knowledge of programming skills in C language.
Action 1: Students were encouraged to join online certification open courses from NPTEL, MOOCS etc.			

9 STUDENT SUPPORT SYSTEMS (50) Total Marks 50.00

9.1 Mentoring system to help at individual level (5) Total Marks 5.00

Institute Marks : 5.00

To mentor the students at the individual level, the Institute has a fully-fledged Mentor-Mentee system in place under which each class of students is divided into batches of about 15-20 students preferably tutorial batches and an individual faculty is deputed as the counselor/mentor for the batch. The purpose of the mentoring system is to monitor the students concerning their academic status, career planning and professional well-being.

Some attributes of the Mentor-Mentee system being followed in the Institute are as follows:

- Each mentor maintains a duly filled Mentor/Counselor form with details like parents/guardians name, addresses, contact numbers, academic details, and interaction with student's record in the prescribed format (Tables B.9.1a – B.9.1d).
- The mentors brief the students on matters about their program of study, courses, fees, accommodation and the rules and regulations of the Institute. They are also advised on personal safety and security from time to time.
- Mentors identify the shortcomings of the individual student concerning poor attendance, poor academic performance etc. Mentors also interact with parents/guardians of the students whenever required.
- The mentors serve as the concourse between the student and Institution and provide the necessary counseling to the students regarding their problems related to academics, behavioral, societal and personal.
- All faculty mentors encourage the student's participation, apart from curricular guidance, in co-curricular, extra-curricular, and other professional activities, which generally motivate them, stimulate their growth into well-groomed young professionals.
- For further support, every mentor is headed by the respective head of department, then by Dean of Students welfare (DSW).

Table B.9.1a: Summary of the mentoring system

Parameters	Description
Type of mentoring	Professional guidance / career advancement / course work specific / laboratory specific / total development
Number of faculty mentors	27 (CSE faculty members) + 21 (ASH faculty members)
The average number of students per mentor	15-20
Frequency of meeting	At least once in a month. However, additional meeting may be conducted if required.

Efficacy: Mentor-Mentee system has been worth in producing the desired results on various aspects. Some of them are as follows:

- **Professional Guidance:** The mentors motivate mentees to expand their domain of knowledge base through participation in technical competitions. They provide advice, feedback and an expanded base of skills, knowledge and networking opportunities.
- **Career Advancement:** The mentors help the mentees to decide their career goals based on an assessment of individual aptitude. They also motivate their respective students for higher studies in India and abroad as well. Guidance to the students for attitude, aptitude and skill development is also provided by mentors. The mentors also guide some of the students for entrepreneurship-related issues. Mentors usually motivate and support the students to take up online certification courses like NPTEL, MOOC, etc., to strengthen and build up their qualifications for their academic progression and to achieve higher career goals in the applied areas of computer science and engineering.
- **Course Work Specific Guidance:** The mentors generally enquire problems in understanding the subjects. The remedial/extra classes are arranged generally, other than time table. The mentors used to perform one to one discussions with the students who have low attendance and/or poor score in sessional examinations. The mentors also work out the need for Workshops/Guest Lectures/Seminars and implement them through the department.
- **Laboratory Specific Guidance:** The mentors encourage the students to attend seminars and perform laboratories work sincerely. Difficulties in laboratory/ experiments are discussed. The mentors help the students to have hands-on experience in areas that will lead to dissertation topics and define dissertation topics that are realistic in scope.
- **Overall Development:** The fundamental role of the mentor is to nurture and provide support to the students during the difficult transition period. Mentors help the mentees to achieve their goals according to their full academic and personal potential and goals. The mentor serves as a resource person who answers as many questions, trivial or complex, that the student possess.

Table B.9.1b: Sample performa for student profile

MORADABAD INSTITUTE OF TECHNOLOGY

Performa for the use of counselor for each student

1. Name of Student:……
2. Semester (at the time of appointment of counselor):……
3. Father's Name:……..
4. Permanent Address:
   ……
5. Local Address: …… ……
6. Parent's Contact No.: ……
7. Student's Contact No.: ……
8. Any Previous Counselor (with branch and semester of applicability):

a. ……
b. ……
c. ……..

Table B.9.1c: Sample performa for student's performance

Semester	Subjects	Marks				Attendance %		
		CT1	CT2	CT3	External	Before CT1	Before CT2	Before CT 3
I								
II								
III								

IV								
V								
VI								
VII								
VIII								

Table B.9.1d: Sample performa for meeting record with students and advises given by mentor/counselor

S.No.	Date	Name of Student	Problem of Student	Advices Given	Sign. of Student	Sign of Counselor
1						
2						
3						

4						

9.2 Feedback analysis and reward /corrective measures taken, if any (10)

Total Marks 10.00

Institute Marks : 10.00

The feedback mechanism is a well-organized system, defined specific to the institute and is uniform for all the departments.

Feedback collection process:

Feedback is collected through Google forms/Manually in a well-defined format covering almost all the aspects related to teaching-learning. Students are required to fill the form, provide feedback and are evaluated on a scale of 1 to 5.

Table B.9.2a: Feedback collection process

Items Description	**Items Description**
Feedback collection	YES, for all courses
Mode	Manually/Google forms
Feedback receiver	Department
Frequency of feedback collection	Once in a semester
Metrics used for calculation	5-Excellent, 4-Very Good, 3-Good, 2-Satisfactory, 1-Below average
Purpose	For improving the quality of teaching-learning

Table B.9.2b: Student Response Form

MORADABAD INSTITUTE OF TECHNOLOGY

STUDENT'S RESPONSE FORM –B

Your teacher in this course is anxious to do everything possible to help you in your job of learning. Please give your honest opinion by marking Tick sign against the following points.

Teacher's Name…...........………………….……..Semester…..……..........…..Section…......…...……
Session……………………

Rating → Subject↓		**(Below Average)** **1**	**(Average)** **2**	**(Good)** **3**	**(Very Good)** **4**	**(Excellent)** **5**
A	**CLASS CONTROL**					
1.	Punctuality in the class					
2.	Regularity in taking classes					
3.	Effective conduction of the class					
4.	Students participation in the class					
5.	Skills of addressing in appropriate behavior of student					
	Sub Total (A)					
B.	**PRESENTATION OF SUBJECT MATTER**					
1.	Preparation for Lecture/Lab/Tutorials					

2.	Beginning and ending of Lab/classes					
3.	Ability to speak clearly and audibly					
4.	Ability to explain Subject					
5.	Ability to create interest in the subject					
6.	Ability to answer question					
7.	Teacher has enhanced my thinking ability					
	Sub Total (B)					
C.	**ATTITUDE/BEHAVIOUR/PERSONAL**					
1.	Helping approach towards varied academic interests of students					
2.	Helps students facing physical emotional and learning challenges					
3.	Approach towards developing professional skills among students					
4.	Helps students in realizing career goals					
5.	Helps students in realizing their strengths and developmental needs					
	Sub Total (C)					
D.	**OVERALL ASSESSMENT**					
1.	Overall effectiveness of teaching					
2.	Enhancement of learning process					
3.	Enhancement of analytical ability					
	Sub Total (D)					
	TOTAL(A+B+C+D)					
Additional Remarks (if any):						

Feedback analysis process:

The institute has well defined procedure for analysis of feedback. The deputed faculty member submit the compiled report to Head of the department (HoD). The HoD analyze the feedback of each and every faculty member. On the basis of analysis, HoD provides suggestions for needful improvement in the identified gray areas.

Corrective measures:

Various actions taken on the basis of feedback are as follows:

- Faculty members are advised to sit in the class of senior faculty members.
- Faculty members are encouraged to go through NPTEL/MOOCs videos for better insight of the subject.
- Counselling sessions with senior faculty members are organized to discuss and improve weaker areas of faculty members.
- It was observed that some faculty members are strong in terms of knowledge, content of the subject but weak in controlling and motivating the students. These weak areas are told to concern faculty member for improvement. It helps in improving quality of teaching.

9.3 Feedback on facilities (5)

Total Marks 5.00

Institute Marks : 5.00

Feedback on facilities is taken through a well-defined feedback form. Assessment is based on student feedback collection, analysis and corrective action taken. A standard procedure for feedback on facilities is taken up at the institute as per the following steps:

- Feedback is collected from the students on the facilities available in the institute such as hostel, library, labs, canteen, transport, internet facility, etc.
- The feedback is analyzed and the necessary corrective measures are taken.

Table B.9.3a: Details of Feedback collection process

Items	**Description**
Feedback collected about all facilities provided by the institute	YES
Feedback collection process	Manual/Google form
Frequency of feedback collection	Once in an academic year
Metrics used for calculation	3- High 2- Average 1- Low
Purpose of comments	For improving quality of facilities

Feedback analysis

The feedback given by the students is compiled and analyzed. The head of department and director discuss the compiled report with the trust members and come out with necessary actions.

Table B.9.3b: Feedback analysis report for three academic years

Sr. No.	**Feedback Points**	**Feedback (%)**		
		2018-19	**2017-18**	**2016-17**
1.	Library	90	72	70
2.	Lab Facility	85	81	78
3.	Internet / Wi-Fi Facility	88	83	80
4.	Transport facility	80	78	70
5.	Drinking water facility	80	73	70
6.	Canteen Facility			
	(a) Food Quality	85	73	70
	(b) Seating Arrangements	90	74	70
	(c) Cleanliness	85	72	70
7.	Parking facility	85	78	70
8.	ATM facility	90	84	80
9.	Hostel Facility			
	(a) Food Quality	90	73	70

	(b) Internet facility	85	73	71
	(c) Accommodation Quality	85	72	70
10.	First Aid facility	80	72	70
11.	Security	85	73	70
12.	Sports Facility	88	85	83
13.	Washrooms facility	88	78	70

Corrective measures:

Table B.9.3c: Corrective Measures taken in assessment years

Academic year	Facilities	Corrective actions taken
2019-20	Library Facility	**Analysis/observation**: The percentage of feedback is increased by 18% **Action proposed / taken**: Plagiarism Checker “Turnitin” purchased. Digital contents were added in Library.
	Washrooms facility	**Analysis/observation**: The percentage of feedback is increased by 10%. **Action proposed / taken**: Washrooms are renovated.
	Security	**Analysis/observation**: The percentage of feedback is increased by 12%. **Action proposed / taken:** Cameras were installed in classrooms and corridors.
	First aid facility	**Analysis/observation**: The percentage of feedback is increased by approx. 10%. **Action proposed / taken:** Organized free medical check-up camp for students.

	Transport facility	**Analysis/observation**: Buses are required on new routes. **Action proposed / taken:** Two new routes for bus services are proposed.
2018-19	Hostel facility	**Analysis/observation**: The percentage of feedback is increased by 20%. This could be due to change in service provider. **Action proposed / taken**: Decided to continue with same service provider during 2019-20. Also, the feedback information is communicated to service provider for further improvements.
	Washrooms facility	**Analysis/observation**: The percentage of feedback is increased 8%. **Action proposed / taken**: Washrooms are renovated.
	Canteen Facility	**Analysis/observation**: The percentage of feedback is less due to non-availability of AC. **Action proposed / taken**: AC installed.
	Drinking water facility	**Analysis/observation**: The percentage of feedback was less due to shortage of water taps. **Action proposed / taken:** Number of taps were increased.
	Security	**Analysis/observation**: Students raised security concerns. **Action proposed / taken:** Cameras were installed in corridors.

2017-18	Parking facility	**Analysis/observation**: The percentage of feedback is less due to shortage of parking space. **Action proposed / taken:** Parking space increased.
	Transport facility	**Analysis/observation**: The percentage of feedback is less due to shortage of buses. **Action proposed / taken:** No of buses were increased.

9.4 Self-Learning (5) Total Marks 5.00

Institute Marks : 5.00

A. **Scope of Self – Learning**

Self-learning is a personalized way of learning by gathering information, processing it, and retaining it without the need for another individual to teach it. Institute provide an environment where the students can use various tools for self- learning.

- Central Library/Digital library/Departmental library
- National Digital Library
- Nalanda E-consortium – an initiative AKTU to promote the use of e-Resources
- AKTU – SWAYAM PRABHA channel
- Web based learning i.e. MOOCs, NPTEL/SWAYAM, YouTube and Spoken Tutorials etc.
- Professional societies
- Industrial visits
- Seminars/Webinars, workshops and exhibitions
- Assignments
- Virtual Labs

B. **Detailed list of Self – Learning facilities**

Library

Table B.9.4a: Available resources in central library/digital library/departmental library

S. No.	Library	Available Resources
1.	Central Library	82861 volumes of books with 8216 titles are available (17516 volumes of books with 1842 titles related to Computer Science Stream)
		39 National Journals in printed form (06 National Journals related to Computer Science Stream)
2.	Digital Library	10407 e-books available through Taylor & Francis, Springer Nature, McGraw Hill
		4947 e-journals available through IEEE, Elsevier, Science Direct, Springer Nature, ASCE, ASME, Emerald, Taylor, Francis, J-Store
		LED TV to watch SWAYAM PRABHA lectures and 25 Multimedia PCs with high speed internet facility
3.	Departmental Library	Project reports, project CDs, seminar reports, and industrial training reports

AKTU- SWAYAM PRABHA Channel

The SWAYAM-PRABHA Channel-15 broadcasts lectures of the subjects from various engineering disciplines. The lectures are delivered by faculty members from renowned colleges of AKTU and cover various topics of many engineering subjects.

Table B.9.4b: e-Content on SWAYAM PRABHA channel no. 15 for CSE.

S. No.	Subject Name	Content Covered	Name of Resource Person
1	Computer Network	Presentation Layer	Dr. Pawan K Tiwari

2	Computer Network	Transport Layer	Dr. Pawan K Tiwari
3	Microprocessor	Unit 4 Lecture -2	Mr. Diwakar Yagyasen
4	Theory of Automata and Formal Languages	Introduction to Turing Machine	Prof. Manish Gaur
5	Theory of Automata and Formal Languages	Chomsky Classification	Dr. Vikram Bali
6	Theory of Automata and Formal Languages	Finite State Machines	Dr. Vikram Bali
7	Computer Graphics	Bezier Curve	Mr. Shivam Shukla
8	Compiler Design	Code Optimization and DAG representation	Dr. Parul Yadav
9	Computer Graphics	Introductory concept of spline and hermite interpolation	Ms. Ankita Agrawal
10	Compiler Design	Symbol table and run-time environment	Dr. Parul Yadav
11	C Programming	File Handling in C	Dr. Upendra Kumar
12	Compiler Design	Polish Notation, Parse Tree & Syntax Tree	Dr. Parul Yadav
13	C Programming	Pointer, Dynamic Memory Allocation, Pointer of Structures in C	Dr. Upendra Kumar
14	Compiler Design	Syntax Directed Translation Scheme	Dr. Parul Yadav

Web-based learning

Table B.9.4c: Summary of NPTEL Course Certification

S. No.		2019-2020	2018-2019	2017-2018
1.	Total Students Certified	46	164	6
2.	Total Courses Certified	3	10	6
3.	Total Elite+Silver	11	18	1
4.	Total Elite	18	95	0
5.	Total Elite+Gold	0	1	0

Table B.9.4d: Summary of Spoken Tutorial Certification

S. No.		2019-2020	2018-2019	2017-2018
1.	Total certified Students	74	61	126
2.	Name of certified Courses	C, PHP and MySQL, Arduino	Java, Python, Arduino	Python

Professional societies

Table B.9.4e: Summary of IEEE Student Chapter and IEI Events

S. No.	Name of Professional Societies/ Chapter	Event Title	Organized Period	No. of Participants
1	IEEE Students' Chapter	Technology Aware Workshop	16-Oct-19	23
2		Technical Quiz	01-Oct-19	52
3		National Conference:ETEST-2K19	06-Sep-19 to 07-Sep-19	114
4		Green Plantation	08-Aug-19	40
5		Meeting for National Conference and other student branch activity	01-Jun-19	8
6		A Project Exhibition: A talent Show of MIT students	15-May-19	35
7		IEEE Student Activities Awareness Workshop	10-May-19	20
8	Institution of Engineers, India (IEI)	Webinar on Differential Human Psychology After Lockdown	12-Jun-20	217
9		National Conference on Emerging Trends in Engineering, Science & Technology 2K19 (ETEST-2K19)	06-Sep-19 to 07-Sep-19	114
10		All India Seminar on Recent Advances in Electronics Design, Technologies and Applications 2K18 (EDTA-2K18)	20-Apr-18 to 21-Apr-18	100
11		All India Seminar on Recent Advances in Electronics Design, Technologies and Applications 2K17 (EDTA-2K17)	07-Apr-17 to 08-Apr-17	150

Assignments

Assignments are given to students to check and evaluate the understanding and enhance the knowledge of the subject. Time to time giving assignments to students help them to maintain the focus, get in touch

with the subject and increase the capability of learning.

Industrial Visit

Industrial Visits among the engineering students is a vital event as per their curriculum where the students need to visit a company. With an aim to go beyond academics, these visits are arranged to develop the insights of the students – attaining practical knowledge and their theoretical applications thereof.

Seminars, workshops, and Exhibitions

Students have to deliver seminar which is a part of curriculum that leads to enhancement of their knowledge and skills. They explore emerging tools and technologies to give effective seminars and be in pace with the latest industry trends. Periodically, they attend workshops to enhance their programming skills. Also, department of CSE annually organizes project exhibitions for final year students to showcase their skills.

Virtual Labs

Table B.9.4f: Summary of training conducted for Virtual Labs

S. No.	Date	Event name	Speaker	From	Venue	Attended by
1.	13/08/2018	One day workshop on Virtual Labs	Prateek Sharma Ashish Mudgal	IIT Delhi	MIT campus	624 students (All branches)
2.	21/02/2019	One day workshop on Virtual Labs	Prateek Sharma Ashish Mudgal	IIT Delhi	MIT campus	27 faculty members (CSE) 174 students (CSE branch)

Table B.9.4g: List of practical courses taken through Virtual Labs

S. No.	Practical's conducted on Virtual Labs in 2019- 2020
1	Computer programming lab and computer graphics lab conducted on Virtual lab for 1st year students and 3rd year students, respectively.

C. **Utilization and its effectiveness**

The overall aim is to evaluate the effectiveness of self-directed learning on the professional development of students.

- Most of the students reached to a conclusion that self-learning process is an effective approach for learning but not more that traditional method of teaching.
- Students are motivated to improve their initiation in reaching their goals.
- Students are able to scan through the reading material available to them.
- Most of the queries and doubts of the students are fulfilled by the self learning process. The students are motivated to learn by themselves for their present and future needs.
- Students are able to perform better in competitive examinations and get placed in good companies.

9.5 Career Guidance, Training, Placement (10) Total Marks 10.00

Institute Marks : 10.00

MIT offers career guidance and placement on all aspects of career planning, job searching and higher studies. The Institute provides individual counseling for all students to achieve their goals.

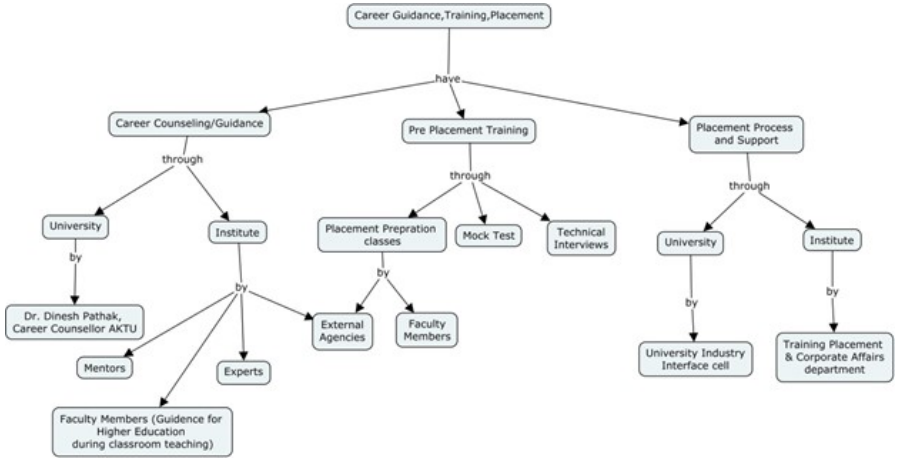


Figure B.9.5: Career guidance, Training & Placement

A. Availability of career guidance facilities:

Career guidance facility is provided to the students at Institute as well as the University level.

Career guidance facility at Institute level

MIT provides career guidance under the following tags:

Mentors: MIT arranges a mentor for a group of 15-20 students. Mentor**s** continuously guide their respective students for various aspects like placement and higher studies.

Faculty Members: Faculty members also provide the guidance to students during classroom teaching. They motivate the students to perform better in academics as well as placement. They also motivate and guide the students for higher studies.

Experts: MIT arranges the various experts talk for the guidance of the students. Experts of various fields visit the institute from time to time and guide the students.

Table B.9.5a: List of Expert talks in MIT

S.No.	Date	Topic	Expert	No of Attendees
1.	10-10-2019	Workshop for students' career counseling for prospective placement.	Mr. Dinesh Pathak Career counselor AKTU Lucknow	64
2.	24-04-2019	This is my success story and could be yours as well	Mr. Kapil Deo, Senior BigData ML Engineer, Amrican Express, Arizona USA	54
3.	02-11-2018	Job opportunities through C-DAC	Ms. Shubhi Shukla, Developer, Happiest Minds, Bangaluru	36

4.	01-11-2018	Interview Cracking Tips	Ms. Anshika Gupta, Analyst, KPMG, Bangaluru	45
5.	11-10-2018	Busting Bubbles of Startups and Entrepreneurs	Mr. Abhishek Raj, CEO & Co-founder, Trend Eve, Bareilly	91
6.	21-03-2018	Latest Trends in IT Industry	Mr. Hitesh Ahuja, Senior Software Developer, AMDOCS, Gurugram	27
7.	09-09-2017	How to prepare for various MNCs during Graduation	Mr. Rachit Agarwal, Associate Account Manager, Paytm, Gurgaun.	35
8.	20-10-2016	Startup Ecosystem	Er. Tushar K. Garg, Slicklabs LLC, New Jersey, USA	31
9.	15-09-2016	How to achieve excellence in life	Mr. Rohit Agarwal, Motivational Speaker, Art of Living, Moradabad	106

Career guidance facility at University level

AKTU also provide the guidance to the students of all affiliated institutions. AKTU provides this facility under the **U**niversity-Industry Interface Cell (UIIC). **Mr. Dinesh Pathak** is designated as **career counselor of AKTU**. Mr. Dinesh Pathak continuously guides the students through online or offline.

Table 9.5b List of expert talks delivered under UIIC

S.No.	Date	Topic	Expert	No of Attendees
1.	17.05.2020	कोरोना काल के बाद तकनीकी छात्रों के लिए बनते नए अवसर	प्रो० दुर्ग सिंह चौहान (संस्थापक कुलपति) डॉ ए० पी०जे० अब्दुल कलाम प्राविधिक विश्विद्यालय,उत्तर प्रदेश,लखनऊ	25
2.	02-06-2020	How to prepare for Verbal Ability.	Mr. Arvind Kumar	36
3.	07-06-2020	How to prepare for Technical Test.	Mr. Arvind Kumar	35
4.	08-06-2020	How to prepare for Technical Interview.	Mr. Arvind Kumar	37
5.	12-06-2020	How to prepare for Group Discussion.	Mr.Arvind Kumar	35

6.	16-06-2020	Career Enhance and Skill Development.	Ms. Swati Agarwal	34
7.	26-06-2020	How to Prepare for Future?	Mr. Vijaya Kumar Maurya(I.P.S.), ADG Police	28
8.	13-08-2020	Startup Opportunities in Atmanirbhar Bharat Abhiyan.	Dr. Amit Kumar Dwivedi, Entrepreneurship development Institute of India, Bangalore	31

B. Counseling for Higher Studies

MIT provides the counseling/guidance for students to motivate them for higher studies. Initially, student mentors and concerned department identify the students who are interested in higher studies then the institute provides support to the students to achieve their goals at two levels. Firstly, by faculty members of the concerned department and then by the external agencies.

Faculty Members: Faculty members of the concerned department discuss such problems of their subjects that are beneficial for students in exams such as GATE during classroom teaching and also take the extra classes for a set of interested students.

External Agencies: MIT also provides facilities for the students to attend special classes for preparation of GATE by **GATE MASTER** during the academic session to utilize the students' time in a better way. Especially for core branches, these classes are conducted where the student prepares for these exams.

Table 9.5c: List of Qualified Students in GATE

S. No.	Year	No. of Qualified Students
1.	2019-2020	10
2.	2018-2019	4
3.	2017-2018	4
4.	2016-2017	1

C. Pre Placement Training

MIT provides the pre-placement training through placement preparation classes, mock test and technical interviews. Placement preparation classes include technical as well as aptitude, reasoning and professional communication. The technical part covers by the faculty members of the concerned department and aptitude, reasoning and professional communication part cover by an external agency (FACE). The students are given training related to aptitude, reasoning and professional communication starting from second year onwards with a general load of 2 to 4 hours in a week.

Table 9.5d: Summary of pre placement training

S. No.	Session	Pre Placement Training	No. of Benefited Students
1.	2019-2020	Soft Skill Classes	152
		Aptitude Classes	
		Technical Classes	
		Mock Test	
		Technical Interview	

2.	2018-2019	Soft Skill Classes Aptitude Classes Technical Classes Mock Test Technical Interview	119
3.	2017-2018	Soft Skill Classes Aptitude Classes Technical Classes Mock Test Technical Interview	107
4.	2016-2017	Soft Skill Classes Aptitude Classes Technical Classes Mock Test Technical Interview	95

D. Placement Process and Support

T.P. & C.A. Dept. of MIT is a self-contained focused area headed by professionals with proven track records in the corporate world. The association of these experts from the industry brings along with them the corporate culture, influential patronage and closely-knit relationship, thoroughly woven with industry. T.P.& C.A. Dept. operated with two-fold focus i.e. augmenting internal competencies by fostering contemporary grooming of students and by enabling the industry to identify and absorb intellectuals with requisite technical & managerial skills. T.P. &C.A. Dept. is continuously striving for 100 percent training and placement of students in suitable organizations and also caters to the need for self-employment through technical & managerial assistance, thus enabling the future entrepreneurs to start their ventures.

The T.P. & C.A. Dept. arranges regular industrial visits for the students. These industrial visits are crucial for understanding and imbibing the culture of the industry where the students associate their academic input with the industry objectively. MIT Moradabad in its nascent phase has in-fact set the trend to be emulated upon and the growth in employment witnessed through campus recruitment demonstrates the confidence of our stakeholders.

Placement Procedure:

PHASE-I

- The department allots a date after mutual understanding with the company.
- The company can confirm or negotiate the dates with the placement deptt.
- Interested students sign their willingness by registering at the Training and Placement deptt.
- Resumes of the interested students (if required) are made available to the companies to shortlist.
- The list of shortlisted students is mailed to institute before the campus selection date.

PHASE-II

- Suitable dates for Pre-Placement Talk (PPT from here on) are decided after discussions between the company and the Training and Placement Dept.
- After confirmation from the company, students are notified of the PPT date.
- The company visits MIT, Moradabad campus and conducts its PPT.

PHASE-III

- Companies visit the campus on the given date and conduct the written technical/aptitude test, group discussion/personal interview as a part of their selection procedure.
- Institute also provides the facility of video conferencing at the campus, which can be availed to interview candidates in case the company is unable to visit the campus.

- The Company/Organization is required to furnish the final list of selected students as soon as possible after the final completion of the procedure. The selected students may or may not be allowed to sit in further job interviews as per the placement policy of the institute.

Table 9.5e: Summary of placement record of CSE students

S. No.	Session	No. of students placed
1.	2019-2020	154
2.	2018-2019	118
3.	2017-2018	105
4.	2016-2017	97

University-Industry Interface Cell (UIIC):

University-Industry Interface Cell (UIIC) is the Training and Placement department of Dr. A. P. J. Abdul Kalam Technical University, Lucknow. UIIC has been set up by AKTU as per the vision and guidance of Shri Vinay Kumar Pathak, The Hon.Vice Chancellor to provide access to internship openings, job opportunities, career guidance, and skill development along with several tools and opportunities for all the students of AKTU affiliated colleges across Uttar Pradesh.

Objectives

- Comprehensive platform for targeted hiring of key skill sets.
- Guidance and support will be provided to the students to enhance their understanding of the industry requirements and to help them build their skills.
- Skill mapping the student population with the industry requirements.
- The industry will be able to access high-quality talent from across the state of UP at nodal locations.
- Awareness sessions and Industry interaction will be facilitated through this forum.
- Technology-based solutions to improve the placement process.
- Provide diverse employment opportunities to cater to the aspirations and talent of the students.

9.6 Entrepreneurship Cell (5) Total Marks 5.00

Institute Marks : 5.00

MIT has a well-developed ED cell (EDC) established in 2009. EDC is headed by Dr. Kshitij Shinghal, Associate Prof. & HoD - Electronics and communication Department with a team of faculty coordinators from other departments of the institute. Aim of ED Cell is to create awareness among students about entrepreneurship, develop entrepreneurship qualities, motivate and guide them to make their career as an entrepreneur and to provide a common platform for them to explore entrepreneurial competencies. Students are updated about the current schemes, grants and aids provided by the central and state government departments related to entrepreneurship promotion through various awareness programs.

Objectives

- Provide business opportunity guidance.
- Equip the learners with the ability to function dynamically and acquire the requisite knowledge and skills to float their own enterprises.
- Groom more and more students to explore new and different business ideas and thoughts.

Committee

Name	Position
Dr. Kshitij Shinghal(ECE)	Convener and Head , ED Cell
Mohd. Talha Khan(ME)	Co-convener
Dr. Amit Saxena(ECE)	Member
Dr. Priyank Gupta(MBA)	Member
Mr. Ankur Kumar Bansal(CE)	Member
Dr. Lal Pratap Verma(CSE)	Member

ED Cell Initiatives

- Create an environment for self-employment, promote innovation, incubation and entrepreneurship development through formal and non-formal programs.
- Introduce the concept of entrepreneurship in the curriculum at degree levels.
- Develop management personnel at appropriate levels for non-corporate and unorganized sectors like education, rural development, small-scale industries etc.
- Utilize the infrastructure facilities and technically trained human resources for the development of non-corporate and unorganized sectors.
- Provide assistance for commercialization of technology and guidance for performing managerial activities.
- Provide information about Intellectual Property Rights.
- Provide guidance to access to bank loans and access to investors or venture capital etc.

Table B.9.6a: Events conducted by EDC

Sr. No.	Events	In Association With	Date
1.	Entrepreneurship Awareness Camp	NIESBUD, Govt. of India	04/09/2017 to 08/09/2017
2.	Entrepreneurship Awareness Camp	NIESBUD, Govt. of India	09/10/2017 to 14/10/2017
3.	Faculty Development Program	NIESBUD, Govt. of India	19/02/2018 to 23/02/2018
4.	Entrepreneurship Awareness Camp	Entrepreneurship Development Institute of India , Ahmedabad	24/09/2018 to 26/09/2018

5.	Entrepreneurship Awareness Camp	NIESBUD, Govt. of India	27/11/2018 to 29/11/2018
6.	Entrepreneurship Awareness Camp	NIESBUD, Govt. of India	26/03/2019 to 28/03/2019
7.	Entrepreneurship Awareness Camp	NIESBUD, Govt. of India	26/03/2019 to 09/04/2019
8.	Entrepreneurship Awareness Camp	Entrepreneurship Development Institute of India , Ahmedabad	19/10/2019 to 19/10/2019
9.	Entrepreneurship Awareness Camp	NIESBUD, Govt. of India	03/03/2020 to 05/03/2020

Table B.9.6b: List of Entrepreneurs

S. No.	Year of Graduation	Student Name	Designation/company Name/ Registered Address	CIN Number and Registration No.
1	2018-2019	Mr. Shivam Saxena	Stykon Infotech Private Limited	U74999up2018ptc101607
2	2018-2019	Mr. Sumith Kumar	BIA Softech Private Limited	U72501up2018ptc105955
3	2018-2019	Mr. Siddhant Thakur	BIA Softech Private Limited	
4	2018-2019	Sparsh Saxena	Aezowie Infotech Services Private Limited (Direcror & Manger)	U72900up2017ptc095636
5	2017-2018	Surya Pratap Singh	Aezowie Infotech Services Private Limited. (Director)	
6	2017-2018	Yash Verma	Brick Brown - 16, Mansarovar, Moradabad	GSTIN- 09AATFB5397C1Z0
7	2016-2017	Shubhanshu Arora	K.N. Engineering and Electronics Ground 00, Mandi Bans, Moradabad, UP, 244001	GSTIN: 9BYYPA0335H1ZB

9.7 Co-curricular and Extra-curricular Activities (10)

Total Marks 10.00

Institute Marks : 10.00

The Institute motivates the students to participate actively in both co-curricular and extra-curricular activities. It includes cultural activities, sports activities, literary society activities, annual fest, alumni meet, guest lectures, workshops, technical events, festival celebrations, celebration of special days, farewell and orientation program, conducted through various associations at department and institute level. These activities motivate the students to enhance self-confidence, self-belief and team work spirit.

A. Co-curricular activities

Under co-curricular activities the institute regularly organizes project exhibition, guest lectures, trainings, workshops and industrial visits along with professional society activities under IEEE and IEI. Apart from these events various co-curricular activities like debate and discussion, quizzes, paper presentations, seminars and group discussion sessions are also conducted.

Figure B.9.7a: Glimpses of co-curricular activities

B. Extra-Curricular activities

Extra-curricular activities provide opportunities to the students to explore themselves in activities and areas depending on their interests, skills and talents. It also teaches them to work as a unit, and motivates them for team work.

Table B.9.7a: List of extra-curricular activities

S. No.	Name of the Event
1.	Republic day
2.	Independence day
3.	Teacher’s day
4.	Orientation programme

5.	Induction programme
6.	Vishwakarma jayanti
7.	Cultural event
8.	Annual athletics sports meet
9.	Engineers day
10.	Alumni meet

Figure B.9.7b: Glimpses of of extra-curricular activities

National Service Scheme (NSS):

NSS is a voluntary association of young people in colleges, universities. The cardinal principal of the NSS program is that it is organized through participation in community service; gets a sense of involvement in the task of nation building.

Table B.9.7b: Summary of NSS events

S. No.	Date	Name of NSS event	Objective	No. of students	Venue
2019-20					
1	27-02-2020	Clothes Distribution to needy	Clothes were distributed to the needy	10	Manokamna & Sai Mandir
2	31-01-2020	Plastic free campaign	Made villagers aware of plastic usage side effects	20	Sadarpur, Kuchawli
3	30-11-2019	Health camp	Health checkup held	42	Kuchawli
4	26-11-2019	Oath constitution day	Constitution day oath was taken	35	MIT Campus
5	06-11-2019	Health camp	Regular Health checkup held	28	MIT Campus
6	31-10-2019	Oath	Oath was taken	23	MIT Campus
7	02-10-2019	Gandhi Jyanti	Mahatma Gandhi's birthday was celebrated	39	MIT Campus
8	25-09-2019	Plastic free village	Made villagers aware of plastic usage side effects	21	Kuchawali
9	25-09-2019	Plastic Free Village	Made villagers aware of plastic usage side effects	21	Sadarpur
10	25-09-2019	Blood Donation	Blood was donated by students	15	MIT Campus
11	02-09-2019	Swachhta Abhiyan	Students cleaned the campus	38	MIT Campus
12	15-08-2019	Plantation on 15 august	Trees were planted in MIT Campus	31	MIT Campus
13	09-08-2019	Plantation	Trees were planted in Kuchawali	25	Kuchawali
14	09-08-2019	Plantation	Trees were planted in Bheekanpur	25	Bheekanpur
15	08-08-2019	Plantation	Trees were planted in Mohammadpur	28	Mohammadpur

16	08-08-2019	Plantation Sonakpur	Trees were planted in Bheekanpu	28	Bheekanpur
17	07-08-2019	Plantation	Trees were planted in Sadarpur	15	Sadarpur
18	30-07-2019	Plantation at MIT	Trees were planted in MIT campus	40	MIT Campus
19	21-07-2019	Jal sarankshann	Spread awareness to save water	32	MIT Campus
2018-19					
1	19-02-2019	Rashtriya Matdata Diwas Pledge	Pledge was taken	52	MIT, Moradabad
2	30-01-2019	Kushta Rog Event	Spread knowledge among students through various activities	6	MIT, Moradabad
3	31-10-2018	Integrity Pledge	Pledge taken by Students	51	MIT, Moradabad
4	02-10-2018	Swachh Bharat Abhiyan	Students cleaned the campus	20	MIT, Moradabad
2017-18					
1	15-01-2018	To Promote The Cycling to prevent The Air Pollution	Cycling was performed from Campus	40	From MIT to Vivekanand
2	06-10-2017	Two child policy Rally	Rally was held from campus	39	MIT Campus to Madhuwani
3	16-09-2017	Attaining the excellence in life By" P.D. Saraswat"	Motivational lecture was held	51	MIT Campus
4	02-09-2017	Swachhta Abhiyaan	Cleaning was performed by the students	32	MIT Campus
5	28-07-2017	Plantation and oath	Oath was taken to plant the trees	10	MIT Campus
2016-17					
1	12-01-2017	Village tour for Entrepreneurship program	Villagers were guided for establishing business	49	Bheekanpur.
2	31-10-2016	Integrity Pledge	Pledge was taken by Students and Staff	93	MIT Campus
3	31-10-2016	Sardar VallabhBhai Patel Jayanti	Pledge was taken by Students and Staff	53	MIT, Moradabad
4	02-10-2016	Swachh Bharat Abhiyan	Cleaning was done by students	11	MIT, Moradabad
5	02-10-2016	Talent search program	A test was held in the school	5	Akansha Vidhyapeeth, MBD.

6	31-08-2016	Plantation	Plantation was performed in adopted village	2	Bheekanpur
7	15-08-2016	Plantation	Plantation was performed in the college	10	MIT, Moradabad

Figure B.9.7c: Glimpses of of NSS activities

Computer Science Student Society (CSSS):

The main aim of Computer Science Student Society (CSSS) is to enhance and motivate talented students by providing them a platform to flourish their budding talent, as its prime duty, society promotes various activities to enhance social awareness. CSSS believes that every individual has different potential and ability, so it is the prime responsibility to encourage this talent of the students.

Table B.9.7c: Summary of CSSS activities

S. No.	Date of Event	Name of the event / activity	No. of students participated
2019 – 2020			
1.	11-05-2020, 12-05-2020	Maa	14
2.	07-05-2020, 08-05-2020	Lockdown with family	20
3.	04-03-2020	Filmy BYTES	42
4.	15-02-2020	Dosto ki mehfil	36

5.	16-11-2019	CODER 6.0	32
6.	16-10-2019	KURUSHETRA	58
7.	21-08-2019	Kanha ki Matki	117
2018 – 2019			
1.	10-04-2019	MIT Fiesta	137
2.	08-03-2019	#SHE	45
3.	02-03-2019	Pro Gaming League	40
4.	20-02-2019	Coder 5.0	27
5.	06-02-2019	Alpha Battle	25
6.	15-11-2018	Children Day Special	13
7.	03-11-2018	Counter Strike	36
8.	10-10-2018	Are you true MITian?	44
9.	06-10-2018	Detective Raju	124
10.	08-09-2018	Show Your Talent	37
2017-2018			
1.	04-04-2018	Googly	71
2.	21-03-2018	Counter Strike	72
3.	21-02-2018	Dress to Impress	22
4.	10-02-2018	Coder 4.0	24
5.	14-10-2017	Bachpan Reloaded	170
6.	13-10-2017	Act-o-holic	72
7.	15-09-2017	Overhaul	112
8.	26-08-2017	Logo Pogo	90
2016 – 2017			
1.	25-01-2017	Canvas-e- Republic	70
2.	13-08-2016	Nation Call	14

Cultural Events:

The foremost aim of the Cultural society is to promote the richness of Indian and modern culture amongst the students of MIT by organizing various activities. It promote Indian as well as modern cultural activities viz. dance, dramatics and music. It also encourages Team spirit, Overall personality development, Leadership qualities, Communication skills, Overcome stage fear, learning of management tools and event management skills in the students.

Table B.9.7d: List of achievements of CSE students in Cultural activities

S. No.	Session	Event	Result

1.	2019-2020	AKTU Zonal Level	14 Ist Prize, 06 2nd Prize And 02 3rd Prize
2.		AKTU State Level	04 Ist Prize, 02 2nd Prize
3.	2018-2019	AKTU Zonal Level	05 Ist Prize, 01 2nd Prize And 02 3rd Prize
4.	2017-2018	AKTU Zonal Level	03 Ist Prize and 02 2nd Prize
5.		Cultural Fest "Thomso-18" IIT Roorkee	01 Ist Prize
6.	2016-2017	AKTU Zonal Level	12 Ist Prize
7.		AKTU State Level	01 2nd Prize and 05 3rd Prize

Sports Activities:

It is well known that to have a good health, one need physical fitness. Sports play an important role because to have healthy body we need healthy mind. The main aim of MITSA (MIT Sports Association) is to make students aware about health and encourage them in developing the overall personality. The objectives of MITSA are to provide students good health, to entertain them with the help of exercise & sports activities, to inculcate competitive attitude among them, to have sports activities at national level and to make the students disciplined.

Table B.9.7e: Summary of achievements of CSE students in sport activities

Academic Year	2019-2020	2018-2019	2017-2018	2016-2017
Total no. of students participation	18	10	18	22
Total no. of students who got prize/award in the events (within the state)	5	2	6	7
Total no. of students who got prize/award in the events (outside the state)	2	1	2	2

Other than these events regular practice of different games is carried out by the students in inter-departmental tournaments are regularly being organized inside the campus.

10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120) — Total Marks 120.00

10.1 Organization, Governance and Transparency (40) — Total Marks 40.00

10.1.1 State the Vision and Mission of the Institute (5) — Institute Marks : 5.00

Vision :
To develop industry ready professionals with values and ethics for global needs.
Mission :
M1: To impart education through outcome based pedagogic principles. **M2:** To provide conducive environment for personality development, training and entrepreneurial skills. **M3:** To induct high professional ethics and accountability towards society in students.

10.1.2 Governing body,administrative setup,functions of various bodies,service rules, procedures, recruitment and promotional policies (10)

Institute Marks : 10.00

The role of Governing body is very important in any organization. The Institute works under the guidance and direction given by the Board time to time. To achieve the vision of the Institute as envisaged by the Board of Governor, the management, staff, students and all other stakeholder has to synergize to achieve the same. Further, to execute their duties to a common goal/vision in an effective and efficient way different bodies are active in the institute which meets at regular intervals. The progress is monitored and corrective measures are taken at the appropriate levels per their roles.

Table B.10.1.2a List of different bodies and committees

S.No.	Name of Committees/Bodies
1.	Board of Governors
2.	Institute Administrative Committee
3.	Institute Finance Committee

A. **Board of Governors of the Institute**

The Board of Governors shall have at least 11 members including the Chairman and the Member Secretary. The Management shall nominate up to 6 members including the Chairman and the Member Secretary. Remaining members shall be nominated as per format issued by the AICTE.

Functions and Powers of Board of Governors

I. Following matters pertaining to the Institute shall be reported to and considered by the Board of Governors :-

1. Progress of the Institute.
2. Academic performance of the students, faculty and staff.
3. Recommendation of selection committee for recruitment of faculty and other officers of the MITGI along with the actions taken by Management in this regard.
4. Decisions/actions taken by Management and Finance Committee.
5. Academic audit, monitoring and Quality assurance.
6. BOG may make any observation or suggest any change on any of the reporting items. These observations/modifications shall be considered by the management, and change, if any, shall be reported back to BOG.
7. Any other matter relating to efficient working and good health of the Institute.

II. The Board of Governors shall :-

1. Hold at least one meetings in an academic year.
2. Issue guidelines regarding staff recruitment, academic programmes, financial allocations and service conditions of the staff.
3. Consider the annual report of the working of the Institute during the previous academic session.
4. Review the Bye Laws of the MITGI and may suggest amendments

Table B.10.1.2b Composition of Board of Governors

S.No.	Designation	Name	Qualification	Occupation	Official Address	Remarks
1.	Chairman to be nominated by the Registered Trust	1. Sri. Sudhir Gupta	B.A., LL.B.	Eminent Criminal Lawyer of Moradabad	Moradabad Institute of Technology Ram Ganga Vihar, Phase-2 MORADABAD	
2.	Two to five Members to be nominated by the Registered Trust	2. Sri Y.P. Gupta	B.Arch.	An eminent Architect of Moradabad	Moradabad Institute of Technology Ram Ganga Vihar, Phase-2 MORADABAD	

S.No.	Designation	Name	Qualification	Occupation	Official Address	Remarks
		3. Sri. Arvind Kumar Goel	B.Sc., LL.B.	An educationist and Social Worker	Parsvnath Developers Ltd. 6th Floor “Arunachal Building” 19, Barakhamba Road NEW DELHI-110001	
		4. Sri Adarsh Kr. Agarwal	B.Com.	Prominent businessman of Moradabad	Moradabad Institute of Technology Ram Ganga Vihar, Phase-2 MORADABAD	
		5. Sri Neeraj Kr. Agarwal	B.Sc.	Prominent businessman of Moradabad	Moradabad Institute of Technology Ram Ganga Vihar, Phase-2 MORADABAD	
		6. Sri. Anil Kumar Agarwal	M.Com.	Prominent businessman of Moradabad	Moradabad Institute of Technology Ram Ganga Vihar, Phase-2 MORADABAD	
		7. Sri. Pradeep Jain	B.A.	Chairman Parsvanath Developers Ltd., New Delhi	Parsvnath Developers Ltd. 6th Floor “Arunachal Building” 19, Barakhamba Road NEW DELHI-110001	
3.	Nominee of the AICTE Regional Officer (Ex-Officio)					Not nominated by Regional office AICTE Kanpur, despite repeated requests
4.	An Industrialist/ Educationist from the region to be nominated by the concerned Regional Committee as nominee of the Council, out of the panel approved by the Chairman of the Council	Dr. S.K. Agarwal	M.Tech., Ph.D.	Industrialist	6, Little Heights Chimbai Road MUMBAI – 400 001	1. Dr. S.K. Agarwal nominated by the Trust. 2. AICTE Regional office approached to nominee Industrialist / Educationist, as per AICTE norms. 3. AICTE Regional office has not nominated despite repeated requests.
5.	Nominee of the Affiliating Body/ University/ State Board off Technical Education	Prof. S.K. Awasthi	Ph.D.	Professor	Ex-Director BIET, Jhansi JHANSI Mob. No. : 94151-13672 Email: skahbti@yahoo.co.in	

S.No.	Designation	Name	Qualification	Occupation	Official Address	Remarks
6.	Nominee of the State Government-Director of Technical Education (Ex-officio)	Dr. R.K. Baslas	M.Sc., Ph.D., D.Sc.	Ex. Director Higher Education U.P.	Ex. Director Higher Education U.P. 6/214, Vipul Khand Gomti Nagar LUCKNOW	1. Nominated in 2006. 2. Since retired. 3. Dept. of Tech. Edn. Govt. of 4. U.P. approached for fresh nominee. No change made despite repeated reminders.
7.	An Industrialist/ Educationist from the region nominated by the State Government	Prof. (Dr.) S. P. Gupta	M.E., Ph.D.	Educationist	Former Deputy Director Indian Institute of Technology ROORKEE Presently Director General College of Engineering ROORKEE	1. Prof. (Dr.) S.P. Gupta nominated by the Trust. 2. Govt. of U.P. approached for its nominee. 3. Govt. of U.P. has not nominated its nominee despite repeated requests.
8.	Principal / Director of the concerned technical institution (as nominee of the Trust) Member/ Secretary	Prof. (Dr.) Rohit Garg	B.E., M.E., Ph.D.	Director Member Secretary Ex -officio	Moradabad Institute of Technology Ram Ganga Vihar, Phase-2 MORADABAD	
9.	Two faculty members to be nominated from the regular staff1	Dr. Munish Chhabra	B.Tech., M.Tech. Ph.D	Professor & Head, ME	Moradabad Institute of Technology Ram Ganga Vihar, Phase-2 MORADABAD	
		Mr. Vikas Kumar	B.Tech., M.Tech.	Associate Professor CSE	Moradabad Institute of Technology Ram Ganga Vihar, Phase-2 MORADABAD	

Note: Frequency of the Meeting: At least one in a year, Last meeting was on 6 April 2019.

B. **Institute Administrative Committee**

The main function this committee is to advise the Director MIT, Directors, HODs, Faculty members and other administrative officers to improve teaching learning process by adopting best practices and guide faculties for the professional career and improve overall academic and administrative environment of the Institution.

The constitution of the Administrative Committee (AC) shall be as follows:-

1.	Director MIT	Chairman
2.	Directors of all institutes	Ex-Officio Members
3.	DOSW	Member
4.	Dean (Acad.)	Member
5.	Controller of Examination	Member
6.	All HODs	Member

7.	Registrar	Member Secretary

Meeting

· Administrative Committee shall hold its meetings at least once in a month.

· The notice of the meeting shall be sent by the Member Secretary at least ten days in advance along with the agenda points.

· An emergency meeting of the Administrative Committee may be called, if required, at a shorter notice.

Minutes of all meetings of Administrative Committee shall be forwarded to the Management for information and approval

Table B.10.1.2c Members of Institute Administrative Committee (AC) for current session

S.NO.	Name	Position
1.	Prof. (Dr.) Rohit Garg	Director, MIT
2.	Dr. Manish Agarwal	Director, MITCOM
3.	Dr. S.R. Swain	Director, FOP
4.	Dr. Subhranshu Panda	Director, MITCOP
5.	Dr. Nitin Agarwal	Dean Academic
6.	Dr. Animesh Agarwal	Controller of Exam.
7.	Dr. Manish Saxena	HOD AS&H
8.	Dr. Somesh Kumar	HOD CS & Engg.
9.	Dr. Rajul Misra	HOD, Electrical Engg
10.	Dr. Munish Chhabra	HOD Mechanical Engg
11.	Ar. Barkha Kataria	HOD Architecture
12.	Mr. Ankur Bansal	HOD Civil Engg & Incharge NPTEL
13.	Mr. Vikas Kumar	Convener Admission
14.	Dr. Akhilesh Shukla	Assistant Professor, EC&Engg
15.	Dr. Parul Gupta	Special Invite, Professor. ME
16.	Dr. Deepti Gupta	Special Invite, Asso. Prof. AS&H
17.	Dr. Abhishek Saxena	Special Invite, Asso. Prof. ME
18.	Ms. Ruchi Varshney	Special Invite, Asst. Prof. EC
19.	Mohd. Ilyas	Special Invite, Asst. Prof. CSE
20.	Mr. Sanjeev Gupta	Special Invite, Asst. Prof. CSE
21.	Mr. S.N. Shukla	Registrar

Note : Frequency of the Meeting: At least once in a month. Last Meeting was held on 19th August 2020

C. **INSTITUTE FINANCE COMMITTEE**

The Management of the Institute shall be assisted by a Finance Committee, which shall consist of:-

i. the Chairman of the Management, who shall be the Chairman;
ii. the Secretary of the Management;
iii. the Treasurer of the Management;
iv. other members of the Management;
v. the Director MIT (ex-officio);
vi. All Directors (ex-officio);
vii. Finance Controller shall be the Ex officio Secretary of Finance Committee.
viii. Registrar and Accounts Officer may be invited to the meetings of Finance Committee.
ix. Director/Head T P & C A, DOSW, HODs, Librarian and others may be called for meetings of Finance Committee, as and when required.

The Finance Committee shall prepare the annual budget of the Institute (with the exception of the students funds), which shall be placed before the Management for their consideration and approval.

Table B.10.1.2d Members of Institute Finance Committee for current session

1.	Sri Sudhir Gupta	Chairman
2.	Sri Y.P. Gupta	Vice Chairman
3.	Sri Adarsh Kumar Agarwal	Secretary
4.	Sri Neeraj Kumar Agarwal	Treasurer
5.	Prof. (Dr.) Rohit Garg	Director
6.	Dr. Pratosh Kumar Awasthi	Member
7.	Sri S.N. Shukla, Registrar	Invitee
8.	Sri Priyank Kumar, Finance Controller	Invitee
9.	Dr. Neeraj Kumar Sharma, Account Officer	Invitee
10.	Prof. (Dr.) Vijendra Singh, DOSW	Invitee
11.	Dr. Manish Saxena, HOD AS&H	Invitee
12.	Dr. Somesh Kumar, HOD CS& Engg	Invitee
13.	Mr. Ankur Bansal, HOD Civil Engg	Invitee
14.	Dr. Kshitij Shinghal, HOD E&C Engg	Invitee
15.	Dr. Rajul Misra, HOD Electrical Engg	Invitee
16.	Dr. Munish Chhabra, HOD ME	Invitee
17.	Dr. Kapil Kapoor, HOD Management	Invitee
18.	Sri Ritesh Kumar Srivastava, Head T, P & CA	Invitee
19.	Dr. Amit Saxena, Chief Warden	Invitee
20.	Dr. Akhilesh Shukla, Convener MITSA	Invitee
21.	Dr. Munish Chhabra, Convener Cultural Society	Invitee
22.	Sri Sanjeev Gupta, Convener MIT Alumni Association	Invitee
23.	Sri Rashid Ali, Librarian	Invitee

Note: Frequency of the Meeting: Twice in a year, Last meeting was on 18th FEBRUARY 2020

D. **Policies and Procedures of the Institute**

There are different policies (service rules, recruitment and promotional policies) and procedures of operations related to different areas of administration, academic monitoring. Such policies are to be updated in light of different norms and rules as prescribed by statuary bodies. The policies and procedure have been formulated taking the above in to consideration and are updated time to time as per the need and directions by affiliated bodies and BOG. These documents (Institute Bye-Laws) are available on institute website (https://www.mitmoradabad.edu.in) (http://www.glbitm.ac.in/) refer to point 7 from Institute Bye-Laws.

1. **APPOINTMENTS** (Taken from Institute Bye-Laws point no.7)

1.1 There shall be two types of Appointments :-

(i) Regular appointments

(ii) Temporary appointments

1.1.1 Regular Appointments

These regular appointments to a teaching post in MITGI shall be made by the appointing authority, on recommendation of selection Committee constituted in the manner laid down in clause 1.2.1.

1.1.2 Temporary Appointments

i. In case of urgent need of teachers, this appointment may be made without reference to selection Committee as defined in 1.2.

ii. For such appointment Chairman may, on recommendation of Director MIT, constitute a committee with atleast one subject expert.

iii. Employment and terms of appointment shall be decided at the time of selection subject to:-

(a) Total initial emoluments may not exceed the total salary of existing faculty of the same deptt. qualifications and experience.

(b) Term of appointment shall be for one year which can be extended in steps of six months/one year subject to his performance as assessed by the internal Assessment committee.

(c) After successful completion of three years of continuous service in temporary capacity he may be eligible to appear before the selection committee for regular appointment as and when regular selections are made. The Management may permit such appearance before the Selection Committee early than three years in deserving cases.

1.2 **Selection Procedure :**

1.2.1 Selection Committee for Teaching posts

The Selection Committee for the appointment of teachers shall consist of –

(i) The Chairman of the Management or a member of Management shall be the Chairman of Selection Committee;

(ii) One member of Management.

(iii) Director MIT

(iv) Director of the concerned institute

(v) Two experts for the post of Professor / Associate Professor and one for Asst. Professor to be taken from panel approved by the Management / University.

(vi) Head of the concerned Department, provided he is not a candidate to the post and he is holding a post not lower than the post for which the interview is conducted.

(vii) AICTE / University Nominee.

Provided that a person appointed as Regular teacher shall be on probation for 1 year extendable up to a maximum of one more year if not confirmed after first year of probation. During the probation period his/her services may be terminated without any reason thereof.

Provided further that his/her temporary services on the same post may be counted towards the completion of probation period.

1.2.2 Selection Committee for Non- Teaching Staff

a. In the case of the post of Registrar or Administrative Officer, the Selection Committee shall consist of

i. The Chairman of the Management

ii. Secretary of the Management

iii. Member of Management

iv. Director

v. One or two nominees of the Management

b. In the case of posts in Class 'A' (other than the teaching posts and the Registrar or the Administrative Officer) and Class 'B', 'C' and 'D', the Selection Committee shall consist of :-

i. The Chairman of the Management

ii. Secretary of the Management

iii. Member of Management

iv. Director General

v. Director

vi. Head of the concerned Department or the Registrar for posts under his control.

1.2.3 A Selection Committee shall not consider the name of a person for appointment to a post unless he has applied for it, but in the case of the appointment of a teacher, the Committee may consider the names of suitable persons, who may not have applied for the post but are likely to accept the appointment on the terms and conditions indicated in the advertisement for the post.

Provided that, in case Selection Committee finds a candidate not suitable for a post applied for, it can consider him / her for lower post, if the candidate so desires.

1.2.4 A member of the Selection Committee, who has a personal interest either because his own case or the case of a relation or dependent of his is to be considered, shall withdraw from the meeting of the

Selection Committee, and shall not participate in the proceedings when the appointment of such a candidate is under consideration. It the event of such exigency arising :

a. If the member who withdraws is the Chairman, his place as Chairman shall be filled by the Vice Chairman.

b. If the member is Director his place shall be taken by a Senior Professor of the Institute to be nominated by the Chairman.

c. If the member who withdraws is the Head of the Department, his place shall be taken by a senior teacher of that department to be nominated by the Chairman.

d. The place of any other member who withdraws shall be filled by another nominee of the authority concerned.

e. For the purpose of this regulation, the term relation or dependent shall include wife, husband, son, daughter, grandson, grand-daughter, brother, sister, nephew, niece, grand-niece, grand-nephew, uncle or aunt, first cousin, son-in-law, daughter-in-law, brother-in-law and sister-in-law.

1.2.5 A Selection Committee shall ordinarily recommend three names for each post in order of merit, or such larger number, as the appointing authority may require.

1.2.6 The Selection Committee shall record in its report the fact of relaxation in the minimum qualifications of a candidate, in the event of recommending any such appointment.

1.2.7 The recommendations of the Selection Committee shall be kept confidential and shall be submitted to the Management by the Director.

1.2.8 It shall be the duty of the appointing authority to satisfy himself that the character of a candidate for employment is such, as to render him suitable in all respects for employment in the Institute. Appointing authority may call for police verification, if felt, necessary.

1.2.9 No candidate shall be employed unless he is in good mental and physical health and free from any defect likely to interfere with the efficient performance of his duties. Before a candidate is finally approved for appointment, he may be required to produce a medical certificate of fitness from a competent doctor as decided by the Management.

1.3 Appointment of Heads of Department

1.3.1 One teacher out of existing full time faculty shall be designated as HOD by the Management in consultation with Director MIT.

1.3.2 The tenure of the HODs shall be for three years.

1.3.3 HODs shall be appointed by rotation among Professors and Associate Professors in the Deptt.

1.3.4 The procedure to make such appointment may be worked out by Director MIT in consultation with all directors and submitted to the Management for approval.

1.3.5 In case no Professor/Associate Professor is available in a Deptt., Director MIT in consultation with the Management may designate some suitable faculty member as HOD to look after the work of the Department.

1.3.6 Director MIT under special circumstances, with the approval of Management, may depart from provision of clause no 1.3.2 and / or 1.3.3.

1.4 Special Appointments

1.4.1 The Management can appoint a teacher or any other officer in the interest of Institute on a contract basis on consolidated monthly emoluments. Retired persons with proven engineering / scientific experience can also be considered for such appointments.

1.4.2 If so required, the Management shall appoint Adjunct or Guest Professor, Reader or Lecturer to teach a subject for a semester or to teach a topic in a course. Suitable honorarium may be paid to such specialist faculty.

1.4.3 In the absence of a regular teacher or a teacher proceeding on leave, guest or part time faculty member may be appointed on suitable monthly emoluments.

1.4.4 In case of need the Management may appoint a faculty or other staff on temporary basis for a period as required.

1.4.5 Any faculty or staff member who has been appointed temporarily basis shall not automatically become regular only due to passage of time.

1.5 **Qualifications**

1.5.1 Qualifications of faculty members and technical supporting staff assisting in teaching shall be as per guidelines of AICTE or the affiliating university, as the case may be. In case qualifications are not defined by the above bodies, they shall be decided by the Management.

1.5.2 For non- teaching staff, other than mentioned above, the qualifications shall be decided by the Management.

10.1.3 Decentralization in working and grievanceredressal mechanism (10) Institute Marks : 10.00

Following faculty members/officials have been delegated power for taking administrative decisions:

S. No	Designation	Delegation of Power	Power Delegated by
1	Director	Administrative and Financial as per BOG	Statutory Body and BOG
2	Deans	Academic and Student Welfare	Statutory Body and BOG
3	HODs	Academic Research and Students Welfare	Statutory Body and BOG
4	Senior Professor	Academic Research and Students Welfare	Statutory Body and BOG
5	Librarian	Administrative Function of Library	Statutory Body and BOG
6	Registrar	Custodian of all the documents and head establishment	Statutory Body and BOG
7	Time-Table In charge	Preparation of Time-Table	Director
8	Wardens	Administrative and monitoring of hostels	Director
9	Placement Head	All Placement Activity	BOG
10	Registrar	Custodian of all the documents and head establishment	Statutory Body and BOG
11	ERP Coordinator	Functioning and maintain of ERP	Director
12	Controller of Examination (COE)	Conduction of internal and Univ. semester Exam.	Director
13	Finance Controller	Finance related activity	BOG
14	Head Research and Development	Research and Development Related Activities	Director
15	Head Incubation and E-Cell	Incubation and E -cell activities	Statutory Body and Director

Mechanism and composition of grievance redressal cell

The following cell/ committees have been constituted at the Institute level

- Grievance Redressal Cell for Students
- Grievance Redressal Cell (For faculty & staff)
- Women's Grievance Redressal Cell / Women Task Force & Gender Sensitization
- Proctorial Board Committee
- Anti-ragging committee

Grievance Redressal Cell for Students

Grievances of students related to academics and personal grievances of students within campus and hostel may be addressed to Dean, Student Welfare.

Grievance Redressal Cell for Students			
Scope of work: To take action on students' complaint and resolve the issue immediately.			
i.	Prof. Vijendra Singh	Chairman	DSW
ii.	Dr. Rohit Garg	Member	Director, MIT
iii.	Dr. Manish Agarwal	Member	Director, MITCOM
iv.	Dr. S.R. Swain	Member	Director, FOP
v.	Dr. Subhranshu Panda	Member	Director, MITCOP
vi.	Dr. Somesh Kumar	Member	HOD, CSE
vii.	Ms. Barkha Kataria	Member	HOD, FOA

Duties and Responsibilities:

- To take corrective & effective measures to address students and parents Grievances.
- To form and provide a mechanism to enhance learning and development of students with specific focus on students problems.
- To supervise activities of Students grievances.
- To provide right direction and counsel whenever required and guide them for improvement.

Grievance Redressal Cell (For faculty & staff)

Staff member having any specific grievance can address his/her problem to the Head, Staff Grievance Cell, in writing. Their grievances are routed through the Redressal Cell to the Director/Management. Genuine grievances of the staff are considered and remedial measures are taken by the concerned departments/authorities.

Grievance Redressal Cell (For faculty & staff)			
i.	Dr. Rohit Garg	Director, MIT	Chairman
ii.	Dr. Manish Agarwal	Director, MITCOM	Member
iii.	Dr. S.R. Swain	Director, FOP	Member
iv.	Dr. Shubhranshu Panda	Director (MITCOP)	Member
v.	Ms. Barkha Kataria	HOD FOA	Member
vi.	Prof. Vijendra Singh	DSW	Member
vii.	Dr. Nitin Agarwal	Dean Academics	Member

Duties and Responsibilities:

- To collect all grievance reports from the staff.
- To consolidate all the report and send the report to the Higher Authorities for perusal.
- To take feedback to the staff concerned/solution for their grievances.

Women's Grievance Redressal Cell / Women Task Force & Gender Sensitization

The following committee has been formed against prevention of sexual harassment on women and provides a mechanism to redress women's grievance:

Internal Complaint Committee-:			
a. Women Task Force & Gender Sensitization			
i.	Dr. Modika Gupta	ASH	Convener

ii.	Ms. Prachi Gupta	CSE	Member
iii.	Ms. Ruchi Varshney	EC	Member
iv.	Ms. Kanchan	CSE	Member
v.	Ms. Monika Singh	ME	Member
b. Prevention and prohibition of Sexual Harassment of Women Employees and Students			
i.	Dr. Deepti Gupta	ASH	Convener
ii.	Dr. Sangeeta Mahesh	ASH	Member
iii.	Dr. Shilpa Gupta	ASH	Member
iv.	Ms. Richa Saxena	CSE	Member
v.	Ms. Shuchita Saxena	EC	Member

Meeting Schedule: General Meeting once in the three months or as per the need.
Duties and Responsibilities:

- To examine and grievance letter received from the women staff/ students regarding the sexual harassment.
- To examine and investigate on each complaint received from the women staff/students by collecting the required information/data from connected people.
- To give their recommendation to the Director for further action.
- To counsel the women staff/students concerned/ to a possible solution for their grievances.
- The committee will record such grievances received from the women staff/students, in a separate register maintained exclusively for this purpose.
- Action taken by the committee to the women staff/students for grievance should also be recorded.
- The committee will suggest suitable solution(s) to problems faced by the women staff/students in regards to matters relating to sexual harassment to the concerned authorities.

Proctorial Board Committee

Constitution of Proctorial Board Committee is as follows :

Proctorial Board:			
i.	Mr. Khilendra Singh	ASH	Chief Proctor, Convener
ii.	Dr. Rahul Singh	MBA	Deputy Chief Proctor
iii.	Dr. Deepti Gupta	ASH	Proctor
iv.	Mr. Ravinder	CE	Proctor
v.	Mr. Shivanshu Rastogi	CSE	Proctor
vi.	Mr. Narendra Singh Pal	EC	Proctor
vii.	Mohd. Talha Khan	ME	Proctor
viii.	Mr. Harish Chandra Verma	FOP	Proctor
ix.	Ex Officio Members	All PTI's and Chief Wardens, Wardens	

Objective of Proctorial Board:
An education Institute or organization is governed by certain rules and regulation. The rules and regulation are to be maintained at most level to maintain the Academic and cordial environment in the campus. Every student and staff, employee of the Institute has to follow these rules/guidelines as per their cadre to fulfill the union of the Institute. The Proctorial Board of the Institute is headed by a chief proctor/proctor which is the main disciplinary authority of the Institute and is chaired by the Director. Some of the main objective of this boards are as:

- To make ensure that the disciplinary rules are followed by all the members of Institute.

- To help the Student, Faculty members and non-teaching staff in case of any difficulty, related to discipline.
- To help and support in planning and coordinating student counselling discipline and conduct.
- To maintain Liaoning with student parent/guardian.
- Daily matter related to student discipline.

Anti Ragging Committee

Constitution of Anti Ragging Committee is as follows:

Anti Ragging Squad			
i.	Prof. Vijendra Singh	ASH	Chairman
ii.	Mr. Khilendra Singh	ASH	Convener
iii.	Dr. Nitin Kumar Agarwal	ASH	Member
iv.	Mr. Sachin Agarwal	ASH	Member
v.	Mohd. Saquib Quadeer	CE	Member
vi.	Mr. Vikas Bhatnagar	CSE	Member
vii.	Mr. Anurag Malik	CSE	Member
viii.	Mr. Sanjeev Gupta	CSE	Member
ix.	Dr. Akhilesh Shukla	EC	Member
x.	Mr. Saurabh Saxena	EE	Member
xi.	Dr. Sachin Bhardwaj	MBA	Member
xii.	Dr. Priyank Gupta	MBA	Member
xiii.	Mr. Gurpreet Singh	FOA	Member
xiv.	Mr. Hitesh Kumar	FOP	Member
xv.	Mr. Harish Chandra Verma	FOP	Member
xvi.	Mr. Krishna Kr. Varshney	MITCOP	Member
Quick Response Team			
Scope of work: • To initiate quick action and immediate respond in case of accident of any student/staff/faculty inside or outside the Campus.			
i.	Mr. Khilendra Singh	ASH	Convener
ii.	Mr. Shivanshu Rastogi	CSE	Member
iii.	Dr. Amit Saxena	EC	Member
iv.	Mohd. Talha Khan	ME	Member
v.	Mr. Harish Chandra Verma	FOP	Member
vi.	Dr. Rahul Singh	MBA	Member
vii.	Mr. Amit Dewal	PTI	Member

10.1.4 Delegation of financial powers (10)

Institute Marks : 10.00

The financial power given by the management to different persons of the Institute are shown below in tabular form :

S.No.	Designation	Amount Approved by Management per year (Rs.)
1	Director	300,000.00
2	HOD (CSE)	100,000.00
3	HOD (ME)	100,000.00
4	HOD (EC)	50,000.00
5	HOD (EE)	50,000.00
6	HOD (CE)	50,000.00
7	HOD (ASH)	50,000.00
8	HOD (MBA)	50,000.00
9	Registrar	50,000.00
10	Librarian	40,000.00
11	Convener MITSA	40,000.00

Utilization of financial powers of the dirrerent persons in the dirfferent assessment years are as follows :-

Year :2019-2020

S.No.	Designation	Limit allotted (Rs.)	Amount Spent (Rs.)	Details with Amount Spent on Different Heads	
1	Director	300,000.00	298,579.00	* Final Year Projects Assistance	28,919.00
				* Expenses on Conference/Workshop/Seminars	106,286.00
				* Scholarship to Students	98,500.00
				* Purchase of equipments for Lab	33,276.00
				* Purchase of other equipments	31,598.00
2	HOD (CSE)	100,000.00	99,487.00	* Purchase of Consumables / Maintenance	27,711.00
				* Expenses on Guest Lectures	41,247.00
				* Faculty/Staff Skill Enhancement	18,027.00
				* Departmental Expenditure	12,502.00
3	HOD (ME)	100,000.00	99,915.00	* Purchase of Consumables / Maintenance	41,495.00
				* Expenses on Guest Lectures	19,110.00
				* Faculty/Staff Skill Enhancement	20,480.00
				* Departmental Expenditure	18,830.00
4	HOD (EC)	50,000.00	49,760.00	* Purchase of Consumables / Maintenance	7,706.00
				* Expenses on Guest Lectures	6,660.00
				* Faculty/Staff Skill Enhancement	25,214.00
				* Departmental Expenditure	10,180.00
5	HOD (EE)	50,000.00	30,754.00	* Purchase of Consumables / Maintenance	10,620.00
				* Faculty/Staff Skill Enhancement	3,908.00

				* Departmental Expenditure	16,226.00
6	HOD (CE)	50,000.00	48,881.00	* Purchase of Consumables / Maintenance	43,639.00
				* Expenses on Guest Lectures	971.00
				* Faculty/Staff Skill Enhancement	1,072.00
				* Departmental Expenditure	3,199.00
7	HOD (ASH)	50,000.00	49,933.00	* Purchase of Consumables / Maintenance	15,071.00
				* Expenses on Guest Lectures	26,000.00
				* Faculty/Staff Skill Enhancement	7,962.00
				* Departmental Expenditure	900.00
8	HOD (MBA)	50,000.00	49,090.00	* Expenses on Guest Lectures	45,000.00
				* Departmental Expenditure	4,090.00
9	Registrar	50,000.00	49,973.00	* Expenses on Independence Day	10,062.00
				* Expenses on Teachers Day	26,088.00
				* Expenses on Republic Day	11,318.00
				* Expenses on Vasant Panchami	2,505.00
10	Librarian	40,000.00	38,884.00	* Newspapers & Magazines	18,035.00
				* Miscellaneous Library Exp.	20,849.00
11	Convener MITSA	40,000.00	39,880.00	* Expenses on Sports Events	39,880.00

Year :2018-2019

S.No.	Designation	Limit allotted (Rs.)	Amount Spent (Rs.)	Details with Amount Spent on Different Heads	
1	Director	300,000.00	298,248.00	* Final Year Projects Assistance	3,386.00
				* Expenses on Conference/Workshop/Seminars	32,950.00
				* Scholarship to Students	130,000.00
				* Purchase of equipments for Lab	53,032.00
				* Purchase of other equipments	78,880.00
2	HOD (CSE)	100,000.00	99,871.00	* Purchase of Consumables / Maintenance	34,095.00
				* Expenses on Guest Lectures	25,000.00
				* Faculty/Staff Skill Enhancement	16,158.00
				* Departmental Expenditure	24,618.00
3	HOD (ME)	100,000.00	99,391.00	* Purchase of Consumables / Maintenance	35,668.00
				* Expenses on Guest Lectures	15,403.00

				* Faculty/Staff Skill Enhancement	14,214.00
				* Departmental Expenditure	34,106.00
4	HOD (EC)	50,000.00	41,587.00	* Purchase of Consumables / Maintenance	6,074.00
				* Expenses on Guest Lectures	21,569.00
				* Faculty/Staff Skill Enhancement	11,000.00
				* Departmental Expenditure	2,944.00
5	HOD (EE)	50,000.00	48,184.00	* Purchase of Consumables / Maintenance	15,638.00
				* Faculty/Staff Skill Enhancement	6,079.00
				* Departmental Expenditure	26,467.00
6	HOD (CE)	50,000.00	47,522.00	* Purchase of Consumables / Maintenance	35,000.00
				* Departmental Expenditure	12,522.00
7	HOD (CH)	50,000.00	49,850.00	* Purchase of Consumables / Maintenance	42,100.00
				* Departmental Expenditure	7,750.00
8	HOD (ASH)	50,000.00	48,249.00	* Purchase of Consumables / Maintenance	40,974.00
				* Departmental Expenditure	7,275.00
9	HOD (MBA)	50,000.00	47,038.00	* Purchase of Consumables / Maintenance	45,000.00
				* Faculty/Staff Skill Enhancement	2,038.00
10	Registrar	50,000.00	49,448.00	* Expenses on Independence Day	26,913.00
				* Expenses on Republic Day	22,535.00
11	Librarian	40,000.00	39,108.00	* Newspapers & Magazines	23,348.00
				* Miscellaneous Library Exp.	15,760.00
12	Convener MITSA	40,000.00	39,025.00	* Expenses on Sports Events	39,025.00

Year :2017-2018

S.No.	Designation	Limit allotted (Rs.)	Amount Spent (Rs.)	Details with Amount Spent on Different Heads	
1	Director	300,000.00	297,652.00	* Final Year Projects Assistance	14,773.00
				* Expenses on Conference/Workshop/Seminars	13,973.00
				* Scholarship to Students	55,000.00

				* Purchase of equipments for Lab	19,761.00
				* Purchase of other equipments	194,145.00
2	HOD (CSE)	100,000.00	99,966.00	* Purchase of Consumables / Maintenance	42,468.00
				* Expenses on Guest Lectures	34,553.00
				* Faculty/Staff Skill Enhancement	9,606.00
				* Departmental Expenditure	13,339.00
3	HOD (ME)	100,000.00	93,186.00	* Purchase of Consumables / Maintenance	46,327.00
				* Expenses on Guest Lectures	28,827.00
				* Faculty/Staff Skill Enhancement	1,050.00
				* Departmental Expenditure	16,982.00
4	HOD (EC)	50,000.00	49,644.00	* Purchase of Consumables / Maintenance	29,277.00
				* Expenses on Guest Lectures	9,413.00
				* Departmental Expenditure	10,954.00
5	HOD (EE)	50,000.00	19,251.00	* Purchase of Consumables / Maintenance	16,605.00
				* Departmental Expenditure	2,646.00
6	HOD (CE)	50,000.00	38,646.00	* Purchase of Consumables / Maintenance	8,058.00
				* Expenses on Guest Lectures	18,066.00
				* Departmental Expenditure	12,522.00
7	HOD (CH)	50,000.00	5,918.00	* Purchase of Consumables / Maintenance	5,478.00
				* Departmental Expenditure	440.00
8	HOD (ASH)	50,000.00	49,990.00	* Purchase of Consumables / Maintenance	11,165.00
				* Expenses on Guest Lectures	37,525.00
				* Departmental Expenditure	1,300.00
9	HOD (MBA)	50,000.00	49,078.00	* Purchase of Consumables / Maintenance	21,500.00
				* Faculty/Staff Skill Enhancement	23,078.00
				* Departmental Expenditure	4,500.00
10	Registrar	50,000.00	49,050.00	* Expenses on Independence Day	13,870.00
				* Office Expenses	9,000.00
				* Expenses on Republic Day	26,180.00
11	Librarian	40,000.00	39,999.00	* Newspapers & Magazines	22,600.00

				* Miscellaneous Library Exp.	17,399.00
12	Convener MITSA	40,000.00	37,535.00	* Expenses on Sports Events	37,535.00

Year :2016-2017

S.No.	Designation	Limit allotted (Rs.)	Amount Spent (Rs.)	Details with Amount Spent on Different Heads	
1	Director	300,000.00	298,084.00	* Final Year Projects Assistance	4,999.00
				* Expenses on Conference/Workshop/Seminars	38,647.00
				* Scholarship to Students	40,000.00
				* Purchase of equipments for Lab	121,710.00
				* Purchase of other equipments	92,728.00
2	HOD (CSE)	100,000.00	99,579.00	* Purchase of Consumables / Maintenance	87,142.00
				* Expenses on Guest Lectures	6,956.00
				* Departmental Expenditure	5,481.00
3	HOD (ME)	100,000.00	99,572.00	* Purchase of Consumables / Maintenance	68,822.00
				* Expenses on Guest Lectures	8,000.00
				* Faculty/Staff Skill Enhancement	2,352.00
				* Departmental Expenditure	20,398.00
4	HOD (EC)	50,000.00	49,219.00	* Purchase of Consumables / Maintenance	17,295.00
				* Expenses on Guest Lectures	9,656.00
				* Faculty/Staff Skill Enhancement	16,974.00
				* Departmental Expenditure	5,294.00
5	HOD (EE)	50,000.00	36,692.00	* Purchase of Consumables / Maintenance	650.00
				* Expenses on Guest Lectures	7,961.00
				* Faculty/Staff Skill Enhancement	16,866.00
				* Departmental Expenditure	11,215.00
6	HOD (CE)	50,000.00	36,638.00	* Purchase of Consumables / Maintenance	7,204.00
				* Expenses on Guest Lectures	17,229.00
				* Departmental Expenditure	12,205.00
7	HOD (CH)	50,000.00	9,950.00	* Purchase of Consumables / Maintenance	5,855.00
				* Departmental Expenditure	4,095.00

8	HOD (ASH)	50,000.00	42,982.00	* Purchase of Consumables / Maintenance	30,125.00
				* Expenses on Guest Lectures	400.00
				* Departmental Expenditure	12,457.00
9	HOD (MBA)	50,000.00	49,000.00	* Purchase of Consumables / Maintenance	43,500.00
				* Departmental Expenditure	5,500.00
10	Registrar	50,000.00	48,042.00	* Expenses on Independence Day	22,330.00
				* Expenses on Republic Day	25,712.00
11	Librarian	40,000.00	34,363.00	* Newspapers & Magazines	16,873.00
				* Miscellaneous Library Exp.	17,490.00
12	Convener MITSA	40,000.00	39,897.00	* Expenses on Sports Events	39,897.00

10.1.5 Transparency and availability of correct/unambiguous information in public domain (5)

Institute Marks : 5.00

All the important information with regard to profile of the Institute, various policies, Institute bylaws, audit reports, building and infrastructural facilities, approval, affiliation of different courses, details of the promoters, vision, mission of the institute, syllabus, academic calendar, important notices related to students and other relevant informations are being uploaded and updated on Institute website (www.mitmoradabad.edu.in) regularly so that all stakeholders may be aware about the academic and overall strength of the Institute.

The information related to students are displayed on notice boards in the Institute also. In the begining of each semester HoD also apprises the faculty members of his department regarding Institute policies and rules in a meeting. Important polices and rules are also told to the students in the classrooms.

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30)

Total Marks 30.00

Summary of currentfinancial 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 2019-20

Total Income 162675147.94				Actual expenditure(till…): 162675147.94			Total No. Of Students 1323
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
110181383	0	0	52493764.94	156134429.94	6540718	0	122959.30

Table 2 - CFYm1 2018-19

Total Income 205619861.27				Actual expenditure(till…): 205619861.27			Total No. Of Students 1616
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
133873336	0	0	71746525.27	195897851.27	9722010	0	127240.01

Table 3 - CFYm2 2017-18

Total Income 208099481.72				Actual expenditure(till…): 208099481.72			Total No. Of Students 1982
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
164821214	0	0	43278267.72	207536581.72	562900	0	104994.69

Table 4 - CFYm3 2016-17

Total Income 249002886.25				Actual expenditure(till…): 240144876.07			Total No. Of Students 2402
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
200972080	0	0	48030806.25	235430705.07	4714171	0	99977.05

Items	**Budgeted in 2019-20**	**Actual Expenses in 2019-20 till**	**Budgeted in 2018-19**	**Actual Expenses in 2018-19 till**	**Budgeted in 2017-18**	**Actual Expenses in 2017-18 till**	**Budgeted in 2016-17**	**Actual Expenses in 2016-17 till**
Infrastructure Built-Up	3000000	2972619	10000000	9175032	550000	200740	2200000	2162549

Library	500000	474060	300000	235845	450000	342399	700000	606144
Laboratory equipment	3310000	3094039	400000	311133	200000	19761	2100000	1945478
Laboratory consumables	500000	562257	300000	210293.23	300000	159428.90	500000	373607
Teaching and non-teaching staff salary	100000000	103944698	120000000	123089632	150000000	150655287	170000000	168549767
Maintenance and spares	15000000	14820789	20000000	17696279.81	13000000	12646856.65	7000000	6459815
R&D	1000000	1117314	1000000	1423306.86	450000	423683.48	450000	204370
Training and Travel	13000000	10423330	15000000	13870146.13	15000000	14248853.82	20000000	19417141
	1000000	822851.62	1000000	773508.82	800000	717061.03	800000	686808
Others, specify	29230000	24443190.32	39290000	38834684.42	32240000	28685410.84	41790000	39739197.07
Total	**166540000**	**162675147.94**	**207290000**	**205619861.27**	**212990000**	**208099481.72**	**245540000**	**240144876.07**

10.2.2 Utilization of allocated funds (15)

Institute Marks : 15.00

Various data depicted in the Tables shown below indicates that utilization of the budget under different heads was properly utilized.

S.No.	Assessment Year	Budget Allocated	Actual Expenditure	Percentage of Utilization
1	CFY (2019-2020)	166,540,000.00	162,675,147.94	97.68
2	CFYm1 (2018-2019)	207,290,000.00	205,619,861.27	99.19
3	CFYm2 (2017-2018)	212,990,000.00	208,099,481.72	97.70
4	CFYm3 (2016-2017)	245,540,000.00	240,144,876.07	97.80

10.2.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

In the Finance Committee meeting of the Institute, the budget proposals received from all the departments were considered and the budget under different heads is decided based on the requirements of the departments and the Institute in a particular assessment year. Various data depicted in the Tables shown below for different years show that the amount in the budget was adequate.

S.No.	Assessment Year	Budget Allocated	Actual Expenditure	Adequate / Non-Adequate
1	CFY (2019-2020)	166,540,000.00	162,675,147.94	Adequate
2	CFYm1 (2018-2019)	207,290,000.00	205,619,861.27	Adequate
3	CFYm2 (2017-2018)	212,990,000.00	208,099,481.72	Adequate
4	CFYm3 (2016-2017)	245,540,000.00	240,144,876.07	Adequate

10.2.3 Availability of the audited statements on the institute's website (5)

Institute Marks : 5.00

Yes the audited statements of accounts of the institute are made available on the institute website.

10.3 Program Specific Budget Allocation, Utilization (30)

Total Marks 30.00

10.3.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

In the Finance Committee meeting of the Institute, the budget proposals received from all the departments were considered and the budget under different heads is decided based on the requirements of the concerned department in a particular assessment year. Various data depicted in the Tables shown below for different years show that the amount in the budget was adequate.

S.No.	Assessment Year	Budget Allocated	Actual Expenditure	Adequate / Non-Adequate
1	CFY (2019-2020)	32,300,000.00	31,868,797.00	Adequate
2	CFYm1 (2018-2019	29,350,000.00	29,150,287.22	Adequate
3	CFYm2 (2017-2018)	32,690,000.00	32,350,174.63	Adequate
4	CFYm3 (2016-2017)	31,415,000.00	31,078,762.00	Adequate

10.3.2 Utilization of allocated funds (20)

Institute Marks : 20.00

Various data depicted in the Tables shown below indicates that utilization of the budget under different heads was properly utilized.

Financial Year	2019-2020	2018-2019	2017-2018	2016-17
Budgeted	32,300,000.00	29,350,000.00	32,690,000.00	31,415,000.00
Utilized	31,868,797.00	29,150,287.22	32,350,174.63	31,078,762.00
Percentage of Utilization	98.67	99.32	98.96	98.93

Institute Marks :

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 2019-20

32300000.00		Actual expenditure (till…): 31868797.00		Total No. Of Students 508
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
3000000.00	29300000.00	2979249.00	28889548.00	62733.85

Table 2 :: CFYm1 2018-19

29350000.00		Actual expenditure (till…): 29150287.22		Total No. Of Students 484
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
300000.00	29050000.00	297781.00	28852506.22	60227.87

Table 3 :: CFYm2 2017-18

32690000.00		Actual expenditure (till…): 32350174.63		Total No. Of Students 498
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
50000.00	32640000.00	19761.00	32330413.63	64960.19

Table 4 :: CFYm3 2016-17

31415000.00		Actual expenditure (till…): 31078762.00		Total No. Of Students 414
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1400000.00	30015000.00	1380000.00	29698762.00	75069.47

Items	Budgeted in 2019-20	Actual Expenses in 2019-20 till	Budgeted in 2018-19	Actual Expenses in 2018-19 till	Budgeted in 2017-18	Actual Expenses in 2017-18 till	Budgeted in 2016-17	Actual Expenses in 2016-17 till
Laboratory equipment	3000000.00	2979249.00	300000.00	297781.00	50000.00	19761.00	1400000.00	1380000.00
Software	100000.00	98281.00	100000.00	81761.00	100000.00	76521.00	125000.00	128012.00
Laboratory consumable	50000.00	22011.00	100000.00	94048.61	100000.00	64343.80	200000.00	198156.00
Maintenance and spares	3200000.00	3127665.00	2600000.00	2662159.66	5200000.00	5181603.83	2500000.00	2588596.00
R & D	200000.00	209463.00	100000.00	78303.08	100000.00	87970.00	50000.00	6956.00
Training and Travel	200000.00	154000.00	600000.00	529736.00	100000.00	81928.00	100000.00	57000.00
Miscellaneous Expenditure (including salary)	25550000.00	25278128.00	25550000.00	25406497.87	27040000.00	26838047.00	27040000.00	26720042.00

Total	**32300000.00**	**31868797.00**	**29350000.00**	**29150287.22**	**32690000.00**	**32350174.63**	**31415000.00**	**31078762.00**

10.4 Library and Internet (20)

Total Marks 20.00

10.4.1 Quality of learning resources (hard/soft) (10)

Institute Marks : 10.00

A. **Relevance of available learning resources including e-resources**

Central Library is one of the central support services of institute. The mission of the central library is to provide information, services and access to bibliographic and full text digital and printed resources to support the scholarly and information requirements of the institute community. The central library is well equipped with almost all modern facilities and resources in the form of CD-ROM, Online database, books, journals, standards, thesis, and reports etc. It has fully computerized operations and services. Central library is committed to provide a world class information support to its users. It has a rich collection of more than 82,000 documents which include books and bound volumes of periodicals. The collection is mainly strong in science & technology. However substantial quality information sources on humanities and social sciences are also available. We are currently involved in utilizing the networked information resources for providing recent and most comprehensive access to e- journals, e-books and other e-reference resources to the faculty, student, staff, industries, and alumnus under intranet and internet environments.

Digital Library Services	Yes
Availability of Digital Library contents	Yes
No. Of Courses	1039 (NPTEL)
Number of e-books	10407
Availability of Exclusive Server	Yes
Availability of intranet/ internet	Yes
Availability of exclusive space /room	Yes
Number of users per day	180
Digital library is provided in the central library where students can access all kinds of e-contents.	Available packages of E-Journals: IEEE, Elsevier Science Direct, Springer Nature, ASCE, ASME, Emerald, Taylor Francis, J-Store, Available packages of E-Books: Taylor & Francis, Springer Nature, McGraw Hill
Institute library is open 08 hours a day for utilization. It is spacious, well ventilated, having power sockets, lights & fans and Wi-Fi connectivity. The digital library & reading rooms are located here. Library contains the main books stock, reference section, and Library office and photocopier room.	

Table 10.4.1a Summary of Books and Journals branch wise

S.No	Branch / Subject	Titles	Volumes	National Journals Print	International Journals Online
1	Civil Engineering	334	3442	7	4947 e-journals are Available through IEEE, Elsevier Science Direct, Springer Nature, ASCE, ASME, Emerald, Taylor Francis, J-Store, 10407 e-books are available through Taylor & Francis, Springer Nature, McGraw Hill
2	Computer Science & Engg.	1842	17516	6	
3	Electronics & Comm. Engg.	1216	11809	5	
4	Electrical Engineering.	808	8505	3	
6	Mechanical Engineering	1102	12278	6	
7	Chemical Engineering	216	2405	-	
8	Management	935	4719	4	
9	Science & Humanities	826	19797	8	

10	General/ Literature	937	2390	-	
	Total	8216	82861	39	

Table 10.4.1b Available packages of E-journals and E-books

E-Journals		
S. No.	Name of package	No. of Journals
1	IEEE (customised package)	56
2	Elsevier Science Direct Engineering Collection	296
3	Springer Nature Engineering (5 subject collection)	739
4	ASCE (Civil Engineering)	35
5	ASME (Mechanical Engineering)	31
6	EMERALD (Management Database)	212
7	Taylor Francis (Engineering & Allied Science)	578
8	J-Store (Complete Collection)	3000
	Total	4947
E-Books		
Sl.No.	Name of package	No. of Books
1	TAYLOR & FRANCIS	6000
2	Springer Nature	4248
3	Mcgraw-Hill	159
	Total	10407

B. **Accessibility to students.**

MIT is committed to providing equal access to library collections, services, and facilities for all library users. It is a priority for the MIT Library to select and acquire, whenever possible, resources and technologies that are accessible to all. Upon request, library staff of all group institutes used to assist with the retrieval of books and with the use of electronic and other bibliographic resources. Time needed for retrieval varies depending on staff availability. Printing & scanning are free service to obtain PDF scans of print journal articles owned by the MIT Library without retrieving or scanning the item individually.

MIT library now keep their students up-to-date on new acquisitions, upcoming workshops and classes, and changes in opening hours via social networking sites, such as Facebook and Twitter. Students who add their university library to their Facebook or Twitter receive these updates as part of their newsfeed. Libraries also make it easier for students who can’t come on campus to access librarians and their knowledge. Libraries do this in various ways, through online functionality like chat-to-a-librarian or Instant Messaging ask-a-question, online forums where they can ask library related questions, and through podcasts or vodcasts of classes or tips on researching, referencing and using library resources.

Library services	Yes
Carpet area of library (in msqm)	654 SQM
Reading space (in msqm)	325 SQM
Number of seats in reading space	180
Number of users (issue book)per day	110

Number of users (reading space) per day	100
Timings On working days On holidays	 9:00 am to 5:pm As on demand
Number of library staff	04
Number of library staff with degree in library	02
Management Computerization for search, indexing, issue/return records- Bar coding used	Yes
Bar-coding	Yes
Library additional services	Internet, Journals, Technical Magazine, Conference Proceedings, Newspaper, Photocopy, Printing & Scanning

MIT library helps its students in self-learning activities by providing facilities likes computers, internet and e-resources. The library has developed electronic resources access lecture in which there are 25 computers with high speed internet in MIT Electronic resource access center (MITERAC) and the purpose to establish this center is to provide e-resources facilities to the student & faculty members. Users may access, read or download the e-resources e.g. e-books, e-journals, e-magazine, e-newspaper etc. In addition to this, users may watch NPTEL video lectures of their interest here, which have been prepared by eminent professors of IITs & IISc.

MIT library is equipped with LED TV to watch channels of SWAYAM PRABHA in library. The SWAYAM PRABHA is a group of 32 DTH channels devoted to telecasting of high quality educational programmes on 24X7 basis using the GSAT 15 satellite. Every day, there are new content for at least (4) hours which would be repeated 5 more times in a day, allowing the students to choose the time of their convenience. The channels are uplinked from BISAG, Gandhinagar. The contents are provided by NPTEL, IITs, UGC, CEC, IGNOU, NCERT and NIOS.

One more important thing here is OPAC (Online Public Access Catalogue). It allows to the users to know about the library holding their account such as dues on his/her account, due date for returning material etc. The users may also access institutional repository. In this centre where they can found project report, old question papers, institute magazines/ journals, syllabus, and many more institute publications. In addition to above, users can access the NDL (National Digital Library of India) in ERAC, which is very useful for students, faculty members and researchers. Here, they can search e-books, article, audio lecture video lecture, question paper and many more materials. More than 7 lakhs e-books, 3 lakhs article, 95,000 thesis, 18,000 video lectures, 3300 question papers etc. are available in the NDL.

10.4.2 Internet (10)

Institute Marks : 10.00

Name of the Internet provider	City Broadband Pvt Ltd and BSNL
Available band width	49 Mbps (City Broadband) and 40 Mbps (BSNL)
WiFi availability	Outdoor and indoor both are covered
Internet access in labs, classrooms, library and offices of all Departments	Yes. All Labs , Classrooms, Library and Hostels are covered
Security arrangements	1-Sophos XG-230 firewall installed with IPS,Content filter,Gateway Antivirus and Application Control Services. 2- Separate VLANs are configured for Hostels , Labs, Office network and Wi-Fi Zone

Annexure1

(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

1. **Engineering Knowledge :** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
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.
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.
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.
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.
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.
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.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
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.
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.
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.

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

PSO1	Comprehend the core subjects of CSE and apply them to resolve domain specific tribulations.
PSO2	Extrapolate the fundamental concepts in engineering and to apply latest technology with programming language skills to develop, test, implement and maintain software products.

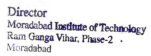
Declaration

The head of the institution needs to make a declaration as per the format given -

- 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 inforce as on date and the institutes hall 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 willbe initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

Head of the Institute
Name : Dr. Rohit Garg
Designation : Director
Signature :

Seal of The Institution :



Place : Moradabad
Date : 27-09-2020 19:02:03