



**NARAYANA ENGINEERING COLLEGE::NELLORE**



**AUTONOMOUS**

## **M.Tech Regulations-NECR M.Tech 20**

**(w.e.f 2020-21 Academic Year)**



**NARAYANA**  
**ENGINEERING COLLEGE**  
(AUTONOMOUS)

# 1. PREAMBLE

## 1.1. VISION, MISSION, QUALITY POLICY AND OBJECTIVES

### VISION

- To be one of the nation's premier Institutions for Technical and Management Education and a key contributor for Technological and Socio-economic Development of the Nation.

### MISSION

- To produce technically competent Engineers and Managers by maintaining high academic standards, world class infrastructure and core instructions.
- To enhance innovative skills and multi disciplinary approach of students through well experienced faculty and industry interactions.
- To inculcate global perspective and attitude of students to face real world challenges by developing leadership qualities, lifelong learning abilities and ethical values.

### Quality Policy

We at Narayana Engineering College, Nellore aspire to establish a system of Quality Assurance, which would contribute to the growth of technical education, upholding the highest ethical and professional standards and develop the Institute as a Centre of Excellence

### Objectives

- a. Providing world class education in Engineering, Technology, Applied Sciences and Management studies.
- b. Keeping pace with the ever changing technological scenario and help the students to gain proper direction to emerge as competent professionals, fully aware of their commitment to the society and the nation.

- c. To inculcate a flair for Research, Development and Entrepreneurship.

## 1.2. SHORT TITLE AND COMMENCEMENT

- i. The regulations listed under this Section are common for all Engineering Post Graduate Programs offered by Narayana Engineering College (NEC), Nellore, Autonomous with effect from the academic year 2020-21 and they are called Narayana Engineering College M.Tech Regulations, 2020 (NECR M.Tech 20).
- ii. The regulations here under are subject to amendments as may be made by the Academic Council (AC) of the college from time to time, keeping the recommendations of the Board of Studies (BOS) in view. Any or all such amendments shall be effective from such date and to such batches of students including those already undergoing the programme, as may be decided by the AC.

## 1.3. PRELIMINARY DEFINITIONS AND NOMENCLATURES

**Autonomous Institute:** Means an institute designated as Autonomous by University Grants Commission (UGC), New Delhi in concurrence with affiliating University (Jawaharlal Nehru Technological University, Ananthapuramu) and State Government.

**Academic Autonomy:** Autonomy granted by the University Grants Commission (UGC) and Jawaharlal Nehru Technological University Anantapuramu (JNTUA), to Narayana Engineering College, Nellore in all aspects of conducting its academic programmes for promoting excellence.

**Academic Programme:** Academic Programme means any combination of courses and/or requirements leading to award of a degree.

**Academic Council:** The Academic Council is the highest academic body of the institute and is responsible for the maintenance of standards of

instruction, education and examination within the institute. Academic Council is an authority as per UGC regulations and it has the right to take decisions on all academic matters.

**Academic Year:** Two consecutive (one odd + one even) semesters constitute one academic year.

**Backlog Course:** A course is considered to be a backlog course if the student has not cleared and due to which obtained a failure grade (F) in that course.

**Board of Studies (BOS):** BOS is an authority as defined in UGC regulations, constituted by Head of the Organization for each of the departments separately. They are responsible for curriculum design and updation in respect of all the programmes offered by a department.

**Choice Based Credit System (CBCS)** - Providing choice for students to select courses from the prescribed course categories (core, elective, skill courses) in the preferred semester complying prerequisites and based on their learning aptitudes.

**College:** Narayana Engineering College, Nellore (NEC) Autonomous.

**Commission:** University Grants Commission (UGC).

**Compulsory course:** Course required to be undertaken for the award of the degree as per the programme.

**Continuous Internal Evaluation (CIE):** Means evaluation of students' achievement in the learning process. CIE shall be done by the Course Instructor and includes tests, assignments, problem solving, group discussion, quiz, mini-project and seminar throughout the Semester, with weightage for the different components being fixed at the institute level.

**Core:** The courses that are essential constituents of each engineering discipline are categorized as professional core/programme core courses for that discipline.

**Council:** All India Council for Technical Education (AICTE)

**Course:** A unit of teaching, which encompasses various topics, that typically lasts one semester, is led by one or more faculty and has a fixed set of registered students. It is either theory or practical identified by its course title and code number.

**Course Outcomes:** The essential skills that need to be acquired by every student through a course.

**Credit:** A unit by which the course work is measured. A credit is a unit that gives weight to the value, level or time requirements of an academic course. The number of 'Contact Hours' in a week of a particular course determines its credit value.

**Credit point:** It is the product of grade point and number of credits for a course.

**Cumulative Grade Point Average (CGPA):** It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.

**Curriculum:** Curriculum incorporates the planned interaction of students with instructional content, materials, resources, and processes for evaluating the attainment of Programme Educational Objectives

**Department:** An academic entity that conducts relevant curricular and co-curricular activities, involving both teaching and non-teaching staff, and other resources in the process of study for a degree.

**Department Academic Committee (DAC):** The Department Academic Committee consists of HOD and four senior faculty members from the department to review the academic activities of the department.

**Evaluation:** Evaluation is the process of judging the academic performance of the student in her/his courses. It is done through a

combination of continuous internal assessment and semester end examinations.

**Grade:** It is an index of the performance of the students in a said course. Grades are indicated by alphabets.

**Grade Point:** It is a numerical weight allotted to each letter grade on a 10-point scale.

**Institute:** Means Narayana Engineering College, Nellore unless indicated otherwise by the context.

**Massive Open Online Courses (MOOC):** MOOC courses inculcate the habit of self- learning.

**Post Graduate Degree:** An academic degree conferred by the university upon those who complete the Post Graduate curriculum.

**Pre-requisite:** A specific course or subject, the knowledge of which is required to complete before student can register in another course at the next grade level.

**Programme:** Means, UG degree programme: Bachelor of Technology (B.Tech); PG degree programme: Master of Technology (M.Tech) / Master of Business Administration (MBA). / Master of Computer Applications (MCA).

**Programme Educational Objectives:** The broad career, professional and personal goals that every student will achieve through a strategic and sequential action plan.

**Regulations:** The regulations, common to all M.Tech programs offered by Institute, are designated as – Narayana Engineering College Nellore (NECN) M.Tech Regulations, 2020 (NECR M.Tech 20) and are binding on all the stakeholders.

**Regular Students:** Students enrolled into the four year programme in the first year.

**Semester:** It is a period of study consisting of 21 weeks of academic work equivalent to normally 90 working days. Odd semester commences usually in July and even semester in December of every year.

**Semester end examination (SEE):** Means examination conducted by the institute covering the entire Course Syllabus at the end of the semester.

**Semester Grade Point Average (SGPA):** It is a measure of performance of work done in a semester. It is ratio of total credit points secured by a student in various courses registered in a semester and the total course credits taken during that semester. It shall be expressed up to two decimal places

**University:** Means Jawaharlal Nehru Technological University, Ananthapuramu, (JNTUA) is an affiliating University.

#### **1.4 Choice Based Credit System:**

The Choice Based Credit System (CBCS) system is making the learning system “Student-Centric”. CBCS will allow students to choose inter-disciplinary, intra-disciplinary courses, skill oriented papers (even from other disciplines according to their learning needs, interests and aptitude) and provide more flexibility for students in learning.

CBCS enables a student to obtain a degree by accumulating the required number of credits prescribed for that degree. Under the CBCS, the requirement for awarding a degree is prescribed in terms of number of credits to be completed by the students. The number of credits earned by the student reflects the knowledge or skill acquired by him / her. Each course is assigned with a fixed number of credits based on the contents to be learned. The student also has choice in selecting the courses offered by various other departments as electives. The grade points earned for each of the course reflects the student’s proficiency in that course.

The credit based semester system provides flexibility in designing curriculum and assigning credits based on the course content and hours of teaching. The choice based credit system provides a 'cafeteria' type approach in which the students can take courses of their choice, learn at their own pace, undergo additional courses and adopt an interdisciplinary approach to learning. Choice Based Credit System (CBCS) is a flexible system of learning and provides choice for students to select from the prescribed elective courses.

Under the CBCS, the requirement for awarding a degree is prescribed in terms of number of credits to be completed by the students.

The CBCS permits students to:

1. Choose electives from a wide range of elective courses offered by the departments.
2. Undergo additional courses of interest.
3. Adopt an interdisciplinary approach in learning.
4. Make the best use of expertise of the available faculty.
5. Not only bridges the gap between professional and social exposure but provides holistic education.



## 2. ADMISSIONS

### 2.1. B.TECH FOUR YEARS PROGRAMME (REGULAR)

Students seeking admission to the first semester of M.Tech Programme should have passed the B.Tech. from any recognized University in appropriate branch of Engineering or any other examination recognized by Andhra Pradesh State Council for Higher Education (APSCHE), as equivalent thereto.

Admissions shall be made either on the basis of merit rank obtained by the qualified candidates at an Entrance Test conducted by the University or on the basis of GATE/PGECET score, subject to reservations prescribed by the University or Government policies from time to time.

The total seats available as per the approved intake are grouped into two categories i.e. category A and Category B with a ratio of 70: 30 as per the state government guidelines vide G.O No.52.

The admissions for category A and B seats shall be as per the guidelines of Andhra Pradesh State Council for Higher Education (APSCHE) in consonance with government reservation policy.

**Under Category A:** 70% of the seats are filled through GATE/PGECET counseling.

**Under Category B:** 30% seats are filled based on B.Tech merits in compliance with guidelines of APSCHE.

The course duration for the award of the Degree in Master of Technology will be two academic years, with two semesters in each year. However if a student is unable to complete the course within 2 years, he/she can do so by giving more attempts but within 4 consecutive academic years from the date of admission.

### 3. ACADEMIC AFFAIRS

#### 3.1 ACADEMIC PROGRAMMES

Following are the two year Post Graduate Degree Programs of study offered in various specializations in NEC leading to the award of M.Tech (Master of Technology) Degree:

S. No	Name of the Programme	Program Code
1	Computer Science and Engineering	01
2	Electrical Power Systems	02
3	VLSI Design	03

#### 3.2 CATEGORIZATION OF COURSES

Each programme shall have a curriculum comprising of Theory, Theory-cum-Practical and Practical courses with well-defined Program Outcomes and Programme Educational Objectives (PEO) as per Outcome Based Education (OBE) framework. The content of each course is designed based on the Course Outcomes (CO). The courses of a programme are categorized as follows:

The course group/category along with their broad classification, weightage of credits and description are listed in Table below.

S. No	Course Area	Range of Credits
1	Humanities & Social Sciences: Research Methodology IPR, Audit courses (Non-Credit Courses) etc	2
2	Professional Courses(PC): Core courses relevant to	18

	the specialization of study	
3	Professional Elective(PE) courses: relevant to chosen specialization	15
4	Open Elective (OE) Courses – Electives from other disciplines	3
5	Employability Enhancement Courses(EEC): Project work /Mini Project/ Value added and Certificate courses etc.	30
	Total	68

**Professional Electives (PE):** courses include elective courses offered by the department, dealing with various aspects of application or new development or both related to the chosen branch of study.

**Open Electives (OE):** Courses include the courses offered across all disciplines. Any student is permitted to register for these courses. There will be a pool of open elective courses offered by different departments for the students to choose from. The number of open electives in a curriculum shall be one, which shall be offered during the III semesters.

**Employability Enhancement Courses (EEC)** include Mini project, Project Work, and value added/certificate courses.

### 3.3 COURSE CODING AND COURSE NUMBERING

The Course Code consists of Seven digits/Alphabets. Description as Follows.

2	0	E	P	2	0	1
1. Year of beginning/ Approval of regulations Sequence		2. Discipline of Course		3. Course	4. Course	5. Course
				Category	Type	Number

1. Year of beginning/ Approval of regulations  
Sequence

Number

- The first two letters represent Year of beginning/ Approval of Regulations.

**Ex.** A course with code starting with 20 represents a course belonging to 2020 Regulations.

- Third and Fourth Letters Indicates M.Tech with Specialization of Course.

Acronym	Name of the Discipline
EP	Electrical Power Systems
VL	VLSI
CS	Computer Science and Engineering

## 3. Fifth Character Indicates Semester Number.

Fifth Character	Description
1	First Semester
2	Second Semester
3	Third Semester
4	Fourth Semester

## 4. Sixth letter Indicates Course Type.

Sixth Character	Description
0	Theory Course
5	Laboratory / Practical Course

## 5. Seventh Letter Indicates Course Sequence Number.

**For Example:20EP203** is Course offered in 2020 Regulations(**20**) in the M.Tech with Specialization of Electrical Power Systems (**EPS**), Offered in the Fourth Semester(**2**), The Course is of Theory type (0) and the course sequence number is **3**.

### 3.4 CREDIT STRUCTURE

The curriculum shall comprise Core Courses, Elective Courses, Open Electives, Laboratory Courses, Mini Project, and Major Project. The list of elective courses may include subjects from allied specializations also.

Each course offered is given a L-T-P structure, depending on the number of lecture periods (L), number of tutorial periods (T) and number of periods for practical (P) required per week for an efficient teaching – learning process. A student is expected to put- in his/her own efforts in proportion with periods spent in classroom, as defined in L-T-P structure. On successful completion of the course a student is said to have earned a specified number of credits defined for each course.

The curriculum for a semester shall normally have a blend of 4 to 6 theory courses and 1 to 2 laboratory courses. In addition, Employability Enhancement Courses (EEC) may also be included.

All Courses are to be registered by a student in a Semester to earn Credits. Credits shall be assigned to each Course in an L : T: P : C (Lecture Hours: Tutorial Hours: Practical Hours: Credits) Structure. 'Credit' means quantified and recognized learning. Credit is measured in terms of contact hours per week in a semester. Depending on the complexity and volume of the course, the number of contact hours per week will be assigned. Each Theory and Laboratory course carries credits based on the number of hours / week as follows:

- Theory Courses: One Lecture Hour (L) per week in a semester: 01 Credit
- Tutorial: One Tutorial Hour (T) per week in a semester: 01 Credit
- Practical Courses: One Practical Hour (P) per week in a semester: 0.5 Credit
- Audit Courses: No CREDIT is awarded.

The total number of credits that a student earns during the period of study is called the total credits. For the successful completion of the M.Tech. Programme, a regular student must earn 68 credits (varies with the programme) in a minimum of four Semesters.

### 3.5 DURATION OF THE PROGRAMME

#### **M.Tech Two Years Programme:**

The course duration for the award of the Degree in **Master of Technology** will be two academic years, with two semesters in each year. However if a student is unable to complete the course within 2 years, he/ she can do so by giving more attempts but within 4 consecutive academic years from the date of admission.

### 3.6 MINIMUM INSTRUCTION DAYS

An academic year consists of two semesters. The minimum instruction days excluding exams for each semester shall be 90 days.

### 3.7 MEDIUM OF INSTRUCTION

The medium of instruction shall be **English** for all the courses including their content delivery, examinations, seminars, presentations and project evaluation as prescribed in the programme curriculum.

### 3.8 SEMESTER STRUCTURE

Each academic year is divided into two semesters – **Odd Semester** (usually from July to December) and **Even Semester** (usually from January to June). Each semester shall be of 21 weeks duration and this period includes time for registration of courses, coursework, examination preparation and conduct of examinations.

The schedule of academics and events in a semester is regulated by the Academic Calendar, and released at the beginning of each academic year. The Academic Calendar will be announced at least one calendar month before the commencement of each academic year. It is mandatory for students and faculty to strictly adhere to the academic calendar for completion of academic activities. The compliances of the Academic Calendar are monitored by Internal Quality Assurance Cell(IQAC).

### 3.9 ACADEMIC CALENDAR

The academic activities of the institute are regulated by Academic calendar and is made available to the students, faculty and all other concerned in electronic form or hand copy. It shall be mandatory for students and faculty to strictly adhere to the academic calendar for completion of academic activities. The copy of the academic calendar is also to be uploaded on the institute website.

The academic activities of the college are governed by academic calendar prepared by IQAC along with Dean academics, HODs. After the approval of Head of the Institution, It shall be notified at the beginning of the semester of each academic year. Academic calendar shall

incorporate course registration, course delivery, examination, course feedback, course/graduate exit survey, co-curricular activities, extra-curricular activities, holidays.

The curriculum shall be typically delivered in two semesters in an academic year. Each semester shall be of 21 weeks duration (min 90 days). Generally, 14- 16 weeks for course content delivery and 4-6 weeks for examination shall be assigned in each semester.

The academic calendar should be strictly adhered to, and all other activities including co-curricular and extra-curricular activities should be scheduled so as not to interfere with the curricular activities as stipulated in the academic calendar.

### ACADEMIC CALENDAR

First Semester (21 weeks)	I Spell of Instructions	8 weeks	19 weeks
	I Mid Term Examinations	1 week	
	II Spell of Instructions	8 weeks	
	II Mid Term Examinations	1 week	
	Preparation and Practical Examinations	1 week	
	Semester End Examinations		2 weeks
Semester Break and Supplementary Examinations			6 weeks
Second Semester (21 weeks)	I Spell of Instructions	8 weeks	19 weeks
	I Mid Term Examinations	1 week	
	II Spell of Instructions	8 weeks	
	II Mid Term Examinations	1 week	
	Preparation and Practical Examinations	1 week	
	Semester End Examinations		2 weeks
Summer Vacation and Supplementary Examinations			8 weeks



## 4. COURSE REGISTRATION

Each student has to compulsorily register for course work at the beginning of each semester as per the schedule mentioned in the Academic Calendar. Each student, on admission shall be assigned to a Faculty Mentor who shall advice and counsel the student about the details of the academic programme and the choice of courses considering the student's academic background and career objectives. With the advice and consent of the Faculty Advisor/Mentor, the student shall register for a set of courses he/she plans to take up for the Semester.

It is absolutely compulsory for the student to register for courses in time. The registration will be organized departmentally under the supervision of the Head of the Department.

Each student on admission shall register for all the courses prescribed in the curriculum in the student's first and second Semesters of study. Except for the first semester of the first year, the enrolment for the courses shall commence 10 days prior to the last instructional day of the preceding semester for registration process. For first semester of First year, the course registration shall commence after completing the admission process. If the student wishes, the student may change courses 10 days prior to commencement of the concerned semester and complete the registration process duly authorized by the Head of the Department.

- IN ABSENTIA registration will not be permitted under any circumstance. A student who does not register on the day announced for the purpose can register within next 10 working days on payment of late fee as prescribed by the Institute. Normally no late registration shall be permitted after the tenth working day from the scheduled date, except in special cases like a serious medical problem, a family calamity or participation in a

national event, if approved by the Head of the Institution on recommendation of HOD and Faculty advisor/Mentor.

- After registering for a course, a student shall attend the classes, satisfy the attendance requirements, earn Continuous Internal Evaluation marks and appear for the Semester End Examinations.
- A student will be eligible for enrolment only if he / she has cleared all the dues to the Institute, Tuition fee, Hostel fee etc till the end of the previous session, provided he/she is not debarred for enrolment by disciplinary action committee of the Institute.
- If a student fails to pay the fees dues, his/her result for the semester will remain withheld and he/she will not be in a position of registering for the next semester, unless specifically approved by the competent authority.
- No Elective course shall be offered by a Department unless a minimum of 20 students register for that course. However Head of the Institution shall approve for a lesser amount of registration list in case of specific requirements like placement opportunities, higher studies etc as a special case.
- The registration sheet contains the course number, course name, number of credits and category for each course taken in that session. The student makes the choice of courses subjected to having fulfilled the 'prerequisite' conditions in consultation with Faculty Advisor/Mentor.
- The students have to choose open elective/professional elective from the list of open/professional electives as prescribed in the course structure of the programme. Core courses can be chosen by the students of the respective disciplines only.
- If a student is prevented from writing Semester End Examination (SEE) of a course due to lack of attendance, the student has to register for that course again, when offered next, attend the classes and fulfill the attendance requirements

- The registration for any course shall be on first come first served basis, provided the student fulfils prerequisites for that course if any.

Course options exercised through registration are final and cannot be changed or inter- changed; however, if the course that has already been listed for registration by the HOD in a semester could not be offered due to any unforeseen or unexpected reasons, then the student shall be allowed to have alternate choice either for a new course (subject to offering of such a course), or for another existing course (subject to availability of seats). Such alternate arrangements will be made by the HOD, with due notification and time schedule, within the first week after the commencement of class work for a given semester.

## **5. FACULTY ADVISOR / MENTOR**

To help the students in planning their courses of study and for general advice on the academic programme, the Head of the Department of the student will attach a certain number of students to a faculty member of the Department who shall function as Faculty Advisor/Mentor for those students throughout their period of study. Such Faculty Advisor/Mentor shall advise the students and monitor the courses taken by the students, check the attendance and progress of the students attached to him / her and counsel them periodically and provides professional counseling and psychological assistance for the student if necessary. Any student in the college has any issues related to academic performance, emotional disturbances, family issues, behavioral/habitual disorders, social isolation etc is helped by professional counseling by the Faculty Advisor/ Mentor. The Faculty Advisor/Mentor may also discuss with or inform the parents about the progress / performance of the students concerned. The Faculty advisor/Mentor counsels the student in a private confidential environment.

The responsibilities for the Faculty Advisor/Mentor shall be:

- To act as the channels of communication across the HoD, the allotted students and Parents.
- To collect and maintain various statistical details of academic and other activities of the students
- To monitor the academic performance of the students including attendance and to inform to the parents.
- To attend to the students' welfare activities like awards, medals, scholarships and industrial visits.
- To attend to the students' grievance and redressal requirements and help them.
- To conduct Professional Counseling which help the students to vent, share and express their emotional outburst and suppressed feelings in a confidential environment.
- To help the student to overcome their emotional and psychological difficulties and become self-motivated, self-confident and self-reliant.

## 6. ATTENDANCE REQUIREMENTS

Ideally every student is expected to attend all classes of all the courses and earn 100% attendance in each and every course.

- A student shall maintain not less than 75% (rounded off to the nearest higher integer) of attendance in each course of that semester and put in a minimum average attendance of 75% (rounded off to the nearest higher integer) in aggregate of all the Courses of that semester.
- Attendance for Audit courses (Non-Credit Courses) shall be considered for calculation of aggregate attendance of that semester.

- A student shall not be promoted to the next semester and shall not be allowed to appear for the Semester End Examinations (SEE) if he/ she fails to put in a minimum average attendance of 75% in aggregate of all the courses of that semester.
- Condonation in shortage of attendance may be recommend by College Academic Committee (CAC) on the specific recommendation of the HOD and the student may be allowed to write the SEE if the student secures an overall average attendance between 65% and 74% (rounded off to the nearest higher integer) under the following conditions provided the principal is satisfied with the genuineness of the reasons.
  - Medical Reasons (Hospitalization/accident/specific illness). Medical certificate, case file and discharge summary are to be submitted as proof of evidence for the reason claimed.
  - Participation in College/University/State/National/International level sports and games, co-curricular and extra-curricular activities with prior approval.
  - Application for medical leave, supported by medical certificate from a registered medical officer, shall reach the HoD with recommendations from Faculty Advisor/Mentor, within five instructional days after returning from leave. Certificates submitted afterwards shall not be entertained on any count. Application for Medical Leave will be considered only in cases where the student is not in a position to attend any of the classes during the period mentioned in the Medical Certificate. This concession can be availed only for any two semesters during the entire course of the study.
  - In case of participation in co-curricular and extra-curricular activities, either in the college or other colleges, students must take prior written permission from HoD concerned and should also submit the certificate of participation from the organizer of

the event within five days after the completion of the event for a maximum period of nine days.

- A student availing Condonation shall pay the stipulated fee as prescribed by the college.
- A student suspended on disciplinary action for some period, that period will be treated as absent and attendance will not be considered for Condonation.
- Shortage of Attendance below 65% in aggregate shall in NO CASE be condoned.
- In case of the students having overall attendance less than 65% after Condonation shall be declared detained and has to repeat semester again. He / she shall not be allowed to write the SEE, shall be detained in that semester and his / her registration for that semester shall stand cancelled. He / she shall not be promoted to the next semester unless he / she satisfies the attendance requirements of the current semester. They may seek readmission for that semester when offered next.
- A detained student shall seek readmission and repeat the incomplete semester in the next academic year. Academic regulations applicable to the semester in which readmission is sought shall be applicable to the re-admitted student as per the norms of the institute.
- Every member of the faculty handling a class shall record attendance on all hours of instruction. The course faculty of the course is required to finalize the attendance on the last instructional day of the course in the semester.
- For readmitted students attendance shall be calculated from the date of commencement of semester as prescribed in the academic calendar.

- For new admissions / transferred students, attendance shall be considered from the date of admission of the student.
- Application for Condonation recommended by the Faculty Advisor/Mentor is to be submitted to the HoD on or before the last instructional day of the semester/or on a date indicated by the department. The application for Condonation should be accompanied by the copies of proofs of certificates of leave (obtained within the stipulated time and submitted to HOD).
- The students shall be informed about their attendance position periodically by the college so that the students can strive to makeup the shortage. However, non-receipt of such information from the college will not be considered as valid reason for exemption from the attendance requirements.

## 7. ASSESSMENT AND EVALUATION

The academic performance of a student in each semester shall be evaluated course wise using two Assessment tools.

1. **Continuous Internal Evaluation (CIE)** : The performance of the student in each course is evaluated by the faculty all through the semester; with midterm examinations, assignment test, project reviews, viva-voce, laboratory assessment and other means covering the entire syllabus of the course.
2. **Semester End Examination (SEE)**: It shall be conducted by Controller of Examinations at the end of each semester, as per the academic calendar and with a written examination for theory courses and practical/project examination for laboratory/project. The division of marks and the assessment procedure for different types of courses offered during the period of study is as given below.

## 7.1 THEORY COURSES

The syllabus for theory courses shall be divided into Six Modules and each Module is given equal weightage in terms of distribution of marks. Each course shall be evaluated for a maximum of 100 marks. The distribution of marks shall be 40 marks for Continuous Internal Evaluation (CIE) and 60 marks for Semester End Evaluation(SEE).

### 7.1.1 Continuous Internal Evaluation (CIE):

For theory subjects, during the semester there shall be 2 midterm examinations. Each midterm examination consists of subjective test. The subjective test is for 40 marks, with duration of 2 hours. The Mid-Term Examination question paper shall be set with Five questions out of which four are to be answered. All questions carry equal marks.

First midterm examination shall be conducted for I, II and III modules of the syllabus with one either or type question from each module. The second midterm examination shall be conducted for IV, V and VI modules with one either or type question from each module.

Final midterm examination marks shall be arrived at by considering the marks secured by the student in both the mid examinations with 70% weightage given to the better mid exam and 30% to the other.

### 7.1.2 Semester end Evaluation (SEE)

The Semester End Examination shall be conducted for 60 Marks for a duration of 3 Hrs. The question paper shall consist of 6 questions of 10 marks each and all the questions shall be compulsory. All the questions shall be either/or type (internal choice) covering one module of syllabus for each question.

## 7.2 LABORATORY COURSES

Laboratory courses shall be evaluated for a maximum of 100 marks. There shall be a **Continuous Internal Evaluation (CIE) for 40 marks and 60 marks for Semester End Evaluation (SEE).**



### 7.2.1 Continuous Internal Evaluation (CIE)

There shall be a Continuous Internal Evaluation of the laboratory work on day to day basis. Day-to-day work in the laboratory shall be evaluated for 40 marks by the concerned laboratory teacher based on the regularity/record/viva/internal test/lab seminar. The distribution of 40 marks allotted for CIE is as given in Table below.

Criterion	Marks
Day to Day work	20
Record	5
Internal Test/Lab Seminar	10
Viva Voce	5
Total	40

Either an Internal Test or Lab Seminar shall be conducted for 10 marks. In case of Internal Test, the test shall have questions framed from the experiments conducted in that lab and shall be conducted at the end of the semester. In case of seminar, a lab seminar on technical topic covering lab syllabus may be conducted as per the schedule provided by the concerned faculty / HoD.

Any student who shall remain absent for any of the CIE, for any reason what so ever, shall be deemed to have secured 'zero' marks in the examination and no makeup examination shall be conducted.

### 7.2.2 Semester end examination (SEE)

The Semester End Examination shall be conducted for 60 Marks for a duration of 3 Hrs. The questions shall be framed from the experiments conducted in that lab.

Each SEE for laboratory shall be conducted by the concerned laboratory faculty as Internal Examiner and a senior expert in the subject from the same / other department/industry as External Examiner appointed by

the Chief Controller of Examinations. The evaluation shall be done as per the evaluation format given below:

Item	Marks
Aim / Apparatus / Procedure / Formula	20
Circuit/Execution	20
Result	10
Viva Voce	10

A student is declared to have passed in a Theory / laboratory course if he / she secures not less than 45% marks in SEE and 50% of marks on the whole (including CIE & SEE).

Laboratory marks and the sessional marks awarded by the department are not final. They are subject to scrutiny and scaling by the institute wherever it felt desirable. In such cases, the sessional and laboratory marks awarded by the department shall be referred to a committee formed by the Chief Controller of Examinations. The Committee shall arrive at a scaling factor and the marks shall be scaled as per the scaling factor. There commendations of the Committee are final and binding.

The laboratory records and internal test papers/lab seminar report shall be preserved for two years after the final examinations of that semester in the respective departments as per the norms of the Institute and shall be produced to the Committees as and when they ask for.

### **7.3VALUE ADDED COURSES (VAC)/CERTIFICATE COURSES (CC)**

Value Added Courses (VAC)/Certificate Courses (CC) are designed as skill oriented courses (SC) and offered by each department for the benefit of the students, to prepare them to meet the challenges of the global work environment. Students can undertake the Value Added Courses/certificate courses for better career development and to acquire the knowledge in latest technologies.

The Value Added Courses/Certificate Courses aim to provide additional learner centric graded skill oriented training, with the primary objective of improving the employability skills of engineering students. The main objectives of the program are:

- To provide students in understanding of the expectations of industry.
- To improve employability skills of engineering students.
- To bridge the skill gaps and make students industry ready.
- To provide an opportunity to students to develop inter-disciplinary skills

The Students may undergo VAC/CC apart from the courses mentioned in the curriculum and the credits earned through these VAC/CC shall be prescribed in the curriculum for the award of the degree. Each VAC/CC is assigned one Credit. The credits earned through VAC/CC will be considered for CGPA calculation. The performance of the students in the VAC/CC is evaluated for 100 marks. A Student can opt for the VAC/CC offered by the various Departments from Semester III to VI. Certificate Courses (CC) pursued through MOOCs platform like SWAYAM-NPTEL online courses, Coursera online courses, BEC certification courses etc. also be considered. Head of the Department shall submit the list of such courses, duly approved by Department programming Committee (DPC) to the Controller of Examinations to administer the examination process. Value added courses/Certificate courses shall be offered by the Department with prior approval from the Head of the Institution. The details of the syllabus, time table and faculty may be sent to the Controller of Examinations after approval from the Head of the institution. A student may be permitted to take up VAC/CC from other departments with approval from both the Heads of the Departments. A separate Certificate will be issued on successful completion of the course by the Office of the Controller of

Examinations. The Head of the Department may identify a faculty member as coordinator for the course.

If a student chooses to take a VAC/CC offered by industries/Professional bodies/APSSDC or any other accredited bodies, the credits shall be awarded to the student upon producing the Course Completion Certificate from the agency/professional bodies.

A theory oriented VAC / CC shall be offered 1 hr / week and a practical oriented VAC / CC shall be offered 2 hrs / week as and when feasible in working hours or beyond the college hours and on holidays.

### **Assessment for Value Added Courses/Certificate Course:**

The VAC/CC shall carry 100 marks (40 CIE and 60 Final evaluation). Continuous assessment marks shall be awarded based on Quiz / Assignment / Test / Mini project / Case study / Simulation / Modeling / Assembly / Viva Voce etc. For Continuous assessment, Two Evaluations shall be conducted during the semester by the Department concerned. The continuous assessment scheme followed for each course will be decided by the expert /staff handling the course and will be approved by the DPC.

S. No	Assessment	Marks
1	Evaluation 1	15
2	Evaluation 2	20
3	Attendance	05
4	Final Evaluation	60
	Total Marks	100

A committee consisting of the Head of the Department, staff handling the course and coordinator shall decide the final evaluation process. A student is declared to have passed in Value Added Courses (VAC)/Certificate Courses (CC) if he / she secures 50% marks evaluation. Based on the type of VAC / CC, the committee has the choice / can fix

up the evaluation pattern apart from the above break up of marks mentioned.

For VAC / CC offered through MOOCs, the conversion of examination results into corresponding Grades shall be decided by the DPC. If the student fails to complete VAC/CC offered by any service provider through MOOCs in 3 attempts, the student has to register and complete the VAC/ CC through regular mode as and when offered by the college.

## 7.4 PROJECT

A student shall carry out the major project in two stages. He/she shall initiate the project work in III semester—**Project Stage – I** and continue it in the IV semester – **Project Stage - II**.

### 7.4.1 Evaluation of Project Stage - I

The objective of Project Stage-I is to enable the student to take up investigative study in his/her Specialization. The project work in stage – I generally includes survey and study of published literature on the selected topic, working out a preliminary approach, conducting preliminary analysis / design / simulation / modeling etc. and preparing a written report on the work done.

The project stage-I normally includes:

- Survey and Study of published literature of on the assigned topic.
- Working out a preliminary approach to the problem relating to the assigned topic.
- Conducting preliminary analysis/ modeling/simulation/ experiment/design/ feasibility.
- Preparing a report on the study conducted for presentation to the department.

There shall be a Project Review Committee (PRC) comprising of Head of the Department, respective supervisor/guide and one senior faculty

member from the department to review the progress of the Project phase -I. The student must submit status report by giving seminars in three different phases during the III Semester, if he/she get at least two satisfactory reports then he/she will be declared as pass in Project Phase-I. If he/she are declared as pass then grade awarded will be 'Y' otherwise 'N'.

#### **7.4.2 Evaluation of Project Stage - II**

The Project Stage – II in the IV semester shall be continuation / extension of Project Stage – I. The objective of Project Stage – II is to enable the student to extend investigative study in the project taken in Stage – I. The project work in stage – II generally includes in-depth study of the selected topic, finalization of approach, development of product / process, testing, results, conclusion etc. and preparation of final dissertation. The student is also expected to prepare a research paper related to his project for publication in journal or presentation in conference.

The Project Stage-II normally includes:

- Preparing an action plan for conducting the investigation including the team work.
- In depth study of the topic assigned.
- Review and finalization of the approach to the problem relating to the assigned topic. Final development of product/process, testing, results, conclusions and further direction.
- Preparing a paper for publication in Journal / Conference.
- Preparing a dissertation in the standard format for being evaluated by the department.

The duration of the project work is for two semesters. The candidate can submit Project thesis with the approval of PRC after 36 weeks from the date of registration at the earliest and one calendar year from the date of registration for the project work. Extension of time within the

total permissible limit for completing the program is to be obtained from the Head of the Institution.

The student must submit status report by giving seminars in three different phases in IV semester during the project work phase-II period. These seminar reports must be approved by the PRC before submission of the thesis/dissertation. Student has to get at least two satisfactory reports to submit the thesis/dissertation.

A candidate shall be allowed to submit the thesis/dissertation only after obtaining plagiarism report with less than 30% and passing in all the prescribed subjects (both theory and practical), and then take viva-voce examination of the project. The viva-voce examination may be conducted once in two months for all the candidates submitted during that period.

Three copies of the Thesis/Dissertation certified in the prescribed format by the supervisor & HOD shall be presented to the HOD. One copy is to be forwarded to the Controller of Examination and one copy to be sent to the examiner.

The department shall submit a panel of three experts for a maximum of five students at a time to the Controller of Examinations. However, the thesis/dissertation will be adjudicated by one examiner nominated by the Chief Controller of Examinations.

If the report of the examiner is favorable viva-voce examination shall be conducted by a board consisting of the Supervisor, Head of the Department and the examiner who adjudicated the thesis/dissertation. The board shall jointly report candidates work as:

Satisfactory                      Grade A

Not satisfactory                Grade B

If the report of the viva-voce is not satisfactory (Grade B) the candidate will retake the viva-voce examination after three months. If he fails to get a satisfactory report at the second viva-voce examination he will

not be eligible for the award of the degree unless the candidate is permitted to revise and resubmit the thesis.

## 7.5 AUDIT COURSE

All students have to study audit courses specified by the department / institution. All the students shall complete the audit course similar to other regular courses.

No credits will be given for the audit courses. Assessment shall be conducted and grading without credit shall be given in the grade sheet. These are non-credited courses that are required to be completed to fulfill the degree requirements. These courses will not be accounted for CGPA calculation. The number of hours allotted for each of these courses will be minimum 30 in a semester. Attendance for audit courses is compulsory and shall be considered while calculating the aggregate attendance.

The audit course shall carry 100 marks and shall be evaluated through Semester End Examination. A student is required to score minimum 50 marks out of 100 marks in each of the audit courses to pass. The details of audit courses shall be reflected in Grade card. Grade Ratings for audit courses are as follows:

Marks	Grade	
90 – 100	Very Good	VG
70 – 89	Good	G
50 – 69	Average	A
<50	Fail	F

The performance of the student in these courses will not be considered for the vertical progression. Provisional pass certificate of M.Tech will be issued only, when the student pass the audit courses.

A minimum of 2 mandatory courses selected from the following table shall be completed by the student in I and II semesters.



AC Code	Subject
AC1	English For Research Paper Writing
AC2	Sanskrit for Technical Knowledge
AC3	Disaster Management
AC4	Value Education
AC5	Constitution Of India
AC6	Pedagogical Studies
AC7	Stress Management By Yoga
AC8	Personality Development through Life and Enlightenment Skills

## 7.6 TEACHING ASSIGNMENTS

For Teaching Assignments there will be an internal evaluation of 100 marks. A candidate has to secure a minimum of 50% to be declared successful. Student has to teach 10 Hours in his/ her interesting subject/subjects in the entire III Semester instruction period for his juniors at PG level or Under Graduate students who are available on the campus. For each teaching hour maximum of 10 marks are allotted. The assessment will be made by the faculty allotted by the HOD.

## 7.7 MOOCs

Meeting with the global requirements, to inculcate the habit of self-learning and in compliance with UGC guidelines, MOOC (Massive Open Online Course) have been introduced.

Greater flexibility to choose variety of courses is provided through Massive Open Online Courses (MOOCs) during the period of study. Students are permitted to register for one MOOCs course from I semester to II Semester from Professional Electives. However, the Departmental program Committee (DPC) has to approve the courses under MOOCs.

Students can register and complete the opted course in approved MOOCs platform on or before the last instruction day of I/II semester. They have to submit the pass certificate before the last instruction day of that concerned semester.

Students who have qualified in the examination conducted by the MOOCs are exempted from appearing in the continuous and semester end evaluations conducted by the institution. In case, a student fails to complete the MOOCs course offered by MOOC's providers, he/she may be allowed to register again for the same with any of the providers from the list provided by the department or the student may be allowed to register for the course as and when offered by the college.

The respective departments shall give a list of standard MOOCs providers among edx, Udacity, Coursera, NPTEL or any other standard providers, whose credentials are endorsed by the HoD.

Each department shall appoint Coordinators/Mentors and allot the students to them who shall be responsible to guide students in selecting online courses and provide guidance for the registration, progress and completion of the same. The Committee constituted by the Principal will decide the grade conversion of MOOCs Certification.

## 7.8 TESTS AND EXAMS

### 7.8.1.Semester end examination

Semester End Examination means the examination to be held at the end of each semester separately for theory and practical courses on such dates as mentioned in the Academic Calendar.

### 7.8.2. Supplementary examination

In addition to the regular semester-end examinations conducted, the College may also schedule and conduct supplementary examinations for all the courses of other semesters when feasible for the benefit of students. Such of the candidates writing supplementary examinations may have to write more than one examination per day.

## 7.9 EVALUATION PROCEDURE

Following procedure governs the evaluation.

Marks for components evaluated internally by the faculty shall be submitted to the Controller of Examinations through Head of the department one week before the commencement of the Semester-end examinations. The marks for the internal evaluation components shall be added to the external evaluation marks secured in the Semester-end examinations, to arrive at the total marks for any course in that semester.

Performance in all the courses is tabulated course-wise and shall be scrutinized by the Results Committee and moderation is applied if needed and course-wise marks are finalized. Total marks obtained in each course are converted into letter grades.

Student-wise tabulation shall be done and individual grade Sheet shall be generated and issued to the student.

### 7.9.1. Recounting

Students shall be permitted for request for recounting of the Semester-end examination answer scripts within a stipulated period after payment of prescribed fee. After recounting, records are updated with changes if any and the student shall be issued a revised grade sheet. If there are no changes, the student shall be intimated the same through a notice.

### 7.9.2. Retention of answer scripts

The answer scripts shall be preserved for a period of Four years from the date of conduct of examination.

## 8. ACTIVITY POINT PROGRAMME (APP)

Apart from technical knowledge and skills, to be successful as professionals, students should have excellent soft skills, leadership qualities and team spirit. They should have entrepreneurial capabilities and societal commitment. In order to nurture these qualities, NEC has introduced activity points to be earned by the students during their academic stay at the college covering extra-curricular and co-curricular activities. To match these multifarious requirements, AICTE has created a unique mechanism of awarding minimum 60 Activity Points over and above the academic grades.

Every regular student, who is admitted to the M.Tech Degree programme, is required to earn 60 Activity Points in addition to the required academic grades, for getting 2 Years PG degree programme. The Activities can be spread over the years (during the programme), any time during the semester weekends and holidays, as per the interest and convenience of the student from the year of entry to the programme. However, minimum hours specified must be satisfied.

Professor in-charge of Centre for Extension Activities (CEA) is the Coordinator for conducting APP. These activities will be conducted by CEA/Sports /NSS/departments/hobby clubs/TPO of the Institute. The student has to register for APP in the beginning of the semester at CEA with registration fee. The student will be provided a certificate from the concerned coordinator and Institutional Head. Every student is required to prepare a file containing documentary proofs of activities, done by him/ her. This file will be duly verified by the concerned coordinator NSS/Sports /CEA/HOD/TPO and submit to the Professor in-charge of Centre for Extension Activities (CEA). CEA shall consolidate the activity points earned by students on a semester basis and enter the consolidated points on an academic year basis. Then he will send the consolidated report of activity points earned by the students to the controller of examination duly signed by the concerned HOD and Head of the Institution after verification. All documental proof for awarding

the activity points should be obtained and kept with the CEA to be verified by the Academic Audit team.

The student should earn at least 60 activity points before he/ she appears for his/ her Final Examinations. The points students earned will be reflected on the student's transcript. However, there will be neither grades/ marks for these points nor will there be any effect on SGPA/CGPA and shall not be considered for vertical progression.

Student has to earn 60 Activity Points out of 100 points offered during four years/eight semesters (Each semester 25 Activity points). In case students fail to earn the prescribed activity points, eighth semester grade card shall be issued only after earning the required activity points. Students shall be admitted for the award of degree only after release of the eighth semester grade card.

**The Main Activity Segments are as given below:**

1. CEA/NSS/National Initiatives
2. Sports & Games
3. Cultural Activities
4. Women's form activities
5. Hobby clubs Activities
6. Professional society Activities
7. Dept. Students Association Activities
8. Technical Club Activities
9. Innovation and Incubation Cell Activities
10. Professional Self Initiatives
11. Others

S No	Nature of Activity	Activity Points
<b>1. CEA/NSS/National Initiatives</b>		
1	Registration for CEA/NSS	3
2	Participation in Various Activities Conducted by CEA/ NSS (For each activity)(Activities mentioned below)*	3
3	Prize/Award at college level activity	5
4	Prize/Award at university level activity	10
5	Prize/Award at National level activity	20
<b>2. Sports &amp; Games</b>		
1	Participation in Various Activities Conducted by Sports & Games dept. at college level (For each activity)	3
2	Participation in Various Activities Conducted at university/District level (For each activity)	5
3	Participation in Various Activities Conducted at State level (For each activity)	7
4	Participation in Various Activities Conducted at National level (For each activity)	10
5	Prize/Award at college level activity	5
6	Prize/Award at university/district level activity	10
7	Prize/Award at National level activity	20
<b>3. Cultural Activities</b>		
1	Participation in cultural Activities Conducted at college/ Dept. level like Annual Day/Fresher's Day/ Dept. Day (For each activity)	5
2	Participation in cultural Activities Conducted at college level during Independence Day/Republic Day (For each activity)	6
3	Participation in cultural Activities Conducted at college/ Dept. level (Outside) during various events	7

	(For each activity)	
4	Prize/Award in cultural activity at college/Dept level	7
5	Prize/Award in cultural activity at college/Dept level (outside) during various events.	10
6	Prize/Award in cultural activity at University level during various events.	12
<b>4. Women's forum activities</b>		
1	Membership in women's forum	3
2	Participation in Various Activities Conducted by women's forum at college level (For each activity)	3
3	Participation in Various Activities conducted at university/District level (For each activity)	5
4	Participation in Various Activities conducted at state level/National level (For each activity)	7
5	Participation in Various Activities Conducted at Inter National level (For each activity)	10
6	Prize/Award at college level activity	5
7	Prize/Award at university/district/state level activity	10
8	Prize/Award at National /international level activity	20
<b>5. Hobby clubs Activities</b>		
1	Membership in Hobby Clubs	3
2	Participation in Various Activities Conducted by Hobby Clubs at college level (For each activity)	4
3	Participation in Various Activities Conducted at university/District level (For each activity)	5
4	Participation in Various Activities Conducted at State level (For each activity)	7
5	Participation in Various Activities Conducted at National level (For each activity)	10
6	Prize/Award at college level activity	5

7	Prize/Award at university/district state level activity	10
8	Prize/Award at National level activity	20
<b>6. Professional society Activities</b>		
1	Membership in Professional Societies	3
2	Participation in Competitions conducted by Professional Societies - (IEEE, CSI,IE etc.) at college level	4
3	Participation in Competitions conducted by Professional Societies - (IEEE, CSI,IE etc.) at college level (Outside)	5
4	Participation in Competitions conducted by Professional Societies - (IEEE, CSI,IE etc.) at University /National level	6
5	Prize/Award at college level activity	5
6	Prize/Award at university/district level activity	10
7	Prize/Award at National level activity	20
<b>7. Dept. Students Association Activities</b>		
1	Membership in Dept. Students Association	3
2	Participation in Competitions conducted by Dept. Students Association at college level	3
3	Participation in Competitions conducted by Dept. Students Association at college level (Outside)	5
4	Participation in Competitions conducted by Dept. Students Association at University / National level	6
5	Prize/Award at college level activity	5
6	Prize/Award at university/district level activity	10
7	Prize/Award at National level activity	20
<b>8. Technical Club Activities</b>		
1	Membership in Technical Club at college level	3
2	Participation in Competitions conducted by Technical Club at college level	3
3	Participation in Competitions conducted by	5



	Technical Club at college level (Outside)	
4	Participation in Competitions conducted by Technical Club at University/National level	6
5	Prize/Award at college level activity	5
6	Prize/Award at university/district level activity	10
7	Prize/Award at National level activity	20
<b>9. Innovation and Incubation Cell Activities</b>		
1	Membership in IIC	3
2	Participation in Competitions conducted by IIC at college level	4
3	Participation in Competitions conducted by IIC at college level (Outside)	5
4	Participation in Competitions conducted by IIC at University level	6
5	Prize/Award at college level activity	5
6	Prize/Award at university/district level activity	10
7	Prize/Award at National level activity	20
8	Patent-Filed/Published	20
9	Prototype developed and tested	20
10	Awards for Products developed	15
11	Innovative technologies developed and used by industries/users	20
12	Got venture capital funding for innovative ideas/products.	20
13	Societal innovations	20
<b>10. Professional Self Initiatives</b>		
1	Participation (Registration) in Tech Fest/NLTS/project exhibitions etc at the college level	3
2	Presentation in Tech Fest/NLTS/ project exhibitions etc at the college level	3

3	Prize/Award in Tech Fest/NLTS/ project exhibitions etc at the college level	5
4	Participation (Registration) in Tech Fest/NLTS etc at University/NIT/IIT level	5
5	Presentation in Tech Fest/NLTS etc at University/NIT/IIT level	5
6	Prize/Award in Tech Fest/NLTS etc at University/NIT/IIT level	10
7	student representatives at Department level	5
<b>11. Others</b>		
1	Member/participation in various cells and committees at college/department level	3
2	Industrial visits-Participation and submission of report	5

Following suggestive activities may be carried out by students in teams:

- Prepare, implement and plan to create local job opportunities.
- Prepare, implement and plan to improve education quality in village.
- Prepare an actionable DPR for doubling the village Income.
- Developing Sustainable Water Management system.
- Prepare and improve a plan to improve health parameters of villagers.
- Developing and implementing of Low Cost Sanitation facilities.
- Prepare and implement plan to promote Local Tourism through Innovative Approaches.
- Implement/Develop Technology solutions which will improve quality of life.
- Prepare and implement solution for energy conservation.
- Prepare and implement plan to Skill village youth and provide employment.
- Develop localized techniques for Reduction in construction Cost.
- Prepare and implement plan of sustainable growth of village.

- Setting of Information imparting club for women leading to contribution in social and economic issues.
- Developing and managing efficient garbage disposable system.
- Contribution to any national level initiative of Government of India. For eg. Digital India/ Skill India/ Swatch Bharat Internship.
- Street Plays for social, economic awareness of citizens (drugs, corruption, election awareness, cleanliness, etc.)
- Awareness of Various Govt. schemes for benefit of citizens
- Women empowerment
- Rain harvesting related activities & Tree Plantation

## 9. MINIMUM ACADEMIC REQUIREMENTS

In addition to the attendance requirements mentioned regulations for the award of M.Tech. Post Graduation Degree, a student must satisfy the minimum academic requirements as given below:

A student shall be deemed to have satisfied the minimum academic requirements and earn all the credits (68 Credits) for each theory or practical course in M.Tech. Programme.

**Theory courses:** A student is declared to have passed in a theory course if he / she secures not less than 45% marks in SEE and 50% of marks on the whole (including CIE & SEE).

**Laboratory courses:** A student is declared to have passed in a laboratory course if he / she secures not less than 45% marks in SEE and 50% of marks on the whole (including CIE & SEE).

**Value Added Courses (VAC)/Certificate Courses (CC):** A student is declared to have passed in Value Added Courses (VAC)/Certificate Courses (CC) if he / she secures 50% marks in Continuous evaluation.

**Project:** A student is declared to have passed in Project Stage – I if he / she get at least two satisfactory reports from 3 project reviews to be conducted during III Semester. A student is declared to have passed in

Project Stage – II if he / she get satisfactory report during final project viva-voce examination.

**Audit course:** A student is required to score minimum 50 marks out of 100 marks in each of the audit courses to pass.

**Activity Point Programme (APP):** Student has to earn 60 Activity Points out of 100 points offered during two years/four semesters (Each semester 25 Activity points).

A student shall be treated as failed, if he/she does not submit a report mini-project, project, or does not make a presentation of the same before the evaluation committee as per the schedule.

A student shall register for all the courses covering 68 credits as specified and listed in the course structure of the M.Tech. Programme, fulfills all the attendance and academic requirements for 68 credits, 'earn all 68 credits' to successfully complete the post graduate programme.

If a student fails to secure a pass grade in a particular course, it is mandatory that he shall register and reappear for the examination in that course during the next semester when SEE is conducted in that course. It is mandatory that he should continue to register and reappear for the examination till he secures a pass grade.

A student detained in a semester due to shortage of attendance, may be re-admitted into the same semester in the next academic year for fulfillment of the academic requirements.

Academic regulations applicable to the semester in which re-admission is sought shall be applicable to the re-admitted student. However, no grade allotments or SGPA/ CGPA calculations shall be done for the entire semester in which the student has been detained.

A student shall register and put up minimum academic requirement in all 68 credits and earn all 68 credits for the award of M.Tech. Post Graduation Degree.

Students who fail to earn at least 68 credits as indicated in the course structure within four academic years counting from the year of their admission shall forfeit their seat in M.Tech. programme and their admission stands cancelled.

## 10. GRADING

After each subject is evaluated for 100 marks, the marks obtained in each subject will be converted to a corresponding letter grade as given below, depending on the range in which the marks obtained by the student fall.

Range of Marks	Grade	Grade Point
$\geq 90$	S (Superior)	10
80-89	A (Excellent)	9
70-79	B (Very Good)	8
60-69	C (Good)	7
50-59	D (Average)	6
$< 50$	F (Fail)	0
Absent	Ab (Absent)	0

A student obtaining Grade F shall be considered failed and will be required to reappear for that subject when the next supplementary examination offered.

### **Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA):**

The Semester Grade Point Average (SGPA) is the ratio of sum of the product of the number of credits with the grade points scored by a

student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e.

$$SGPA = \sum_{i=1}^n (C_i \times G_i) / \sum_{i=1}^n C_i$$

Where,  $C_i$  is the number of credits of the  $i^{\text{th}}$  subject,  $G_i$  is the grade point scored by the student in the  $i^{\text{th}}$  course and  $n$  is the number of subjects.

The Cumulative Grade Point Average (CGPA) will be computed in the same manner taking into account all the courses undergone by a student over all the semesters of a program, i.e.

$$CGPA = \sum_{i=1}^n (C_i \times S_i) / \sum_{i=1}^n C_i$$

Where 'S<sub>i</sub>' is the SGPA of the  $i^{\text{th}}$  semester,  $C_i$  is the total number of credits in that semester and  $n$  is the number of semesters. Both SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts. While computing the SGPA the subjects in which the student is awarded Zero grade points will also be included.

**Grade Point:** It is a numerical weight allotted to each letter grade on a 10-point scale.

**Letter Grade:** It is an index of the performance of students in a said course. Grades are denoted by letters as mentioned in the above table.

## 11. AWARD OF DEGREE AND CLASS

A candidate shall be eligible for the award of respective degree if he/she fulfils the following academic regulations.

- i. Pursues a course of study for not less than two academic years and in not more than four academic years.
- ii. Registers for 68 credits and secures all 68 credits.
- iii. A candidate shall be eligible for the award of class if he/she satisfies the minimum academic requirements in every subject and secures 'satisfactory' grade report on his/her project thesis

viva-voce. Based on overall percentage of marks obtained, the following class is awarded.

Class Awarded	CGPA Secured
First class with Distinction	$\geq 8$
First class	$\geq 7$ and $< 8$
Second class	$\geq 5$ and $< 7$

## 12. WITH – HOLDING OF RESULTS

If the candidate has not paid dues to the College or if any case of in-discipline is pending against him, the result of the candidate shall be withheld and he will not be allowed / promoted into the next higher semester. The issue of degree is liable to be withheld in such cases.

## 13. TRANSITORY REGULATIONS

Candidates who have discontinued or have been detained for want of attendance or who have failed after having undergone the course in earlier regulations and wish to continue the course are eligible for admission into the unfinished semester from the date of commencement of class work with the same or equivalent subjects as and when subjects are offered, subject to the regulations mentioned, Whereas they continue to be in the academic regulations they were first admitted.

## 14. STANDING COMMITTEE

A Standing Committee is functional to take immediate policy decisions. This committee is constituted for the smooth functioning of the various autonomous programmes of the institute and shall consist of the following members:

Principal	Convener
Dean-Academics	Member
All HODs	Member(s)
Member Secretary, Academic Council	Member
Controller of Examinations	Member

In the event of any clarification in the interpretation of the above rules and regulations, they shall be referred to the Standing Committee. The Standing Committee meets on a need basis to make decisions regarding important / policy types of decision regarding an issue(s) arising and demanding immediate attention without for the next immediate Academic Council meeting. The Standing Committee will offer suitable interpretations/ clarifications/amendments required for the special case on such references. The committee will meet as and when necessary and send its recommendations to the Academic Council for consideration / ratification / approval. The term of the members is not fixed as the members by their designations are to be members of the Standing Committee.



## 15. RULES FOR DISCIPLINARY ACTION FOR MALPRACTICES/ IMPROPER CONDUCT IN EXAMINATIONS.

	Nature of Malpractices/Improper conduct	Punishment
	<i>If the candidate</i>	
1. (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination)	Expulsion from the examination hall and cancellation of the performance in that subject only.
(b)	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methODs or communicates through cell phones with any candidate or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the candidates involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
2.	Has copied in the examination	Expulsion from the examination

	hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject of the examination (theory or practical) in which the candidate is appearing.	hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that Semester/year. The Hall Ticket of the candidate is to be cancelled and sent to the University.
3.	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year.
4.	Smuggles in the Answer book or additional sheet or takes out or arranges to send out the question paper during the examination or answer book or additional sheet, during or after the examination.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University

		examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5.	Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
6.	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat.

7.	Impersonates any other candidate in connection with the examination.	The candidate who has impersonated shall be expelled from examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate, who has been impersonated, shall be cancelled in all the subjects of the examination (including practicals and project work) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the impostor is an outsider, he will be handed over to the police and a case is registered against him.
8.	Refuses to obey the orders of the Chief Superintendent/Assistant Superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the

	instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in-charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the College campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	remaining examinations of the subjects of that semester/year. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.
9.	If student of the college, who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Student of the colleges expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the

		<p>remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat.</p> <p>Person(s) who do not belong to the College will be handed over to police and, a police case will be registered against them.</p>
10.	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of the performance in that subject.
11.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester/year examinations.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the University for further action to award suitable punishment.	