

V. ACADEMIC REGULATIONS

Applicable for the students of M.Tech from the Academic Year 2020-21.

1. PG – M.Tech Programs

The following M.Tech Programs are offered at present

- i. Structural Engineering (SE)
- ii. Power Electronics and Electric Drives (PEED)
- iii. Machine Design (MD)
- iv. VLSI Design and Embedded Systems (VLSID & ES)
- v. Computer Science and Engineering (CSE)

2. Duration of the Program

The duration of the program is two academic years consisting of four semesters. However, a student is permitted to complete the course work of M.Tech program in the stipulated time frame of four academic years from the date of joining.

3. Minimum Instruction Days

Each semester consists of a minimum of ninety instruction days.

4. Program Credits

Each specialization of the M.Tech programs is designed to have a total of 70 credits and the student shall have to complete the two year course work and earn all the 70 credits for the award of M.Tech Degree.

5. Attendance Regulations

- 5.1 A student is eligible to write the semester end examinations if he acquires a minimum of 40% attendance in each subject and a 75% of attendance in aggregate of all the subjects.
- 5.2 Condoning of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester will be considered for genuine reasons such as medical grounds and participation in co-curricular and extra-curricular activities and shall be granted only after approval by the College Academic Committee. Student should submit application for medical leave along with medical certificate from a registered medical practitioner within three days from reporting to the class work after the expiry of the medical leave. 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 three days after the completion of the event. Only such cases will be considered for condoning attendance shortage.

- 5.3 A student shall be eligible to claim for condonation of attendance shortage only once during the two years (four semesters) course work.
- 5.4 A student will not be promoted to the next semester unless he satisfies the attendance requirement of the current semester. He may seek re-admission for that semester when offered next.
- 5.5 Shortage of Attendance below 65% in aggregate shall in *NO* case be condoned.
- 5.6 Students whose shortage of attendance is not condoned in any semester are not eligible to take their end examination of that semester and their registration shall stand cancelled.
- 5.7 A fee stipulated by the college shall be payable towards condoning attendance shortage.
- 5.8 A Student is required to put up a minimum of 75% attendance in the Mandatory Non-credit courses for getting the satisfactory grade.

6. Examinations and Scheme of Evaluation

6.1 Theory Courses :

Each theory course shall be evaluated for a total of 100 marks, consisting of 30 marks for internal assessment and 70 marks for semester end examination.

Internal Assessment:

- i) Of 30 marks for internal assessment, 10 marks are for continuous assessment in the form of two assignments and 20 marks are based on two mid-term examinations.
- ii) Each assignment carries 10 marks and the average of two assignments shall be taken as the marks for continuous assessment.
- iii) Each mid-term examination is conducted for 30 marks with one and half hour duration. Each mid-term examination consists of three questions, each for 10 marks. All the questions need to be answered.
- iv) Sum of the 80% marks of better scored mid-term examination and 20% marks of less scored mid-term examination are scaled down for 20 marks.
- v) For the project based theory course, the distribution of 30 marks for internal evaluation shall be 20 marks for theory, based on two mid-term examinations and 10 marks for project. Each mid-term examination is conducted for 30 marks with one and half hour duration. Each mid-term examination consists of two questions, each for 15 marks, with internal choice. All the questions need to be answered. Sum of the 80% marks of better scored mid-term examination and 20% marks of less scored mid-term examination are scaled down for 20 marks.

External Assessment:

- i) Semester End Examination will be conducted for 70 marks consisting of five internal choice questions i.e. “either” or choice, carrying 14 marks each. There will be two questions from each unit and the student should answer either of the two questions.
- ii) For the project based theory course, the pattern of semester end examination is same as the above. There will be no external assessment for project component.

6.2 Laboratory Courses :

- i) For practical subjects the distribution shall be 15 marks for Internal Evaluation and 35 marks for the End Examination. There shall be continuous evaluation by the internal subject teacher during the semester for 15 internal marks. Of the 15 marks for internal, 5 marks for day-to-day evaluation, 5 marks for Record and 5 marks shall be evaluated by conducting an internal laboratory test towards the end of semester.
- ii) The semester end examination shall be conducted for 35 marks by the teacher concerned and an external examiner appointed by the controller of examinations.

6.3 Mini Project with Seminar:

Mini Project with seminar shall be evaluated for a total of 50 Marks.

- i) Of 50 marks, 15 marks shall be awarded by the project supervisor based on student's involvement in carrying out the project and the remaining 35 marks are based on presentation and viva-voce before a committee consisting of supervisor, head of the department and a senior faculty of the department.
- ii) There will be no external assessment for mini project with seminar.

6.4 Audit Course (Mandatory Non-credit Course):

- i) A student is required to take up two Non-Credit course viz. Constitution of India, English for Research Paper writing, one in first semester and the other in second semester. Marks are awarded based on the day-to-day performance in the seminars organized under each course. A student is required to score 40 marks out of 100 marks despite putting up a minimum of 75% attendance to be declared satisfactory in each mandatory non-credit course. The M.Tech degree shall only be awarded if a student gets satisfactory grade in each of the two mandatory non-credit courses and besides acquiring 70 credits of the M.Tech degree course.
- ii) A student whose shortage of attendance is condoned in the case of credit courses in that semester shall also be eligible for condoning shortage of attendance up to 10% in the case of mandatory non-credit courses also.
- iii) A student has to repeat the course whenever it is offered, if he does not get satisfactory grade or not fulfilling the attendance requirements in each non-credit course for getting the degree awarded.

6.5 Massive Open Online Courses (MOOCs):

- i) Each student may register for Massive Open Online Course (MOOC) as per the course structure.
- ii) A student may register for MOOC offered by NPTEL, CISCO, MICROSOFT and SAYLOR or any other agency with a prior approval from the departmental committee.
- iii) The duration of the course shall be a minimum of 12 weeks.
- iv) The Head of the Department shall appoint one mentor for each course.
- v) The courses should be other than those offered under regular curriculum and are to be approved by the departmental committee consisting of the head of the department, mentor and one/two senior faculty members before the commencement of each semester.
- vi) During the course, the mentor monitors the students' assignment submissions given by the agency.
- vii) Students need to submit all the assignments given and need to take final exam at the proctor centre.
- viii) The required credits shall be awarded on submission of certificate from the approved agency.
- ix) In case if student does not qualify in the chosen subject, the same or an alternative equivalent subject may be registered again in the next semester with the recommendation of the HoD concerned and shall pass.

6.6 Project Work:

Every candidate shall be required to submit a dissertation on a topic approved by the Project Review Committee. A Project Review Committee (PRC) shall be constituted for each specialization with Head of the Department / a Senior Faculty as Chairman and two other senior faculty members.

Registration and Submission of Dissertation:

- i) A candidate who has been promoted to 3rd semester shall be eligible to register for the project work.
- ii) The eligible candidate can choose his project supervisor and submit the title, objective, abstract and plan of action of the proposed project work to the department for approval by the PRC. The candidate whose proposal is approved by the PRC shall register for the project work. The minimum duration of project work will be 36 weeks from the date of registration.
- iii) If a candidate wishes to change his supervisor or topic of the project, he can do so with the approval of the PRC. In case of such changes, the candidate has to register afresh.
- iv) There shall be three reviews on the progress of the project work by the PRC. First review shall be at the end of III semester as per the academic calendar. Second review and final reviews shall be at the middle and at the end of IV semester respectively. The candidate needs to submit a report on the progress

of his work and present it before the PRC for assessment in each review. The PRC may suggest for an extension of date of submission of dissertation if the progress of work is not satisfactory or absent himself for the review.

- v) A candidate who has passed all the courses of three semesters and shown satisfactory progress of project work is permitted to submit the dissertation after 36 weeks from the date of registration.
- vi) If a candidate fails to submit the dissertation by the end of the IV semester, he has to take the permission for an extension by paying the semester(s) tuition fee.
- vii) Three copies of the Project Thesis along with plagiarism check (Similarity index should be less than 50%) report certified by the supervisor and head of the department and application for submission of dissertation shall be submitted to the department.
- viii) Project evaluation and Viva-Voce examination is conducted at the end of IV semester by a committee consisting of Project Supervisor, senior faculty of the department, HoD and an External Examiner. The external examiner shall be nominated by the chief controller of examinations from the panel of examiners suggested by the department.

The following grades are awarded for the project work:

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|-----------------|-------------------|---------|
| 1. Excellent | 2. Very Good | 3. Good |
| 4. Satisfactory | 5. Unsatisfactory | |

The Grade “**Unsatisfactory**” is treated as Fail. Failed Students should take supplementary examination after making required modifications, if any, in the dissertation with a minimum gap of 8 weeks by paying the required examination fee.

7. Criteria for Passing a Course and Award of Grades:

7.1 Criteria for Passing a Course:

- i) A candidate shall be declared to have passed in individual theory / laboratory course, if he secures a minimum of 50% aggregate marks (internal & semester end examination marks put together), subject to securing a minimum of 40% marks in the semester end examination.
- ii) The candidate shall be declared to have passed in Mini project with seminar if he secures 50% marks.
- iii) The candidate shall be declared to have successfully completed the project work if he secures a minimum of ‘satisfactory’ grade in the project evaluation and viva-voce examination.
- iv) On passing a course of a program, the student shall earn assigned credits in that course.

7.2 Method of Awarding Letter Grade and Grade Points for a Course:

A letter grade and grade points will be awarded to a student in each course based on his performance, as per the grading system given below.

Theory /Elective /Laboratory /Seminar / Term Paper /Project Dissertation (%)	Grade Points	Letter Grade
≥ 90	10	O (Outstanding)
≥ 80 & < 90	9	A+ (Excellent)
≥ 70 & < 80	8	A (Very Good)
≥ 60 & < 70	7	B+ (Good)
≥ 50 & < 60	6	B (Above Average)
< 50	0	F (Fail)

7.3 Calculation of Semester Grade Point Average (SGPA)* for semester:

The performance of each student at the end of the each semester is indicated in terms of SGPA. The SGPA is calculated as given below:

$$\text{SGPA} = \frac{\sum (CR \times GP)}{\sum CR} \text{ for each semester.}$$

where CR = Credits of a course

GP = Grade Points awarded for a course

* SGPA is calculated for a candidate who passed all the courses in that semester.

7.4 Eligibility for Award of M.Tech Degree:

A student will be declared eligible for the award of the M. Tech. Degree if he fulfills the following academic regulations.

- Pursued a course of study for not less than two academic years and not more than four academic years.
- Registered for prescribed **70** credits and secured **70** credits.
- Students, who fail to complete their Two years Course of study within Four years or fail to acquire the prescribed **70** Credits for the award of the degree within four academic years from the year of their admission shall forfeit their seat in M. Tech course and their admission shall stand cancelled.

7.5 Calculation of Cumulative Grade Point Average (CGPA) for Entire Program:

The CGPA is calculated as given below:

$$\text{CGPA} = \frac{\sum (CR \times GP)}{\sum CR} \text{ for entire program.}$$

where CR = Credits of a course

GP = Grade points awarded for a course

* CGPA is calculated for a candidate who passed all the prescribed courses excluding project work.

7.6 Award of Division:

After satisfying the requirements prescribed for the completion of the program, the student shall be eligible for the award of B.Tech Degree and shall be placed in one of the following grades:

CGPA	Class
≥ 7.5	First Class with Distinction *
≥ 6.5 & < 7.5	First Class
≥ 6.0 & < 6.5	Second Class

* **CGPA** ≥ 7.5 will be awarded first class with distinction provided the student must have fulfilled all the program requirements in two (2) years duration.

8. Supplementary Examinations

- i) Supplementary examinations will be conducted once in a year along with regular examinations.
- ii) Semester end supplementary examinations shall be conducted till next regulation comes into force for that semester after the conduct of the last set of regular examinations under the present regulation.
- iii) Thereafter supplementary examinations will be conducted in the equivalent courses as decided by the Board of Studies concerned.

9. Challenge Valuation

Challenge valuation of failed or passed subjects shall be performed as per the following norms.

- i) Students can submit the application for challenge valuation, along with the prescribed fee receipt for evaluation of his answer script(s) of theory course(s) as per the notification issued by the Controller of Examinations. The Controller of Examinations shall arrange for challenge valuation of such answer script(s).
- ii) The challenge valuation will be carried out by a three member committee comprising an external subject expert nominated by the Chief Controller of Examinations, the internal subject expert and the BoS Chairman.
- iii) After the challenge valuation, if the grade is improved or there is a change in the status i.e., fail to pass, the improved grade shall be notified, otherwise, the previous grade will remain.

10. Re-admission Criteria

A candidate, who is detained in a semester due to lack of attendance has to obtain written permission from the Principal for readmission into the same semester after duly fulfilling the required norms stipulated by the college and by paying the required tuition fee and special fee in addition to paying an administrative fee of Rs. 1,000/-

11. Break in Study

Student, who discontinues the studies for what-so-ever reason, can get readmission into appropriate semester of M.Tech program only with the prior permission of the Principal of the College, provided such candidate shall follow the transitory regulations applicable to the batch he joins. An administrative fee of Rs.2,000/- per each year of break in study in addition to the prescribed tuition and special fees shall be paid by the candidate to condone his break in study.

12. Transitory Regulations

When a student is detained due to shortage of attendance, he/she may be readmitted into the same semester in which he/she has been detained. However, the academic regulations under which the detained student was first admitted shall continue to be applicable to him/her. A candidate, who is detained in a semester, on readmission shall be required to do all the courses in the curriculum prescribed for the batch of students in which the student joins subsequently. However, exemption will be given to those candidates who have already passed such courses in the earlier semester(s) he was originally admitted into and he will be offered substitute subjects in place of them as decided by the Board of Studies. However, the decision of the Board of Studies will be final.

13. Withholding of Results

If the student has not paid the dues, if any, to the College or if any case of indiscipline is pending against him, the result of the student will be withheld. His degree will be withheld in such cases.

14. Malpractices

- i) The Principal shall refer the cases of malpractices in internal assessment tests and semester end examinations to a malpractice enquiry committee constituted by him for the purpose. Such committee shall follow the approved levels of punishment. The Principal shall take necessary action against the erring students based on the recommendations of the committee.
- ii) Any action by the candidate trying to get undue advantage in the performance or trying to help another, or derive the same through unfair means is punishable according to the provisions contained hereunder.

iii) Malpractices identified at spot centre during valuation

The following procedure is to be followed in the case of malpractice cases detected during valuation, scrutiny etc. at spot centre.

- I. A notice is to be served to the candidate(s) involved **(i)** through the Principal of the college, **(ii)** to the candidate(s) to his college address and **(iii)** to the candidate(s) to his permanent address regarding the malpractice.

DISCIPLINARY ACTION FOR MALPRACTICES/IMPROPER CONDUCT IN EXAMINATIONS

Nature of Malpractices / Improper conduct		Punishment
If the candidate		
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 candidates 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 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.	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 to appear for the remaining examinations of the subjects of that semester / year. The hall ticket of the candidate shall be cancelled.

3.	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 the examinations of the remaining subjects of that semester / year. The candidate is also debarred for two consecutive semesters from class work and all 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.
4.	Smuggles in the Answer book or takes out or arranges to send out the question paper during the examination or answer book during or after the examination.	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 to appear 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 examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5.	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 performance in that subject.

6.	Refuses to obey the orders of the Chief Superintendent / Assistant Superintendent / any officer on duty or misbehaves or creates disturbance of any kind in or around the examination hall or organises a walkout or instigates others to walkout 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 of any of his relations or indulges in any other act of misconduct or mischief which results 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.	Expulsion from the examination hall 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 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.
7.	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 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. 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.
8.	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 to appear for the remaining examinations of the subjects of that semester. The candidate is also debarred and forfeits the seat.

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.	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 to appear for the remaining examinations of the subjects of that semester. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the college will be handed over to the police and a police case is registered against them.
10.	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.
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 referred to the Chief Superintendent of Examinations for future action towards suitable punishment.	

II. A committee consisting of the following is to be constituted at spot centre to process such malpractice cases and the recommendations of the malpractice committee are to be sent to the Chief Controller of Examinations.

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|-----------------------------------|----------|
| 1. Principal | Chairman |
| 2. Vice Principal - Academics | Member |
| 3. Chief examiner of that subject | Member |
| 4. Controller of Examinations | Convener |

The involvement of the staff, who are in charge of conducting examinations, valuing examination papers and preparing / keeping records

of documents related to the examinations in such acts (inclusive of providing incorrect or misleading information) that infringe upon the course of natural justice to one and all concerned at the examination shall be viewed seriously and appropriate disciplinary action will be taken after thorough enquiry.

15. Other Matters

- i) Deserving physically challenged candidates will be given additional examination time and a scribe based on the certificate issued by the concerned authority. Students who are suffering from contagious diseases are not allowed to appear either for internal or semester end examinations.
- ii) The students who participated in coaching / tournaments held at State / National / International levels through University / Indian Olympic Association during semester end external examination period will be promoted to subsequent semesters as per the guidelines of University Grants Commission Letter No. F.1-5/88 (SPE/PES), dated 18-08-1994.
- iii) The Principal shall deal in an appropriate manner with any academic problem which is not covered under these rules and regulations, in consultation with the Heads of the Departments and subsequently such actions shall be placed before the Academic Council for ratification. Any emergency modification of regulation, approved in the meetings of the Heads of the Departments shall be reported to the Academic Council for ratification.

16. General

- i) The Academic Council may, from time to time, revise, amend or change the regulations, schemes of examination and /or syllabi.
- ii) The academic regulations should be read as a whole for the purpose of any interpretation.
- iii) In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Chairman of the Academic Council is final.
- v) Wherever the word he, him or his occurs, it will also include she, her and hers.

VI. CURRICULAR COMPONENT

Sl. No.	Course Work - Subject Areas	Total No.of Credits	% of Total Credits
1	Humanities and Social Sciences (HSS)	3	4.28
2	Professional Core (PC)	20	28.59
3	Professional Electives (PE)	15	21.43
4	Open Electives (OE)	3	4.28
5	Others (Mini Project with Seminar, Dissertation, Audit etc.)	29	41.42