# G. PULLA REDDY ENGINEERING COLLEGE (Autonomous): KURNOOL Affiliated to Jawaharlal Nehru Technological University Anantapur (Scheme – 2013)

Rules & Regulations for Two-Year Master of Technology Course (With effect from the batch admitted in 2013-2014)

# 1 MINIMUM QUALIFICATIONS FOR ADMISSION

- (i) Admission to M.Tech courses is open to all candidates who have passed B.E/B.Tech course (in relevant specialization) or any other examinations recognized by Jawaharlal Nehru Technological University Anantapur, Anantapur/ Govt. of A.P as equivalent thereto.
  - Admission into M.Tech courses will be as per the guidelines of AICTE Government of A.P –and
- (ii) Jawaharlal Nehru Technological University Anantapur, Anantapur in force at the time of admission.

# 2 **PROGRAMMES OF STUDY**

The programmes of study prescribed for M.Tech Degree are

- 1. M.Tech (THERMAL SCIENCES & ENERGY SYSTEMS)
- 2. M.Tech (CAD / CAM)
- 3. M.Tech (COMMUNICATIONS & SIGNAL PROCESSING)
- 4. M.Tech (VLSI & EMBEDDED SYSTEMS)
- 4. M.Tech (POWER ELECTRONICS)
- 5. M.Tech (STRUCTURAL ENGINEERING)
- 6. M.Tech (Computer Science and Engineering)
- 7. Any other course offered by the college in future
- 2.1 The duration of M.Tech program is of two academic years divided into four semesters comprising of two semesters in each academic year. A student is required to choose the specialization at the time of admission. No change of the specialization shall be allowed after the admissions are closed.
- 2.2 A student is required to complete the course of study satisfying the attendance requirements in all the four semesters of the course within a period of four academic years from the year of admission, failing which he/she shall be declared ineligible to pursue M.Tech degree course.
  - Completing the course of study shall mean not only satisfying the attendance requirements but also passing of all the subjects within the stipulated period.

# 3 STRUCTURE OF THE PROGRAMME

- (a) Every programme will have a curriculum with a syllabi consisting of theory, practical, seminar, dissertation work, etc., as given below:
  - i. Programme core courses in Engineering / Technology
  - ii. Elective courses of Engineering / Technology
  - iii. Dissertation work

- (b) Each course is normally assigned a certain number of credits as follows
  - (i.) One credit per lecture period per week
  - (ii.) One credit per tutorial period per week
  - (iii.) Two credits per 2 or 3 periods of laboratory practice per week
  - (iv.) One credit for seminar
  - (v.) Six credits for Dissertation work Phase I
  - (vi.) Twelve credits for Dissertation work Phase II
- (c) The programmes are designed such that a student shall take four electives during II and III semesters, out of which one can be from allied and other departments (global electives)

### 3.1 **COURSE WORK**

- (i.) The programmes are offered on a semester basis consisting of four semesters.
- (ii.) The first semester consists of five Theory, one laboratory course, and seminar.
- (iii.) The second semester consists of Five theory, one laboratory course and seminar.
- (iv.) The third semester consists of three theory courses and Dissertation Phase-I (Preliminary). The dissertation evaluation Committee will review the dissertation work initiated by the candidate and the candidate has to present a seminar on the topic chosen for dissertation work. The Review Committee consists of HOD, Supervisor and one senior faculty.
- (v.) In the fourth semester the candidates pursue dissertation work.
- (vi.) Only on completion of all the prescribed courses, the candidates will be permitted to submit the thesis/dissertation. Four copies of the dissertation certified in the prescribed form by the supervisor and concerned HOD shall be submitted to the college.
- (vii.) The dissertation work will be adjudicated by one external examiner appointed by the chairman of board of studies with the approval of the Principal.

### 4 ATTENDANCE REQUIREMENT

Regular course of study means a minimum aggregate attendance of 75% in all subjects in the semester put together.

Condonation of shortage of attendance in genuine cases on health grounds may be recommended by the Principal, if a student puts in an aggregate attendance of at least 65%. However the student has to make an application and pay the prescribed fee.

A student who has not satisfied these requirements of attendance in any semester shall have to repeat that semester. The attendance under this clause does not include attendance at any examination/test/extra curricular activities/co curricular activities.

Students who represent the college in inter collegiate tournaments organized by JNTUA and those who represent University or State or nation shall be given attendance exemption as per the University/Government norms.

# 4.1 Eligibility for appearing for the end examinations:

All the students who satisfy the attendance requirements in that semester shall register for the end examinations of that semester by paying the prescribed examination fee. However, they have to clear all the dues to the college before they collect their hall tickets. It is mandatory for all the eligible students to apply for the regular end examinations failing which they have to pay all the preceding examinations fee with fine as prescribed by the college, if they wish to appear for next examination

### 5 **EVALUATION**

### 5.1 End Examination

- i.) The performance of the candidate in each semester shall be evaluated subject wise, with a maximum of 100 marks for each Theory or Practical subjects.
- ii.) For the theory subjects 70 marks will be for the End Examination, 30 marks will be for Internal Evaluation. The question paper for end examination shall consist of 8 questions for 14 marks each and the student shall answer any five questions. (5×14)

There shall be double valuation for theory papers in the End Examinations. The Answer scripts shall be valued by two examiners – one external and one internal.

- (a) If the absolute difference between the two valuations is 14 or less, the marks awarded shall be the better of the two evaluations.
- (b) If the absolute difference between the two valuations is 15 or more, the scripts shall be valued by the third examiner and the marks awarded shall be (i) the better of III valuation marks and (ii) the marks among the first two valuations closer to the III valuation.
- iii.) For each practical subject the end examination with duration as specified in the scheme shall be conducted for 50 marks by the faculty who has handled the practical for the class and another internal faculty with expertise in the relevant specialization

#### 5.2 Internal Assessment

For theory subjects, out of 30 marks 20 marks are awarded based on the performance of the students in two sessional examinations conducted for 40 marks each with the first sessional conducted in the middle of the semester and the other towards the end of the semester giving a weightage of 0.75 for the better score and 0.25 for the other score and later on reduced to 20 marks. The other 10 marks are awarded based on four assignments. The sessional marks computed as per the above procedure will be finally rounded off to next higher integer. The question paper for sessional examinations shall

consist of 6 questions and the student shall answer any four questions.  $(10\times4)$ 

For practical subjects, 50 marks are awarded based on day to day work and internal lab examination

# 5.3 Requirement for clearing any subject

(i) The students have to obtain a minimum of 50 % marks in the end examinations and also minimum 50% of marks in the sum of the internal evaluation and end examination taken together, otherwise they will be awarded grade-F in that subject. F is considered as a fail grade indicating that the student has to reappear for the end examination in that subject and obtain a non fail-grade for clearing that subject.

In other words to pass in a subject, a student shall score 35 marks or more out of 70 marks in the end examination and also shall score 50 marks or more out of 100 in the end examination and the internal continuous evaluation put together.

- (ii) Apart from the regular end examinations, supplementary end examinations will be conducted.
- (iii) No improvement examination shall be conducted.

# 6 Distribution of weightages for End Examination and Internal Continuous Assessment

S. No.	Nature of subject	Marks	Type of examination and mode of assessment	Scheme of examination
1	Theory	70	End examination	This end examination in theory subjects will be for a maximum of 70 marks.
		30	Internal examination	out of 30 marks 20 marks are awarded based on the performance of the students in two sessional examinations with a weightage of 0.75 for the better score and 0.25 for the other score. The other 10 marks are awarded based on four assignments.
2	Practical	50	End Examination	This end examination in practical subjects will be for a maximum of 50 marks
		50	Internal examination	Day to day Performance in lab experiments / viva voce , internal practical examination and Record
4	Dissertation- Phase I	50	End Examination	Dissertation evaluation committee comprising of HOD, Senior faculty of the department and Guide/ Supervisor shall assess the performance of the candidate
		50	Internal Examination	Dissertation Evaluation committee comprising of HOD, Senior faculty of the department and Guide/ Supervisor shall assess the performance of the candidate based on two reviews, one in the middle of the semester and the other at the end of the semester. Each review shall be assessed for 25 marks.
	Dissertation- Phase II	50	External examination	Viva Voce Examination
5		50	Internal Examination	Dissertation Evaluation committee comprising of HOD, Senior faculty of the department and Guide/ Supervisor shall assess the performance of the candidate based on two reviews, one in the middle of the semester and the other at the end of the semester. Each review shall be assessed for 25 marks.
6	Seminar	100	External	A committee comprising of HOD or his nominee, One senior faculty and one expert in the specialization shall assess the performance of the candidate.

# **7 Guidelines for Project Work**

- i.) After successful completion of the third semester, the candidate shall continue the dissertation work during the fourth semester under the supervision of faculty member of the department within the college or the candidate may carry out the dissertation work in any reputed R&D organization, industry etc.
- ii.) Even when the candidate opts to carry out the dissertation outside the college, he will be allotted a faculty member as a guide to coordinate the reviews. The person from the outside organization supervising the dissertation work may be called co-guide.
- iii.) The candidate preferring to carry out the dissertation at an outside organization should produce a permission letter and No objection Certificate (NOC) from the organization along with willingness of co-guide from the organization (whose research interests are same as the thesis work) at least three weeks before the commencement of fourth semester and should take the approval of the Principal for the same, failing which the candidate will be deemed to be carrying out the dissertation work in the college.
- iv.) The candidate carrying out the dissertation work either in the college or at an outside organisation, is required to attend review meetings conducted by the department. The candidate is allowed to submit the dissertation work only after the review meetings.
- v.) Within 10 days of the commencement of the fourth semester, the candidate is required to give an undertaking in the prescribed proforma to the effect that he will not take up any job during the dissertation period. If a candidate is found to be doing a job during the fourth semester, his admission will be cancelled.
- vi.) The candidates who are eligible for drawing stipend have to assist the department in conducting the practical classes, tutorials etc. for undergraduate students. They are eligible for only 20 days of casual leave in an academic year. Any excess leave or absence without any permission will automatically attract deduction of proportionate amount from their stipend.
- vii.) One Journal paper publication (or) one conference paper presentation is desirable to submit the dissertation work.
- viii.) The candidate has to clear all the dues before submitting the dissertation work.
- ix.) After completing the dissertation work the candidate should take the confirmation of project completion from the guide allotted by the department, HOD and Co-guide

from the organization where applicable

- x.) Only on completion of all the prescribed course work, the candidates will be permitted to submit the thesis/dissertation. Four copies of the thesis / dissertation certified in the prescribed form by the supervisor shall be submitted in the examination section of the college. The candidate should also submit the soft copy of the dissertation work.
- xi.) A viva-voce examination shall be conducted by a board consisting of the HOD, the supervisor and one external examiner.

# 8 GRADE POINT AVERAGE (GPA) AND CUMULATIVE GRADE POINT AVERAGE (CGPA):

The Grade Point Average (GPA) for each semester and Cumulative Grade Point Average (CGPA) up to any semester are calculated as follows:

(i) First the marks obtained in each subject will be converted to a corresponding letter grade and the grade points will be assigned as given below.

Table – Grades conversion and Grade points assigned

Range in which the marks in the subject fall	Grade	Grade points assigned
≥95	S	10
90 to 94	A1	9
85 to 89	A2	8.5
80 to 84	A3	8
75 to 79	B1	7.5
70 to 74	B2	7
65 to 69	В3	6.5
60 to 64	C1	6
55 to 59	C2	5.5
50 to 54	C3	5
< 50	F	0
ABSENT	AAA	0

ii.) Grade Point Average will be computed for each semester as follows:

$$GPA = \frac{\sum_{i=1}^{n} C_{i} \times GP_{i}}{\sum_{i=1}^{n} C_{i}}$$

where  $C_i$  = Credits for the course.  $GP_i$  = the Grade Point obtained for the course and the summation is over all the courses in that semester and n is the number of courses in that semester.

iii.) Cumulative Grade Point Average (CGPA) will be computed at the end of each semester. The CGPA would give the cumulative performance index of a student from the first semester up to the end of the semester to which it refers and calculated as follows.

$$CGPA = \frac{\sum^{m} GPA_{j} \times TC_{j}}{\sum^{m} TC_{j}}$$

Where 'm' is the number of semesters under consideration.  $TC_j$  is the total number of credits for a particular semester and  $GPA_j$  is the Grade Point Average of that semester. Both GPA and CGPA will be rounded off to the second place of decimal and recorded as such.

iv.) While computing the GPA/CGPA, the courses in which the candidate is awarded Zero grade points will also be included.

#### 8.1 **Grade Sheet**

A grade sheet (Memorandum) will be issued to each student indicating his performance in all courses taken in that semester/year in the form of grades and also indicating the GPA and CGPA.

### 8.2 Transcripts

After successful completion of the entire course of study, a Transcript containing performance of all semesters will be issued as a final record. Duplicate transcripts will also be issued if required after the payment of requisite fee. Partial transcript will also be issued up to any semester of the program to any student on request and on payment of the requisite fee in force.

# 8.3 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:

- (i.) Pursued a course of study for not less than **four** semesters and not more than **eight** semesters.
- (ii.) Satisfies all the minimum academic requirements in appropriate branch and specialization in each semester prescribed herein after.
- (iii.) Registered for all the subjects and earn the credits specified.

- (iv.) Has no dues to the institution, library, hostels etc
- (v.) Has no disciplinary action pending against him/her.

# 9 MINIMUM ACADEMIC REQUIREMENTS

- 9.1 A candidate shall be deemed to have satisfied the minimum academic requirement in each theory, if he/she scores not less than 50% marks in the end examinations and also minimum 50% of marks in the sum of the internal evaluation and end examination taken together. However a minimum CGPA of 5.0 is required for the award of Degree.
- 9.2 A candidate shall be declared to have satisfied the minimum academic requirements and has become eligible for the award of degree if he/she fulfills each of the following conditions.
  - (i) Satisfies minimum requirements as stated in 9.1
  - (ii) Satisfies the minimum requirement of attendance as stipulated in clause 4
  - (iii) Satisfies all other regulations, academic or otherwise stipulated by the college from time to time.

# 10 AWARD OF DEGREE AND CLASS

A Candidate shall be eligible for the award of respective degree if he satisfies the minimum academic requirements in every subject and shall be awarded one of the classes given below based on CGPA obtained by him.

Class awarded	CGPA
First Class with Distinction	≥7.5
First Class	$\geq$ 6.5 and < 7.5
Second Class	$\geq$ 5.0 and < 6.5

# 11 WITHHOLDING OF RESULTS

The result of a candidate shall be withheld if:

- i) He/She has not cleared any dues to the Institution / Hostel / University
- ii) A case of disciplinary action against him/her is pending disposal.

### 12 **EXAM HALL CULTURE**

- (i.) Students are not permitted to use mobile phones in the examination halls.
- (ii.) Any attempt by any student to influence the examiners, faculty and staff or Controller of Examinations for undue favours in the exams, and bribing them either for marks or attendance will be treated as malpractice cases and the student can be debarred from the college.
- (iii.) When a student absents himself/herself, he/She is treated as to have appeared and obtained zero marks in that subject (s) and Grading is done accordingly.
- (iv.) When a student's answer book is confiscated for any kind of attempted or suspected malpractice, the decision of the examination committee is final.

### 13 **CONDITIONS OF PROMOTION**

A student shall be eligible for promotion to the succeeding semester if he/she satisfies the minimum attendance requirements in the current semester as given in clause 4.

## 14 MINIMUM INSTRUCTION DAYS:

Each semester shall consist of 90 instruction days/15 weeks including exams.

### 15 TRANSITORY REGULATIONS

Candidates who have been detained for want of attendance are eligible for readmission into the respective semester and shall be governed by the curriculum and academic regulations inforce at the time of rejoining.

# 16 **AMENDMENT OF REGULATIONS**

The college may, from time to time, revise, amend or change the regulations, scheme of examinations and syllabi.

### 17 **RAGGING**

Ragging of any kind is strictly prohibited. Student who indulges in ragging shall be punished as per the provisions of the ragging act.

# 18 RULES OF DISCIPLINE

- 1. Use of mobile phones with camera, in the campus is strictly prohibited.
- 2. Students shall behave and conduct themselves in a dignified and courteous manner in the campus/Hostels
- 3. Students shall not bring outsiders to the institution or hostels
- 4. Students shall not steal, deface, damage or cause any loss to the institution property
- 5. Students shall not collect money either by request or coercion from others within the campus or hostels.
- 6. Use of vehicles by the students inside the campus is prohibited.
- 7. Any conduct which leads to lowering of the esteem of the organization is prohibited.
- 8. Any student exhibiting prohibited behaviour shall be suspended from the institute. The period of suspension and punishment shall be clearly communicated to the student. The student shall lose the attendance for the suspended period

# 9. Dress Code

Boys: All the boy students should wear formal dresses. Wearing T-shirts and other informal dresses in the campus is strictly prohibited.

Girls: All the girls students shall wear saree, churidhar with dupatta

# 19 **GENERAL**

The academic regulations should be read as a whole for purpose of any interpretation.

- i.) The college reserves the right of altering the regulations as and when necessary.
   The regulations altered may be applicable to all the Candidates on rolls.
- ii.) Wherever the word he, him or his occur, it will also include she, her, hers.
- iii.) Whenever ambiguities arise in interpreting the regulations, the joint board of studies shall have the powers to issue clarifications and /or to make new rule for removing such ambiguities which shall be final.

# **Punishments for Malpractice cases - Guidelines**

The examinations committee may take the following guidelines into consideration while dealing with the suspected cases of malpractice reported by the invigilators/squad members etc; during end examinations. The punishment may be more severe or less severe depending on the merits of the individual cases.

S. No	Nature of Malpractices/Improper conduct	Punishment
1.	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 student 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.
2.	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.
3.	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.
4.	Gives assistance or guidance or receives it from any other student orally or by any other body language methods or communicates through cell phones with any other student 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 students involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
5.	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 student is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects including practical examinations and project work of that semester/year.
6.	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 including practical examinations and project work of that semester/year.
7.	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 performance in that subject and all the other subjects including practical examinations and project work of that semester/year. The student is also debarred for two consecutive semesters from class work and all examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat.
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 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.	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 of that semester/year. The students 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.	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 including practical examinations and project work 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.
10.	Posseses 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 including practical examinations and project work of that semester/year. The student is also debarred and forfeits the seat.

11.	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 7 to 9.	For Student of the college: Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects including practical examinations and project work of that semester/year. The candidate is also debarred and forfeits the seat.  Person(s) who do not belong to the College will be handed over to police and, a police case will be registered against them.
12.	Impersonates any other student in connection with the examination	The student who has impersonated shall be expelled from examination hall. The student is debarred from writing the remaining exams, and rusticated from the college fur one academic year during which period the student will not be permitted to write any exam. If the imposter is an outsider, he will be handed over to the police and a case is registered against him.  The performance of the original student who has been impersonated, shall be cancelled in all the subjects of the examination including practicals and project work of that semsester/year. The student is rusticated from the college for two consecutive years during which period the student will not be permitted to write any exam. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat.
13.	If any malpractice is detected which is not cover be reported to the college academic councerpunishment.	
14.	Malpractice cases identified during sessional examination committee nominated by Appunishment.	