

Narasaraopeta Engineering College (Autonomous)

Kotappakonda Road, Yellamanda (P.O), Narasaraopet- 522601, Guntur District, AP.

Sponsored by Gayatri Educational Development Society, Narasaraopet.

Approved by AICTE, New Delhi & Permanently affiliated to JNTUK, Kakinada. Code: 47.

Twice Accredited by NBA & NAAC with "A" Grade; ISO 9001:2008 Certified Institution.

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ACADEMIC REGULATIONS

&

COURSE STRUCTURE

R16-PG-M.Tech

ACADEMIC REGULATIONS - 2016 FOR M.TECH (REGULAR)
(Effective for the students admitted into I year from the Academic Year 2016-17 and onwards)

1. QUALIFICATION FOR ADMISSION

Admission to the above program shall be made subject to eligibility, qualification and specialization as prescribed by the University from time to time.

Admissions shall be made on the basis of merit / rank obtained by the candidates at the qualifying entrance test GATE/PGECET or on the basis of any other order of merit as approved by the Government from time to time.

2. AWARD OF M.TECH. DEGREE

A student will be declared eligible for the award of the M. Tech. Degree, if he fulfils the following academic requirements.

1. Pursue a course of study for not less than two academic years and not more than four academic years.
- (b) The candidate registers for 80 credits and secure all 80 credits.

3. COURSES OF STUDY

The following courses of study are offered at present as specializations in the M.Tech. courses with English as medium of instruction.

S. No.	Specialization Code	Abbreviation
01	06 - DSCE	Digital Systems and Computer Electronics
02	15 - MD	Machine Design
03	21 - TE	Thermal Engineering
04	38 - DECS	Digital Electronics and Communication Systems
05	42 - P&ID	Power and Industrial Drives
06	54 - PE&ED	Power Electronics and Electric Drives
07	58 - CSE	Computer Science Engineering
08	87 - SE	Structural Engineering

And any other course as approved by the authorities from time to time.

4. STRUCTURE OF THE PROGRAMME

Semester	Credits
I M.TECH I SEM	21
I M.TECH II SEM	21
II M.TECH III SEM	38
II M.TECH IV SEM	
TOTAL	80

Each course is normally assigned a certain number of credits as follows:

- 3 credits for 4 lecture periods.
- 3 credits for 6 laboratory periods per week.
- 1 credit for seminar.
- 2 credits for comprehensive viva
- 35 credits for project work.

5. DISTRIBUTION AND WEIGHTAGE OF MARKS

The performance of the candidate in each semester shall be evaluated subject wise, with a maximum of 100 marks for theory / practical / seminar / comprehensive viva on the basis of internal evaluation and end semester examinations.

5.1 THEORY

All theory subjects consisting of 6 units in each subject, the assessment shall be for 40 marks through internal evaluation and 60 marks through external end semester examination of 3 hours duration.

5.1a. INTERNAL EVALUATION

The internal evaluation will be based on two cycle tests conducted in each semester. The 40 internal marks will be awarded as 75% of the best cycle and 25% of the least cycle examinations, where each cycle of examination contain

Descriptive test - 30 Marks

Assignment test - 10 Marks

Each descriptive test question paper contains 3 questions one from each unit covering syllabus from 3 units (first 3 units for first cycle and the remaining 3 units for second cycle). The student has to answer all the three questions (3X10M=30M). The descriptive examination will be conducted for 1½ hour duration.

In Assignment Tests 5 or 6 questions will be declared in the class room at least one week in advance. In the test, one question will be given at random to each student and the student has to answer it.

The Assignment Test-1 will be conducted for 10 marks covering the syllabus from 1st & 2nd units. The Assignment Test-2 will be conducted for 10 marks from 4th & 5th units.

5.1b. EXTERNAL EVALUATION

The question paper comprises of 8 questions, there should be one from each unit. Student has to answer 5 questions out of 8, each question carry 12 marks (5X12=60).

The duration of end theory examination is 3 hours.

5.2 PRACTICALS

For practical subjects evaluation is as follows during the semester

5.2a. INTERNAL EVALUATION

There shall be continuous evaluation during the semester for 40 internal marks. The internal marks shall be awarded as follows:

Record	- 10 Marks
Day-to-day work	- 15 Marks
Internal Lab Test	- 15Marks

5.2b. EXTERNAL EVALUATION

For practical subjects there shall be an external examination at the end of the semester for 60 marks in the presence of external examiner.

5.3 A candidate shall be deemed to have secured the minimum academic requirement in a subject if he secures a minimum of 40% of marks in the end semester examination and a minimum of 50% of the total marks in the end semester examination and internal evaluation taken together.

5.4 SEMINAR

For seminar, a student under the supervision of a faculty member shall collect the literature on an advanced topic related to his specialization and review the literature then submit it to the department in a report form during the third semester and shall make an oral presentation before the departmental review committee consisting of the supervisor and head of the department / a senior faculty member. There shall be an internal evaluation for 100 marks in the form of viva voce examination and assessment of report and its presentation. There will be NO external evaluation. A candidate shall be deemed to have secured the minimum academic requirement in seminar, if he secures a minimum of 50% of marks in the examination.

If a candidate fails to secure the minimum marks prescribed for successful completion, he has to re-register and he has to submit a fresh report and appear for the evaluation by the committee.

5.5 COMPREHENSIVE VIVA-VOCE

Comprehensive viva voce examination is conducted during the 3rd semester in all the subjects of first & second semesters of the course by a committee consisting of two senior faculty members of the department. There will be NO external evaluation.

A candidate shall be deemed to have secured the minimum academic requirement in seminar, if he secures a minimum of 50% of marks in the examination.

If a candidate fails to secure the minimum marks prescribed for successful completion, he has to re-register and undergo viva voce examination.

5.6 In case the candidate does not secure the minimum academic requirement in any subject (as specified in 5.3) he has to re-appear for the end semester examination in that subject.

A candidate shall be given one chance to re-register for each subject provided the internal marks secured by a candidate is less than 50% and has failed in the end examination. In such a case, the candidate must re-register for the subject(s) and secure the required minimum attendance. The candidate's attendance in the re-register subject(s) shall be calculated separately to decide upon his eligibility for writing the end examination in those subject(s). In the event of the student taking another chance, his internal marks and end examination marks in the previous attempt stand cancelled. For re-registration the candidates have to apply to the college by paying the requisite fee and get approval from the authorities before the beginning of the semester in which re-registration is required.

5.7 In case the candidate secures less than the required attendance in any re-registered subject(s), he shall not be permitted to write the End examination in that subject. He shall again re-register the subject when next offered.

5.8 Laboratory examinations must be conducted with two examiners, one of them being the laboratory class teacher or teacher of the respective college and the second examiner shall be appointed by the Principal from the panel of examiners submitted by the respective departments.

5.9 PROJECT WORK

Every candidate shall be required to submit a thesis or dissertation on a topic approved by the Project Review Committee.

5.9.1.A Project Review Committee (PRC) shall be constituted with Head of the Department and two other senior faculty members.

5.9.2.Registration of Project Work: A candidate is permitted to register for the project work after satisfying the attendance requirement of all the subjects, both theory and practical.

5.9.3.After satisfying 5.9.2, a candidate has to submit, in consultation with his project supervisor, the title, objective and plan of action of his project work for approval. The students can initiate the Project work, only after obtaining the approval from the Project Review Committee (PRC).

5.9.4.If a candidate wishes to change his supervisor or topic of the project, he can do so with the approval of the Project Review Committee (PRC). However, the Project Review Committee (PRC) shall examine whether or not the change of topic/supervisor leads to a major change of his initial plans of project proposal. If yes, his date of registration for the project work starts from the date of change of supervisor or topic as the case may be.

5.9.5.A candidate shall submit his status report in two stages at least with a gap of 3 months between them.

5.9.6.The work on the project shall be initiated at the beginning of the II year and the duration of the project is two semesters. A candidate is permitted to submit Project Thesis only after successful completion of theory and practical subjects with the approval of PRC not earlier than 40 weeks from the date of registration of the project work. The candidate has to pass all the theory and practical subjects before submission of the Thesis.

5.9.7.Three copies of the Project Thesis certified by the supervisor shall be submitted to the College.

5.9.8.The thesis shall be adjudicated by one examiner selected by the authorities. For this, the HOD of the concerned dept. shall submit a panel of 5 examiners, eminent in that field, with the help of the guide concerned.

5.9.9.If the report of the examiner is not favourable, the candidate shall revise and resubmit the Thesis, in the time frame as decided by the PRC. If the report of the examiner is unfavourable again, the thesis shall be summarily rejected. The candidate has to re-register for the project and complete the project within the stipulated time after taking the approval from the authorities.

5.9.10.If the report of the examiner is favourable, viva-voce examination shall be conducted by a board consisting of the Supervisor, Head of the Department and the examiner who adjudicated the thesis. The Board shall jointly report the candidate's work as one of the following: Grade O(Outstanding)/ Grade Ex(Excellent)/Grade A(Very Good) /Grade B(Good)/ Grade P(Pass)/ Grade F(Fail).

The Head of the Department shall coordinate and make arrangements for the conduct of viva-voce examination.

5.9.11.If the report of the viva-voce is Grade F, the candidate shall retake the viva-voce examination only after three months. If he fails to get a satisfactory report at the second viva-voce examination, the candidate has to re-register for the project and complete the project within the stipulated time after taking the approval from the authorities.

6. ATTENDANCE REQUIREMENTS:

(i) A student shall be eligible to appear for the end examinations if he acquires a minimum of 75% of attendance in aggregate of all the subjects.

(ii) Condonation of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester for genuine medical reasons and shall be approved by a committee duly appointed by the college. A fee stipulated by the college shall be payable towards condonation of shortage of attendance. However the number of condonations is restricted to two for the entire course.

(iii)A student who is short of attendance in a semester may seek re-admission into that semester when offered next time, within 4 weeks from the date of commencement of class work.

(iv)If any candidate fulfils the attendance requirement in the present semester, he shall not be eligible for re-admission into the same class.

7. COURSE PATTERN:

- (i) The entire course of study is of two academic years and every year will have TWO Semesters.
- (ii) A student is eligible to appear for the end examination in a subject, but absent for it or has failed in the end examinations may appear for that subject in supplementary examinations, when conducted next.
- (iii) When a student is detained due to shortage of attendance, he may be re-admitted in to the same semester/year in which he has been detained.

8. METHOD FOR AWARDING OF GRADE POINTS FOR A SUBJECT:

Theory/ Laboratory / Seminar/ Comprehensive viva/ Project (% of marks in a subject)	Corresponding Grade Points	Letter Grade
91 - 100	10	O (Outstanding)
81 - 90	9	E (Excellent)
71 - 80	8	A (Very Good)
61 - 70	7	B (Good)
51 - 60	6	P (Pass)
< 50	0	F (Fail)

9. Criteria for award of grades/division.

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

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

$$SGPA = \frac{\sum(CRXGP)}{\sum CR}$$

Where CR = Credits of a subject

GP = Grade Points awarded for a subject

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

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

The CGPA is calculated as given below:

$$CGPA = \frac{\sum(CRXGP)}{\sum CR}$$

Where CR = Credits of a subject

GP = Grade Points awarded for a subject

- The SGPA and CGPA shall be rounded off to 2 decimal point and reported in the transcripts.
- Equivalent percentage = (CGPA – 0.75) x 10

Note: Project work in the last semester will not be considered for CGPA

9.3 Award of Division:

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

CGPA	Class
≥ 7.75	First Class with Distinction (Provided all the subjects passed in the first attempt)
≥ 6.75	First Class (with subject failures)
≥ 5.75 & < 6.75	Second Class

10. RECOUNTING /REVALUATION:

- Student can submit the application for recounting / revaluation, along with the prescribed fee for recounting / revaluation of his answer script(s) of theory subject(s) as per the notification issued by the Controller of Examinations.
- The Controller of Examinations shall arrange for recounting / revaluation of such answer script(s).
- An External examiner, other than the first examiner shall recount / reevaluate the answer script(s).

11. MINIMUM INSTRUCTION DAYS:

The minimum instruction days for each semester shall be 90 working days.

12. There shall be no branch transfer after the completion of admission process.

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 such student will be kept withheld. His degree will be withheld in such cases.

14. TRANSITORY REGULATIONS

Discontinued or detained candidates are eligible for readmission as and when next offered.

A candidate, who is detained or discontinued in a semester, on readmission shall be required to do all the subjects 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 subjects in the earlier semester(s) he was originally admitted into and substitute subjects are offered in place of them as decided by the Board of Studies. However, the decision of the Board of Studies will be final.

14.1 A student who is following JNTUK curriculum and detained due to shortage of attendance at the end of the first semester of first year shall join the autonomous batch

of first year first semester. Such students shall study all the subjects prescribed for the batch in which the student joins and considered on par with regular candidates of Autonomous stream and will be governed by the autonomous regulations.

14.2 A student who is following JNTUK curriculum, detained due to shortage of attendance at the end of the second semester of first year or at the subsequent semesters shall join with the autonomous batch in the appropriate semester. Such candidates shall be required to pass in all the subjects in the program prescribed by the Board of Studies concerned for that batch of students from that semester onwards to be eligible for the award of degree. However, exemption will be given in the subjects of the semester(s) of the batch which he had passed earlier and substitute subjects will be offered in place of them as decided by the Board of Studies. The student has to clear all his backlog subjects up to previous semester by appearing for the supplementary examinations conducted by JNTUK for the award of degree will be sum of the credits up to previous semester under JNTUK regulations and the credits prescribed for the semester in which a candidate seeks readmission and subsequent semesters under the autonomous stream. The class will be awarded based on the academic performance of a student in the autonomous pattern.

MALPRACTICES RULES

DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS

- The Principal shall refer the cases of Malpractices in Internal Assessment Test and Semester end examinations to a malpractice prevention committee constituted by him for the purpose. Such committee shall follow the approved levels of punishment. The Principal shall take necessary action against the students based on the recommendations of the committee.
- 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:

	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.
1(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 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 is to be cancelled and sent to the college.
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 examinations of the remaining subjects of that semester/year. The candidate is also debarred for two consecutive semesters from classwork and all college examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the imposter 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 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 classwork and all college 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 the 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 and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-incharge 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	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 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.

	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.	
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 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 classwork and all college 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 for the remaining examinations of the subjects of that semester/year. 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.	Student of the college 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. Person(s) who do not belong to the college will be handed over to police and, a police case will be 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 reported to the college for further action to award suitable punishment.	

OTHER MATTERS:

- Physically challenged candidates who have availed additional examination time and a scribe during their UG / PGECET examinations will be given similar concessions on production of relevant proof / documents.
- 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.

GENERAL:

1. The academic council may, from time to time, revise, amend or change the regulations, schemes of examinations and / or syllabi.
2. Wherever the words "he" "him" "his", occur in the regulations, they include "she", "her", "hers".
3. The academic regulation should be read as a whole for the purpose of any interpretation.
4. In the case of any doubt or ambiguity in the interpretation of the above rules, the decision of the principal is final.