ACADEMIC REGULATIONS
R14

M. TECH. TWO YEAR DEGREE COURSE
(Applicable for the batches admitted from 2014-15)

SWARNANDHRA COLLEGE OF ENGINEERING & TECHNOLOGY
Seetharampuram, Narsapur – 534 280, W.G.Dt.
Andhra Pradesh

1. INTRODUCTION

Academic Programmes of the institute are governed by rules and regulations approved by the Academic Council, which is the highest Academic body of the Institute. These rules and regulations are applicable for the students of M. Tech (Regular) Course from the Academic Year 2016-17 onwards.

- **EXTENT:** All the rules and regulations, specified herein after will be read as a whole for the purpose of interpretation and when a doubt arises, the interpretation of the Chairman, Academic Council, Swarnandhra College of Engineering & Technology (Autonomous) is the final. As per the requirements of the Statutory Bodies, Principal, Swarnandhra College of Engineering & Technology (Autonomous), will be the Chairman of the College Academic Council.

1. ADMISSIONS:

1.1. Admission into first year of M. Tech Programme: Admissions into first year of M. Tech Program of Swarnandhra College of Engineering & Technology (**Subsequently referred to as SCET**) will be as per the norms stipulated by Jawaharlal Nehru Technological University Kakinada & Govt. of Andhra Pradesh. Admissions in each program in the Institution are classified into **CATEGORY - A** (70% of intake) through convener, PGECET and **CATEGORY- B** (30% of intake) filled by the college management. The candidate has to satisfy the other eligibility requirements stipulated by the JNT University Kakinada and / or the Government of Andhra Pradesh from time to time.

1.2. Admissions with advance standing: These may arise in the following cases:

a) When a student seeks transfer from other colleges to SCET and desirous to pursue the study at SCET in an eligible branch of study.

b) When students of SCET get transferred from one regulation to another regulation or from previous syllabus to revised syllabus.

c) When a student after long discontinuity rejoins the college to complete his/her Program of study for the award of degree.

d) When a student is not able to pursue his/her existing Program of study but wishes to get transferred to another Program of study.

These admissions may be permitted by the Academic Council of SCET as per the norms stipulated by the statutory bodies and Govt. of Andhra Pradesh. In all such cases for admission, when needed, permissions from the statutory bodies are to be obtained and the Program of study at SCET will be governed by the transitory regulations.

3. DURATION OF THE PROGRAMME AND MEDIUM OF INSTRUCTION:

The duration of the M. Tech. Program is two academic years consisting of four semesters. The medium of instruction and examinations are in English. Students, who fail to fulfill all the academic requirements for the award of the degree within minimum of four academic years, will forfeit their admission in M. Tech course.

4. COURSES OF STUDY:

The following specializations are offered at present for the M. Tech course of study

    i) M. Tech – Power Electronics

    ii) M. Tech – CAD/CAM

    iii) M. Tech – VLSI System Design

    iv) M. Tech – Computer Science & Engineering

    v) M. Tech – Nanotechnology

5. AWARD OF M. TECH DEGREE

- A student shall be declared eligible for the award of the M. Tech Degree, if he pursues a course of study is not less than two and not more than four academic years.
- The student shall register for all 80 credits and secure all the 80 credits.
- The minimum instruction days in each semester are 90.

6. ATTENDANCE

- A student shall be eligible to write University examinations if he acquires a minimum of 75% of attendance in aggregate of all the subjects.
- Condonation of shortage of attendance in aggregate up to 10 %(65% and above and below 75%) in each semester shall be granted by the College Academic Committee.
- Shortage of Attendance below 65% in aggregate shall not be condoned.
- Students whose shortage of attendance is not condoned in any semesters are not eligible to write their end semester examination of that class.
- A prescribed fee shall be payable towards condonation of shortage of attendance.
- A student shall not be promoted to the next semester unless he satisfies the attendance requirement of the present semester, as applicable. They may seek

readmission into that semester when offered next. If any candidate fulfills the attendance requirement in the present semester, he shall not be eligible for readmission into the same class.

7. <u>EVALUATION</u>

The performance of the candidate in each semester shall be evaluated subject-wise, with a maximum of 100 marks for theory and 100 marks for practicals, on the basis of Internal Evaluation and End Semester Examination.

- For the theory subjects 60 marks shall be awarded based on the performance in the End Semester Examination and 40 marks shall be awarded based on the Internal Evaluation. Internal Evaluation shall be made based on the Weighted Average of the marks secured in the two Mid Term- Examinations conducted, one in the middle of the Semester and the other immediately after the completion of instruction. The weights are 80% for the mid in which the student secured highest marks and 20% for the mid in which the student secured lowest marks.

- Each Midterm examination shall be conducted for a total duration of 120 minutes with 4 questions (without choice) each question for 10 marks. End semester examination is conducted for 60 marks for 5 questions to be answered out of 8 questions.

- For practical subjects, 40 marks for Internal Evaluation and 60 for external examination. Out of 40 Internal marks 20 marks shall be awarded for day-to-day work including Record work and the remaining 20 marks to be awarded by conducting internal laboratory test.

- There shall be two seminar presentations in III and IV semesters. For seminar, a student under the supervision of a faculty member, shall collect the literature on a topic and critically review the literature and submit the same to the department in a prescribed form and shall make an oral presentation before the Project Review Committee consisting of Head of the Department, Supervisor and two other senior faculty members of the Department. For each Seminar there will be only Internal evaluation of 50 marks. A candidate has to secure a minimum of 50% of maximum marks to be declared successful.

- 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 aggregate of 50% of the total marks in the End Semester Examination and Internal Evaluation taken together.

- In case the candidate does not secure the minimum academic requirement in any subject he has to reappear 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 are 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- registered 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 obtained in the previous attempt stand cancelled. For re-registration the candidates have to apply to the Institute by paying the requisite fees and get approval from the concern authorities before the start of the semester in which re-registration is required.

- 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.

- Laboratory examination for M. Tech. courses must be conducted with two Examiners, one of them being the Laboratory Class Teacher of the respective college and the second examiner shall be appointed by the Principal from the panel of examiners submitted by the respective HODs.

8. <u>EVALUATION OF PROJECT/DISSERTATION WORK</u>

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

- A Project Review Committee (PRC) shall be constituted with Head of the Department Supervisor and two other senior faculty members of the Department/One Industrial Expert duly approved by Principal.

- 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.

- After satisfying the above condition, 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 student can initiate the Project work, only after obtaining the approval from the Project Review Committee (PRC).

- 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.

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

- The work on the project shall be initiated at the beginning of the III Semester 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 course 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.

- Three copies of the Project Thesis certified by the supervisor shall be submitted to the College/School/Institute.

- The thesis shall be adjudicated by one examiner selected by the Principal. For this, the concerned Head of the Department shall submit a panel of 5 examiners, eminent in that field, with the help of the guide concerned.

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

- 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. The Board shall jointly report the candidate's work as one of the following:

  A. Excellent
  B. Good
  C. Satisfactory
  D. Unsatisfactory

The Head of the Department shall coordinate and make arrangements for the conduct of Viva-Voce examination.

- If the report of the Viva-Voce is unsatisfactory, 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 concerned authorities.

9. GRADING SYSTEM:

9.1 Award of Grade:

(i) Grade Point Average (GPA):

a) The Grade Point Average (GPA) will be calculated according to the formula.

$$GPA = \frac{\Sigma\, c_i\, G_i}{\Sigma\, c_i}$$

Where C_i = number of credits for the subject i

G_i = grade points obtained by the student in the subject.

b) Semester Grade Point Average (SGPA) is awarded to candidates considering all the subjects of the semester. Zero grade points are also included in this computation.

c) To arrive at Cumulative Grade Point Average (CGPA), the formula is used considering the student's performance in all the courses taken in all the semesters completed up to the particular point of time.

$$CGPA = \frac{\Sigma\, c_i G_i}{\Sigma\, c_i}$$

Where C_i = number of credits for the subject i

G_i = grade points obtained by the student in the subject.

(ii)   After a student satisfies the requirements prescribed for the award of MCA Program he/she shall be placed in one of the following four grades. The award of the degree is based on CGPA on a grade point scale of 10.

CGPA	Award of Division
≥8.00*	First Class with Distinction
≥7.00 and <8.00	First Division
≥6.00 and <7.00	Second Division
<6.00	Unsatisfactory

* In addition to the required CGPA of 8.00, the student must have necessarily passed all the courses of every semester in the minimum stipulated period for the programme.

9.2 Award of Grade in Each Semester:

a. Based on the student performance during a given semester, a final letter grade will be awarded at the end of the semester for each subject. The letter grades and the corresponding grade points are as given in the Table.

Percentage of Marks Scored	Letter Grade	Grade points
>=90	S	10
80– 89	A	9
70-79	B	8
60-69	C	7
50-59	D	6
< 50	F	Fail

b. A student earns a minimum of 6 grade points (D grade) in a subject is declared to have successfully completed the subject, and is deemed to have earned the credits assigned to that subject. However it should be noted that a pass in any subject/term paper/seminar/project/mini project shall be governed by the rules mentioned in against them.

c. Grade Sheet: A grade sheet (memorandum) will be issued to each student indicating his performance in all courses taken in that semester and also indicating the grades and SGPA.

d. Transcripts: After successful completion of the total program of study, a Transcript containing performance of all academic years will be issued as a final record. Duplicate transcripts will also be issued up to any point of study to any student on request and by paying the stipulated fee in force.

e. Candidates shall be permitted to apply for recounting/revaluation within the stipulated period with payment of prescribed fee.

f. The Academic Council has to approve and recommend to the JNTUK, Kakinada for the award of a degree to the student.

10. WITHHOLDING OF RESULTS

If the student has not paid the dues, if any, to the university 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.

11. **GENERAL**

- Wherever the words "he", "him", "his", occur in the regulations, they include "she", "her", "hers".
- The academic regulation should be read as a whole for the purpose of any interpretation.
- In the case of any doubt or ambiguity in the interpretation of the above rules, the decision of   the Chairman, Academic Council is final.
- The College may change or amend the academic regulations or syllabi at any time and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the College.