RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES
ANDHRA PRADESH
(Established by Act No.18 of 2008)

Academic Regulations of M. Tech Programmes, 2021-22
(Effective for the students admitted into I year from the Academic Year 2021-22 and onwards)

1.0   **RGUKT offers Two** Years (**Four** Semesters) full-time Master of Technology (M. Tech.) Degree programmes at its constituent campuses (Nuzvid and R.K Valley) in different branches of Engineering and Technology with different specializations.

2.0   **Eligibility for Admissions**

2.1   Admission shall be made subject to eligibility, qualification and specializations prescribed by the University from time to time, for each specialization under each M.Tech programme.

2.2   Admission to the post graduate programme shall be made on the basis of either the merit rank or Percentile obtained by the qualified student in the relevant qualifying GATE Examination/ the merit rank obtained by the qualified student in an entrance test conducted by Andhra Pradesh State Government (PGECET) for M.Tech. programmes subject to reservations as laid down by the Govt. from time to time.

2.3   The medium of instruction for all PG Programmes is **ENGLISH** only.

3.0   **M.Tech. Programme Structure**

3.1   The M.Tech Programmes in RGUKT are of Semester pattern, with **Four** Semesters consisting of **Two** academic years, each academic year having **Two** Semesters (First/Odd and Second/Even Semesters). Each Semester shall be with a minimum of 90 instructional days including examinations.

3.2   The student shall not take more than four academic years to fulfill all the academic requirements for the award of M.Tech. degree from the date of commencement of first year first semester, failing which the student shall forfeit the seat in M.Tech. programme.

3.3   **UGC/AICTE** specified definitions/descriptions are adopted appropriately for various terms and abbreviations used in these PG academic regulations, as listed below:

3.3.1   **Semester Scheme**

Each Semester shall have Continuous Internal Evaluation and Semester End Examination. The terms 'SUBJECT' and 'COURSE' imply the same meaning here and refer to 'Theory Subject', or 'Lab Course', or 'Design/Drawing Subject', or 'Seminar', or 'Dissertation', as the case may be.

3.3.2   **Credit Courses**

All subjects/courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/course.

- One credit for one hour/week/semester for theory/lecture (L) courses

- One credit for two hours/ week/semester for laboratory/ practical (P) courses or tutorials (T)

Other student activities like study tour, guest lecture, conference/workshop participations, technical paper presentations and mandatory courses (***Audit Courses***) will not carry any credits.

3.3.3 Subject Course Classification

All subjects/courses offered for the Post-Graduate Programme at RGUKT campuses are broadly classified as follows. The University has followed in general the guidelines issued by AICTE/UGC.

S.No.	Broad Course Classification	Course Group/ Category	Course Description
1	Core Courses	Professional Core	Includes subjects related to the parent discipline/department/ branch of Engineering
		Dissertation	M.Tech Project or PG Project or Major Project
		Seminar	Seminar based on core contents related to Parent Discipline/ Department/ Branch of Engineering
2	Elective Courses	Professional Electives	Includes elective subjects related to the parent discipline/department/branch of Engineering
		Open Electives	Elective subjects which include inter-disciplinary subjects or subjects in an area outside the parent discipline/department/ branch of Engineering
3	***Mandatory Courses***	--	***Non-Credit Audit Courses***

4.0 Course Registration

4.1 A 'Faculty program coordinator' shall be assigned to each specialization, who will advise on the Post Graduate Programme, its Course Structure and Curriculum, Choice/Option for Subjects/ Courses, based on his competence, progress, pre-requisites and interest.

4.2 The Academic Section of the College invites 'Registration Forms' from students within 15 days from the commencement of class work through 'ON-LINE SUBMISSIONS', ensuring 'DATE and TIME Stamping'. The ON-LINE Registration Requests for any 'CURRENT SEMESTER' shall be completed BEFORE the commencement of Semester End Examinations of the 'PRECEDING SEMESTER'.

4.3 A Student can apply for ON-LINE Registration, ONLY AFTER obtaining the 'WRITTEN APPROVAL' from program coordinator, which should be submitted to the College Academic Section through the Head of Department (a copy of it being retained with Head of Department, program coordinator and the Student).

4.4 If the Student submits ambiguous choices or multiple options or erroneous entries during ON-LINE Registration for the Subject(s) / Course(s) under a given/ specified Course Group/ Category as listed

in the Course Structure, only the first mentioned Subject/ Course in that Category will be taken into consideration.

4.5 Subject/ Course Options exercised during registration are final and CANNOT be changed, nor can they be inter-changed; further, alternate choices also will not be considered. However, if the Subject/ Course that has already been listed for Registration by the University in a Semester could not be offered due to unforeseen or unexpected reasons, then the student will be allowed to have alternate choice either for a new Subject, if it is offered, or for another existing Subject (subject to availability of seats). Such alternate arrangements will be made by the Head of Department, with due notification and time-framed schedule, within the FIRST WEEK from the commencement of Class- work for that Semester.

4.6 MOOCs

The registration of MOOC courses will be done by the program coordinator as per the requirement/need of the program and availability of course at the beginning of the semester. A faculty will be allotted to monitor the performance of students in MOOC courses. Grading of the MOOC course will be done conducting an end examination for 100 marks. In case the service provider of MOOC course assesses the performance of the candidate and provides the marks for the course, it will be considered for grading after applying grade equivalency if required.

5.0 **Attendance Requirements**

The programmes are offered based on a unit system with each subject being considered a unit. Attendance is calculated separately for each course.

5.1 Attendance in all classes (Lectures/Laboratories) is compulsory. The minimum required attendance in each theory subject (*also mandatory(audit) courses*) including the attendance of mid-term examination / Laboratory etc. is 75%. Two periods of attendance for each theory subject shall be considered, if the student appears for the mid-term examination of that subject. A student shall not be permitted to appear for the Semester End Examinations, if his/her attendance is less than 75%.

5.2 A student's Seminar report eligible for evaluation, only if he ensures a minimum of 75% of his attendance in Seminar presentation classes during that Semester.

5.3 **Condoning of shortage of attendance** (between 65% and 75%) up to a maximum of 10% (considering the days of attendance in sports, games, NCC, NSS activities and medical grounds) in each subject (Theory/Lab/Seminar) of a semester shall be granted by the College Academic Committee on genuine reasons.

5.4 A prescribed fee per subject shall be payable for condoning shortage of attendance after getting the approval of College Academic Committee for the same. The College Academic Committee shall maintain relevant documents along with the request from the student.

5.5 Shortage of Attendance below 65% in any subject shall in **no case be condoned.**

5.6 A Student, whose shortage of attendance is not condoned in any Subject(s) (Theory/Lab/ Seminar) in any Semester, is considered as 'Detained in that Subject(s), and is not eligible to write Semester End Examination(s) of such Subject(s), (in case of his/her Seminar Report or Presentation are not eligible for evaluation) in that Semester; and he/she has to seek re-registration for those Subject(s) in subsequent Semesters, and attend the same as and when offered.

5.7 A student fulfills the attendance requirement in the present semester, shall not be eligible for readmission into the same class.

5.8   **a)** A student shall put in a minimum required attendance in at least **three theory subjects (excluding *mandatory(audit)* course)** in first Year I semester for promotion to first Year II Semester.

b) A student shall put in a minimum required attendance in at least **three theory subjects (excluding *mandatory(audit)* course)** in first Year II semester for promotion to second Year I Semester.

6.0   Academic Requirements

The following academic requirements must be satisfied, in addition to the attendance requirements mentioned in item no. 5. The performance of the candidate in each semester shall be evaluated subject-wise, with a maximum of 100 marks per subject / course (theory / practical), based on Internal Evaluation and Semester End Examination.

6.1   A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/course, if he/she secures not less than 40% of marks (24 out of 60 marks) in the End Semester Examination, and a minimum of 50% (50 out of 100 marks) of marks in the sum total of Continuous Internal Evaluation and Semester End Examination taken together.

6.2   A student shall register for all subjects specified and listed in the course structure for the chosen specialization, put in the required attendance and fulfill the academic requirements for obtaining a minimum of 'B' Grade or above in each subject. The minimum required SGPA (Semester Grande Point Average) and CGPA (Cumulative Grande Point Average) is 6.0

Note: (1)   The SGPA will be computed and printed on the marks memo only if the candidate passes in all the subjects offered and gets minimum B grade in all the subjects.

(2)   CGPA is calculated only when the candidate passes in all the subjects offered in all the semesters

6.3   If a student registers for extra subject(s) (in the parent department or other departments/branches of Engineering) other than those listed subjects will not be considered while calculating the SGPA and CGPA. For such extra subject(s) registered, percentage of marks and Letter Grade alone will be indicated in the Grade Card/Marks Memo, as a performance measure, subject to completion of the attendance and academic requirements as stated in items 5 and 6.1 - 6.2.

6.4   When a student is detained due to shortage of attendance in any subject(s) in any semester, no Grade allotment will be made for such subject(s). However, he is eligible for re-registration of such subject(s) in the subsequent semester(s), as and when next offered, with the academic regulations of the batch into which he is re-registered, by paying the prescribed fees per subject. In all these re- registration cases, the student shall have to secure a fresh set of internal marks and Semester End Examination marks for performance evaluation in such subject(s), and SGPA/CGPA calculations.

6.5   A student eligible to appear for the Semester End Examination in any subject, but absent from it or failed (failing to secure 'B' Grade or above), may reappear for that subject at the supplementary examination as and when conducted. In such cases, his Internal Marks assessed earlier for that subject will be carried over, and added to the marks secured in the supplementary examination, for the purpose of evaluating his performance in that subject.

6. 6   A Student who fails to earn credits as per the specified course structure within **four** academic years from the date of commencement of his first year first semester, shall forfeit his seat in M.Tech. programme and his admission **shall stand cancelled.**

7.0   **Evaluation - Distribution and Weightage of Marks**

The performance of a student in each semester shall be evaluated subject- wise (irrespective of credits assigned) for a maximum of 100 marks.

7.1   For the theory subjects 60 marks shall be awarded for the performance in the Semester End Examination and 40 marks shall be awarded for Continuous Internal Evaluation. The Continuous Internal Evaluation shall be made based on the average of the marks secured in the two Mid-Term Examinations conducted, first Mid-Term examination in the middle of the Semester and second Mid-Term examination during the last week of instruction. Each Mid-Term Examination shall be conducted for a total duration of 120 minutes and 3 questions need to be answered out of 5 questions, each question carrying 10 marks (30 marks). For each course there will be a viva voce for 10 marks. The details of the Question Paper pattern for Semester End Examination (Theory) are given below:

- The Semester End Examination will be conducted for 60 marks. It consists of two parts.

  i) Part A for 18 marks, ii) Part B for 42 marks.

- Part A is compulsory and consists of 6 questions, one from each unit and carrying 3 marks each.

- Part B consists of nine questions out of which six questions need to be answered. Each question carries 7 marks.

7.2   For practical subjects, 50 marks shall be awarded for performance in the Semester End Examinations and 50 marks shall be awarded for day-to-day performance as Internal Marks.

7.3   Every candidate shall be required to submit a dissertation on a topic approved by the Dissertation Review Committee.

7.4   A Dissertation Review Committee (DRC) shall be constituted with the Program Coordinator as Chairperson, Dissertation Supervisor and atleast one senior faculty member of the Department (concerned with the M. Tech. programme)

7.5   Registration of Dissertation Work: A candidate is permitted to register for the Dissertation Work after satisfying the attendance requirement in all the subjects, both theory and laboratory.

7.6   A candidate must present in Dissertation Work Review - I, in consultation with his Dissertation Supervisor, the title, objective and plan of action of his Dissertation work to the Dissertation Review Committee (DRC) for approval within four weeks from the commencement of Second year First Semester. Only after obtaining the approval of the DRC the student can initiate the Dissertation work.

7.7   If a candidate wishes to change his supervisor or topic of the Dissertation, he can do so with the approval of the DRC. However, the DRC shall examine whether or not the change of topic/supervisor leads to a major change of his initial plans of Dissertation 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.

7.8   A candidate shall submit his/her Dissertation progress report in two stages at least with a gap of three months between them.

7.9   The work on the Dissertation shall be initiated at the beginning of the II year and the duration of the Dissertation is two semesters. A candidate is permitted to submit Dissertation thesis only after successful completion of all theory and practical courses with the approval of DRC not earlier than 40 weeks from the date of approval of the Dissertation work. For the approval of DRC the candidate shall submit the draft copy of thesis to the Head of the Department/Program Coordinator and make an oral presentation before the DRC.

7.10   The Dissertation Part 1 - It carries internal marks of 100. Evaluation should be done by the DRC for 50 marks and the Supervisor will evaluate the work for the other 50 marks. It is a continuous assessment and at least two reviews will be conducted on the progress of the dissertation part 1. As a part of end semester evaluation, the Supervisor and DRC will examine the Problem Definition, Objectives, Scope of Work, Literature Survey in the same domain and progress of the Dissertation Work. A candidate has to secure a minimum of 50% of marks to be declared successful in Dissertation Part 1.

7.11   The Dissertation Part 2 – It carries 100 internal marks. Evaluation should be done by the DRC for 50 marks and the Supervisor will evaluate it for the other 50 marks. The DRC will examine the overall progress of the Dissertation Work and decide whether or not the Dissertation is eligible for final submission. For Dissertation Evaluation (Viva Voce) in II Year II Sem, there are external marks of 100 and it is evaluated by the external examiner. The candidate has to secure a minimum of 50% marks in Dissertation Evaluation (Viva- Voce) examination.

7.12   Three copies of the Dissertation Thesis certified by the supervisor shall be submitted to the Department/Institute, after submission of a research paper related to the Dissertation work in a UGC approved journal. A copy of the submitted research paper shall be attached to thesis.

7.13   The thesis shall be adjudicated by an external examiner selected by the Director. For this, Director of the Institute will finalize one external examiner from a panel of **three** examiners in the relevant specialization as submitted by the Department/DRC.

7.14   If the report of the external examiner is unsatisfactory, the candidate shall revise and resubmit the Thesis. If the report of the examiner is unsatisfactory again, the thesis shall be summarily rejected. Subsequent actions for such dissertations may be considered, only on the specific recommendations of the external examiner and /or Dissertation Review Committee. No further correspondence in this matter will be entertained, if there is no specific recommendation for resubmission.

7.15   If the report of the examiner is satisfactory, the Head of the Department shall coordinate and make arrangements for the conduct of Dissertation Viva-Voce examination. The Dissertation Viva-Voce examination shall be conducted by a board consisting of the Supervisor, Program Coordinator, Head of the Department and the external examiner who adjudicated the Thesis. The candidate has to secure a minimum of 50% of marks in Dissertation Evaluation (Viva-Voce) examination.

7.16   If he/she fails to fulfill the requirements, he/she will reappear for the Dissertation Viva- Voce examination only after three months. In the reappeared examination also, if he fails to fulfill the requirements, he/she will not be eligible for the award of the degree, unless he/she is asked to revise and resubmit his Dissertation Work by the board within a specified time period (within **four** years from the date of commencement of his first year first semester).

7.17   The Dissertation Viva-Voce External examination marks must be submitted to the Institute on the day of the examination.

7.18   *For mandatory(audit) courses, a student has to secure 40 marks out of 100 marks (i.e. 40% of*

the marks allotted) in the continuous internal evaluation for passing the subject/course.

7.19 *No marks or letter grades shall be allotted for mandatory(audit) courses. Only Pass/Fail shall be indicated in Grade Card.*

8.0 **Re-Admission/Re-Registration**

8.1 **Re-Admission for Discontinued Student**

A student, who has discontinued the M.Tech. degree programme due to any reason whatsoever, may be considered for '**readmission**' into the same degree programme (with the same specialization) with the academic regulations of the batch into which he gets readmitted, with prior permission from the authorities concerned

8.2 If a student is detained in a subject (s) due to shortage of attendance in any semester, he may be permitted to **re-register** for the same subject(s) in the same category (core or elective group) or equivalent subject, if the same subject is not available, as suggested by the Board of Studies of that department, as and when offered in the subsequent semester(s), with the academic regulations of the batch into which he seeks re-registration, with prior permission from the authorities concerned, subject to clause 3.2

8.3 A candidate shall be given one chance to re-register and attend the classes for a maximum of two subjects, if the internal marks secured by a candidate are less than 50% and failed in those subjects but fulfilled the attendance requirement. A candidate must re-register for failed subjects within four weeks of commencement of the class work and secure the required minimum attendance. In the event of the student taking this chance, his Continuous Internal Evaluation (internal) marks and Semester End Examination marks obtained in the previous attempt stand cancelled.

9.0 **Examinations and Assessment - The Grading System**

9.1 Grades will be awarded to indicate the performance of each student in each Theory Subject, or Lab/Practical, or Seminar, Dissertation, etc., based on the percentage of marks obtained in Continuous Internal Evaluation + Semester End Examination, both taken together, and a corresponding Letter Grade shall be given.

9.2 As a measure of the student's performance, a 10-point Absolute Grading System using the following Letter Grades (UGC Guidelines) and corresponding percentage of marks shall be followed:

Marks Range	Grade	Grade Points
90-100	EX	10
80-89	A	9
70-79	B	8
60-69	C	7
50-59	D	6
Below 50% (< 50%)	R (FAIL)	0

Note: CGPA x 10 gives conversion of marks percentage

9.3 A student obtaining R Grade in any Subject is deemed to have 'failed' and is required to reappear as 'Supplementary Candidate' for the Semester End Examination, as and when conducted. In such cases, his/her Internal Marks in those subjects will remain as obtained earlier.

9.4 If a student has not appeared for the examinations, 'Ab' Grade will be allocated to him for any subject and shall be considered 'failed' and will be required to reappear as 'Supplementary Candidate' for the

Semester End Examination, as and when conducted.

9.5 In general, a student shall not be permitted to repeat any Subject/ Course (s) only for the sake of 'Grade Improvement' or 'SGPA/ CGPA Improvement'.

9.6 A student earns Grade Point (GP) in each Subject/ Course, on the basis of the Letter Grade obtained by him in that Subject/ Course. The corresponding 'Credit Points' (CP) are computed by multiplying the Grade Point with Credits for that particular Subject/Course.

Credit Points (CP) = Grade Point (GP) x Credits …. For a Course

9.7 The student passes the Subject/ Course only when he **gets GP 6 (B Grade or above).**

9.8 The Semester Grade Point Average is calculated by dividing the Sum of Credit Points (ΣCP) secured from ALL Subjects/ Courses registered in a Semester, by the Total Number of Credits registered during that Semester. SGPA is rounded off to TWO Decimal Places. SGPA is thus computed as

$$\text{SGPA} = \{ \sum_{i=1}^{N} C_i G_i \} / \{ \sum_{i=1}^{N} C_i \} \text{ …. For each Semester,}$$

where 'i' is the Subject indicator index (taking into account all Subjects in a Semester), 'N' is the no. of Subjects 'REGISTERED' for the Semester (as specifically required and listed under the Course Structure of the parent Department), C_i is the no. of Credits allotted to the ith Subject, and G_i represents the Grade Points (GP) corresponding to the Letter Grade awarded for that i^{th} Subject.

9.9 The Cumulative Grade Point Average (CGPA) is a measure of the overall cumulative performance of a student over all Semesters considered for registration. The CGPA is the ratio of the Total Credit Points secured by a student in ALL registered Courses in ALL Semesters, and the Total Number of Credits registered in ALL the Semesters. CGPA is rounded off to TWO Decimal Places. CGPA is thus computed from the I Year Second Semester onwards, at the end of each Semester, as per the formula

$$\text{CGPA} = \{ \sum_{j=1}^{M} C_j G_j \} / \{ \sum_{j=1}^{M} C_j \} \text{ … for all Semesters registered}$$

where 'M' is the TOTAL no. of Subjects (as specifically required and listed under the Course Structure of the parent Department) the Student has 'REGISTERED' for from the 1st Semester onwards upto and inclusive of the Semester S (obviously M > N), 'j' is the Subject indicator index (taking into account all Subjects from 1 to S Semesters), C_j is the no. of Credits allotted to the jth Subject, and G_j represents the Grade Points (GP) corresponding to the Letter Grade awarded for that j^{th} Subject. After registration and completion of I Year I Semester however, the SGPA of that Semester itself may be taken as the CGPA, as there are no cumulative effects.

Illustration of calculation of SGPA

Course/Subject	Credits	Letter Grade	Grade points	Credit Points
Course 1	4	A	8	4*8 = 32
Course 2	4	O	10	4*10 = 40
Course 3	4	B	6	4*6 = 24
Course 4	3	B	6	3*6 = 18
Course 5	3	A+	9	3*9 = 27
Course 6	3	B	6	3*6 = 18
	21			159

SGPA = 159/21 = 7.57

Illustration of calculation of CGPA

Semester	Credits	SGPA	Credits * SGPA
Semester I	24	7	24*7 = 168
Semester II	24	6	24*6 = 144
Semester III	24	6.5	24*6.5 = 156
Semester IV	24	6	24*6 = 144
	96		612

CGPA = 612/96 = 6.37

10.0   Award of Degree and Class

10.1   If a student who registers for all the specified Subjects/ Courses as listed in the Course Structure, satisfies all the Course Requirements, and passes the examinations prescribed in the entire PG Programme, and secures the required number of **68** Credits (with CGPA ≥ 6.0), shall be declared to have 'QUALIFIED' for the award of the M.Tech. Degree in the chosen Branch of Engineering and Technology with the specialization that he was admitted into.

10.2   Award of Class

After a student has earned the requirements prescribed for the completion of the programme and is eligible for the award of M.Tech. Degree, he shall be placed in one of the following three classes based on the CGPA:

Class Awarded	CGPA
First Class with Distinction	≥ 7.75
First Class	$6.75 \leq$ CGPA < 7.75
Second Class	$6.00 \leq$ CGPA < 6.75

A student with final CGPA (at the end of the **PGP) < 6.00** shall not be eligible for the Award of Degree.

11.0   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 and degree of the student will be withheld and he will not be allowed into the next semester.

12.0   General

12.1   Credit: A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.

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

12.3   Wherever the words "he", "him", "his", occur in the regulations, they shall include "she", "her".

12.4   The academic regulation should be read as a whole for the purpose of any interpretation.

12.5   In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the University is final.

12.6   The University 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 University.