



# VINAYAKA MISSION'S RESEARCH FOUNDATION

(Deemed to be University under section 3 of the UGC Act 1956)



## FACULTY OF ENGINEERING AND TECHNOLOGY

### **REGULATIONS**

### **MASTER OF ENGINEERING / TECHNOLOGY**

### **M.E. / M.Tech - (FULL TIME)**

**WITH EFFECT FROM 2021-22**



**VINAYAKA MISSION'S  
RESEARCH FOUNDATION**  
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# **VINAYAKA MISSION'S RESEARCH FOUNDATION**

**(Deemed to be University under Section 3 of UGC Act, 1956), SALEM, INDIA**

## **FACULTY OF ENGINEERING AND TECHNOLOGY**

# **REGULATIONS 2021**

**(FOR THE STUDENTS ADMITTED FROM 2021-22 ONWARDS)**

**MASTER OF ENGINEERING/ TECHNOLOGY (M.E./M.Tech)**

**DEGREE PROGRAMME - FULL TIME**

# **VINAYAKA MISSION'S RESEARCH FOUNDATION**

**(Deemed to be University under Section 3 of UGC Act, 1956)**

**SALEM, INDIA**

**MASTER OF ENGINEERING/ TECHNOLOGY (M.E./M.Tech) DEGREE  
PROGRAMME - FULL TIME**

**UNDER**

**FACULTY OF ENGINEERING AND TECHNOLOGY**

**REGULATIONS 2021**

**(FOR THE STUDENTS ADMITTED FROM 2021-22 ONWARDS)**

In exercise of the powers conferred by the Revised Memorandum of Association rules of the Vinayaka Mission's Research Foundation, Deemed to be University Salem, the Board of Management of the University hereby issues the following regulations pertaining to the the postgraduate Programme and award of the degree of Master of Engineering/Master of Technology (M.E./M.Tech) at this University.

## **1. TITLE AND COMMENCEMENT**

These revised regulations shall be called "REGULATIONS FOR MASTER OF ENGINEERING / MASTER OF TECHNOLOGY (M.E./M.Tech) - FULL TIME DEGREE PROGRAMME – (R2021). These revised regulations come into force with effect from the Academic year 2021-2022 and are subject to modifications which may be approved by the apex bodies of the University from time to time.

## **2. PREAMBLE**

The Degree of MASTER of Engineering / MASTER of Technology (M.E./M.Tech) in Faculty of Engineering and Technology shall be awarded to a candidate who, as per these regulations, has successfully undergone the programme, passed the prescribed examinations and thereby qualified to receive the degree.

### **General Considerations and Teaching Approach**

The tremendous growth of Science and Technology has made inroads in every sphere of human activity. It has created opportunities, challenges and opened new horizon in the pursuit of knowledge, career and accomplishments. Aspirants are crossing oceans in the pursuit of knowledge

and for successful career. The globalization and subsequent opening of our economy have provided ample opportunities in the quest of knowledge to the students of our Nation. Hence a need has arisen to provide flexible, need based, versatile and learner oriented Education / Knowledge to our students and make them competitive. If the present rigid academicsystem and the Institution methodologies are continued to be imposed, the learners may not have the choice of courses of their liking and hence will not meet the requirements to strengthen their knowledge in specific areas needed for their career. In viewof the above a movehas to be initiated from Institution centric to learner oriented educationsystem.

The Choice Based Credit System (CBCS) provides ample opportunity formultiple entries, large number of electives, flexible pace for earning credits, carryover of suchcredits, and choice of courses from other branches. Further it has the ability to accommodate diverse choices that the students may like to have. In view of the above advantages the CBCS has been implemented from the academic year 2012-2013onwards.

As part of continuous improvement in providing quality education, we have taken the right step in this direction by introducing the Flexible Credit System into our academic curriculum. Through this, the students can register for courses of their choice altering at will, the pace of learning within the broad framework of an academic course and credit requirements, as time progresses.

Students also have the option of choosing from a ‘basket of courses’ within each classification. Ample options are given to choose interdisciplinary courses from other programs which will help the student develop additional skills. Slow learners will also benefit since important courses are offered in both semesters in any given academic year. This arrangement helps the students to re-register the course and clear the backlog in subsequent semesters. Suitable provisions are included to reward academically sound students, allowing them to carry out research activities.

### **3. DEFINITIONSANDNOMENCLATURE**

IntheRegulations,unlessthecontextotherwiserequires,certain terms used in the form of abbreviation andtheirmeaningsareasunder.

- |     |       |   |
|-----|-------|---|
| 3.1 | AC    | Academic Council, the highest academic body of the University, headed by the Vice Chancellor. |
| 3.2 | AB    | Absent  |
| 3.3 | AICTE | All India Council for Technical Education, New Delhi.   |

3.4	BE / B.Tech.	Bachelor of Engineering/Technology
3.5	BoM	Board of the Management- the highest governing body of the University.
3.6	BoS	Board of Studies of the University under the Faculty of Engineering and Technology.
3.7	Specialization	Discipline of BE/B.Tech. Degree Programme, such as Mechanical Engineering,CivilEngineering,Electronics and Communication Engineering etc.
3.8	CBCS	Choice Based Credit System
3.9	CO	Course Outcomes
3.10	CoE	Controller of Examinations of the University.
3.11	Course	Subject of study offered by various departments.
3.12	Credit	Course work measured in units, based on hours conducted/week and content of course. 01 hour lecture/tutorial and 02 hour practical per week is equivalent to 01 credit.
3.13	Curriculum and Syllabus	Courses studied in each Programme that provides appropriate knowledge in the chosen branch. The curriculum and syllabus for study is as prescribed by the Board of Studies (BoS) with the approval of the concerned Academic Council (AC) based on the UGC / AICTE regulations.
3.14	Dean	Dean for the Faculty of Engineering and Technology of the University.
3.15	EA	External Assessment
3.16	HoD	Head of the Department of the Institution.
3.17	HoI	Head of the Institution or Principal of the Constituent Engineering College of the University.
3.18	Institution	Constituent Engineering College of the University.
3.19	IA	Internal Assessment
3.20	MoE	Ministry of Education.
3.21	MOOCs	Massive Open Online Courses
3.22	NCC	National Cadet Corps
3.23	NPTEL	National Programme on Technology Enhanced Learning
3.24	NSS	National Service Scheme
3.25	OBE	Outcome Based Education

3.26	PO	Programme Outcomes
3.27	Programme	Under Graduate Programme leading to the award of Degree BE/B.Tech. approved by UGC, AICTE and University.
3.28	PSO	Programme Specific Outcomes
3.29	RRC	Red Ribbon Club of the Institution.
3.30	RA	Reappear
3.31	SWAYAM	Study Webs of Active Learning for Young Aspiring Minds is a programme of the MHRD, Government of India.
3.32	Teacher	Professors, Associate Professors, Assistant Professors, Pro-term Lecturers and other persons engaged in teaching of the students and assisting the students in the conduct of studies and Research in the College/University.
3.33	UGC	University Grants Commission.
3.34	VMRF	Vinayaka Mission's Research Foundation, Deemed to be University, Salem, Tamil Nadu, India.
3.35	VC	Vice - Chancellor of the University.
3.36	YRC	Youth Red Cross of the Institution.

#### **4. REGISTRATION**

A candidate admitted in the Post Graduate Programme in the constituent Engineering Colleges of the University shall register with the University by remitting the prescribed fees along with the application form for registration duly filled in and forwarded to the Controller of Examinations of this University through the Head of the Institutions within the stipulated date. The name of the candidate must be registered in the University within three months from the date of admission. If the candidate fails to satisfy the requirements, the admission of the candidate stands cancelled.

#### **5. ELIGIBILITY**

The eligible entry qualifications approved by the University are listed in Annexure -I.

#### **6. PROGRAMMES OFFERED BY THE UNIVERSITY**

A candidate may be offered one of the branches of study from those approved by the University and as specified in Annexure I.

## **7. MODES OF STUDY:**

Candidates admitted under 'Full-Time' should be available in the University departments during the entire duration of working hours (From Morning to Evening on Full-Time basis) for the curricular, co-curricular and extra-curricular activities. The Full-time candidates should not attend any other Full-time programme(s) / course(s) or take up any Full-Time job / Part-Time job in any Institution or company during the period of Full-Time programme. Violation of the above rules will result in cancellation of admission to the PG programme.

## **8. ADMISSION**

Candidates who have been awarded or qualified for the award of the Bachelor's degree in Engineering / Technology, from an Institution approved by AICTE are eligible for admission to the M.E/M. Tech., Programme. Eligibility of candidates will be decided from time to time by following the guidelines issued by All India Council for Technical Education (AICTE). Sponsored candidates from Industries, R&D organizations, National Laboratories as well as Educational Institutions, with a bachelor's degree in engineering are eligible for admission to the M.E/M. Tech. programme.

The number of candidates to be admitted to each M.E/ M. Tech stream will be based on approval received from the All India Council for Technical Education. Admission will be complete only on meeting all the other requirements mentioned in the letter of admission and on payment of the fees. Candidates who have the Associate Membership of Professional Bodies that are approved by the University and have qualified in GATE shall also be eligible for admission to the M.E/M. Tech. programme. Non Resident / Foreign Nationals can be admitted upto 15% of total seats as per norms and guidelines of the University.

## **9. DURATION OF THE PROGRAMME**

The normal duration of the M.E/M. Tech programme, including the project work, shall be four semesters.

## **10. EXTENSION OF MAXIMUM DURATION**

The candidates who fail to complete the year-wise programme as mentioned in clause 9 would be permitted to complete the programme within a period of 4 years (8 semesters) for Full time candidates. Those who fail to complete within the extended period shall be discharged from the course.

## **11. COMMENCEMENT OF THE COURSE**

The academic year for the programme shall commence in the month of September every year.

## **12. WORKING DAYS IN AN ACADEMIC YEAR**

Each semester normally consists of **90 working days or 450 hours** inclusive of end semester theory & practical examinations and 75 teaching days.

## **13. MIGRATION**

Migration of students from one Engineering college/University to another Engineering college/University may be granted on any genuine ground subject to the availability of vacancy in the college where migration is sought and fulfilling the other requirements laid down in the AICTERegulations.The applicant candidate shall be eligible to apply for migration only after qualifying in the end of second semester M.E./M.Techexamination.

The provision of combination of attendance shall be granted to a transferee for admission to the Examinations of this University on satisfactory fulfillment of the regulations of the University.All Migrations / Transfer are subject to the approval of the Academic Council based on the recommendation of the Vice-Chancellor

## **14. BREAK OFSTUDY**

Break of study may be permitted for genuine reasons like serious health problems and calamitous family situations. The Vice Chancellor is vested with the power to permit the break for which the candidate must apply in the prescribed form enclosing necessary supporting documents and fees through his/her HoI, sufficiently ahead of the proposed period of break. A break of study may cast for a period of 6 to 12months. If a student does not have a minimum of 75 % attendance in at least 3 or more courses in the previous semester he will not be allowed to enroll for current semester and has to undergo a year of break in studies.

The period of break of study of the candidate for rejoining the course shall be calculated from the date of commencement of the discontinuance of the course. A maximum of one year (two spells having six months duration each) of break of study for PGdegree courses will beallowed forthe entire duration of the course.Any further breakof study shall entail the candidate to be de-registered and his/her admission will stand cancelled.A candidate having a break of more than 12 months for PG Degree course, the course of study shall be extended by that period and the candidate is permitted to appear for the examination only after completing this extension period. The candidate shall apply to the University through his/her HoIfor the extension using the prescribed form andfees.The duration specified for passing all the courses for the purpose of awarding degree as per clause 9 and 10 shall be increased by the period of such break of study permitted.If a student is detained for want of requisite attendance, progress and good conduct, the period spent in that semester shall not be considered as permitted Break ofStudy.



## **15. REJOINING / DISCONTINUING AFTER THE BREAK**

For PG degree courses the Candidate having availed a break of study between 6 and 12 months shall apply for rejoining the course by remitting the stipulated fee for condonation of break of study to the Principal of the concerned college for issue of necessary permission to rejoin the course. The concerned principal of the College shall not permit any candidate with a Break of study as stipulated above to rejoin the course without obtaining the prior permission from the authorities of the University. Any break of study beyond two years for full time candidates is considered as discontinuation of study. This is applicable for all the years of study of the post graduate degree courses. However, in exceptional cases, if a candidate having a break of study beyond two years for full time candidates and three years for part time candidates but less than four years for full time candidates and the break of study is in six months one spell, the Board of Management, may, on the recommendation of the Vice Chancellor, permit the candidate to rejoin the course from the beginning of the year. The Candidate shall be permitted to rejoin at the beginning of the first year of the course (i.e.) the candidate has to re-do the course from the beginning and shall after fulfillment of the Regulations this University to the course concerned be admitted to the examinations. The candidate shall not be exempted in the subjects already passed.

## **16. READMISSION AFTER EXTENSION**

If the candidate's name is not registered with the University within three months from the cutoff date prescribed for the respective courses for admission without any valid reasons / ground for such non-registration, permission for re-admission for such candidates will not be issued by the University.

## **17. PROGRAM STRUCTURE**

### **Curriculum**

The curriculum and the syllabus for the course pertaining to the M.E./M.Tech Programme shall be prescribed by the Academic Council based on the recommendation of the Board of Faculty and Board of Studies.

The M.E/M.Tech programme in all streams of specialization will be structured on a credit based system following the semester pattern with continuous evaluation. Every stream of specialisation in the M.E/M. Tech. programme will have a curriculum and syllabi for the courses. The curriculum should be so drawn up that the number of credits for successful completion of the M.E/M. Tech. programme in any stream of specialization is 75. All subjects/courses are to be registered by the

student in a semester to earn credits which shall be assigned to each subject/course in an L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods: Credits) structure based on the following general pattern:

**Definition of Credit:**

1 Hour Lecture (L) per week	1 credit
1 Hour Tutorial (T) per week	1 credit
2 Hours Practical (Lab) per week	1 credit

Other student activities like study tour, guest lecture, conference/workshop participations, technical paper presentations, and identified mandatory courses, if any, will not carry credits.

**STRUCTURE OF POSTGRADUATE ENGINEERING PROGRAM – REGULAR STUDENTS**

S.No	Category of courses	Type of courses	Suggested break up of credits
1.	A.Foundation courses	Mathematics/Applied Mathematics	3
		Research Methodology and IPR	2
2.	B. Program core courses	Core courses	32
3.	C. Elective courses	Program electives	15
		Open electives(Courses on emerging areas..)	03
4.	D. Employability Enhancement Courses and courses for presentation of Technical skills related to the specialization	Project work phase I	6
		Project work phase II	12
		Internship/Industrial training	1
		Research paper writing technical Seminar	1

5.	E. Audit courses	Any two courses on: 1. English for Research Paper Writing 2. Disaster Management 3. Value Education 4. Constitution of India 5. Pedagogy Studies 6. Personality Development Through Life Enlighten Skills	Zero credit
<b>Total credits to be earned for the award of M.E /M.Tech degree</b>			<b>75</b>

### Components of Curriculum

#### 17.1 Category A - Foundation Courses (FC)

The courses in this category belong to Mathematics and research. The credits earned in this category will be used for overall CGPA calculation.

#### 17.2 Category B – Professional Core Courses

The courses related to the programme are called core courses and the same has to be selected by the students in every semester in consultation and guidance of their mentor / faculty advisor. A student may opt for core courses offered through MOOCs (Massive Open Online Courses), SWAYAM, NPTEL etc. and the credits earned after successful completion of the courses will be recommended by HoI for transfer of credits and endorsement in marks statement. The credits earned in this category will be used for overall CGPA calculation.

#### 17.3 Category C - Elective Courses (EC)

##### 17.3.1 Professional Elective courses relevant to chosen specialization

Programme specific professional electives are courses which are not offered under professional core courses. These courses may not have any prerequisites and can be chosen as and when required by the students. A student may opt for programme specific professional elective courses offered through MOOCs (Massive Open Online Courses), SWAYAM, NPTEL etc. and the credits earned after successful completion of the courses will be recommended by HoI for transfer of credits and endorsement in marks statement. The credits earned in this category will be used for overall CGPA calculation.

##### 17.3.2 Open Electives

##### Courses on Emerging Areas(Multi-Disciplinary)

The courses offered in this category include courses on emerging areas which are multi-disciplinary in nature like 3D Printing, Artificial Intelligence, Internet of Things etc. University may offer multi-disciplinary open elective courses which will be offered to all students of the university irrespective of the discipline he/she belongs. e.g. Students from Faculty of Engineering and Technology can take courses offered by the Faculty of Medicines, Faculty of Allied Health

Sciences, Faculty of Pharmacy etc. and vice-versa.

These courses do not have any prerequisite condition and can be chosen as and when desired by the students. A student may opt for open elective courses offered through MOOCs (Massive Open Online Courses), SWAYAM, NPTEL etc. and the credits earned after successful completion of the courses will be recommended by HoI for credit transfer and endorsement in marks statement. The credits earned in this category will be used for overall CGPA calculation.

#### **17.4 Category D – Employability Enhancement Courses and courses for presentation of Technical skills related to the specialization**

##### **17.4.1 Project Work**

The student must represent his earned knowledge in the engineering programme by doing a quality project in his/her last semester of the programme of study. The project work for M.E./M.Tech. Consists of Phase-I and Phase-II. The phase - I is to be undertaken during III semester and Phase-II, which is a continuation of Phase-I is to be undertaken during IV semester. This project work should be done under the regular guidance of faculty supervisor. In case of an industry sponsored project, a co-supervisor from the industry will also be involved and there should be a regular interaction between the student and supervisor and the proceedings should be recorded periodically. Once in a month the student must report to the faculty supervisor with attendance report from co-supervisor and present progress and latest status of his/her project with the help of a Power Point presentation in presence of HoD. The progress and presentations in the semesters will be used for internal evaluation and giving internal assessment marks and end semester examination will be used for external assessment marks. The credits earned in this category will be used for overall CGPA calculation.

##### **17.4.2 Technical Seminar**

In order to develop research aptitude, the student may also be encouraged to read and understand research papers published in indexed journals, patents applied etc. and present in front of a committee constituted by HoD for evaluation and assessment. Besides this, the student should also be encouraged to publish technical papers in national as well as in international conferences and in indexed journals. Record of presentations should be maintained by the faculty in-charge. In a semester, minimum 03 presentations have to be organized and internal assessment marks will be awarded on the basis of performance in best 02 (two) of the 03 (three) presentations and external assessment marks will be awarded on the basis of performance in final 4th presentation to be done during end semester practical examinations. The credits earned in this category will be used for overall CGPA calculation.

##### **17.4.3 Internship in Industry**

In order to equip students with necessary hands on skills along with theoretical knowledge and to provide sufficient exposure in real time applications, it is mandatory for every student to undergo internship / industrial training in any industry/ organization. Internship on rural/Social community services, innovation, incubation, IPR, entrepreneurship etc. will also be considered towards

awarding credit under this category. Minimum 3 weeks of internship / industrial training / industrial engagement will be considered as eligible for awarding credits in this category. Mentor/Faculty Advisor will maintain record of the internship and regular attendance and feedbacks should be obtained from the industry. On completion of the internship, the student must submit completion certificate and attendance provided by the industry. In a semester, minimum 03 presentations have to be organized on the knowledge and skills learned from the industry and internal assessment marks will be awarded on the basis of performance in best 02 (two) of the 03 (three) presentations and external assessment marks will be awarded on the basis of performance in final 4th presentation to be done during end semester practical examinations. The credits earned in this category will be used for overall CGPA calculation. HoD on recommendation of equivalence committee constituted for evaluating the credit earned will be submitting the details of the students and credits earned to the HoI. Based on the recommendation by HoD, the HoI will be forwarding the details of credits earned by the students to the Controller of Examinations for endorsement in marks statement. The final semester project in industry / research organization will not be considered as industrial training / internship for earning credits in this category. The credits earned in this category will be used for overall CGPA calculation.

### **17.5 Category E – Mandatory Zero Credit Courses**

The courses under this category do not have any credit and will not be included for CGPA calculations. Courses like English for Research Paper Writing; Disaster Management ;Value Education ;Constitution of India; PedagogyStudies; Personality Development Through Life Enlighten Skills,etc.,are included under this. The student should complete a minimum of two courses under this category.

### **18. Medium of Instruction**

The medium of instruction for lectures, examinations and project work is English, except for language courses other than English.

### **19. EXAMINATION**

#### **19.1 Commencement of Examinations**

The University Examinations will be conducted twice in an academic year. The CoE would notify the dates of examinations to the candidates. The examination shall be commences in the month of November/December and April/May in every academic year.

#### **19.2 Requirements for Admission to Examinations**

##### **19.2.1 Attendance Requirements**

No candidate shall be permitted to appear for the Examination unless he/she put in 75% attendance in individual course(s) including laboratory course(s) inclusive of attendance in non-lecture teaching i.e. seminars, group discussions, and tutorials. If a candidate fails to satisfy the attendance requirements they are required to repeat that incomplete course(s) in the next academic year whenever offered or complete the course(s) in the summer term if offered.

**Note:** All students are expected to attend all classes and secure 100% attendance. The above provision is made to allow for unavoidable reasons such as medical leave/ permitted participation in sports and Co-curricular activities.

Before commencement of examination of the semester the Head of the Institutions of the constituent colleges has to furnish the consolidated attendance particulars of the candidates for all subjects enrolled by him/her, specifying the number of days of attendance in each month for a period of one semester to this University, in the prescribed format. The days of suspension of a student on disciplinary grounds will be considered as days of absence for calculating the percentage of attendance, for individual courses.

### **19.2.2 Condonation of Lack of Attendance**

Condonation of shortage of attendance up to a maximum of 10% may be permitted by the Head of the Institution in deserving cases. A candidate lacking attendance shall submit an application in the prescribed form and remit the stipulated fee 15 days prior to the commencement of the examination.

### **19.2.3 Other Requirements for Admission to the Examinations**

Registration for all Eligible courses in the current semester and arrear examination where ever applicable M.E./M.TECH. Examination as specified in the curriculum of the regulations. The University shall ensure that the students of the colleges, who do not fulfill the Regulation for Engineering/Technology (Minimum Standards of Education), are not sent for the University Examination. Each theory paper shall be of three hours duration.

## **20 ASSESSMENT**

### **20.1 Learning Assessment Procedure**

All assessments are designed based on Revised Bloom's Taxonomy levels of thinking and learning. The learning of a student is assessed and evaluated twice in an academic year at the end of odd /even semester respectively, and shall have learning assessments from the following perspectives with respect to all courses:

- (a) Evaluation with respect to knowledge.
- (b) Evaluation with respect to Understanding.
- (c) Evaluation with respect to skill.
- (d) Evaluation with respect to Applications.
- (e) Higher Order Thinking Skills Registration for end-semester final examination for all courses enrolled in that semester is mandatory.

The student's learning in each course, in general, is assessed (formative) and evaluated (summative) based on in-semester continuous learning assessment (Internal assessment) and end-semester final examination.

## 20.2 Internal Assessment(IA)

60% weightage of the total marks will be used for internal assessment of the students by the faculty in charge / Course handler in theory as well as practical courses. An in-semester continuous learning assessment (also known as internal assessment test) is spread through the duration of course and is done by the faculty member facilitating the course. The internal assessment marks will be calculated based on the following guidelines.

S. No.	Description	Marks
01	Internal Assessment Test -01&02 and Model exam(10 marks each)	30
02	Seminar/Technical Quiz	20
03	Assignment/Project	10
<b>Total Marks</b>		<b>60</b>

## 20.2 External Assessment(EA)

40% weightage of the total marks will be used for external assessment of the students and it will be mandatory for the student to appear in the exam. The examination may be conducted Online/Offline depending on the prevailing situation.

## 20.3 Eligibility for End semester Examinations

The student maintaining minimum 75% attendance percentage in each course will only be eligible for appearing in internal as well as external assessment tests/examinations. In exceptional emergency cases, HoI may permit the students with attendance percentage 65% and above but below 75% to appear in the tests/examinations with condonation fee as decided by the fee fixation committee of the university.

## 21.PASSING REQUIREMENTS – THEORY AND PRACTICAL COURSES

A candidate securing not less than 50% of total marks (Internal Assessment (IA) +External Assessment (EA)) prescribed for the course in both theory and practical courses will be declared to have passed the Examination. A minimum a 40% need to be scored in both IA and EA for passing.

For lab embedded theory courses, student should compulsorily appear for both theory and practical Examination. He / She has to secure a minimum of 40% in both IA and EA and a total of 50 % (IA+EA) in theory and practical individually to pass in the lab embedded theory courses,

failing which he/she needs to reappear for the entire course (both Theory and Practical).

## 22. ELIGIBILITY FOR AWARD OF DEGREE

A student shall be declared to be eligible for the award of the M.E / M.Tech Degree if she has

- a) Registered and successfully completed the courses and has earned the minimum credit requirements for the respective engineering programme.
- b) Successfully acquired the required learning credits as specified in the curriculum corresponding to the branch of his/her study within the stipulated time duration.
- c) No disciplinary action is pending against him/her.

## 23. CLASSIFICATION OF PERFORMANCE

Classification of performance of students in the examinations pertaining to the courses in a programme is done on the basis of numerical value of Cumulative Grade Point Average (CGPA). The concept of CGPA is based on Marks, Credits, Grade and Grade points assigned.

### 23.1 Mapping of Marks to Grades

Each course (Theory/Practical) is to be assigned 100 Marks, irrespective of the number of credits, and the mapping of marks to grades may be done as given in the following table.

Assigned Grade	Grade Points (GP)	Range of Marks
O++	10	95-100
O+	9.5	90-94
O	9	85-89
A++	8.5	80-84
A+	8	70-79
A	7	60-69
B+	6	55-59
B	5.5	51-54
C	5	40-50
AB	ABSENT (Failure due to nonappearance in examination)	
RA	REAPPEAR (Failure due to insufficient marks in the course)	



### **23.2 Semester Grade Point Average (SGPA)**

Each student is assigned a Semester Grade Point Average (SGPA) on completion and declaration of result of a semester.

$$SGPA = \frac{\sum(C_i * G_i)}{\sum C_i}$$

where  $C_i$  is the credit for a course in that semester and  $G_i$  is the Grade Point earned by the student for that course. The SGPA is rounded off to two decimal numbers and calculated on all courses appeared including courses in which 'RA' grade is obtained.

### **23.3 Cumulative Grade Point Average (CGPA)**

The overall performance of a student at any stage of the Degree programme is evaluated by the Cumulative Grade Point Average (CGPA) upto that point of time and is calculated on the courses which are successfully completed.

$$CGPA = \sum_j \left\{ \frac{\sum_i (C_{ij} * G_{ij})}{\sum_i C_{ij}} \right\}$$

## **24. CLASSIFICATION OF SUCCESSFUL CANDIDATES FOR AWARD OF DEGREE**

### **24.1 First class with Distinction**

**24.1.1** A student who qualifies for the award of degree and passed the examination in all registered courses in his / her first appearance within two years and securing a CGPA of not less than 8.00 shall be declared to have passed in First class with distinction.

**24.1.2** A student who qualifies for the award of degree and passed the examination in all registered courses in his / her first appearance within three years including the authorized Break of Study of one year and securing a CGPA of not less than 8.00 shall be declared to have passed in First class with distinction.

### **24.2 First Class**

**24.2.1** A student who qualifies for the award of degree and passed the examination in all registered courses within two years and securing a CGPA of not less than 6.5 shall be declared to have passed in First class.

**24.2.2** A student who qualifies for the award of degree and passed the examination in all registered courses within three years including the authorized Break of Study of one year and securing a CGPA of not less than 6.5 shall be

declared to have passed in First class.

### **24.3 Second Class**

All other students not covered above and who qualifies for the award of ME / M.Tech. Degree and passed the examination in all the registered courses shall be declared to have passed in Second Class.

## **25. RANKING**

Students obtaining top 3 positions in CGPA ranking in a Programme at the university level will be considered as rank holder. They should have passed all the prescribed courses in the first appearance and should have obtained a CGPA of 8.0 and above. The students should also have a clean record of discipline during the period of study. Special certificate will be given to rank holders.

## **26. MODIFICATIONS OF REGULATIONS**

These regulations are subject to modifications from time to time as per the decisions of the apex bodies of the University.

## ANNEXURE - I

### P.G PROGRAMMES OFFERED IN UNIVERSITY (VMKVEC & AVIT)

Sl. No.	PG Programme Offered
1.	M.Tech. in Bio-Technology
2.	M.E. in Construction Engineering and Management
3.	M.E.in Computer Science and Engineering
4.	M.E. in Manufacturing Engineering
5.	M.E. in Power SystemsEngineering
6.	M.E.in Embedded Systems and Technologies
7.	M.E.in VLSI design
8.	M.E – Biomedical Engineering
9.	M.E – Industrial safety and Engineering
10.	M.E-Structural Engineering
11.	M.E-Pharmaceutical Biotechnology