

JHARKHAND RAI UNIVERSITY

ACADEMIC REGULATIONS FOR M.TECH. (RESEARCH) DEGREE COURSE

1. PREAMBLE

1.1 INTRODUCTION

The provisions in these regulations govern the conditions for imparting courses of instructions, conduction of examinations and evaluation of performance of students leading to M. Tech (Research) degrees. These courses will be offered to external or internal candidates who are engaged in their duties & earning. No financial assistance will be provided.

1.2 These regulations are effective for the batches of students admitted in the academic year 2016-17 onwards.

1.3 The Programme leading to M. Tech (Research) is offered in the following Departments of the University:

- a) Department of Civil Engineering
- b) Department of Mechanical Engineering
- c) Department of Electrical & Electronics Engineering
- d) Department of Computer Sc and Engineering

1.4 The provision of these Regulations shall be applicable to any new disciplines that are introduced from time to time and added to the list in section 1.3.

1.5 Notwithstanding any of the Clause(s) provided in the Regulations, the Academic Council shall exercise its powers to change/amend/interpret/implement decisions and actions concerned with academic matters.

1.6 The Board of Management of the University may, on the recommendation of the Academic Council, change any or all parts of these Regulations at any time with the consent of Board of Governors.

2.0 DURATION OF THE PROGRAMME:

The complete M. Tech (Research) Programme will be of minimum 3 years plus duration for all the candidates. The maximum period allowed to complete the M.Tech (Research) programme is 5 years.

The maximum or minimum period will be counted from the date of registration to the date of submission of dissertation/ Thesis.

3.0 ADMISSION:

3.1 Eligibility for Admission:

The eligibility for admission to M. Tech (Research) in Engineering Faculty and interdisciplinary areas is B.E./B.Tech./MCA/MSc or equivalent in relevant discipline with 60 percent marks in aggregate (or 6.67 CGPA).

3.2 Admission to the M.Tech(R) shall be made subject to the eligibility, qualifications and specialization prescribed by the University from time to time. Admissions shall be made on the basis of Entrance Test conducted by the University or on the basis of any other order of merit approved by the University, subject to reservations prescribed by the university from time to time.

3.3 All students admitted to any of the courses shall be required to pay at the time of joining and also in subsequent semesters prevalent tuition and other fees as prescribed by the University till they are on roll.

3.4 The University reserves the right to cancel the admission of any student, and ask his/her to discontinue his/her studies at any stage of his/her career on grounds of unsatisfactory academic performance or research progress.

3.5 External candidates are allowed to carry out their Research work at the Institute or at their parent organization after fulfilling certain pre-requisites at the University and shall produce a relevant document or no objection certificate from the employer and submit it along with the application form during admission.

3.6 Relaxation:

The following categories of candidates shall be exempted from the test.

- a) Candidates qualifying GATE/NET/SLET and other fellowship approved by the RC from time to time are exempted from the entrance test (written test).
- b) If the candidate has obtained M.Tech in relevant branch/subject.
- c) The candidates belonging to SC/ST category shall be given a relaxation of 5% marks
- d) Candidates with exceptional achievement. (Subject to the discretion of the VC)

4.0 SUPERVISOR/CO-SUPERVISORS

4.1 Eligibility Criteria for Supervisor

- a) All the candidates, at the time of selection, shall be assigned supervisor(s) tentatively. But the allotment of supervisor shall not be left to the individual M.Tech (Research) student. The head of the Department will act as supervisor until the M.Tech (Research) student is assigned a supervisor.
- b) When there are two/more supervisors, one of them will be called as Principal Supervisor, who will be a permanent faculty member of the University. The Co-Supervisor may be from the University or outside the University with PG degree in relevant branch.
- c) The supervisor should be in the rank of Assistant Professor or above with in relevant branch. Faculty member possessing M.Tech./ M.E./ M.Arch with 5 years of teaching experience will be recognized as supervisor for M.Tech (Research).
- e) Whenever a Supervisor leaves the University permanently or temporarily for a period greater than or equal to one year, the RC shall provide new supervisor(s) for the M.Tech (Research) candidates being supervised by him/her before his/her departure.
- f) A faculty can have maximum 4 years M Tech (R) students at a time.
- e) The RC will approve the supervisors based on their qualifications and research experiences on submission of faculty admission form to be eligible to become a supervisor for guiding M.Tech (Research) candidates of the University.

4.2 Allocation of Supervisor

The allocation of the supervisor for a selected student shall be decided by the RC in a formal manner depending on the number of students per faculty member, the available specialization among the faculty supervisors and the research area/ interest of the student as mentioned by the student in the application form

5.0 COURSE STRUCTURE

5.1 Credits System

Credits will be assigned to the M. Tech (Research) Programme as follows. (See table 1)

Table 1 Semester Wise Credits System

Semester I	No of Credits	Semester IV	No of Credits
a) *Credit Seminar (Synopsis) 4 credits b) Research Methodology 4 credits c) Theory 1: 4 credits d) Theory 2:4 Credits	16credits	*Research Progress Seminar 3- 8 Credits	8 credits
Semester II	No of Credits	Semester V	No of Credits
a) *Research Progress Seminar 1- 4 Credits	4 credits	*Pre-synopsis Seminar on the research work carried out by the candidate	4 credits
Semester III	No of Credits	Semester VI	No of Credits
*Research Progress Seminar 2- 8 Credits	8 credits	Thesis Submission & Viva-Voce	20 credits

NOTE:

* One External Examiner or Experts will be invited from outside of the University/Institute.

5.2 COURSEWORK:

The theory coursework is compulsory for all M.Tech (Research) students. These courses will include internal assessment of (30% Weightage) in form of Assignments and end semester examinations (70% weightage).

5.3 The medium of instruction, examination, seminar and project reports will be English.

6.0 REGISTRATION

6.1 Every student after consulting the Guide is required to register for a seminar & the approved Theory Courses in respective Department at the commencement of 1st semester, and on the day fixed for such registration as notified. The registration can be done only after an oral presentation on the proposed area of research in front of a committee duly constituted by RCon the day fixed. The chosen guide should either be part of committee or be invitee member in the seminar.

6.2 Moreover, the students will have to register for each subsequent semester till submission of the dissertation/ Thesis. (Annexed- Registration Form)

6.3 Normally the registration should be complete within 45 days from date of enrollment/admission. If the pre- synopsis seminar performance is unsatisfactory, he/she may be re-evaluated after a lapse of 15 days or more. If he/she cannot clear the seminar within 6 months from the date of admission, he will be required to leave the M.Tech (Research) programme. In special cases with mitigating circumstances, the Research Council can grant extra time.

6.4 Students who do not register on the day announced for the purpose may be permitted late registration up to the notified day on payment of a prescribed late fee. The candidate's name will be deleted from the university roll, if he/she is not getting registered within four weeks from the date of registration.

6.5 The procedure for registration for M. Tech (Research) shall be as follows:

- a) The candidate shall obtain M. Tech (Research) Registration Forms (MRF) for registration after payment of the prescribed fees.
- b) The entire M. Tech (Research) programme of the candidate shall be finalized by the respective department in accordance with Clause – 5.
- c) The M. Tech (Research) programme will include the Theory courses, Credit Seminar, Research Progress Seminars to be registered and delivered by the student and finally the dissertation/ Thesis in the last semester. The Candidate shall fill in the MRF for Registration in consultation with the Guide(s) and submit them to the RC.
- d) The RC or any other committee constituted by the RC shall approve the M. Tech (Research) programmes of all candidates after due scrutiny.

7.0 PLACE OF RESEARCH WORK

- a. Internal Candidate: The University should allot the place of research for internal candidate. The research work can be conducted in any of the departments of the University. The research centre can be considered as place of research for the internal candidate.
- b. External Candidate: University will leave to choose the place of research for external candidate provided he/she should have one co-supervisor in a relevant branch from their side is mandatory as well as candidate should produce information regarding Institute/University where he/she wants to do research. After getting the consent, parent University where candidate has enrolled will provide No Objection Certificate to the external candidate for doing the research.

8.0 COURSE CREDIT REQUIREMENTS

Total 60 credits are required for M. Tech (Research) Programme as per Clause – 5.

8. GRADING SYSTEM:

8.1 The following grading system will be followed (See Table 2)

Table 2 Grades and Grade Points

Letter Grade	Grade Point
O (Outstanding)	10 (90 & above)
A+ (Excellent)	9 (80-89)
A (Very Good)	8 (70-75)
B+ (Good)	7 (60-69)
B (Above Average)	6 (50-59)
C (Average)	5 (40-45)
P (Pass)	4 (35-39)
F (Fail)	0 (<35)
AB (Absent)	Absent

8.2 Communications of Grades

The panel of examiners of each student (Clause – 5) shall submit two copies of letter grades to the Head of the Department to which the subject belongs, by the due date as specified in the Academic Calendar. The Head of the Department will forward all grades to the Examination Section by the due date specified in the Academic Calendar.

8.3 Any change of grade of a student in the examination, consequent upon detection of any genuine error or omission on part of the concerned examiner(s), must be sent by the concerned examiner(s) through the concerned H.O.D. within 1 week of publication of End – semester results.

8.4 Credit/ Research Progress Seminar

The student will submit two copies of credit seminar report to the Guide(s) at any time in the semester in which he/she registered. The student shall make oral presentation on his/her seminar topic as per time schedule decided by the Guide(s). The seminar will be assessed, during his presentation, by the committee enumerated in Clause-5. The credit/Research Progress Seminar assessment will be initially made in terms of marks with 40 percent weightage on the credit seminar report evaluated by the Guide. The oral presentation and the response of the student in the discussion will be given 60 percent weightage which will be awarded by the examiners & chairman of the Committee constituted by the RC. On completion of assessment, compilation of the marks given on the report and the presentation, the chairman will convert the marks into grades and forward the same to the Examination Section. If a student does not submit the credit

Seminar report/Research Progress Seminarreport and/or present the Seminar on the scheduled date, 'F' Grade will be awarded unless the RC extends the date in exceptional circumstances.

8.5 Evaluation of Performance

The performance of a student is evaluated in terms of two indices viz. Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA). The SGPA is calculated on the basis of the grades obtained in all courses taken for a semester:

$$\text{SGPA} = \frac{\Sigma \text{ Course credits X Grade point scored}}{\Sigma (\text{Course credits taken during the semester})}$$

$$\text{C.G.P.A.} = \frac{\Sigma \text{ Cumulative Points scored in Passed courses}}{\Sigma \text{ Cumulative Credits taken during the course}}$$

9.0 ASSESSMENT OF M. Tech (Research) WORK PERFORMANCE

9.1 There will be assessment of a student's performance throughout the semester and Grades will be awarded by the Guide concerned or the appropriate committee appointed for the purpose as mentioned in Clause -5.

9.2 The minimum CGPA for Course Work and Seminar is 6.0 to be eligible to continue the M. Tech (Research) Programme and thereafter the confirmation of Registration shall be done.

10. Dissertation/ Thesis Evaluation:

10.1. The RC in consultation with the supervisor(s) shall recommend a panel of 2 External Examiners (all from Indian). The thesis shall be evaluated by one expert other than the supervisor. External Examiners may be from same state or outside of the state.

10.2 The RC should send the panel of examiners to the Controller of Examination through Dean Research/Academic/HOD in closed confidential cover at least one week before the date of submission of thesis by the Research Scholar.

10.3. The list of examiners will be placed to the Vice-Chancellor to select the External Examiners in order of preference. The Vice Chancellor, may ask the RC to change the examiner list if required. The Supervisor(s) will also serve as Examiners in addition to the one External Examiners.

10.4 The Controller of Examination will send a formal letter (e-mail also) to the examiners along with the copy of the synopsis for acceptance of examiner ship. After receiving the consent the thesis will be mailed along with Performance of examiners report. In case of refusal, the second examiner in order, as chosen by the Vice Chancellor will be contacted and so on. If in this

process the list is exhausted the Controller of Examinations through Dean Research/Academic/HOD, may ask RC to submit another list. The Internal Examiners (Supervisors) will also be sent copies of the thesis along with the Performance of examiners report.

10.5 The reports of the examiners shall be placed before the Vice-Chancellor through the Dean, Research/Academic/HOD. After obtaining Vice-Chancellor's approval the reports shall be forwarded to the RC. There may be three possible situations arising out of the nature of the report. The steps to be taken, appropriate to the circumstances are given below.

- (i) The examiners are unanimous in recommending the award of the degree without any modification of the thesis. This is a clear case for the final requirement of viva-voce.
- (ii) If the external examiners has suggested minor modifications and / or has asked for clarification. The candidate in that case shall make modification and provide the clarifications as suggested within a time to be fixed by the RC.
- (iii) If the external examiners does not recommend the award of the degree and reject the thesis then the RC in such a case shall recommend to the vice Chancellor for the appointment of another external examiner and send the thesis to him/her in its original form. The recommendation of this second external examiner at this stage shall be taken as final.

11.0 UNIVERSITY EXAMINATIONS:

11.1 The Controller of Examination of the University will centrally conduct the Mid-Semester and the End-Semester examinations in respect of the theory components of the subjects unless otherwise permitted.

11.2 A student will be issued with an Admit Card for appearing at an examination, only if he/she has:

- a) Required attendance in the theory and laboratory classes and has completed the assignment works given.
- b) Paid all University and Hostel dues of the semester.
- c) Not been debarred from appearing at the examination as a result of disciplinary proceedings.

11.3 If a student misses the end semester examination due to a compelling reason like serious illness of himself/ herself, calamity in the family, he/she may appeal to the Dean (PG), through his/her Head of the Department for permitting himself /herself to appear at the next end term examination(s) or supplementary examination as decided by Academic Council as case may apply.

11.4 Students will be permitted to appear at the examinations in only those subjects for which they have registered at the beginning of the semester and have not been debarred.

12.0 WITHDRAWAL FROM THE UNIVERSITY:

20.1 A student who has been admitted to a postgraduate degree course of the University may be permitted to withdraw temporarily for a period of one semester or more from the programme on

grounds of prolonged illness or acute problem in the family which compelled him to stay at home, provided:

- a) He/She applies to the Director/ Dean within 15 days of the commencement of the semester or from the date he/she last attended his/her classes whichever is later, stating fully the reasons for such withdrawal together with supporting documents and endorsement of the father/ guardian.
- b) There is no an outstanding due or demands from him/her by the University/Hostel/ Department/Library.

13.0 M. TECH (R) REQUIREMENTS & CONVOCATION

A student shall be declared eligible for award of M. Tech (Research) Degree if he / she has:
Completed all the Course Work and Seminar requirement for the degree with grade 'P' or higher grade in each of the subjects, seminars and dissertation.

Obtained the minimum CGPA requirement of 6.0 at the end of Course Work and Seminars.

M. Tech (Research) work has been carried out within / outside the university under the guidance of Guide(s) for at least two years in case of full time and three years in case of part time (before pre-synopsis) after the date of registration. The above period includes Course work and seminars.

The candidate's one paper has been accepted or published in refereed National or International journal of repute. The dissertation/Thesis submitted by the candidate has been recommended for the award of the M. Tech (Research) degree by one external referee and the guide(s) and by the Board of Examiner (BOE) constituted for the viva-voce examination.

Defended the M. Tech (Research) work at an open viva-voce examination conducted by the BOE.

14.0 CONVOCATION

The Annual Convocation shall be conducted usually in the month of July/August. The M. Tech (Research) Degrees will be awarded in person for the students who have graduated during the current academic year. The Degrees will be awarded in absentia to such students who are unable to attend the Convocation. The students are required to apply separately for the Convocation along with the prescribed fee.