

THE MASTER OF SCIENCE IN ENGINEERING BY RESEARCH

(With effect from 30-6-2006, approved vide E.C. Res. No. 5.4 of 25-6-2006)

OMS 1 SHORT TITLE AND COMMENCEMENT

OMS 1.1 These Regulations shall be called Visvesvaraya Technological University Master of Science in Engineering by Research Regulations, abbreviated as M.Sc.(Engg.) by Research.

OMS 1.2 These shall come into force from the date of their notification by the University and be applicable for the students who seek registration for M.Sc. (Engg.) by Research.

OMS 2 DEFINITIONS

In these Regulations unless the context otherwise requires:

- i) M.Sc.(Engg.) by Research Registration Committee means the specialist body appointed by the Vice Chancellor in the disciplines concerned, which shall be the same as Ph.D. Registration Committee in Engineering for respective disciplines.
- ii) Degree means the Degree of Master of Science (Engineering) by Research (abbreviated as M.Sc.(Engg.) by Research).
- iii) University/VTU means Visvesvaraya Technological University.
- iv) NRI/FN/PIO (Non Resident Indian/ Foreign Nationals/ Persons of Indian Origin) means a candidate under categories as defined by AICTE/UGC/MHRD.

OMS 3 ELIGIBILITY FOR REGISTRATION

Admission to the M.Sc.(Engg) by Research Course shall be open to candidates who satisfy any of the following requirements:

- OMS 3.1**
- a) Candidates who have passed B.E. / B.Tech. Examination of VTU or B.E. / B.Tech. of any other recognized University, recognized by this University as equivalent thereto or any other examination recognized by this University as equivalent thereto and have passed the prescribed qualifying examination with not less than 60% of the marks in the aggregate, in the examinations of the semesters considered for the declaration of class/grade. However, a relaxation to the extent of 10% shall be allowed for candidates belonging to SC/ST and any other category as notified by Government of Karnataka from time to time;
 - b) Teaching / Research Staff / Teaching Assistants, working in any Engineering College and Polytechnic Institutions recognised by AICTE either in the State of Karnataka or outside, who have passed B.E / B.Tech. Examination and put in a minimum of one year of teaching experience in Engineering Colleges / Research Organisations and sponsored by the respective Institutions / DTE in case of aided institutions;
 - c) Employees of the State Government/Central Government/Quasi Government Organizations/Public Sector Industries/Reputed Private Industries, who have passed B.E./B.Tech. Examination and put in a minimum of one year of working experience and are sponsored by the concerned Organizations;

- d) Awardees of research fellowship by nationally recognised bodies like CSIR etc., provided they have B.E. / B.Tech. Examination and put in a minimum of one year of working experience;
- e) NRI/FN/PIOs who have passed the B.E. / B.Tech. or equivalent examination recognised by VTU as equivalent to UG Engineering Degree Programme, with medium of instruction in English or qualified TOFEL/ELTS. Such candidates shall be able to communicate and to submit the synopsis of Dissertation work in English language only.

OMS 3.2 In addition to the above, the candidates shall be qualified in GATE or equivalent National Level within the immediately preceding five years or in the University level Research Aptitude Test, the result of which shall be valid for a three-year period.

OMS 4 REGISTRATION

OMS 4.1 The candidate shall submit his / her application for registration to the University in the prescribed form along with other necessary documents viz., degree certificate, marks cards of all examinations, employers' certificate and no objection certificate from the employer, consent of the Guide, through the Head of the Institution where the candidate intends to do research.

The Head of the Institution shall forward the application of the candidate along with the Bio-Data of the Guide, his/ her degree certificate and list of Research publications to the University. In case of employed candidates, no objection certificate from the employers for pursuing research shall be necessary. In case of OMS 3.1 (e) candidate, he / she shall possess valid passport and MHRD clearance letter.

OMS 4.2 At the time of registration the candidate shall indicate the topic of research, scope of research and the related branch of Engineering/ Technology or Allied Fields. The candidate can register in only such branch of Engineering for which the department is recognized as research centre by VTU.

OMS 4.3 The University shall call for Applications for registration in the months of January and July of every year. The M.Sc.(Engg.) by Research / Ph.D. Registration Committee shall meet in the months of February and August of every year to consider applications of the candidates for registration and the eligibility and recognitions of the Guides.

The Committee may invite the Guides for the meeting if necessary. In exceptional cases, subject to the approval of the Vice Chancellor, it shall be open to the Chairman of the Committee to invite other specialists, wherever necessary, by recording the reasons in writing for such an invitation.

The Committee shall send its recommendations regarding the provisional registration to the University immediately after the meeting.

The Process shall normally be completed by March and September respectively of the same year, and soon thereafter the University shall communicate the decision to the candidate, the Guide and the concerned Head of the Institution.

OMS 4.4 The candidate so registered shall complete PART-I course work and PART – II Dissertation at the institution where he/ she has registered.

OMS 4.5 The provisional Registration of the candidate shall be confirmed on successful completion of the course work.

OMS 5 PART-I : COURSE WORK

- OMS 5.1** Along with the candidate's application for registration the Guide shall specify six courses out of the subjects listed by the University for study relating to the area of research proposed by the candidate.
The Registration Committee shall scrutinize and approve the courses proposed by the Guide with or without the necessary modifications.
- OMS 5.2** All the candidates whose provisional registrations have been approved, shall submit their applications for the examination in the subjects of course work (PART - I) in response to the notification issued by the University in this respect along with the prescribed fees and a certificate from the Guide for having completed the course work.
The written examinations for the subjects of the course work (PART - I) shall be conducted normally along with the M.Tech. Examinations of VTU.
- OMS 5.3** The candidates shall be permitted to apply and appear for one or more subjects at a time, but not more than four subjects in an examination conducted at the end of semester.
- OMS 5.4** Question papers shall be set jointly by the examiners appointed for that purpose by the University from the panel recommended by the Board of Studies of the concerned PG branches.
- OMS 5.5** Answer papers shall be valued independently by two examiners.
- OMS 5.6** If the difference between the marks awarded by the two examiners is not more than, the marks awarded to the candidate shall be the average of the two evaluations.
- OMS 5.7** If the difference between the marks awarded by the two examiners is more than 15, a third examiner shall evaluate the script. The average of the marks of the nearest two evaluations shall be considered as marks secured by the candidate. However, if one of the three marks falls exactly midway between the other two, then the highest two marks shall be taken for averaging.
- OMS 5.8**
- In course work, the candidate shall obtain a minimum of 50% of the maximum marks in the University Examination in each subject.
 - Letter Grades shall be allotted to the candidates declared eligible as follows:
76-100 Marks : A Grade
61-75 Marks : B Grade
50-60 Marks : C Grade
- OMS 5.9** A candidate may pass the subjects of (PART-I) course work in any number of attempts. However, the course work of PART-I shall be completed before the of submission the dissertation.
(82nd EC resolution no. 2.2.6., dated 03.10.2009)
- OMS 6 PART-II: DISSERTATION WORK**
- OMS 6.1** The candidate shall submit six hard copies of synopsis of the dissertation work to the Head of the Institution at least two months before the submission of the dissertation of the Research Work. The Head of the Institution shall arrange to send five copies of the synopsis to the Registrar (Evaluation), VTU.

- OMS 6.2** One copy of the synopsis shall be sent to the Chairman, Board of Studies, who in consultation with the Guide shall submit a panel of four names of experts to the University to act as external referees for evaluation of the dissertation. Out of the four names, at least two shall be from other Universities/Institutions.
- OMS 6.3** The candidate shall submit six hard copies and one soft copy of the dissertation to the Head of the Institution, not earlier than two years and not later than five years from the date of registration. The Head of Institution shall make arrangements to send five of these hard copies to the University for evaluation.
- OMS 6.4** The date of submission of the dissertation may be extended by a maximum period of one year after five years, with the prior approval of the University.
- OMS 6.5** The dissertation shall be evaluated by three examiners appointed by the University the Guide and two external examiners, of which at least one shall be from another University / Institution. Each examiner shall conduct the evaluation of the dissertation independently.
- OMS 6.6** The University shall send a copy of the dissertation to each examiner for evaluation.
- OMS 6.7** All the examiners shall evaluate the dissertation, normally, within a period of one month from the date of receipt of the dissertation and send their reports independently to the Registrar (Evaluation).
- OMS 6.8** On the receipt of favourable reports from all the examiners, the University shall appoint one of the external examiners to conduct the *viva voce*, along with the Guide, who shall be contacted by the Guide to arrive at a mutually convenient date for the conduct of *viva voce* of the candidate. This shall be intimated to the University. For *viva voce*, the candidate shall present the dissertation for defense.
- OMS 6.9** Where any one of the examiners finds that the dissertation work is not up to the expected standard, the dissertation shall not be accepted for awarding the degree. Such examiners shall give reasons for his opinion and make suggestions for improvement of the dissertation for resubmission. After incorporating the suggestions, the candidate shall submit the revised dissertation which shall be sent to the same examiner. If the examiner does not approve the resubmitted dissertation, it shall be sent to a fourth examiner appointed by the University. If the Forth examiner approves the dissertation, *viva voce* shall be conducted as per OMS 6.8. However, if the Fourth examiner also does not approve the dissertation, the dissertation shall be rejected. However, it shall be open to the candidate to seek registration afresh with the University.
- OMS 6.10** Where any two of the examiners find that the dissertation work is not up to the expected standard, the dissertation shall be rejected. However, it shall be open to the candidate to seek registration afresh with the University.
- OMS 6.11** After the successful completion of PART-I and PART-II, the University with the approval of its Executive Council of VTU, shall award the degree of M.Sc. (Engg.) by Research in the concerned discipline to the Candidate.
(The degree so awarded shall be treated as equivalent to M.E./M.Tech. courses with first class of VTU. Only for employment purpose)
(Amended and approved in 82nd Executive Council resolution No. 2.3.3. dated 03.10.2009)

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