

# SRM Institute of Science and Technology Ph.D. REGULATIONS - 2014

(Approved by the Academic Council on 19.10.2013)

#### 1. DEFINITIONS AND NOMENCLATURE

In the Regulations, unless the context otherwise requires,

- i. "SRMIST" means SRM Institute of Science and Technology
- ii. "Programme" means Doctoral Programme leading to the award of Ph.D. in Engineering and Technology / Science and Humanities / Medical and Health Sciences.
- iii. "DRCC" means "Department Research Co-ordination Committee".
- iv. "Chairperson" means the Head of the DRCC.
- v. "Supervisor" means any faculty member of SRMIST or outside SRMIST who has been recognized by SRMIST to guide the research scholars.
- vi. "Doctoral Committee" means a Committee constituted by the SRMIST for each scholar to monitor the progress of his/her research work.
- vii. "Research Co-ordinator" means Head of the Institution / Department / Organization of the Part-time (Ext.) scholar where he/she is employed.
- viii. "Scholar" means any candidate admitted by SRMIST either under Full-time or Part-time category for pursuing research for the award of Ph.D. degree.
- ix. "Course" means a theory subject/a practical subject of PG programme / a directed study prescribed by the Doctoral Committee for the scholar to undergo as a part of the Ph.D. Programme.

#### 2. CATEGORIES OF Ph.D. CANDIDATES

There shall be three categories of Ph.D. candidates.

(i) **Full Time candidates:** All candidates who pursue full time research in SRMIST Shall belong to this category.

- (ii) **Part Time (Internal) candidates**: All candidates employed in SRMIST who pursue part time research in this SRMIST shall belong to this category.
- (iii) Part Time(External) candidates: All candidates working in Industrial units, Colleges, Government departments, Research organizations or other Institutions, Sponsored for pursuing Ph.D. Programmes in this SRMIST while continuing to Serve in their respective Institutions /organizations recognized as Research Centers by SRMIST shall belong to this category. They shall pursue research in their place of employment and /or in SRMIST.

#### 3. RESEARCH OUTSIDE THE SRMIST

During the course of the Ph.D. Programme, for reasons approved by the Doctoral Committee, a candidate may be permitted by SRMIST to spend upto one year in an Institution or on a project approved for the purpose, outside SRMIST for carrying out research in the areas related to the subject of investigation

## 4. ELIGIBILITY

Minimum academic qualification required for admission is that the candidate should possess a PG Degree / PG Diploma **of two years duration** recognized by the respective statutory bodies for pursuing research.

# 5. <u>ADMISSION PROCEDURE</u>

- (i) The number of available seats in the various specializations under different disciplines will be determined well in advance and will be notified in SRMIST website/advertisement.
- (ii) The candidates desirous of pursuing Ph.D. degree shall submit the application in the prescribed form through proper channel wherever applicable, **before 31st March** / **30**<sup>th</sup> **September**, each year to the Director (Research). The application form and the necessary details are available in the SRMIST website
- (iii) The applications received will be sent to the respective Faculty Directors who will forward the same to the Chairpersons of the Department Research Coordination Committee (DRCC) of the departments. The DRCC will consist of all the recognized guides in the department and a recognized guide from another department of the SRMIST nominated by the respective faculty Directors. If the Head of the department is a recognized guide he/she will be the Chairperson. If not, he/she will nominate one of the recognized guides of the department as the Chairperson of DRCC. The DRCC shall screen the applications and conduct written and oral examinations. The DRCC will select the candidates based on their performance in the written and oral examinations. The DRCC will also fix the guide for each candidate taking into account the preference of the

- (iv) The respective DRCC will forward the list of selected candidates along with the applications of all the candidates to the Director(Research) through the Directors of the respective faculties.
- (v) The Director (Research) will seek the approval of the Vice-Chancellor for the provisional registration of the selected candidates.
- (vi) The Candidates whose registration has been approved by the Vice Chancellor shall be provisionally admitted to the Ph.D. Programme by the Director (Research) with intimation to the concerned Faculty Director, HOD, guide, the candidate, and the sponsoring institution, if any.
- (vii) On receipt of the Provisional registration of the candidates, the guides of the students shall recommend a panel of Six names for forming the Doctoral Committee for their respective students and send the same to the respective Faculty Directors through the respective Heads of the Departments. The Faculty Director shall form the Doctoral Committee as in item 9 below, get the approval of the Vice-Chancellor and then communicate the same to the Director (Research) for record and to the respective guides through the respective Heads of the departments for further action.
- (viii) The date of provisional registration shall be of 1st of July or 2nd of January of each year.

#### 6. GUIDES

- (i) All Ph.D. candidates are required to work under the guidance of a recognized guide from SRMIST.
- (ii) The part time (external) candidates shall be required to have, in addition to a Research Guide from the respective faculty of SRMIST, a recognized Coguide/Research coordinator from the institution/organization/department where he/she is employed, who is responsible to provide all necessary resources and help to complete the research work in a time bound manner. The institution /organization/department where the candidate will pursue his/her research work should be recognized as a research centre by SRMIST.
- (iii) When a guide of a candidate happens to be away from SRMIST, for more than 6 months, he/she may continue to guide the candidate, but a guide belonging to the same faculty of SRMIST shall be officially nominated as a co-guide by the DRCC of the department and forwarded through proper channel to the Vice Chancellor for approval.
- (iv) If the guide leaves SRMIST, he/she may be permitted to continue as a guide for his/her students depending upon the availability of the individual, subject to the approval of the Vice Chancellor. Otherwise a new guide belonging to the same faculty of SRMIST, officially nominated by the Research Coordination Committee of the

department will be appointed as the guide after obtaining necessary approval from the Vice Chancellor.

#### 7. RECOGNITION OF GUIDES

Recognition of Guide for guiding research work will be accorded by the Vice Chancellor, on application to the Director(Research) through proper channel in the prescribed format with the recommendation of a subject expert identified by the Director of the concerned faculty.

## a. Faculties of Engineering and Technology and Science and Humanities

Candidates seeking for the recognition of the guideship should possess:

- (i) A Ph.D. Degree in the relevant or allied areas of research in which he/she proposes to guide the candidate.
- (ii) A minimum of two research papers published in the relevant or allied areas of research in refereed journals within a period of three years preceding to his/her date of application for recognition.
- (iii) A minimum of two years of research or teaching experience after acquiring Ph.D. degree. However, exemptions shall be considered by the Vice-Chancellor on merit.

## b. Faculty of Medical and Health Sciences

- (i) A research guide possessing a Ph.D. degree in Medical Sciences should have not less than three years of teaching/research experience with a minimum of two publications in the relevant or allied areas of research in the refereed journals.
- (ii) A research guide without Ph.D. qualification in Medical Sciences should have not less than 15 years of teaching and research experience after obtaining his/her Post Graduate qualification and shall also have not less than 10 years of Post Graduate teaching experience as a faculty member with a minimum of two publications in the relevant or allied areas of research in the refereed journals.
- (iii) A research guide in the Allied Health Sciences should possess a Ph.D. degree with not less than three years of Post Doctoral experience under the specialty of Pharmacy/ Physiotherapy/ Occupational Therapy/ Nursing / Allied disciplines and with at least two research publications in refereed journals.

#### 8. RECOGNITION OF RESEARCH CENTERS

. Various National and Regional Laboratories / Institutions / Organizations / Industrial Establishments/ Industries recognized by DSIR / Departments are eligible to admit

candidates for Ph.D. under this SRMIST provided they possess recognition from the SRMIST. Other Institutions desirous of getting recognition must apply to SRMIST for securing recognition as Centers of Research. The SRMIST will get these institutions assessed through a committee before awarding the recognition, wherever necessary as per the guidelines approved by the Research Advisory Committee.

#### 9. NUMBER OF CANDIDATES PER GUIDE

A Guide shall guide not more than eight doctoral candidates at any time. However a guide may guide three more candidates as a Co-guide.

#### 10. DOCTORAL COMMITTEE

The following members shall constitute the Doctoral Committee as approved by the Vice-Chancellor.

- (i) The Guide (Convener)
- (ii) Two External experts selected by the Director of the respective faculty from a panel of six experts recommended by the Guide from the academia/Industries / R&D organizations.
- (iii) The Co-guide, if any.
- (iv) In case of Part time external candidates, the Co-guide/ Research coordinator from the organization where he/she is employed.
  - (v) An expert in the allied areas of research from SRMIST, if required.
  - (vi) Chairperson of DRCC of the concerned department.

#### 11.DURATION OF THE PROGRAMME

The duration of the programme and the time for submission of thesis are counted from the date of provisional registration.

**Full Time:-** The minimum duration for all candidates belonging to Engineering and Technology / Architecture, Science and Humanities/Management and Medical and Health Sciences shall be **three** years and the maximum duration shall be **Five** years. However, minimum duration may be reduced by **one** year if the Ph.D. field can be considered as continuation of the M.Phil. / MS by Research

**Part Time** (**Internal/External**): For all the candidates belonging to Engineering and Technology/Architecture, Science and Humanities /Management and Medical and Health Sciences, the minimum duration shall be **four** years and the maximum duration shall be **six** years. However, minimum duration may be reduced by **one** year if the Ph.D. field can be considered as continuation of the M.Phil. / MS by Research.

Under extraordinary circumstances if the candidate fails to submit the thesis within the maximum period, further extension of the period for a maximum of two years may be granted by the Vice Chancellor, on the recommendations of the Doctoral Committee, Director of concerned Faculty and Director(Research).

After the expiry of the maximum period including the extension granted, a candidate will be permitted to Re-register as per the following regulations.

- (i) For those candidates who want to re-register under the same supervisor on the same area of research, the earlier Doctoral Committee and the course works completed will hold good.
- (ii) For those candidates who want to re-register with a different supervisor on a different area of research will be subjected to the regulations applicable for the fresh candidates. If the area of research is the same, the new Doctoral Committee will decide whether the earlier course works completed can be considered for exemption or not.

#### 12. COURSE WORK

## (a) For Engineering and Technology /Architecture

The research scholars with PG Degree should successfully complete a minimum of **four** courses (minimum of 12 credits) prescribed by the Doctoral Committee out of which two will be core courses at the PG level. The other **two** courses may be special courses decided by the Doctoral Committee relating to the area of research and approved by the concerned Board of Studies. One of these courses shall be on Research Methodology. The course work shall be completed within a period of the first **two** semesters.

#### (b) For Science and Humanities

- (i) All candidates shall complete **three** courses (minimum of 9 credits) prescribed by the Doctoral Committee and approved by the concerned Boards of Studies.
- (ii) The courses shall be (i) Research methodology for the subject. (ii) A background subject related to his/her Ph.D. research (iii) An advanced subject in the area of research.
- (iii)In the case of candidates with M.Phil. degree, the course work on Research Methodology may be exempted.

## c) For Medical and Health Sciences

All candidates shall complete three courses (minimum of 9 credits) prescribed by the Doctoral Committee. These courses may be chosen from among those offered as regular P.G. programmes in the SRMIST or may be special courses specially designed for the candidates by the Doctoral Committee and approved by the concerned Board of studies.

One of the courses shall be Research Methodology. In the case of candidates with full time M.Phil. degree, the course work on Research Methodology may be exempted.

The directed course is done under the guidance of the Supervisor. For the internal evaluation there should be the following two components.

i. 5 Seminars - 15 Marks
ii. 3 Tests - 15 Marks

Total 30 Marks

The syllabus for the directed course is assigned to the above components in such a way that the entire syllabus is covered. The schedule for the course may be prepared by the Supervisor who teaches the course in the format given below and may be submitted to the Controller of Examination well in advance.

Course Code & Title :

Name of the Supervisor :

Department :

Sl.No.	Component	Syllabus	Date
1	Seminar - 1	From unit 1	
2	Seminar – 2	From unit 2	
3	Seminar – 3	From unit 3	
4	Seminar – 4	From unit 4	
5	Seminar – 5	From unit 5	
6	Test – 1	Covering Units - 1 & 2	
7	Test – 2	Covering Units - 3 & 4	
8	Test – 3	Covering All the Units	

Signature of the Head of the Department

Signature of the Supervisor

#### 13. COMPREHENSIVE EXAMINATION

- (i) A research scholar shall take a comprehensive examination after the completion of two semesters of his/her research programme but before the completion of four semesters. The comprehensive examination is mandatory.
- (ii) The comprehensive examination shall be in the form of written and/or oral as recommended by the Doctoral Committee.
- (iii)Comprehensive examination shall be conducted by a panel of examiners which consists of the members of the Doctoral Committee along with one external examiner as recommended by the Guide and forwarded through proper channel and approved by the Vice Chancellor.
- (iv) The Guide shall intimate the research scholar sufficiently in advance, the scope of the examination and other relevant details.
- (v) If the performance of the research scholar in the comprehensive examination is satisfactory, his/her provisional registration shall be confirmed. If the performance is unsatisfactory, he/she shall be given one more opportunity to appear for the examination within six months of the first examination. In case, the research scholar fails to successfully complete the comprehensive examination within the prescribed time limit, his/her provisional registration shall be cancelled by SRMIST.

## 14. <u>SEMESTER REGISTRATION</u>

All Research scholars whose registration for research degree is in force, are required to report in-person to the guide each semester on the stipulated date till their submission of thesis, in the prescribed registration form and the same shall be forwarded to the Director (Research) through the Head of the department and the Director of the respective Faculty.

## 15. MONITORING THE PROGRESS OF CANDIDATES

- (i) Every six months commencing from the date of provisional registration, the candidate shall submit progress report in the prescribed format to the Guide who shall forward it to the faculty Director for information and documentation.
- (ii) The Doctoral committee must meet at least once in a year for each scholar until the scholar submits the synopsis of his/her thesis and the report of the Doctoral Committee shall be sent to the Director (Research) through the respective Heads of the departments and the Directors of the concerned Faculty.

#### 16. CANCELLATION OF REGISTRATION

- (i) The registration of a research scholar whose progress is not satisfactory or who has not reported in person to the guide for any one semester is liable to be cancelled by SRMIST.
- (ii) The registration of a research scholar who has not submitted his/her thesis by the end of the prescribed /extended period as provided in the Regulations will be cancelled by SRMIST.

#### 17. SUBMISSION OF SYNOPSIS

- (i) Upon satisfactory completion of the research and publication of at least one research paper in a SCI journal, approved by SRMIST, the research scholar is permitted to submit the synopsis of the Ph.D. work to the Controller of Examinations with the approval of the Doctoral Committee for consideration.
  - (ii) Prior to submission of the synopsis, the student shall make a pre-Ph.D. presentation in the Department that may be open to all faculty members and research students, for getting feedback and comments, which may be suitably incorporated into the synopsis and thesis under the advice of the supervisor.
  - (iii) After the approval of the research work reported in the synopsis by the Doctoral Committee, the Guide shall forward 6 hard copies of the synopsis of the proposed thesis, with a soft copy on CD to the Controller of Examinations along with a panel of at least six names (three from India, outside the State of SRMIST campus and three from abroad) as examiners for adjudication of the Ph.D. thesis and a panel of three Indian examiners for the viva voce examination.

### 18. SUBMISSION OF THESIS

The research scholar shall, within six months of submission of the synopsis, prepare thesis in accordance with the format and specification prescribed. The thesis shall report, in an organized and scholarly fashion, highlighting the original contribution made in the research work of the candidate. He/She shall submit 6 hard copies of the thesis along with a soft copy on CD to the Controller of Examinations through proper channel under the intimation to the Director(Research). Under no circumstances, the submission of thesis shall be delayed except under special circumstances, where an extension of three months may be granted with the recommendation of the Doctoral Committee by the Vice-Chancellor.

## 19. THESIS ADJUDICATION

- (i) The Thesis shall be referred to two examiners (one from India and one from abroad) nominated by the Vice Chancellor from among the panel of examiners recommended by the Guide. The Vice Chancellor, if he deems it necessary, may also nominate examiners from outside the panel.
- (ii) The Controller of Examination shall take such steps as deemed necessary to enable the reports of the examiners to be received as quickly as possible.

- (iii)In the case of undue delay in receiving the report from the examiner, the Controller of examination shall refer the thesis to the second examiner selected by the Vice Chancellor, after waiting for three months and ensuring that the first examiner is not going to respond within a reasonable period of time.
- (iv) The examiner shall include in his report an overall assessment placing the thesis in one of the following categories:
  - a) Recommended for the award of the degree of Doctor of Philosophy: Commended / highly commended.
  - b) Recommended that the candidate revises the thesis as suggested in the report and the revised thesis be referred to the guide for verification.
  - c) Recommended that the candidate revises the thesis as suggested in the report and the revised thesis be sent to the examiner for revaluation.
  - d) Not recommended.

The examiner shall enclose a report of 200 to 300 words, indicating the standard attained in case(a), the nature of revision in case (b) or (c) and the reasons for rejection in case (d)

- (v) On receipt of the reports from the examiners, the following procedure shall be adopted:
  - a) If both the examiners recommend the award of the degree, the thesis shall be provisionally accepted. Any minor revision, modification, etc., suggested by the examiners shall be carried out before the oral examination.
  - b) If any examiner recommends revision of the thesis, the candidate shall be permitted to revise and resubmit the thesis within 6 months. The revised thesis shall be referred to the same examiner, if the examiner has insisted SRMIST to send the thesis back to him/her after revision for offering his/her final recommendation on the thesis. In such a case the examiner should offer his/her comments for the second time either as recommended for the award or rejection. In case, the examiner did not insist on sending the thesis back to him, then SRMIST may refer the revised thesis to the Guide for verification.
  - c) If one examiner recommends the award of the degree while the other recommends rejection, then the thesis shall be referred to a third examiner to be nominated by the Vice Chancellor. If the third examiner recommends the award, the thesis shall be provisionally accepted. Otherwise, the thesis shall be rejected and the registration of the candidate cancelled.
  - d) If both examiners recommend rejection, the thesis shall be rejected and the registration of the candidate be cancelled.
  - e) When the commendation of the examiner on the revised thesis is not as stipulated in Clause 19 (v)(b) above or in the case of any dispute, the Vice Chancellor, if he deems

it necessary, shall refer the thesis and the comments to a committee constituted by the Vice Chancellor for this purpose.

f) Individual cases not covered by the above regulations shall be referred to the Vice Chancellor for his final decision.

## 20. ORAL EXAMINATION

- (i) After the thesis is recommended for the award of the degree by the examiners, oral examination shall be conducted by an Oral examination board to be constituted by the Vice Chancellor.
- (ii) The Oral examination board shall include:
  - a) The examiner of the thesis from India or if the Indian examiner of the thesis is not available, a member from the panel of Indian examiners already recommended by the Guide.
  - b) An examiner from the panel of oral examiners already approved.
  - c) Guide of the candidate.
- (iii) The convener of the Doctoral committee will be the Convener of Oral examination board and the oral examination shall be conducted as "Open defence type" examination.
- (iv) If the performance of the candidate in the Oral examination as reported by the Oral examination board to be NOT SATISFACTORY, the candidate may opt to reappear for the Oral examination at a later date (not later than six months from the date of the first Oral Examination). On the second occasion, the Oral examination board shall include one more examiner nominated by the Vice Chancellor.
- (v) If the performance of the candidate in the oral examination on the second occasion also is reported to be NOT SATISFACTORY, the Vice Chancellor, if he deems it necessary, shall refer the remarks of the Oral examination board, along with the thesis and comments of the examiners, to a committee constituted by the Vice Chancellor for this purpose and decide. The decision of the Vice Chancellor shall be final.

#### 21. AWARD OF Ph.D. DEGREE

If the performance of the research scholar in the Oral examination is satisfactory, he/she will be awarded Ph.D. degree on the recommendation of the Academic council and with the approval of the Board of Management of SRMIST.

#### 22. PUBLICATION OF THESIS

- (I) After the viva voce examination the candidate shall submit a copy of the thesis in CD ROM duly certified by the guide that all the corrections have been duly carried out as suggested by the examiners, if any, for SRMIST ARCHIVES.
- (II) Papers arising out of the thesis may be published by the candidate. However, the thesis as a whole shall not be published by the candidate without the specific approval of SRMIST.

## 23. THE ACT OF PLAGIARISM

In the case of research scholars who have copied, as confirmed by a committee, a research work/dissertation/thesis of M.Phil. / Ph.D. degrees, his/her thesis shall be rejected and his/her research registration shall be terminated and also he/she shall be debarred from registering for any other programme in SRMIST.

## 24. CHANGE OF REGULATIONS

The Academic Council of SRMIST may revise, amend or change the regulations from time to time.