Vel Tech

Rangarajan Dr. Sagunthala
R&D Institute of Science and Technology
(Deemed to be University Estd. u/s 3 of UGC Act, 1956)

VTR DR – 2021

ACADEMIC

REGULATIONS 2021

FOR

Ph.D. PROGRAMMES

(Amended with effect from July 2023)

INDEX

1. **SHORT TITLE AND COMMENCEMENT**

   a) The regulations listed under this section is for Programmes of Ph.D. Degree in Engineering and Technology, Computer Applications, Management, Law and Science & Humanities offered by Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology (Deemed to be University u/s 3 of UGC Act, 1956) with effect from the academic year 2021-22 and they are called "VTR DR - 2021" regulations.

   b) The regulations here under are subject to amendments as may be made by the Academic Council of the Institution (Deemed to be University) from time to time, keeping the recommendations of the Research Board in view. Any or all such amendments shall be effective from such date and to such batches of students including those already undergoing the programme, as may be decided by the Academic Council.

   c) The Ph.D. programme is intended to provide advanced training in research. The research carried out towards this degree should lead to new results, new method(s) of analysis or new relationship publishable in any referred journal. The candidate can register Ph.D. under Full-time, Part-time or Extramural/ Interdisciplinary category depending upon the fulfillment of the respective eligibility criteria.

2. **DEFINITIONS AND NOMENCLATURE**

   In these Regulations, unless the context otherwise requires,

   i. "Institution "means Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and Technology (Deemed to be University).

   ii. "Research Board" means the Board duly constituted by the Vice-Chancellor of the Institution to oversee the academic research activities of the Institution.

iii. "Programme" means Doctoral Programme leading to the award of Ph.D. in Engineering / Technology / Science / Humanities / Management Sciences, and Law.

iv. "Branch" means specialization or discipline of any Programme, like Electrical, Mechanical, Management, etc.

v. "Course" means a theory or practical subject that is normally studied in a semester, like Research Methodology, Embedded Systems, Image Processing, etc.

vi. "Dean, Academic Research" means the authority of the Institution who is responsible for all Research programmes of all the Departments for implementation of relevant rules of these Regulations.

vii. "Controller of Examinations" means the authority of the Institution who is responsible for all activities of the Examinations.

viii. "Research Supervisor" means a faculty of the Institution who fulfills the requirements of the Institution to guide and supervise the research scholars registered for Ph.D. He will be the principle Research Supervisor.

ix. "Research Co-Supervisor" means a recognized Research Supervisor to guide the scholars in interdisciplinary research that require more than one expert or to take care of the administrative and research responsibilities of the scholar.

x. "Research Advisory Committee (RAC)" means a committee constituted by the Institution for each scholar to monitor the progress of his/her research work.

xi. "Departmental Research Committee (DRC)" means a committee constituted by the Institution for each department to interview the candidates and allot the research supervisor.

3. PROGRAMMES OFFERED

3.1. The Institution offers the following Programmes leading to the award of Ph.D. degree

        i. Engineering & Technology

        ii. Business Administration

        iii. Computer Applications

        iv.Science & Humanities

        v. Law

3.2. The specializations offered in each of these programmes shall be listed in the Institution website from time to time.

3.3. The programmes may change or vary as may be decided by the Institution Research Board from time to time.

4. ELIGIBILITY FOR ADMISSION:

4.1 National Admission

4.1.1 The eligibility for admission into Ph.D. programmes is PG degree of the Institution or any other qualification recognized as equivalent thereto in the field of study as notified in the Table A below.

Table-A

Programme	Qualification for Admission
Ph.D. Degree in Engineering/ Technology	M.E. / M.Tech. / M.S. (Research) in the relevant branch of Engineering or Technology.
Ph.D. Degree in Management Sciences	MBA / M.Phil / Post Graduate Diploma in Business Management or Administration awarded by Indian Institute of Management (IIM) / M.S. (By Research) in Management Sciences.
Ph.D. Degree in Science and Humanities	M.Sc. / M.A. / M.S. (By Research) /M.Phil in the relevant branch of Science and Humanities / M.C.A.
Ph.D. Degree in Law	M.L. / LL.M. in the relevant branch of Law.

4.1.2 The candidate should obtain minimum of 55% marks or CGPA of 6.0 on a 10 point scale in the qualifying examinations, or its equivalent grade 'B' in the UGC 7-point scale or an equivalent degree from a foreign educational Institution accredited by an Assessment and Accreditation Agency.

4.1.3 A relaxation of 5% of marks, from 55% to 50%, or an equivalent relaxation of grade, may be allowed for those belonging to SC/ST/OBC (non-creamy layer) / Differently-Abled and other categories of candidates as per the decision of the Commission from time to time.

4.2 International Admission

4.2.1 Minimum eligibility criteria for International Students will be given below

Table-B

Programme	Qualification for Admission
Ph.D. Degree in Engineering/ Technology	M.E. / M.Tech. / M.S. (Research) in the relevant branch of Engineering or Technology or equivalence degree specified by Association of Indian Universities (AIU).
Ph.D. Degree in Management Sciences	MBA / M.Phil / Post Graduate Diploma in Business Management or Administration awarded by Indian Institute of Management (IIM) / M.S. (By Research) in Management Sciences or equivalence degree specified by AIU.
Ph.D. Degree in Science and Humanities	M.Sc. / M.A. / M.S. (By Research) /M.Phil in the relevant branch of Science and Humanities / M.C.A or equivalence degree specified by AIU.
Ph.D Degree in Law	M.L in the relevant branch of Law or equivalence degree specified by AIU.

4.2.2 The programme on which the eligibility is to relied upon must be from an Institute included a list of the Association of Indian Universities (AIU), New Delhi – 110002.
(http:// **www.aiuweb.org**)

4.2.3 Incase the University / Board is not included in the said list, the candidate has to obtain and submit an equivalence certificate to this effect from the Association of Indian Universities.

5. MODES OF Ph.D. PROGRAMME

The programmes may be offered as full-time and /or part-time mode for any or all the programmes as may be decided by the Board from year to year but announced at the time of inviting applications for that year.

5.1. Full-Time Ph.D. Programme

5.1.1. Candidates under full-time shall do research work in the Institution and shall be available during the working hours for curricular, co-curricular and related activities.

5.1.2. Candidates in employment who want to pursue full-time studies should be sponsored by their employer and should avail leave for the research period and should get formally relieved from their duty to join the research programme.

5.1.3. Candidates who are sponsored by the AICTE under Quality Improvement Programme from Teachers of Engineering Colleges and who satisfy the eligibility conditions shall be eligible for full-time only, in the disciplines as notified in AICTE guidelines.

5.1.4. Candidates who are selected in Fellowship programme of National or any recognized bodies and who satisfy the eligibility conditions as per the regulations are eligible for full-time studies in the respective disciplines.

5.1.5. Foreign nationals sponsored by the Government of India on any exchange programme and who satisfy the eligibility conditions as per the regulations are eligible for full – time study.

5.1.6. The scholars who are receiving financial assistance from the institution have to take teaching assistance work, if assigned.

5.2. Part-time (Internal) Ph.D. Programme

5.2.1. Any faculty member of the Institution possessing the minimum prescribed qualifications and one year experience or as may be decided by the Board from time to time can apply in the prescribed form to work on a part-time basis for Ph.D. degree.

5.2.2. Candidates with requisite qualifications working in research projects in Campus and selected by a selection committee constituted / approved by the Institution are eligible to register for Ph.D. and the project should have a valid tenure of at least two years from the date of submission of application by the candidate.

5.3. Part-time (Extramural) Ph.D. Programme

The candidates who seek admission under the following categories are considered to be under part-time (Extramural) Ph.D. programme.

5.3.1. Candidates working as teachers in other PG and professional colleges in permanent positions having minimum of one year experience and sponsored by their employers candidates, sponsored by R&D organizations of following categories are eligible to apply to work on a part-time basis for Ph.D. degree and shall be called Part-time extramural candidates.

5.3.2. Candidates working in industrial units / R&D Departments / National Laboratories / Units of Government / Quasi Government/ any reputed organization or any other research laboratories which are recognized by the Institution to do collaborative research with the Institution and sponsored by the respective employer.

5.3.3. The extramural candidates have to submit the original No Objection Certificate [NOC] stating that he/she is permitted to

pursue studies on part-time basis, before submission. Also the NOC must further state that he/she is permitted to pursue studies on part-time basis and that (i) his/her official duties will permit sufficient time for research, (ii) facilities for research are available at the place of work, (iii) he/she will be permitted to attend full-time course work at the Institution for at least 6 months during his/her registration for the degree if the place of work is outside 50 km radius of the Institution.

Their course work and all curricular, co-curricular activities and pre and co-requisites shall be as determined by the advice of doctoral committee. In this mode, the candidates shall attend classes as prescribed by the Research Supervisor to complete courses as scheduled on any day including holidays and Sundays, along with full-time scholars or not as the case may be.

5.3.4. Conversion from one mode of study to the other shall not be permitted. However, the change will be permitted under extraordinary circumstances and by the approval of Vice-Chancellor on recommendation of Dean, Academic Research.

6. RESEARCH SUPERVISOR RECOGNITION AND ALLOCATION

6.1. The research supervisor should be a regular faculty of the Institution / School / Department and should possess Ph.D. degree.

6.2. Any regular Assistant Professor with at least two peer-reviewed research publications (one from post-Ph.D with SCI/SCIE indexing and the other from SCOPUS/SCI/SCIE indexing) may be recognized as a Research Supervisor.*

6.3. The above condition may be relaxed by the Vice-Chancellor for recognition of person as a Research Supervisor in the areas / disciplines where there is no or only a limited number of refereed journals.

6.4. Recognition as a Research Supervisor for guiding research work shall be accorded by the Vice-Chancellor on the recommendations of the Institution Research Board or Dean, Academic Research.

6.5. External Research Supervisors are not allowed. However, Research Co-Supervisor can be allowed in inter-disciplinary areas from other departments of the same Institution or from other related institutions with the approval of Vice-Chancellor on the recommendation of Institution Research Board.

6.6. The allocation of Research Supervisor for a selected research scholar shall be decided by the Department concerned depending on the number of scholars per Research Supervisor, the available specialization among the Research Supervisor and research interest of the scholars as indicated by them at the time of interview/ Viva Voce.

6.7. In case of topics which are of inter-disciplinary nature where the Department concerned feels that the expertise in the Department has to be supplemented from outside; the Department may appointment a Research Supervisor from the Department itself, who shall be known as Research Supervisor, and a Research Co-Supervisor from outside the Department/ Institution wherein the terms & conditions are specified by the Research Advisory Committee and agreed upon by the consenting Institution /College.

6.8. Contact of Thesis examiners by the Research Supervisor/ Research Co-Supervisor after the submission of Synopsis/Thesis of his/her scholar in connection with the evaluation report shall lead to the withdrawal of his/her supervisorship for a period of three years and he/she shall be debarred from guiding the scholars for any research programme in the Institution till such period.

7. CHANGE OF RESEARCH SUPERVISOR

7.1. When a Research Supervisor of a research scholar happens to be away from the Institution, for more than 6 months and up to one year, he / she shall continue to guide the research scholar, but a Research Supervisor-in-charge shall be nominated by the Dean, Academic Research in consultation with the Head of the Department (HOD). The Research Supervisor -in-charge shall function till the supervisor returns.

7.2. When a supervisor of a research scholar happens to be away from the Institution for more than one year, an alternate supervisor shall be nominated by the Dean, Academic Research in consultation with the concerned HOD of the Research Scholar.

7.3. When a Research Supervisor retires from service on superannuation or leaves service, during the period of submission of Synopsis / Thesis, he / she shall make arrangements for alternative Research Supervisor for his / her research scholar in consultation with the Dean, Academic Research and the HOD. However, such Research Supervisor may be allowed to continue to guide the research scholar, on his / her written request as a Research Co-Supervisor on the recommendation of the Departmental Research Committee provided at least two journal papers are coauthored.

7.4. In case of relocation of a women scholar due to marriage or otherwise, the research data shall be allowed to be transferred to the Institution to which the scholar intends to relocate provided all other conditions in these regulations are followed in letter and spirit and the research work does not pertain to the project secured by the parent institute / Research Supervisor from any funding agency. The scholar will however give due credit to the parent guide and institute for the part of research already done.

8. NUMBER OF SCHOLARS:

A Research Supervisor / Research Co-Supervisor who is a Professor, at any point of time, cannot guide more than eight (8) Ph.D. scholars. An Associate Professor can guide up to a maximum of six (6) Ph.D. scholars and an Assistant Professor can guide up to a maximum of four (4) Ph.D. scholars. *Moreover, one additional scholar possibility may be considered based on the written request by the Principal Investigator of the sponsored project to the Vice Chancellor.**

9. ADMISSSION PROCEDURE

9.1. Depending on number of available Research Supervisors, specialized areas and existing number of scholars, the vacant Ph.D. seats under each discipline shall be decided in advance and notified in the Institution website and through advertisements.

9.2. The Institution shall notify and hold an Entrance Examination for all eligible applicants. The syllabus of the entrance test shall consist of 50%, of research methodology and 50%, shall be subject specific. The scholar should secure 50%, marks in the entrance test so as to qualify for interview/ viva voce examination.

9.2.1. The selection of candidates, weightage of 70% to the entrance examination and 30% to the performance in the interview shall be given.

9.2.2. Relaxation of 5% of marks (from 50% to 45%) shall be allowed for the candidates belonging to SC/ST/OBC (Non-Creamy layers)/Differently-abled category in the entrance examination conducted by the Institution.

9.3. Candidates with UGC/CSIR (JRF) / NET / SLET / Teacher-Fellowships / M.Phil. / other National level eligibility test may be exempted from written entrance examinations.

9.4. The candidates short listed in written test shall be called for interview/viva-voce. The candidates are required to discuss their research interest/ area through a power point presentation before a duly constituted DRC. The Composition of DRC is as follows, HOD with Ph.D. Qualification as the convener, two Professors and two Associate Professors. In case of no Professor and Associate Professor, the Vice-Chancellor may nominate Assistant Professor with Ph.D. Qualification. In case, HOD without Ph.D. Qualification, the Vice - Chancellor may nominate the Convener.

9.5. The interview / viva-voce shall also consider the following aspects, viz whether;

9.5.1. The candidate possess the competence for the proposed research;

9.5.2. The research work can be suitably undertaken at the Institution;

9.5.3. The proposed area of research can contribute to new/additional knowledge.

9.6. Selected candidates shall be provisionally admitted for Ph.D. programme with the approval of the Vice-Chancellor on verification of original certificates and payment of prescribed fee.

9.7. Admission into Ph.D. Programme will be made in accordance with the existing and applicable reservation rules in force.

9.8. The list of registered candidates with particulars of their topic of research, supervisor, and date of enrollment / registration will be placed in Institution website.

10. COURSE WORK

After having been admitted, each Ph.D. scholar shall be required to undertake course work of minimum of 12 credits and maximum of 16 credits. The course content shall be formed such that each credit content course takes at least 15 teaching contact hours.

If Ph.D. scholar fails to complete his/her coursework in time; his/her tenure is by default extended compensating for the semester delay.*

10.1. The course work shall typically include courses on

i. Research and Publication Ethics (RPE) - The two credit course is made compulsory, to create awareness about publication ethics and publication misconducts for all Ph.D. scholars along with course work.

ii. Research Methodology which includes quantitative methods, computer applications and research ethics for 4 credits.

iii. Advanced course work in the specific area of research offered under any approved PG programme of the Institution as per the credits assigned by respective Board of Studies.

iv. Any other course(s) shall be prescribed to the research scholar by the Department on the recommendations of the RAC.

10.2. If any course specific to the area of research has to be newly designed, then such course shall be formulated as a special elective and the course syllabus shall be designed by the RAC and got approved by the Chairman Board of studies of the Faculty. Such course shall be of PG level.

10.3. After completion of the allotted course work (typically within 3 semesters), the research scholar needs to give an open presentation in the concerned research department detailing the problem statement. He/She should submit a hard copy (10 pages with max. 2000 words) of the report with the tentative working title of the proposed research work with expected outcomes to the centre for academic research office within 7 working days.*

10.4. Candidates already holding M. Phil. degree and admitted to the Ph.D. programme may be exempted by the Department from the Ph.D. course work. All other candidates admitted to the Ph.D. programme shall be required to complete the Ph.D. course work prescribed by the Department.

10.5. All the above course works of the scholar are to be undertaken as per the academic norms and shall be evaluated by the norms of this Institution.

10.6. No change in the prescribed course works shall be made without the approval of the RAC. The changes in course content/syllabus and grades shall be approved by the Academic Council.

10.7. Only courses taken after the date of provisional registration shall count towards this requirement. Any courses already passed by the candidate prior to the registration shall not be counted for this purpose.

10.8. The Ph.D. scholar has to obtain a minimum of 55%, of marks or its equivalent grade or 6.0 CGPA on 10-point scale in the course work in order to be eligible to continue in the program and to submit the dissertation / thesis.

11. RESEARCH ADVISORY COMMITTEE (RAC)

11.1. There shall be a RAC for each scholar to monitor the progress of research.

11.2. The Research Supervisor shall furnish for every scholar a panel of 6 experts with doctoral qualifications in the field of proposed research, from the faculty members of the Institution / other premier institutions or universities/ experts from R&D Departments from which two will be recommended by the Vice-Chancellor as advisory committee members (at least one within the Institution and other may be outside expert).

11.3. The Research Supervisor of the research scholar shall function as the convener of the Committee.

11.4. The Research Co-Supervisor, if any, shall also be a member.

11.5. The committee shall have the following responsibilities

11.5.1. To review the research proposal and finalize the topic of research.

11.5.2. To guide the research scholar to develop the study design and methodology of research and identify the courses that he/she may have to do.

11.5.3. To periodically review and assist in the progress of the research work of the Research scholar.

11.6. A research scholar shall appear before the RAC once in six months to make a presentation of the progress of his/ her work for evaluation and further guidance. The progress report shall be submitted by the RAC to the Dean, Academic Research with a copy to the research scholar.

11.7. In case the progress of the scholar is unsatisfactory, the RAC shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement these corrective measures, the RAC may recommend to Vice-Chancellor with specific reasons for cancellation of the registration of the research scholar.

12. DURATION OF THE PROGRAMMES

12.1. Ph.D. Programme shall be for a minimum duration of three (3) years, including course work, and a maximum duration of six (6) years from the date of admission to the Ph.D. programme.* The duration of the programme and the time for submission of thesis are counted from the date of registration.

12.2. The minimum duration of the programme in engineering, technology, and management and allied programmes for Full-time/Part-time shall be 36/ 48 months respectively.

12.3. The minimum duration of the programme in Science & Humanities for Full-time/ Part-time shall be 48/60 months respectively. However, for M.Phil Degree holders, the minimum duration for Full-time/Part-time shall be 36/48 months respectively.

12.4. The maximum duration shall be additional three years over the respective minimum duration of the Ph.D. programme.

12.4. The maximum duration shall be additional *two (2) years over the respective minimum duration of the Ph.D. programme; however, the total period for completion of a Ph.D. programme in such cases should not exceed eight (8) years from the date of admission in the Ph.D. programme.*

12.5. Extension of required period not exceeding two (2) more years may be permitted by Vice-Chancellor under genuine reasons with recommendation of RAC. If permission is granted, the scholar has to get re-registration with the prescribed fee.

12.6. The women candidates and persons with disability (more than 40%, disability) may be allowed a relaxation two (2) years for Ph.D. in the maximum duration. *However, the total period for completion of a Ph.D. programme in such cases should not exceed ten (10) years from the date of admission in the Ph.D. programme.* The women candidates may be provided maternity leave/ child care leave once in the entire duration of Ph.D. up to 240 days.

12.7. If the scholar will complete the requirement earlier than the prescribed period, the Vice-Chancellor may permit for an early submission of synopsis and thesis before six months provided the request is justified and substantiated by commendable research work with high quality publications.

12.8.Vice-Chancellor on the recommendation of the RAC, shall permit, if deemed fit for reasons, break of study for the scholar under extraordinary circumstances such as medical grounds and other compelling reasons which warrants his/her absence to the programme. However, the break of study period shall not be counted for the minimum duration of the programme.

12.9. Break of study to scholars shall be granted up to a maximum period of two years with prior permission of Vice-Chancellor on the recommendation of the Dean, Academic Research. If prior permissions is not sought and obtained, it will be considered as a case of discontinuation and action will be taken to cancel the registration of such scholars. The scholar should remit the semester fees during the break of study period.

13. STRUCTURE OF THE PROGRAMME

13.1. Every Programme shall conform to the UGC regulations relating to the process of review of research work leading to submission of Ph.D. thesis.

13.2. After satisfactory completion of course work of required credits & CGPA and research work; the scholar shall produce a draft thesis/dissertation in a reasonable time as indicated in clause 10.

13.3. Prior to submission of thesis/ dissertation, the scholar shall make a pre Ph.D. presentation in the respective department before the RAC in the presence of the entire faculty and other research scholars. The feedback and comments obtained from them may suitably incorporate into the draft dissertation / thesis in consultation with RAC.

13.4. Every Ph.D. scholar, before submission of thesis, shall produce evidence in the form of reprint in proof of having published two journal papers out of which one journal paper indexed by Scopus and another journal paper indexed by SCI / SCIE or two journal papers indexed by SCI / SCIE as a first author if the Research Supervisor / Research Co-Supervisor is second

author or as a second author, if the Research Supervisor / Research Co-Supervisor is first author. The Publication will be approved based on his/her research work and specifically recommended by the RAC. *During the course of their study, Ph.D. scholars shall present their work at minimum two international conferences.**

13.5. The thesis shall be prepared in the prescribed form and specified format and submit six copies.

13.6. The thesis shall be evaluated by his/ her research supervisor and at least by two external experts with known and confirmed expertise in the particular area of study, of which one expert shall be outside the country.

13.7. On receipt of satisfactory evaluation report, a suitable date may be notified for conducting viva-voce examination giving at least 15 days of clear notice and circulated to other universities and institutions offering such programmes in India and on the website of the Institution and the UGC.

*13.8. The Degree shall specify that the same has been awarded in accordance with the provisions of the UGC (Minimum Standards and Procedures for Award of Ph.D.) Regulations, 2022.**

14. MONITORING THE PROGRESS

14.1. All research scholars shall renew their registrations and pay the semester fee regularly.

14.2. A research scholar shall appear before the RAC once in six months to make a presentation of the progress of his/ her work for evaluation and further guidance. The progress report shall be submitted by the RAC to the Dean, Academic Research with a copy to the research scholar.

14.3. In case the progress of the scholar is unsatisfactory, the RAC shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement these

corrective measures, the RAC may recommend to Vice-Chancellor with specific reasons for cancellation of the registration of the research scholar.

14.4. Full-time research scholars shall sign the attendance register in the Department of the Research Supervisor on all working days. They are eligible for a total of 15 days leave every semester and a maximum of 30 days in a calendar year, which they shall avail after obtaining permission from the Research Supervisor and HOD. However, those scholars who are availing financial assistance from funding agency shall be governed by the rules of the respective agency.

15. CANCELLATION OF REGISTRATION

15.1. The registration of a research scholar who has exceeded the maximum period stipulated for the Ph.D. programme as in Clause 12.4 shall stand cancelled automatically. However, Re-registration will be permitted for extension of one year on the recommendation of the RAC after satisfying the progress of the work with proper justification. Scholar has to pay re-registration fee addition to regular fee.

15.2. The registration is liable for cancellation administratively by the Dean, Academic Research if

> i. The research scholar has not paid the semester fees within the stipulated time with the necessary fine.

> ii. The progress reports are not submitted consecutively twice or the reports are not satisfactory.

> iii. The performance is not satisfactory to the RAC and accordingly recommended for cancellation.

> iv. The research scholar wishes to withdraw the course and wishes to cancel his / her registration.

15.3. In all the above cancellation cases, the fees paid by the research scholar shall not be refunded.

16. SUBMISSION OF SYNOPSIS

16.1. The research scholar shall be permitted to submit the synopsis only after obtaining the confirmation of coursework completion and completion of the minimum duration of the programme and the time for submission of synopsis are counted from the date of registration.

16.2. The Scholar has to publish two journal papers out of which one journal paper indexed by Scopus and another journal paper indexed by SCI / SCIE or two journal papers indexed by SCI / SCIE as a first author, if the Research Supervisor / Research Co-Supervisor is second author or as a second author, if the Research Supervisor / Research Co-Supervisor is first author. The Publication will be approved based on his/her research work and specifically recommended by the RAC. *During the course of their study, Ph.D. scholars shall present their work at minimum two international conferences.**

16.3. Prior to submission of the synopsis, the scholar shall prepare a draft copy of the thesis and shall make a pre-Ph.D. presentation in the Department before the RAC and be open to all the faculty members and research scholars. The feedback and comments obtained during the presentation may suitably incorporated in the draft thesis under the advice of doctoral committee.

16.4. The research scholar shall submit to the RAC through the Research Supervisor, six copies of the synopsis of the Ph.D. work along with a softcopy.

16.5. If the RAC approves the research work reported in the synopsis, it shall forward six copies to the Controller of Examinations through Dean, Academic Research along with a panel of at least eight examiners at the level of Associate Professor / Professor from reputed Institution four from India (From Different States other than Tamilnadu) and four from abroad (Not Indian origin of different Countries) and the

Examiners must be from same specialization of research work and also should have minimum of three journal papers in the recent five years.

17. SUBMISSION OF THESIS

17.1. The thesis shall report, in an organized and scholarly fashion, an account of original research work of the research scholar leading to the discovery of new facts or techniques or correlation of facts already known (analytical, experimental, hardware oriented etc.,) and demonstrating a quality as to make a definite contribution to the advancement of knowledge as well as the research scholar's ability to undertake sustained research.

17.2. Six copies of thesis shall be prepared in accordance with the format and specifications prescribed. These shall be submitted along with a softcopy within three months from the approval of the Synopsis by the RAC along with three copies of the abstract of the thesis in about 400 words. Under no circumstances, the thesis submission can be delayed except under extra ordinary special circumstances, where an extension of three months may be permissible with the recommendation of the Vice-Chancellor.

17.3. The thesis shall include an undertaking from the research scholar and a certificate of the Research Supervisor (and Research Co- Supervisor if applicable), to the effect that the thesis is a record of the bonafide research work carried out by the research scholar under his / her supervision and guidance and that the work reported in the thesis has no plagiarism and has not been submitted elsewhere for a degree or diploma.

17.4 Fees shall be paid by the research scholars for every semester till the submission of the thesis.

18. THESIS EVALUATION

18.1 The thesis shall be checked for plagiarism before sending to the adjudicator. The Controller of Examinations shall impose penalty considering the severity of the plagiarism.

i. Level 0: Similarities up to 10%: Minor Similarities, No penalty

ii. Level 1: Similarities above 10% to 40%: Such scholars shall be asked to submit a revised thesis with in a stipulated time period not exceeding 6 months.

iii. Level 2: Similarities above 40% to 60%: Such scholars shall be debarred from submitting a revised thesis for a period of one year.

iv. Level 3: Similarities above 60%: Such scholar registration for that programme shall be cancelled.

If penalty on repeated plagiarism- Such scholar shall be punished for the plagiarism of one lever higher than the previous level committed by him/her. In case where plagiarism of highest level is committed then the punishment for the same shall be operative.

If penalty in case where the degree/credit has already been obtained- If plagiarism is proved on a date later than the date of award of degree or credits as the case may be then his/her degree or credit shall be put in abeyance for a period recommended by Research Board and approved by the Vice Chancellor.

The research work carried out by the research scholar shall be based on original ideas, which shall include abstract, summary, hypothesis, observations, results, conclusion and recommendations only and shall not have any similarities.

18.1.1 The similarity checks for plagiarism shall exclude the following,

i. All quoted work reproduced with all necessary permission and / or attribution

ii. All references, bibliography, table of content, preface and acknowledgement.

18.2. All generic terms, laws, standard symbols and standard equations.

18.3. The thesis shall be evaluated by his/ her research supervisor and two external adjudicators, one from India and another from outside country, nominated by the Vice-Chancellor from the panel of adjudicators recommended by the RAC. The Vice-Chancellor, if he deems it necessary, may also nominate the examiners from outside the panel.

18.4. All three examiners are expected to send their reports in the prescribed form within two months from the date of receipt of the thesis.

18.5. Controller of the Examinations shall take steps when necessary to receive the reports from the examiners as quickly as possible.

18.6. The examiner shall include in the report an overall assessment placing the thesis with the following recommendations.

18.6.1. Recommended in the present form without revision

18.6.2. Recommended for minor revision without resubmission

18.6.3. Recommended for main revision of thesis and resubmission

18.6.4. Recommended for rejection of the thesis.

18.7. The examiner shall also enclose a detailed report in about 500 words, indicating the quality and standard attained in case of 18.6.1, the nature of revision in case of 18.6.2 & 18.6.3 and specify reasons in case of 18.6.4.

18.8. If all recommend the award of the degree as indicated in clause 18.6.1, the thesis shall be provisionally accepted.

18.9. If any examiner recommends for minor revision as indicated in clause 18.6.2, the revision is carried by the research scholar as suggested by examiner(s) and the thesis is submitted with a certificate from the Research Supervisor to that effect.

18.10. In case one of the external examiner's recommendation falls under clause 18.6.4, the Institution shall send the dissertation/ thesis to another external examiner out of the approved panel of examiners and the viva-voce examination shall be held only if the report of the latest examiner is satisfactory. If the report of the latest examiner is also unsatisfactory, the dissertation/ thesis shall be rejected and the research scholar shall be declared ineligible for the award of the degree.

18.11.   Individual cases not covered by the above clauses shall be referred to the Vice - Chancellor. On deemed fit reasons, the Vice-Chancellor shall refer to the Research Board which in turn, shall refer to the Academic council, if necessary.

19. VIVA-VOCE EXAMINATION

19.1. On receipt of the favorable report of the thesis, the RAC shall recommend a panel of three experts from recognized institutions within India for constitution of a Viva-voce examination Board.

19.2. The Viva-voce Examination Board shall be constituted by the Vice-Chancellor as follows:

   a. Adjudicator of the thesis in India or an expert in the subject from the panel of Indian adjudicators (in the absence of the former) - Member

   b. One expert from a recognized institution as per clause 19.1 - Member

   c. Research Supervisor of the candidate – Convener

19.3. The Viva-voice Examination shall be conducted as "Open Defense Type" examination, with a circular communicating the date and venue to all faculty members/ research scholars/other institution 15 days prior to the date of Viva-voce examination. A minimum of ten members excluding the viva-voce examination board member shall be present to the viva-voce examinations.

19.4. On satisfactory completion of viva-voce examination the candidate shall submit a copy of the thesis along with a soft copy in CD ROM duly certified by the Research Supervisor that all the corrections have been duly carried out as suggested by the examiners if any, for INSTITUTION ARCHIVES.

19.5. If the Viva-voce Examination Board reports the performance of the scholar as "not satisfactory" then he/she may opt to reappear for the viva-voce examination at a later date (not later than six months from the date of the first Viva-voce Examination). On the second occasion, the Viva-voce Examination Board shall include one more expert nominated by the Vice-Chancellor.

19.6. If the performance of the scholar in the Viva-voce examination in the second occasion also reported to be "not satisfactory", the Vice-Chancellor, if deems it necessary, shall refer the remarks of the Viva-voce Examination Board, along with the thesis and comments of the Examiners, to a Committee constituted for this purpose and the decision of the Vice-Chancellor shall be final.

20. AWARD OF Ph.D. DEGREE

If the report of the Viva-voce Examination Board is SATISFACTORY, the candidate will be awarded the Ph.D. Degree with the approval of the Board of Management.

21. DISCIPLINE

Every research scholar is required to observe disciplined and decorous behavior both inside and outside the Institution and strictly adhere to the conduct rules in force from time to time and not to indulge in any activity which will tend to bring down the prestige of the Institution. The Institution has zero tolerance for ragging and such similar uncivilized acts. The Board of Management shall constitute a disciplinary committee consisting of Dean, Two Heads of Department of which one should be from the faculty of the student, to enquire into acts of indiscipline and notify the Institution about the disciplinary action recommended

for approval. If a student indulges in malpractice in any of the Institution / internal examination he / she shall be liable for punitive action as prescribed by the Institution from time to time.

22. THE ACT OF PLAGIARISM

22.1 In case of research scholars who have copied a dissertation/ thesis / book for M.Phil. or Ph.D. Degree his / her thesis shall be forfeited and his her research registration shall be debarred to register for any other programme in this Institution.

22.2 For the abetment of above such action, the recognition of his/ her supervisor shall be withdrawn for a period of 5 years and he/ she shall be debarred from guiding the research scholar for any research programme in this Institution till such period.

23. DEPOSITORY WITH INFLIBNET

23.1. Following the successful completion of the evaluation process and before announcements of the award of Ph.D. the Institution shall submit an electronic copy of the Ph.D. thesis to INFLIBNET, UGC for hosting the same so as to accessible to all Institutions/ Colleges/ Universities.

23.2. Prior to the actual award of the degree, the Institution shall issue a provisional certificate to the effect that the Degree has been awarded in accordance with the provisions of UGC Regulations, 2016.

24. AMENDMENTS TO REGULATIONS

The Academic Council may, from time to time, revise, amend or change the regulations, schemes of examination and/or syllabi.