



SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE

(An Autonomous Institution)

(Approved by AICTE, New Delhi & Affiliated to Pondicherry University)
(Accredited by NBA-AICTE, New Delhi, ISO 9001:2000 Certified Institution &
Accredited by NAAC with "A" Grade)

Madagadipet, Puducherry - 605 107



**ACADEMIC REGULATIONS 2021
FOR
Ph.D. PROGRAMMES**

S.No.	Contents	Page No.
1	Preamble	2
2	General Eligibility	2
3	Categories of Ph.D. Scholars	3
4	Mode of Selection	4
5	Admission	5
6	Duration of the Research	5
7	Change of Registration	6
8	Progress of Research Work	6
9	Eligibility Criteria for Ph.D. Supervisor	7
10	Responsibilities of Supervisors	8
11	Change of Supervisor	8
12	Doctoral Committee	8
13	Course of Study	9
14	Extension of Research	10
15	Submission of Synopsis	11
16	Submission of Thesis	12
17	Thesis Evaluation	13
18	Public Viva-Voce (Oral Examination)	13
19	Award of Ph.D. Degree	13
20	Cancellation of Registration	14

1. PREAMBLE

The Doctor of Philosophy (Ph.D.) degree is the highest academic degree which requires prolonged study and wide academic effort. Ph.D. degree is awarded to a candidate who, as per these regulations, has submitted a thesis or dissertation on the basis of original and independent research in any particular subject / discipline or involving more than one discipline (inter-disciplinary) that makes a contribution to the advancement of knowledge, which is approved by Board of Examiners as required. The regulations of Sri Manakula Vinayagar Engineering College are based on Pondicherry University research guidelines 2020 and UGC (Minimum Standards and Procedure for award of Ph.D. degree) Regulations May 2016 starting from the admission to the Ph. D programme to the award “Degree of Doctor of Philosophy”.

The Regulations shall be applicable to all Programmes of Ph. D Degree in Engineering and Technology, Science & Humanities and Management Studies offered by Sri Manakula Vinayagar Engineering College (SMVEC), Puducherry.

2. GENERAL ELIGIBILITY

Educational Qualifications (Full-time and Part-time)

- Candidates shall have a PG degree from a UGC recognized University in India or a professional degree declared equivalent to the PG degree by corresponding statutory regulatory bodies or professional councils like AICTE.
- A minimum of 55% marks or CGPA of 5.5 on a 10 point scale in the qualifying examination. In case of SC/ST/ differently-abled candidates, 50% marks or CGPA of 5.0 on a 10 point scale.
- Candidates of Indian origin or overseas students who have qualified for a Master’s Degree of an accredited overseas university, having secured a minimum of 55% marks or equivalent grade specified by AIU.
- The programme on which the eligibility is to be relied upon must be from an Institute included in the list of the Association of Indian Universities (AIU), New Delhi – 110002. (www.aiuweb.org)
- In case 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

Educational Qualifications

Sl. No	Programme	Qualification for Admission
1	Ph.D. Degree in Engineering/ Technology	M.E. / M.Tech. / M.S. (By Research) in the relevant branch of Engineering or Technology
2	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
3	Ph.D. Degree in Management Studies	MBA / Post Graduate Diploma in Business Management or Administration awarded by Indian Institute of Management (IIM) / M.S. (By Research) in Management Sciences.

3. CATEGORIES OF PH.D. SCHOLARS

Two categories of Ph.D. programme available are: Full-time and Part-time.

a. Full-time Research Scholars

- Candidates who pursue their Full-time doctoral research under the guidance of a Research Supervisor in the Departments.
- Candidates sponsored by AICTE under Quality Improvement Programme for teachers of Engineering Colleges and who satisfy the eligibility conditions shall apply for Full-time category only, in the specializations as notified in the AICTE guidelines.
- Full-time scholars shall necessarily sign in the attendance register on all working days at the respective place of research.

b. Part-time Research Scholars (Internal/External)

- Candidates who are presently employed either on Regular or Temporary basis with a minimum of Two years of continuous teaching/research experience are allowed in any department / college / institute/Industry/ research & development laboratories may pursue their doctoral research under the guidance of a Research Supervisor.
- The extramural candidate has to submit the No Objection Certificate from the institution/ Industry/ Organization, before admission.
- Foreign students will be required to produce clearance from Government of India (GOI) and/or other approved authorities.

4. MODE OF SELECTION

- Admission for Ph.D. programmes shall be advertised in leading newspapers and also in the Institute website once in every year.
- Depending on the number of available Research Supervisors, specialized areas and the vacant Ph.D. seats under each discipline shall be notified in the institute website.
- The candidates seeking admission have to fill in the prescribed admission form and submit the same within the prescribed date specified in the admission notification. The admission shall be based on the criteria notified by the Institute and taking into account the reservation policy of the Central/State Government from time to time.
- The Centre for Research shall screen the applications as per the eligibility norms, and the Centre for Entrance Examinations shall conduct the written test for eligible candidates. Candidates appearing for the written test should obtain minimum marks as specified by the Institute to qualify for the interview process.
- The institute 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.
- The selection of candidate is based on the weightage of 70% of scores secured in entrance examination and 30% on the basis of performance in the interview.
- 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.
- To conduct the interview for the selection of the Ph.D. candidates, an Admission Committee for each Department shall be constituted consisting of all the faculty members eligible to guide in that Department and a Head of the institution nominee. The Head of the Department will convene the meetings of the Admission Committee. One member of the Committee shall belong to the SC/ST category. If no SC/ST faculty is available in the Department concerned, a SC/ST member from other Departments may be co-opted as a member.

- The admission shall be based on the criteria notified by the institute and taking into account the reservation policy of the Central/State Government from time to time.
- Master's Degree holders satisfying the qualification criteria shall be eligible to appear for Entrance Examination. However, the candidates who qualify in UGC-NET (including JRF) / UGC-CSIR NET (including JRF) / SLET / SET / GATE, scientists working in DRDO, candidates possessing M. Phil., degree holders of teacher fellowship (like FIP and FDP) shall be exempted from Written Entrance Examination.

5. ADMISSION

- The selected candidate shall be admitted for the Ph.D. programme in the respective discipline based on his/her PG qualification. The Research Board constituted by the Director shall approve and recommend the short listed candidates for admission to the Ph.D.
- 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 Research Board. The Composition of Research Board is as follows, Head of the department with Ph.D. Qualification as the convener, two Professors and two Associate Professors. In case of no Professor and Associate Professor, the Director may nominate Assistant Professor with Ph.D. Qualification. In case, Head of the Department without Ph.D. Qualification, the Director may nominate the Convener.
- Selected candidates shall be provisionally admitted for Ph.D. programme with the approval of the Director on verification of original certificates and payment of prescribed fee.
- Admission into Ph.D. Programme will be made in accordance with the existing and applicable reservation rules in force.
- The list of registered candidates with particulars of their topic of research, supervisor, and date of enrollment / registration will be placed in Institution website.
- The Scholar, Supervisor, Joint Supervisor, Doctoral Committee members and Examiners shall not be relatives to one another.

6. DURATION OF THE RESEARCH

- The duration of the Ph.D. Full-Time programme shall be a minimum period of three years from the date of registration, and two years for those with M. Phil. or equivalent degree.

- Part-Time candidates, both Internal and External, shall have to complete a **minimum of three years** from the date of registration.
- All candidates shall publish minimum of **two research papers in UGC approved** journals or SCI Journals and present papers at least **one International Conference** in reputed institution before submitting the Synopsis.
- The maximum time limit for submission of the Ph.D. Thesis from the date of provisional registration is five years in the case of full time and six years in the case of part-time (internal/external) candidates. However, a maximum of two extensions of six-months duration shall be given at the discretion of the Director on the recommendation of the Research Supervisor, Doctoral Committee, HOD and Dean Research.
- Women candidates and Persons with Disability (more than 40% disability) may be allowed a relaxation of two years from the maximum duration. In addition, the women candidates may be provided Maternity Leave/Child Care Leave once in the entire duration of the Ph.D. up to 240 days as per Government of India norms from time to time.

7. CHANGE OF REGISTRATION – FULL TIME TO PART TIME:

- Conversion of the Ph.D. research from full-time to part-time and vice-versa will be allowed only in special circumstances on the recommendation of Doctoral Committee after the **completion of two years** from the date of registration.
- The completion of the qualifying examination is based on the effectiveness of research work that is adjudged as satisfactory by DC depends on the performance of presentation and detailed report submitted by the scholar.
- The Scholar should produce No Objection Certificate from the Head of the Institution/Organization.

8. PROGRESS OF RESEARCH WORK:

- A research scholar shall appear before the Doctoral Committee (DC) once in **six months** to make a presentation of the progress of his/her work for evaluation.
- Failure to deliver the presentation may result in cancellation of the Ph. D Registration.

9. ELIGIBILITY CRITERIA FOR Ph.D. SUPERVISOR:

- Any regular Professor of the Institute with at **least five** research publications in **UGC approved Journals or SCI journals** and any regular Associate Professor with at **least four** research publications and an Assistant Professor of the Institute with a Ph.D. degree and at **least two** research publications in **UGC approved Journals or SCI journals** with three years of full -time teaching experience may be recognized as Research Supervisor.
- Only a full-time regular teacher of the Institute can act as supervisors. The external supervisors are not permissible. However, Co-Supervisor can be allowed in inter-disciplinary areas from other departments of the same institute or from other related institutions with the recommendations of the Research Advisory Committee and with the approval of the Director.
- 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 Supervisors and research interests of the scholars as indicated by them at the time of interview/viva voce.
- 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 appoint a Research Supervisor from the Department itself, who shall be known as the Research Supervisor, and a Co-Supervisor from outside the Department of the Institute on such terms and conditions as may be specified and agreed upon by the consenting Department.
- A Research Supervisor/Co-supervisor who is a Professor, at any given point of time, cannot guide more than Eight (8) Ph.D. scholars. An Associate Professor as Research Supervisor can guide up to a maximum of six (6) Ph.D. scholars and an Assistant Professor as Research Supervisor can guide up to a maximum of four (4) Ph.D. scholars.

Designation	Total number of Ph.D. candidates including Full-time and Part-time
Professor	8
Associate Professor	6
Assistant Professor	4

10. RESPONSIBILITIES OF SUPERVISORS

- The Supervisor carries the major responsibility of guiding the academic progress of the Candidate throughout the period of study
- Maintaining the copies of records of the reports/minutes of the Doctoral Committee
- To ensure the successful and timely completion of the programme, it is essential that
- Supervisors and their Scholars maintain regular contact. Supervisors must give their Scholars advance notice if they plan to be absent from the college for an extended period of time, of at least six months, and make suitable arrangements for the continued supervision of the Scholar.

11. CHANGE OF SUPERVISOR

- In case of the absence of the allotted supervisor for more than 6 months and up to 1 year, a Supervisor in-charge may be allotted from the same Department or related Department with the approval of the Doctoral Committee.
- In case of the Supervisor leaving the University permanently or on deputation elsewhere or otherwise for a period of more than one year, the Candidate may be permitted to change the topic of research, if necessary, with a change of the guide.
- Based on the recommendations of the Doctoral Committee, HOD and Head of the institution may approve a change of Supervisor under conditions such as non-availability of the Guide for more than one year or any other extraordinary condition.

12. DOCTORAL COMMITTEE (DC)

- When the Candidate is accepted for provisional registration, a Doctoral Committee will be constituted in each case.
- Research Supervisor shall furnish for every scholar a panel of Six experts with doctoral qualifications in the field of proposed research, from the faculty members of the institution / Other premier institutions or universities / experts R&D Departments from which three will be recommended by the Director as Doctoral committee members (**at least one within the Institution and other two may be outside expert**).
- Supervisor of the research scholar shall function as the convener of the Committee.
- The doctoral committee should conduct DC meeting twice in a year and four meeting is required for the submission of synopsis.

- The committee shall have the following responsibilities:
 - To review the research progress and confirm the topic of research.
 - 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.
 - To periodically review and assist in the progress of the research work of the Research scholar.

13. COURSE OF STUDY

All candidates admitted to the Ph.D. programme shall be required to complete the course work prescribed by the Doctoral Committee during the initial one or two semesters.

(a) For Engineering and Technology

- i. The research scholars should successfully complete a minimum of four courses (minimum of 12 credits) prescribed by the Doctoral Committee and approved by the concerned Board of Studies.
- ii. A minimum of four credits shall be assigned to one or more courses on Research Methodology with a minimum of four credits which could cover areas such as quantitative methods, computer applications, research ethics and review of published research in the relevant field, training, field work, etc.
- iii. The other courses may be Advance or Special courses decided by the Doctoral Committee relating to the specific research area of the candidate.

(b) For Science and Humanities /Management Studies

- i. All candidates shall complete three courses (minimum of 9 credits) prescribed by the Doctoral Committee and approved by the concerned Board of Studies.
- ii. The courses shall be (a) Research methodology for the subject (b) A background subject related to his/her Ph.D. research (c) 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 by the Doctoral Committee.

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

Sl. No	Components	Marks
1	5 Seminars	15
2	3 Test	15
Total		30

For each of the courses, the maximum internal mark awarded is **30 marks**. All the candidates have to appear for an **external (Semester) examination** in each subject conducted by the Controller of examinations for **70 marks**. The passing minimum is 35 marks in the semester examination. The overall passing minimum is 55 marks.

Letter Grades and Grade Points (GP) are based on the performance of students in each subject, and awarded a final letter grade. The letter grades and the corresponding grade points are as follows.

Letter Grade	Grade Points	Range of Marks
O (Outstanding)	10	95-100
A ⁺ (Excellent)	9	90-94
A (Very Good)	8	85-89
B ⁺ (Good)	7	75-84
B (Above Average)	6	65-74
C (Average)	5	55-64
P (Pass)	4	50-54
F(Fail)	0	<50 Failure due to insufficient marks in the course
Ab (Absent)	-	Failure due to nonappearance in the examination

Ph.D. scholar has to obtain a **minimum of 55% of marks** or its equivalent grade in the UGC 7- point scale (or an equivalent grade/CGPA in a point scale wherever grading system is followed) in the course work in order to be eligible to continue in the programme and submit the thesis. A scholar who gets less than C grade in a course work, he/she has to redo that course.

14. EXTENSION OF RESEARCH

- Scholars who do not submit the thesis within the maximum duration of the programme (six years) shall apply for extension of three months' time prior to the completion of six years with the recommendation of the Supervisor.
- In such cases, a maximum grace period of one year, beyond the maximum period of six years shall be granted by the Head of the institution to enable the scholar to submit the Synopsis and Thesis.
- Extensions will be given to the candidates based on the recommendations of their Doctoral Committee along with the Extension and Annual Fees.

- However, the final six months grace period shall be granted by the Head of the institution if the scholars submit the synopsis and apply for extension with the recommendation of the Supervisor, at least one month prior to the expiry of the previous extension.

15. SUBMISSION OF SYNOPSIS

- The scholar shall be permitted to submit the Synopsis only after obtaining the confirmation of provisional registration and completion of the minimum duration of the programme applicable to the scholar.
- Scholar should have **published two research articles in UGC Approved Journals or SCI journals** in the field of specialization as first author or second author (if the Supervisor is first author) based on his/her research work and Present **One Research Paper in International Conference** organized by reputed institutions.
- Publications of the scholars where a PG student is a corresponding author shall not be considered for processing of his/her Synopsis. The scholar shall not publish research articles with similar contents in part or full in more than one journal, which would result in Self Plagiarism.
- If the Doctoral Committee approves the research work reported in the Synopsis and submitted to the Dean Research along with a panel of examiners **(4 Indian and 4 Foreigner)** at the level of Associate Professor and above / equivalent scientist grade with minimum five years of post Ph. D experience with fairly good publication record (H index).
- Examiners should be from IISc / IITs / ISER / NITs / State Universities / Central Universities.
- The candidate should submit **Six copies** of the synopsis of the proposed thesis along with the virus-free soft copy in PDF format **in a CD**.
- Submit the synopsis within 15 days from the date of presentation along with signatures of attendees.
- The synopsis will not be accepted if it does not fulfill the above requirements. In such case, synopsis will be denied for submission.

16. SUBMISSION OF THESIS

Ph.D. candidate should submit four copies of the thesis along with the virus-free soft copy as a single file having a maximum of 20MB in a CD only in PDF format. The hard and soft copy must be exactly same. Thesis must be signed by the Research Supervisor (Co-supervisor, if included in the Ph.D. registration) and forwarded by Head of the Department / Institution / Organization, as the case may be.

Thesis format

- a. 80GSM, A4 size paper printed on both sides except title and certificate pages
- b. Supervisor, Candidate and Plagiarism-free certificates
- c. Times New Roman font with 2.0 Line space should be provided
- d. Thesis shall not exceed 300 pages, including appendix, tables, figures etc.
- e. Three copies with soft binding

Thesis shall be scrutinized to assess the overall layout, contents and the quality of presentation of the Thesis. The deviation, if any, shall be rectified by the scholar in consultation with the Supervisor and the same shall be approved by the Head of the institution.

17. THESIS EVALUATION

- Thesis shall be referred to two examiners (one from India and another from abroad) nominated by the Director from the panel of examiners recommended by the Doctoral Committee.
- All the examiners appointed to evaluate the thesis shall be requested to send their reports **within Two Months** along with clarifications to be sought from the scholar during the viva-voce.
- Recommend the acceptance of the Thesis. However, the scholar shall incorporate the corrections indicated in the detailed report and place the corrected copy to the Oral Examination Board but the corrected Thesis need not be sent to the examiner.
- Defer the recommendation at this stage and the scholar shall incorporate the suggested modifications in the Thesis and the corrected Thesis along with the scholar's clarifications shall be sent to the respective examiner.

- Reject the Thesis for the reasons set out in the detailed report
- If both the examiners recommended for the award of the degree, Thesis shall be provisionally accepted. Any minor revision, modification, etc., suggested by the examiners shall be carried out before the Oral Examination Board.
- If any examiner recommends resubmission of the thesis after revision, the scholar shall be permitted to revise and resubmit the Thesis along with the resubmission fee within six months; failing which the revised thesis shall not be accepted and his/her registration shall stand cancelled.
- If both the examiners recommend rejection, the Thesis shall be rejected, and the registration of the scholar shall stand cancelled.

18. PUBLIC VIVA-VOCE (ORAL EXAMINATION)

On receipt of the evaluation reports, the Doctoral Committee shall meet within three months and recommend a panel of three experts (Other than the Parent Institution) from different recognized institutions within India, along with their publication details in the last five years for constitution of an Oral Examination Board.

The scholar shall be asked to make a brief presentation before the audience and answer all the questions raised by the examiners and the audience. Minimum Ten Audience should present for Viva Voce. A pass in the viva-voce is compulsory. If a scholar fails in the viva-voce examination, he / she shall be allowed to re-appear after 3 months from the date of first viva-voce before a panel constituted for this purpose by the Head of the institution. If he or she fails again, his / her candidature for Ph.D. Degree will be rejected.

19. AWARD OF PH.D. DEGREE

The two-member board shall then forward its consolidated recommendations with the classification "Highly commended / commended" to The Head of the institution - Research, along with other documents as may be required by the University for its Consideration. The consolidated recommendation will be placed before the syndicate for approval and the Ph.D. degree for the approved candidates will be awarded in Convocation either in person or in absentia.

20. CANCELLATION OF REGISTRATION

- The registration of a scholar who has not submitted his/her thesis before the end of the maximum duration including the extension period for the programme. In all the above cancellation cases, the fees paid by the scholar shall not be refunded.
 - The registration is liable for cancellation administratively by the Head of the institution, if
 - The scholar fails to remit semester fees within the stipulated time
 - The progress reports of two semesters are not submitted in time or not satisfactory.
 - The performance is not satisfactory to the Doctoral Committee and accordingly recommended for cancellation.
 - Prior permission is not obtained for break of study from the Supervisor/Co Supervisor and Head of the institution.
 - Submission of Thesis beyond three months from the date of approval of Synopsis by the Doctoral Committee.
 - The act of plagiarism involved in the journal publication/Synopsis/Thesis
 - Non-disclosure of relieving from the present job and taking up new job elsewhere by Scholar/Supervisor.
-