



**Thiagarajar College of Engineering, Madurai – 625 015**

## **RESEARCH POLICY**

Thiagarajar College of Engineering (TCE) is committed to serve the society by conducting state of art research on par with the national and international standards. TCE creates an open platform to foster academic excellence and to pursue scholarly research activities. The researchers will abide by the research policy of the Institute in accordance with the two key principles namely, Quality and Ethics. They are also responsible for ensuring that the research practices are carried out in conformance with the Anna University research policy.

### **1. ACADEMIC RESEARCH (AR) POLICY**

#### **1.1 Norms for Doctor of Philosophy (Ph.D.) and Master of Science (M.S.) by Research**

Candidates should apply Ph.D./M.S (Research) after getting approval from the head of the institutions with AR-1 form. Candidates should enroll and register at TCE on getting provisional registration letter from Anna University and renew their registration during 1<sup>st</sup> week of February/August every semester. The AR-2 form should be used for enrollment. Full time research scholars need to use AR-3, AR-4 and AR-5 forms for getting college ID card, library access and TAMS registration respectively. Scholars shall get permission to register their course work (AR-8). Full time scholars' attendance is monitored using Biometric system and every day attendance is mandatory.

Candidates should present his/her progress of research in the review meeting once in six months during 3<sup>rd</sup> week of February /August and submit the Ph.D. /M.S. (Research) Renewal and Half Yearly Progress Review Report (HYPRR) in the prescribed formats (AR-6 & AR-7) to the department in which they have registered. The schedule for the review meeting would be prepared and announced by the Research and Development Team. Candidates should get prior permission (AR-9) to conduct DC meetings, synopsis meeting and Viva Voce exam after fulfilling the university norms. While submitting synopsis, candidate should submit the no dues form (AR-10) to the respective Department Level Coordinator. The research scholar shall submit a copy of Ph.D./M.S. thesis to the College Library on successful completion of the Viva-Voce.

The Supervisors shall endorse the candidates to publish their research work in reputed (Scopus/ SCI/SCI-E/ESCI, Indian Citation Index) indexed conferences / Workshops / Journals) after obtaining formal permission from the respective Supervisor. Only after checking for Plagiarism, the Research supervisor shall permit the candidate to submit the paper to the journal.

The faculty after the award of Ph.D., shall get the supervisorship within 3 years. Number of scholars, a supervisor can guide, shall be based on the regulations of the UGC/Anna University norms. However, the number of full-time

scholars to the supervisors can be limited by the institution time to time based on the infrastructure availability.

## **1.2 AR Norms for Faculty**

To increase research outcomes, faculty members are permitted to take advantage of support provided by the institution. They need to proceed the same with the approval of the respective department Heads. The following are the support extended by the institution.

### **1.2.1 Collaborative Research**

Faculty members are requested to pursue collaborative research with reputed institutions in India and abroad as well as leading industries exploring the following roadmap / guidelines / focus.

- Inter-disciplinary research shall be carried out at research nodal centers of our college such as TS Srinivasan Centre for Automotive Research (TSSCAR), Thiagarajar Advanced Research Centre (TARC) and TCE Environmental Information System Centre (TCE ENVIS).
- Faculty shall also visit research laboratories in reputed institutions in India or abroad as well as leading industries for interaction and discussion with their research group leading to a collaborative research such as joint research papers, joint research proposals, research partnership / MoUs or similar other research activities.
- Faculty shall also spend one full semester in a reputed institution in India or abroad as well as leading R&D organizations / industries provided the preliminary research works required for such visits are completed to the satisfaction of our college and the visiting institution / industry. Amount for TA/DA and fellowship shall be decided by the Management.
- Faculty members shall visit reputed institutions in India or abroad and leading R&D organizations / industries to do collaborative research to guide the students during their internship in industry to solve specific industrial problems.
- The proposal shall address a topic of thrust areas of their research field address a challenging issue of theoretical, experimental and/or translational values.
- The faculty members submitting proposals for academic collaboration shall be a doctorate or pursuing PhD.
  - The proposal state clear and measurable deliverables with timeline.
  - A set of tangible earmarked deliverables of the collaborative efforts on the proposed topic consisting of joint research outcomes including but not limited to two or more of the following: -
    - Top Journal Publications
    - Text Books
    - Research Monographs

- Patents
- Products
- Scaled Pilots/demonstrations
- Course materials

*At the time of commencement of such a collaborative research, Faculty has to submit ACR-1 form to outline the objective and significance of their collaborative research initiative. After the completion, faculty has to submit ACR-2 form outlining the outcome of the collaborative research work and the value addition it has provided to the faculty.*

### **1.3 Plagiarism Check**

Research Scholar should submit the copy of URKUND plagiarism check report to the concerned supervisor for a research paper before submitting to the journal/Conference. The research scholar Synopsis/ Thesis should accompany plagiarism report while submitting the same to Center for Research, Anna university.

All Post Graduate Students' thesis should include the copy of Plagiarism check report. Maximum of 15% of similarity is allowed for Ph.D. Thesis, Synopsis and Post Graduate Thesis.

### **1.4 The Act of Plagiarism**

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.

In the case of scholars who have committed the act of plagiarism in the Thesis/journal publication, UGC/Anna University regulations will be followed for actions against him/her and his/her supervisor.

## **2 SPONSORED RESEARCH (SR) POLICY**

### **2.1 Sponsored Research for Students**

- The PG students shall apply for funding support from the Government / Industries such as CPRI, NITI Aayog, MHRD, AICTE (Pragathi) to work in advanced areas of domain after getting recommendation of the college.
- The student should not avail any financial assistance in the form of scholarship/any emoluments, salary, stipend etc. from more than one source during his/her course of study in the Institute.
- He/she should submit all the relevant documents to the institute for verification before submitting the application. It should include internal guide from our institute.
- The selected student should maintain attendance as prescribed by the funding agency.
- If any student left the programme in mid-way, the institute has to ensure

recovery of the PG Scholarship drawn till date by the student.

- The students shall apply for project associate of the sponsored/consultancy project being done by our faculty.

## **2.2 Sponsored Research for Scholars**

### **2.2.1 Guidelines for Thiagarajar Research Fellowship (TRF)**

- The eligibility conditions for the TRF scheme are,
  - Got admission under Anna University, Chennai
  - Applicants must possess First Class in either bachelor or master degrees
  - Applicants must not receive any other Research Fellowship
- The research scholar shall apply for TRF during the call for proposals from the college.
- The Supervisor and HoD will forward the application for interview.
- The applicant should attend the interview with proper evidences.
- The progress of TRF scholars is periodically reviewed by the committee once in six months.
- The duration of the fellowship is three years.

### **2.2.2 Guidelines for other schemes**

- As per the procedure of scheme, the research scholar must report their progress to the funding agencies on time without fail.
- The scholars who procured Nonrecurring items under any scheme, should communicate and get approval from the college through supervisor and HoD in advance. For procurement, settlement and UC submission etc, he/she must follow the standard operating procedure of college.

## **2.3 Sponsored Research for Faculty**

### **2.3.1 Research Supporting Resources**

#### **Grant from External Agencies**

- The external funding/grant may be obtained from various government/non-government organizations and industries. All applications for any external research funding are to be submitted through Dean (R&D) and Principal.
- All research projects contracted by an external party are administered by Dean (R&D).

- The college office will provide the financial and non-financial management services and utilization certificate on completion of project.

### **2.3.2 Guidelines for the Project Proposal**

- The faculty shall apply for funding support from the Government/ Industries, to do Sponsored/ Collaborative research based on the call for proposals from the agencies. The formats of project proposals are generally available on the websites of the agencies.
- A Project Review Committee (PRC) shall be constituted that comprises of Principal Investigator, Subject Expert in the department and HoD for proposal assessment. (Form SR-1).
- Every proposal should be reviewed by PRC. The subject expert of PRC is an external member from a higher learning institution if the requested project fund is more than 50Lakhs.
- The PRC shall forward the proposals upon review to the Principal/Dean (R&D) for approval towards the submission of proposals to the funding agencies. (Form SR-2).
- The Principal Investigator (PI) shall then submit the application along with supporting documents based on the approval to the Funding Agencies Website. (Form SR-3)
- Once selected for interview by the Funding Agency, the Principal Investigator shall be asked to present the proposal before the PRC to improve their interview performance.
- The PIs shall maintain a new Head of account and prepare a Stock Register with proper entries of purchase of recurring and Non-Recurring items upon sanction of the project by the funding agency.
- Utilization of overhead cost shall be done as per the instructions in sanction order.
- The PIs shall attend the Status Update Meeting (Once in six months) conducted by the department level Progress Review Committee. The committee assesses the progress of the project for its timely completion. (Form SR-4).
- The principal is the Competent Authority to constitute or approve the Progress Review Committee.
- The PIs shall submit the Half yearly Progress Review Report to the Dean (R&D).
- The PIs shall prepare Project Completion Report on completion of the project duration according to the guidelines of the funding agency.

- The research office staff shall prepare the Statement of Expenditure and Utilization Certificate (UC) duly signed by the Auditor.
- The PIs shall submit the Project Completion Report, Utilization Certificate and Publications / patent list to the Sponsoring agency through the Dean and the Principal. (Form SR-5)
- PIs have to submit the Sponsored Research (SR) forms such as Half yearly Progress report, Project Completion Report and Feedback on Sponsored Research to the Dean office at the appropriate time. (Form SR-5 & 6)
- Incentive for the sponsored projects shall be claimed as per institute norms.

### **2.3.3 Guidelines for selection of JRFs and other research personnel (Technical Assistants and Research Associates) for Research Projects**

- Selection of JRF/Research Associate/Project Fellow shall normally be made as per the guidelines provided by the sponsoring agency if the project is from the funding Agency.

#### **Eligibility**

- Educational Qualifications:
  - If the guidelines are not provided by the sponsoring agency, a candidate seeking selection as JRF/Project Fellow must possess an M.E/MTech/M.Sc./MPhil or any other postgraduate degree in the concerned discipline from a recognized University with a minimum of 55% marks in aggregate.
  - Project employees may be allowed to register for the Ph.D. programme of the University if they fulfill all the requirements prescribed by the University
- Age:
  - If the guidelines are not provided by the sponsoring agency, the candidate shall not be more than 28 years of age for the award of Fellowship on the stipulated last date of receiving applications in response to advertisement. The upper age limit may be relaxed up to 5 years in the case of candidates belonging to SC/ST/OBC/Women and physically challenged applicants.

#### **Selection Procedure**

- Positions will be advertised in any of the national / regional newspapers and through other channels (such as by means of circulation of notices to various Universities and displaying in the TCE Website Homepage) at least two weeks prior to the dates on which the candidates are to appear for the personal interview.

- Applicants who have already cleared the National Eligibility Test (NET) for JRFs conducted by UGC/CSIR/ICAR/DBT/ICMR or GATE and/or have experience in research appropriate for the project will be given due weightage.
- The screening of applications for calling candidates for interview will be done by a 'Screening Committee' consisting of the Principal Investigator (PI) and/or the Coinvestigator of the project.
- The PI will suggest a selection committee to the Dean (R&D) comprising of: (i) Dean (R&D) or His/her nominee: Chairperson (ii) Head of the Department: Member (iii) Subject Expert: External Member (iv) Principal Investigator: Member Secretary / Convenor (If the HoD is the PI, one senior Faculty Member of the concerned or related department to be nominated by Dean (R&D)). (External Member can be also from other Department within the institution unless specified by the funding agency).
- The Selection Committee has to be approved by the Dean (R&D) and Principal.
- Subsequently the PI shall inform the Dean (R&D) and Selection Committee Members about the date and time of the interview.
- During the interview the committee shall test the candidates' knowledge of the subject, aptitude for research, creative thinking and sincerity.
- Following the interview, a report on the selected and wait listed candidates will be submitted for the consideration and approval of the Dean (R&D).
- After the approval of Dean (R&D), the office of the Registrar/Principal will issue appointment letter(s) to the selected candidate(s).
- In general, the travel and accommodation expenses to the candidates called for interview shall not be paid and this information would be provided in the advertisement.
- The candidate is expected to join within 30 days from the date of issue of the letter of fellowship award, failing which the award shall be cancelled. However, in exceptional circumstances, the Dean (R&D) may grant extension provided the letter requesting extension is routed through the PI.

### **Fellowship and Tenure of JRF/Project Fellow**

- The tenure and fellowship amount for the project staff per month shall be determined as per the rules and regulations of the funding agency.
- If nothing is mentioned, the fellowship amount shall be decided by the PI and approval for this shall be taken from the Selection Committee, Registrar/Principal and management.

### **3 PROMOTION OF RESEARCH (PR) POLICY**

The objectives of promotion of research policy are:

- To encourage the faculty members to publish more number of SCI/ SCOPUS/WoS journals and conferences
- To promote collaborative research publications along with Higher learning institutions (IITs, NITs, IISc, IIITs, Foreign Universities etc) and Industries.
- To improve the quality of research publications, citations and h-index
- To increase the funding from sponsored research projects

#### **3.1 Research Promotion Policies through Faculty Award Incentive For Research (FARE)**

Faculty award incentive for research (FARE) will be applicable to the faculty members who have published their papers in peer reviewed journals. The original research articles, review articles and full-length conference publications, indexed in Scopus or Clarivate Analytics listed are only considered for FARE. The faculty will get incentive for their academic and sponsored research activities according to the evaluation guidelines provided by the committee concerned in each year.