

MUSALIAR COLLEGE OF ENGINEERING AND TECHNOLOGY

RESEARCH POLICY

Preamble

1. Engineering is concerned not only with knowledge of natural phenomena but also with how knowledge can serve the needs and desires of humanity. Variables such as cost, user compatibility, deliverability, safety, and adaptability to various external operating conditions and environments must be considered in the design, development, operational support, and maintenance of products and services that are created by engineers. Therefore, engineering entails the combination of expertise, procedures, processes, and know-how from multiple fields. In addition, almost all university research in science and engineering is carried out as part of the advanced training of students. For most engineering students, the goal of a career in industry motivates their pursuit of advanced studies, and this will increasingly be the case in the future. For this reason, the perspectives on research, tend to be predisposed to application in the practice of engineering.

2. Research is defining and redefining problems, formulating hypothesis or suggested solutions, collecting, organizing and evaluating data, making deductions and reaching conclusions and finally testing the conclusions carefully to determine whether they fit the hypothesis formulated. Research refers to the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the facts or data, analyzing the facts and reaching certain conclusions either in the form of solution to the concerned problem or in certain generalizations for some theoretical formulation.

Objective

3. The objective of research is to discover answers to questions through the application of scientific procedures. Research is to find out the truth which is hidden and which has not been discovered as yet. Research objectives fall into the following broad groupings: -

- (a) To gain familiarity with a phenomenon or to achieve new insights into it (known as exploratory or formulative research studies).
- (b) To determine the frequency with which something occurs or with which it is associated with something else (known as diagnostic research studies).
- (c) To test a hypothesis of a causal relationship between variables (known as hypothesis-testing research studies).

Aim

4. The Musaliar College of Engineering and Technology (MCET) aims to create and support a research culture for developing and promoting scientific temper and research aptitude among its teachers and students. Teaching blended with research enriches the students, faculty and the institution in several ways. Hence, the Institution aims to transform the institution in to a

research-based institution of higher education, to develop robust research programs and to incorporate research elements in both undergraduate and post graduate studies.

Research Policy

5. Musaliar College of Engineering and Technology (MCET) is committed to provide a vibrant atmosphere of research and an environment conducive to support high quality Research and Development activities in all departments by faculty and students. The technology developed will be delivered to the industries through transfer and proliferated in the society for their benefit in general. The policy framework of Research and Development envisions the development of the College into a Knowledge Center which shares its knowledge and expertise with various stakeholders like related industries/ organizations/ institutions and communities.

6. Research inculcates scientific and inductive thinking and it promotes the development of logical habits of thinking and organization. Teachers who engage in research activities can integrate their knowledge and experience in the classroom. A Teacher can challenge the students to grapple with fundamental questions and problems as researchers do. In such an environment, students show more interest in their coursework and better confidence in their teachers. Researchers with the support of Dean (Research) and the department HoD, are responsible for developing and maintaining an ethical and safe environment within each department. The guidelines for Research activities at MCET are as below: -

- (a) Researchers must comply with relevant legislation, guidelines, policies and directives with regard to ethical and safe practices in research.
- (b) Researchers will be responsible for conducting their research in compliance with this Policy under the directions of the Research Guide, in accordance with the provisions of the affiliating Universities and other Regulatory Bodies.
- (c) All interested faculties and students shall apply for funds or seek project funds from appropriate funding agencies wherever available, with the concurrence of MCET for their research.
- (d) Researchers shall submit research proposals to MRPG (if facility is required to be added or arrangements need to be done by MCET) in accordance with policies or guidelines specified by the College.
- (e) Researchers shall submit a copy of the research proposal for external funding to MRPG for evaluation acceptance by the Institution.
- (f) Researchers shall keep the MRPG informed of the funds they receive from external agencies to support their research.
- (h) Research conducted in any Department under a contractual arrangement with an external party shall be undertaken only based on an MoU/MoA signed by competent authorities of both the parties.

(i) Research having potential for commercialization shall be undertaken only in compliance with the approval of competent authority.

(l)

The career enhancement of the faculty through research shall not affect their normal teaching and academic responsibilities. Every part-time researcher shall ensure that they meet the minimum work load specified by AICTE.

(m) Various facilities (testing and computational) available at different departments can be availed by the researchers in consultation with the respective HoDs /faculty in charge of labs. Prior approval must be taken from the Principal for using such facilities.

Research Promotion Measures

7. To promote, facilitate and support, realization of the Research activities, Musaliar College of Engineering and Technology has formed "Musaliar Research Promotion Group (MRPG)" committed to support in setting up research centers to promote, streamline and execute research activities. Further, the measures taken to promote research activities at college areas below: -

(a) A faculty admitted to national-level institutes under external-registration scheme for PhD is eligible for a stipend of Rs. 20,000.00 during their course work period of 180 days and lab facilities will be provided by the college to carry out their research. The same facility is extended to faculty who carry out part time research work leading to PhD under KTU.

(b) Permanent Faculty Members registered for part time PhD are eligible for 10 days Research leave in a year to ensure progress in their doctoral work, co-ordination with guide and such connected academic assignments. This Special leave will be available only within a period of 3 calendar years from the date of registration, subject to a maximum of 30 days. The submission of the registration document with the MET office is a pre-condition for sanction of such leave by the Management.

(c) 'Study Leave' will be granted to academic staff to pursue academic/ research interests at premier Indian and foreign Institutes /Universities relating to the primary employment at the College. During leave, faculty won't be committed to College activities. The period of service at the College shall be protected during the leave. Only a faculty having a service of three years in the College shall be eligible. This leave shall not be granted during probation.

(d) 50% of the Tuition fee subject to a maximum of Rs 20000.00 will be reimbursed to permanent faculty pursuing part time PhD in Govt/Aided/Autonomous universities or Institutions of reputation subject to approval by Management.

(e) Those availing stipend/part of tuition fee and/or research leave are bound to continue their service to the Institution for not less than one year from the date of awarding PhD by the concerned University and required to execute a 'Bond' to this effect.

(f) Financial assistance to final year student projects to promote research aptitude in students.

(g) Project Award is instituted for Best student projects with financial incentive to the Project Group and Guide.

- (h) 50% of the expenses for presenting the paper shall be borne by the college for a faculty member, who is the presenting author for paper presentations in international conferences organized by the National Research /Academic Institutes within India. The expenses shall include registration fee, accommodation and travel cost, subject to the approval by the Management. A faculty shall be eligible to avail this facility once in two years only.
- (i) Cash incentives of Rs 10,000.00 (to Faculties assessed 'Exceptional' in the previous year) and Rs 5000.00 (to Faculties assessed 'Above Average' in the previous year) for publishing research/review papers in reputed SCI/SCOPUS-indexed journals /books and book chapters as first Author.
- (j) Financial support (Registration Fee) to participate in conferences, symposia, colloquia, workshopsheld in reputed institutions like IITs/IISC/ NITs of India and abroad limited to once in two year.
- (k) Duty Leave for faculty to attend FDP/ Seminar/ Workshops conferences, symposia, colloquia, workshopsheld in reputed institutions.
- (l) Financial support to organize National and International conferences at Musaliar College of Engineering and Technology workshops on research methodology or key research areas in the college for students and faculty.
- (m) 25% of the travel expenses (Airfare) will be reimbursed for international travel to present papers, subject to approval by the Management.
- (n) in respect of faculty completed five years of active service at Musaliar College of Engineering and Technology
- (o) Financial support to cover cost of research-related equipment, consumables and accessories depending on the merits of the case. Equipment purchased under this assistance must be brought under College Property.
- (p) In case of research activities leading to patent applications, the patentee shall be solely the college, and the inventor shall be the concerned staff/students/the collaborators. The college shall bear 50% of the financial expenses, up to the grant of patent. But, this shall not include the consultancy or attorney fee, if any.
- (q) In case the college bears the full cost upon the grant of patent, and also its renewal fee, if any, the patent rights would be bestowed with the college.
- (r) The Chairman MET can sanction Special Research Allowance in exceptional cases to staff for deserving cases.

Conduct of Research by Students and Faculty

8.

Students conducting research must comply with the provisions contained in the Policy on Research of the College and the University. The Research Supervisor of a student is responsible for providing guidance to students on all matters of research practice, and ensuring that students are informed of relevant University policies and procedures that affect the conduct of the student's research.

