

WALCHAND COLLEGE OF ENGINEERING SANGLI

Research and Development (R&D) Policy:

High-quality scientific research is a necessary requirement for creating new applications and contribution to technology. The objective of Research & development (R&D) initiatives undertaken by Walchand College of Engineering (WCE) Sangli is to build research careers, internationalization of human potential, support to strengthen the knowledge foundation and promote the creation of new applications. All education, research and innovation of this Institute should aim to be of a high standard. The goal of creating technological and social innovations has emerged alongside R&D-based activities. To achieve the high-quality research ambience, Research and Development policies has been undertaken. A research and development cell has been established that will prepare and implement the policies for development of R&D activities within the Institute.

1. Establishment of Research and Development (R&D) cell

The Research and Development (R&D) Cell is established in WCE Sangli. The R&D Cell comprise of the following members.

- (i) Director - Chairman (*ex officio* member)
- (ii) Deputy Director (*ex officio* member)
- (iii) Registrar (*ex officio* member)
- (iv) Dean R&D (*ex officio* member) - would be the Secretary of the Cell.
- (v) Head of all Academic Departments (*ex officio* member)-
- (vi) Members* Senior Faculties, nominated by the Director.
- (vii) Nominee from the Industry
- (viii) Nominee form the University

2. Responsibilities: The responsibilities of R&D cell are as follows

2.1 The R&D Cell is responsible for assisting the Academic Council in the performance of the Council's responsibilities in respect of the establishment and promotion of excellence in the Institute's research and development, and academic and research training activities. This includes the development, review and monitoring of achievements under the Research & Development,

2.2 The development and enhancement of the Institute's research capacities.

2.3 Motivate all faculties to pursue research in their respective areas of expertise.

- 2.4 The protection and commercialization of the Institute's intellectual property (IPR).
- 2.5 Consultancy activities related to R&D.
- 2.6 The provision of research and development opportunities for academic staff /faculty to maintain enthusiasm, awareness of current scholarship and relevance in teaching and other Institutional activities.
- 2.7 The development of infrastructure conducive to promoting the quality and quantity of research and development.
- 2.8 The establishment of research and development priorities; and monitoring the quality and quantity of research and development work.
- 2.9 Disbursement of Institute Research Funds to established researchers, both individually and in groups; including research infrastructure funds; seeding grants to beginning researchers; research initiatives across the departments; and provision of consolidated information to the Academic Council and other appropriate Institutional bodies.
- 2.10 Monitor the application of Research Funds to ensure that the funds are properly utilized.
- 2.11 Promote emerging areas of research and development.
- 2.12 Development of mechanisms conducive to the best possible ways of engaging and motivating research staff.
- 2.13 To monitor and enhance the quality of research programmes, projects and the research infrastructure within Institute, including the training of research scholars.
- 2.14 To be responsible for progression of research scholars.
- 2.15 To foster the development of multi-disciplinary research endeavors across faculties and departments.
- 2.16 Monitor the research and development performance of individuals, groups, Centers, and Faculties to encourage excellence and productivity through maintaining a database of research and development activities.
- 2.17 Oversee the application of the Code of Research Ethics for the responsible practice of research.
- 2.18 To formulate incentive schemes for promoting research activities with teachers and students/scholars.
- 2.19 The quality of postgraduate education to be brought up to an internationally high level.
- 2.20 To build durable partnerships and develop funding solutions with Industries and research Institutions for steering, funding and cooperation.

3. Terms of Office

3.1 Members of the R&D cell other than *ex officio* members serve for terms of up to three years.

3.2 An appointed member may be appointed to serve for additional terms as per the approval of the Academic Council of the Institute.

4. Quorum

The quorum for meetings of the R&D cell shall be the nearest whole number above 50% of the membership of the R&D cell for the time being.

5. Meeting Schedule

The R&D cell will meet at least two times each semester. The Chairman/Coordinator is responsible for determining if more meetings are required.

6. Reporting

The R&D cell will report to the Academic Council / BOG by way of its minutes.

7. Policy for Research and Innovation Funding: Development Principles

- (a) Funding will be long-term and predictable, and allocated under transparent criteria.
- (b) Long-term skills development requires a stable funding base: the diverse and strong technological and science base of this Autonomous Institute will be safeguarded.
- (c) Funding to promote commercialization of innovative idea.
- (d) New and current resources to be directed towards the most important targets: strengths and selected priority fields; infrastructures.
- (e) Research and innovation by individual departments will be activated through funding, with the aim of improving the ability to innovate through interdisciplinary research work.
- (f) A larger share of the research funds will be used for strengthening the knowledge base and for research and innovation.
- (g) Expanding the funding base of research institutes will be necessary in the future.

8. APPROVAL OF RESEARCH PROPOSALS

8.1 The design and methodology of research undertaken by a researcher, must be submitted to R&D Cell for evaluation and approval.

8.2 When students hand in research essays, mini-projects, dissertations and theses, they must declare that their research has complied with the Code of Research Ethics of the Institute.

9. CODE OF RESEARCH ETHICS:

This code expresses the ethical values of all staff engaged in academic and/or research activities at Walchand College of Engineering Sangli (An Autonomous Institute), who have committed themselves to:

9.1 Uphold the values of freedom, democracy, equality, human dignity and respect for diversity.

9.2 Strive for distinguished scholarship, excellence in teaching, reputable research and innovation through leading, challenging, creating and exploring knowledge.

9.3 Accomplish the above individually, through collective efforts and partnerships with Communities.

9.4 The purpose of the Code of Research Ethics is to guide staff and students engaged in academic and research activities to:

- (i) Respect the human dignity and rights of all stakeholders.
- (ii) Promote shared ethical values and fulfill all academic/research activities according to such values.
- (iii) Uphold and promote individual, group and institutional integrity when in the process of fulfilling the roles as Professors, Guides, Researchers, Mentors and Advisors.
- (iv) Create trust in the institution and the practice of science and engineering.
- (v) This code can be amended from time to time to deal with other aspects of research duties.
- (vi) The pursuit of truth through free inquiry and open dialogue.
- (vii) Just and fair treatment of human beings, other living beings and the environment.
- (viii) Complying with the highest standards of scientific and engineering research.
- (ix) Making no misrepresentation in the dissemination of research information and findings and not fabricating data or information.
- (x) Designating authorship of consulted research sources clearly, accurately and assigning authorship of research publications accurately.
- (xi) Committing no form of plagiarism.
- (xii) Practicing or promoting no form of unfair discrimination in research.

9.5 RELATIONSHIPS WITH THE COMMUNITY:

- (i) Data or information shall be gathered and recorded in such a way that it can be made available at any time (after completion of the project) to other interested parties without undermining confidentiality.
- (ii) Researchers will judiciously consider potentially destructive consequences of their research activities, outcomes or outputs on the human or natural environments and will avoid such research projects, through their research activities.
- (iii) Researchers will exercise their rights to academic freedom and freedom of scientific research, researchers are accountable to the community for the way in which they exercise those rights.

9.6 RELATIONSHIPS WITH SPONSORS

- (i) The methods, contents and results of research that has been funded (fully or partially) by external funds, shall be fully disclosed. Full particulars of the person or institution from outside the Institute who funded the research shall be provided in the published results of the research.
- (ii) Researchers shall be honest with sponsors of their research about their qualifications and their research expertise and skills. Researchers shall ensure that sponsors require nothing of their research that is contrary with internationally acknowledged standards for ethical search.
- (iii) Researchers shall only utilize a sponsor's funds for purposes explicitly approved by the sponsor.

9.7 RELATIONSHIPS WITH RESEARCH PARTICIPANTS AND RESEARCH OBJECTS:

- (i) Researchers shall, at all times, respect research participants' right to freedom, dignity, privacy and bodily and psychological integrity.
- (ii) Researchers shall treat non-human living beings with care, respect and awareness of their vulnerability and defenseless-ness.
- (iii) Researchers shall undertake research in a manner that does the environment no harm and that creates no additional environmental stress.
- (iv) Researchers shall undertake to carry out biohazard waste disposal as per established norms and practices.
- (v) Researchers may use people as participants of research only if they have given their proven informed consent for their participation in the research, or, in the case of persons younger than eighteen years, if their guardians have given such informed consent and also observe confidentiality.

FUNDING TO VARIOUS PROGRAMS UNDER RESEARCH AND DEVELOPMENT

1) Eligible Employees

Walchand College of Engineering Sangli employees with a regular full-time appointment and with one-year contractual appointment.

2) Criteria for Professional Development

1) Courses, seminars, workshops and conferences intended to assist employees in maintaining and improving knowledge and skills relevant to the employees' responsibilities or to their career development at the Institute, can be considered for funding

2) All professional development activities must be provided by an association that is in the business of career related training or upgrading, or a service provider that is in the business of educating.

3. Criteria for Funding

Eligible employees can access the funds approved by the institutes for the year (April 1 to March 31). Maximum funding levels are set by Administrative Council and reviewed periodically. Approved funding for individual professional development activities will not be carried forward into the next financial year. Allowable expenses must be submitted within two (2) weeks of the staff development activity.

Funds allocated to professional development activities will be in the following priority order

- i) Registration fees
- ii) Materials and supplies
- iii) Travel for activities off campus
- iv) Accommodations and meals

4. Application Procedures

- 1) The College pre-approves requests for financial support for development activities only.
- 2) Requests for leave to participate in a professional activity must be obtained by the applicant from the Director through their respective Head of the Department.
- 3) Completed applications are to be submitted to the Director's office at least one week prior to the event.

5. Cancellation

Employees can request to withdraw their application and/or approved funding by writing to

the director after obtaining approval from Head of the Department. Employees can not use previously approved funding for a different purpose. Employees who do not attend the professional development event for which they have received approved funding must repay the money.

6. Incentives for Publications and Patents

Faculty, students and research scholars are encouraged to file the patent based on their research work. Institute provides full financial support for patent filing and submitting the queries during the examination process of the patent. Full financial support is provided for prototype development.

Every year Faculty and research scholar are provided financial assistance for attending and presenting the paper in the national and international conference within India. It includes the registration fee and TA/DA for attending the conference. Once in a three years Partial assistance is provided to faculty for attending and presenting the paper in the international conference held abroad.



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