Sindhudurg Shikshan Prasarak Mandal's College of Engineering, Harkul(bdk), Kankavli, Maharashtra

Research and Development (R&D) Policy

Improving high-quality scientific research is a necessary requirement for creating successful applications. The objective of Research & development (R&D) initiatives undertaken by SSPM College of Engineering is to create awareness in research, support to strengthen the knowledge foundation and promote the creation of new applications, as well as societal impact of education, research and innovation. The goal of creating technological and social innovations has emerged alongside R&D-based activities. To achieve the high quality research ambience the following policies has been undertaken. A research development cell has been established that will prepare and implement the documents for development of research and development activities within the Institute.

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

The Research and Development (R&D) Cell was established in 2018 as per the decisions taken by the internal quality assurance (IQAC) committee. The R&D Cell comprise of the following members

i. Acting Principal, Chairman

ii. Eleven senior faculty members from Mechanical Engineering Department, Electronics and Telecommunication Engineering Department, Electrical Engineering Department and Computer Engineering Department will be selected as members of Research and Development cell.

2. Responsibilities:

2.1 The R&D Cell is responsible for assisting the IAQC committee 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, and those aspects of other colleges, university, Institute Plans.

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 of the Institute's intellectual property.

2.5 The provision of research and development opportunities for academic staff to maintain enthusiasm, awareness of current relevance in teaching and other Institutional activities.

2.6 The establishment of research and development priorities; and monitoring the quality and quantity of college research and development.

2.7 Disbursement of Institute Research Funds to established researchers, both individually and in groups; including research infrastructure funds; higher degree by research candidates; seeding grants to beginning researchers; research initiatives across the departments; and provision of consolidated information to the IQAC and other appropriate Institutional bodies.

2.8 Monitor the application of Research Funds to ensure that the funds are properly and formally accounted for.

2.9 Promote emerging areas of research and development.

2.10 Development of mechanisms conducive to the best possible ways of engaging and motivating teaching staff.

3. Terms of Office
3.1 Members of the R&D cell serve for terms of up to five years.

3.2 An appointed member may be appointed to serve for additional terms as per the approval of the IAQC committee 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 IAQC committee by way of its minutes.

7. Policy for Research and development funding: Student

.a) Provision for financial support to participate in event like Baja, SPARTA : Two teams will be selected from Mechanical Engineering Department to participate at national level or state level competition. Financial assistance   will be given each team a year. The fund will be utilized for registration, fabrication of vehicle , TA and DA.

b) Seed funding for the best project: Separate budget will be provided for seed funding. Scrutiny of proposal submitted by students will be done by research and development committee. The project will selected based on availability of the fund.

c) Financial support for reputed journals/conference : Maximum three research papers from each department will get reimbursement toward paying registration fees. Student should submit the application signed by concerned guide and HoD to R&D cell. Student should enclose receipt of registration fees, paper, participation certificate/proof published paper. Preference will be given to the UGC listed journal papers and reputed conferences.

d) Financial support for final year project: Each of final year project group will get reimbursement towards expenditure of project. Students should submit the application with bills of the expenditure signed by guide and HoD.

8. Policy for Research and development funding: Staff

a) Seed funding for the best project: Separate budget will be provided for seed finding. Scrutiny of proposal submitted by staff will be done by research and development committee. The project will selected based on availability of the fund.

b) Financial support for reputed journals/conference : Research papers from each department will get reimbursement toward paying registration fees. Students should submit the application signed by concerned guide and HoD to R&D cell. Students should enclose receipt of registration fees, paper, participation certificate/proof published paper. Preference will be given to the UGC listed journal papers and reputed conferences.

9. Policy for intellectual property right (IPR)

Owner or creator will be allowed for filling patent, trademarks or copyright of their own work, design and product at national level. This facility is applicable for all personnel, faculties, students of this institute. Fund for IPR will be allocated as per its availability.

10. Policy for engaging teaching staff for development of R & D mechanism.

a) Maximum one staff from each department in two year will be promoted for full time/part time higher studies like M.E/M.Tech/PhD. Seniority wise preference will be given to the staff members who will be taken admission in UGC/DTE/AICTE approved college/university. After completing the degree, staff members will be given increment as incentives, one increment for M.E./M.Tech qualified staff and three increments for PhD qualified staff members. The beneficiary must submit an application along with degree certificate to Principal.

b) Financial support for participation in NPTEL/STTP/FDP/Workshops : Maximum five faculty members from each department will get reimbursement towards payment of registration fees. Faculty members should submit the application along with receipt of registration fees, participation certificate, photo, abstract of NPTEL/STTP/FDP/workshops. The applications will be considered for ISTE approved or reputed STTP/FDP/Workshops.

11. Guideline for organizing STTP/FDP/Workshops/conference/seminar and project exhibition.

Department can be arranged STTP/FDP/Workshops/conference/seminar in an advanced area of engineering and technologies. The department in association with other department, institutes or professional organization may also organize a programme.   The main objective of the programme is to create awareness in advance technologies, tools and techniques, a research area in the subject. Experts from outside the institutes and inside are expected. The programme should focus on the main objectives**.**

11.1 Funding policy for STTP/FDP/Workshops/conference:

a) One week STTP/FDP : Rs. 100000/-

b) Three days workshop: Rs 60000/-

c) Two days workshop: Rs 40000/-

d) One day workshop/seminar: Rs. 25000/-

e) National level conference: Rs. 150000/-

For good quality and better value of the programme, 20% of the sanctioned budget should be utilized for hospitality and the remaining 80% of the budget should utilize effectively to programme.

11.2 Project exhibition: National level project exhibition for UG level students should be arranged under technical festival Virtuosic/ISTE once a year to promote research culture among students. Project awards should be given to best projects of each department.

12. Code of ethics

Objective: To promote research and research publication and to prevent the malpractice & plagiarism.

Ethics and plagiarism are most important factors in the research / research publication. In academics, most of the times teachers /students use others data in their research and research publication.

Faculties are work for research publications, course work, thesis for higher education, book publications whereas student's are doing for journals, assignments, project report, computer program need to process of checking the malpractice and plagiarism.

It is necessary to aware about the plagiarism to faculties / students.

Plagiarism:

Plagiarism: the practice of taking someone else's work or ideas and passing them off as one's own. "there were accusations of plagiarism"
Plagiarism occurs when a writer duplicates another writer's language or ideas and then calls the work his or her own. Copyright laws protect writers' words as their legal property.

Technology has been both a miracle and a curse in terms of plagiarism. No doubt, it has become easier to find the required information and copy it. Since people often do that without attribution, it has also become easier to identify and deal with plagiarism /plagiarism checker.

Plagiarism definition is actually straightforward. When you use someone else's work without crediting them, it is seen as stealing their intellectual property. Just like theft, the penalties for plagiarized work are also severe all over the world. The real problem is that most people are not even aware of what they are doing.

Similarity checks for exclusion from Plagiarism

Similarity checks for exclusion from Plagiarism shall exclude the following:

i. All quoted work either falling under public domain or reproduced with all necessary permission and / or attribution.
ii. All references, bibliography, table of content, preface and acknowledgements.
iii. All small similarities of minor nature.
iv. All generic terms, laws, standard symbols and standard equations.
v. In one sentence less than 12 continuous similar words from source.
vi. The similarities in the document may contain matches with author's previous work.

Levels of Plagiarism:
The plagiarism would be quantified into following level in ascending order of severity for the purpose of its definition:
i. Similarities upto 20%-excluded
ii. Level 1: Similarities above 20% to 40%
iii. Level 2: Similarities above 40% to 60%
iv. Level 3: Similarities above 60%

Penalties for students
i. **Level 1: Similarities above 20% to 40%-** Such students shall not be given any mark and / or credit for the plagiarized script and shall be asked to submit a revised script within a stipulated time period not exceeding one week.
ii. **Level 2: Similarities above 40% to 60%-** Such student shall not be given any mark and/or credit for the plagiarized script and shall be asked to submit a revised script after a time period of one year but not exceeding two weeks.
iii. **Level 3: Similarities above 60% -** Such student shall not be given any mark and / or credit for the plagiarized script and he /she will be asked to resubmit entire document.

13. Policy for memorandum of understanding (MoU)

To support the cooperation between the Parties in education, training programs and industries MoU should be done. The objectives of the MoU are as follows:

a) Assigning research and development projects to the students and faculties.

b) Regular industrial visits for students and faculties.

c) Delivery of guest lectures by experts.

d) The training of the employees by the faculties of the institute.

e) Summer training for the students.

f) Hands on training for students and faculties.

g) Consideration of recruitment of students who undergo summer training based on their performance

The Parties should agree to implement cooperation programs including but not limited to: Exchange on best practices, Faculty and student exchanges, Curriculum development, Skills based certification courses that are left to the choice of the two parties, Other areas as mutually agreed upon by the Parties. Any cooperation under this MOU is subject to the availability of funding sources and approval by IAQC .

Principal
SS PM College of Engineering