



Wainganga Bahu-Uddeshiya Vikas Sanstha's
WAINGANGA COLLEGE
OF ENGINEERING AND MANAGEMENT
An Autonomous Institute

7391058481/82
contact@wcem.edu.in
www.wcem.edu.in

Approved by AICTE, DTE, Govt. of Maharashtra | Affiliated to RTM Nagpur University | NAAC Accredited "A" Grade

POLICY ON RESEARCH & DEVELOPMENT





VISION

Imparting quality education to students in terms of knowledge, skills, ethics and values for becoming responsible human beings in society.

MISSION

- To disseminate knowledge to meet professional challenges.
- To provide life skills amongst the students.
- To impart ethics, Values among the students.

OBJECTIVES

1. To monitor and administer research activities of Faculty, Students & Industries to undertake quality research.
2. To promote inter-disciplinary studies and create needful facilities that enhance inter-disciplinary research and innovation.
3. To encourage core competence, consultancy and Intellectual Property Rights (IPR) among faculty and students.
4. To support researchers for undertaking research activities and sponsored projects offered by various government and non-government agencies.
5. To establish advanced laboratory facilities and inculcate collaborative research interest among the students and faculty by extending facilities to other institutes.
6. To support long-term relationships with national and international research organizations and industries for widening the scope of research options and funding opportunities for faculty and students through MOUs.
7. To provide seed money and encourage faculty to pursue competitive research in emerging thrust areas of national and international importance.
8. To encourage faculty to publish their research work in journals of high repute and/or file patents.
9. To adopt a research integrity code, which informs all researchers about the ethical and legal norms and principles to be followed in the conduct of research.
10. To develop, prescribe and administer rules and regulations to ensure the compliance of all researchers to the research quality assurance framework.

R & D ORGANIZATION

R&D Cell of the WCEM shall be organized into six different divisions dealing with Academic research, sponsored research, Consultancy, IPR, Extension, Extramural Research and Outreach, and Innovation Incubation Cell.



ACADEMIC RESEARCH

The Academic Research Division will:

- Promote Quality Research: Plan strategies to facilitate high-standard research activities.
- Foster Research Culture: Inculcate a research culture, promote research integrity, and formulate research policies and regulations.
- Guide Research Output: Develop guidelines for publishing research findings in high-quality journals and filing national/international patents.
- Enhance Research Performance: Raise research benchmarks, enhancing the reputation of individuals, the institution, and the country.

WCEM adheres to the Institute Grants Commission (UGC) & AICTE guidelines and ensuring compliance with quality standards.

- Only original work carried out at the institute either individually or under collaboration shall be allowed to be published after plagiarism check.
- Faculty members shall focus on publishing their outcomes of research in high-quality indexed journals and building a strong collaboration with national and international institutes for raising the standard of research.
- Faculty members shall attend and organize various conferences/ seminars/workshops in their respective fields and also present their work.
- The division shall facilitate in providing financial assistance to faculty in attending conferences and publishing their papers in high quality open access journals. Research Incentives will be dispersed every year to the faculty based on their research outcome as per the WCEM incentive policy.

SPONSORED AND INTERNAL RESEARCH

- WCEM puts a strong emphasis on sponsored research funded by various national and international government/non-government agencies as well as industries to create strong industrial interaction, set up modern laboratories, create infrastructure with sophisticated instruments and develop technological products/processes.
- WCEM is committed to facilitate the acquisition of grants received from various funding sources for the smooth operation of all aspects of the research project activity, such as opening of project account in bank, release of grants, appointment of project staff, purchase of equipment, Settlement of bills related to Salary/Fellowship/Wages, periodic project budget review and final submission of utilization certificate to funding agencies.

The sponsored research division shall be responsible for administering and monitoring the following activities:



- Regular faculty members of the institute shall be allowed to act as principal investigator (PI)/co-principal investigator (Co-PI) and submit the proposal to external funding agencies as well as in-house funding.
- R&D cell shall inform all the faculty about the call for proposals from various funding agencies as and when released through proper channel.
- Faculty members shall draft the proposal in the specified format of the funding agency and submit for review to R&D office in advance before the deadline of the funding agency. After completion of the review, Dean R&D shall recommend it for submission.
- The Institute shall provide seed money to new faculty for initiating research with expected research output and with an understanding that the preliminary results of the project will be used by the faculty for submission of major research projects for both public and private industry funding.
- Once a project is sanctioned to PI, sponsored research division shall be responsible for opening the bank account through the finance officer and managing the fund.
- All project staff positions approved by the funding agency shall be filled in after due advertisement on the website and other news platforms.
- The appointment of project staff shall be made by the Interview Panel Committee approved by deputy Registrar.
- The proceedings of the Interview Panel Committee meeting will be recorded and circulated to all committee members.
- After the selection meeting, PI shall issue an offer letter to the selected candidate along with the terms and conditions to which the project staff has to abide and project staff shall submit the acceptance letter to PI.
- The fellowship shall normally terminate on completion of the projects and appointment of the project staff shall be purely on temporary basis and the appointed staff will have no claim for regular appointment in the Institute on the termination of the project.
- Project staff shall submit the semester wise progress report through PI and head of the department to sponsored research division for continuation of the fellowship.
- On receipt of the first installment of the project grant from the funding agency, the PI shall inform the sponsored research division about the breakup of the received grant under different budget heads. Re-appropriation of Funds from one approved item to another shall be permitted in the light of specific guidelines of the Funding Agency. PI may also re-appropriate funds (if funding agency does not prohibit this) up to an extent of 20% from one head to the other, except the non-consumable grant available under the project.
- All purchases of consumable and non-consumable items and other expenses shall be made strictly in accordance with the terms and conditions of the funding agency through



purchase department of WCEM.

- PI shall maintain the stock register for consumable and non-consumable items.
- All purchases including through quotations and tender process shall be supervised and handled by Purchase Committee appointed by Director.
- The PI shall prepare the statement of expenditure and utilization certificate of every project as per the time schedule prescribed by the funding agency.
- Unless otherwise agreed with the funding agency in the project agreement, Intellectual property Rights for any discovery or invention originating from the Sponsored Research shall jointly rest with the Institute, Investigator(s) and the Sponsoring Agency unless the sponsoring Agency authorizes the Institute in writing to have the exclusive right.
- The PI shall not independently transfer technology to any party without the consent of the IPR owners. The terms and conditions for each of such technology transfer shall be worked out on a case-to-case basis with the approval of the Dean R&D.

CONSULTANCY

The main objective of the consultancy is to promote academic, industry research interaction and to disseminate knowledge inputs sought by industry, government agencies or other academic / research organizations impacting society directly. WCEM encourages faculty members to undertake consultancy projects in order to strengthen their own research profile as well as the institute. Any industry or agency can contact WCEM to solve research problems or meet any type of need such as analytical characterization, calibration, Simulation/ modelling/ optimization, testing of industrial products/ samples, development of systems software/application software for offline/online applications etc. WCEM shall be happy to undertake such assignments and handle them through its faculty under the term consultancy.

- Departments and faculty shall be encouraged to offer consultancy services to various industries, corporates, national and international agencies.
- The consultancy job undertaken by the faculty shall be under two categories: Research consultancy and Testing consultancy.
- A consultancy service shall be initiated upon request from sponsoring agencies/industries directly to the institute or a discussion between the client and the faculty. If the institute receives a direct request for a consultancy assignment, a specific faculty with required expertise shall be identified by the Dean R&D.
- Faculty shall prepare the consultancy project with objectives, detailed outline of the project, salary for manpower, consumables, equipment charges, overhead charges etc.
- If a faculty member undertakes an individual consultancy assignment where institute facilities are not involved after a mutual discussion with the client, the amount received from the client shall first be remitted to the institute and later institute shall distribute



the amount to the faculty through proper channel.

- Each faculty member desiring to undertake a consultancy job shall obtain prior permission from Dean R&D by furnishing all details such as nature of work, name of the agency/client, period, payment etc.
- The revenue generated from the consultancy project shall be shared by the member faculty and the institute in a 60:40 ratio for research consultancy after deducting the overheads and all other expenses met by the institute.
- After the completion of the consultancy assignment, a copy of the closure report certified by the client shall be submitted to the Dean (R&D).
- The terms and conditions regarding the rights pertaining to any intellectual property generated in due course of the consultancy assignment shall be jointly worked out with the client based on the nature of consultancy work.
- The concerned faculty/PI and the persons in possession of such confidential information shall take due care to maintain integrity and discretion regarding confidential information received from the client, including but not limited to results, reports and identity of the client.
- Every client shall preferably deposit 100% of the total project cost in advance to the institute, in order to initiate the project. This amount shall cover the mandatory charges such as the Institute overhead and the applicable taxes.

INTELLECTUAL PROPERTY RIGHTS

WCEM recognizes the importance of the key findings of practical applications generated during the scientific and intellectual research pursuits of its faculty and students to provide a competitive edge to the institute and economic use of the results/findings for the benefit of the Indian public and global community as a whole. The institute focuses on creating, disseminating and applying knowledge through research and education to reach and benefit the wider community.

In alignment with the Vision and Mission of WCEM, the dissemination and application of Intellectual Property through commercialization favors the outreach of the novel technologies and processes developed at WCEM. It also encourages faculty and students of WCEM for transferring the technology using intellectual property rights.

- The IPR division shall help the faculty and students in patentability assessment and apply patent/copyright/trademark applications.
- The IPR division shall analyze and pursue the protection of IP generated at WCEM. This shall also conduct meetings and awareness programs about IP.
- All the rights in intellectual property made by the faculty and student in his/her tenure in WCEM using funds/facilities provided by WCEM or external funding agencies shall automatically belong to the WCEM if proceeded without formal associated agreement.



However, a third party may own exclusively or jointly rights of IP with WCEM under sponsored research, consultancy projects and collaborative research and also the research carried out by the WCEM faculty/students at a third party institution with a formal associated agreement.

- If any faculty generates IP outside the normal working hours of the institute using institute resources shall transfer the rights of IP to WCEM.
- In case of funds provided by an agency of the Government of India, the ownership shall be decided in compliance with the ownership clauses defined by the funding agency at the time of approval of the activity.
- Any licensing of technology transfer done by WCEM shall be as IPR policy and revenue generated shall be shared with the inventor (s) in 70:30 ratio. In case of multiple inventors, royalty share shall be done on an equal basis in the absence of an alternate specific revenue sharing agreement.
- The inventor shall be required to disclose a potential conflict of interest while undertaking any IP related activity.
- In case of any disputes between WCEM and the inventor regarding the implementation of the IP policy, the aggrieved party may appeal to the Dean R&D.
- The IP generated out of thesis work, the student and the supervisor(s) concerned shall have joint ownership of IP rights.

EXTENSION, EXTRAMURAL RESEARCH AND OUTREACH

Extension, Extramural Research and Outreach division acts as an interface between WCEM and society to provide better services for the development of rural areas through various programs and technological initiatives. WCEM students under the supervision of faculty undertake various projects to solve rural societal problems involving rural communities for their overall development. The main objective of WCEM under this division is to improve the lives of rural people by adopting the villages for holistic development.

- The faculty shall be motivated to identify and perform research on societal problems to find solutions for the betterment of the people, especially those residing in rural areas.
- The Institute shall conduct awareness programs relevant to education, hygiene, livelihood, skill development, women empowerment, agriculture and allied activities to promote organic farming, digital literacy campaign etc. to enlighten the rural community for self-reliant rural development.
- Institute shall conduct entrepreneurship development programs with the objective to promote, develop and commercialize the technologies.
- Institute shall provide training to students of government schools that includes promotion of skills self-awareness, communication, interpersonal skills, problem-solving, creative thinking, gender sensitization, climate change and environmental pollution.



INNOVATIONS, INCUBATIONS, ENTREPRENEUR CELL(IIC)

IIC division at WCEM promotes innovation, research and entrepreneurial activities in technology development related areas. It provides a platform for startups for converting their ideas into commercially viable technology/product.

- The institute shall create an innovation culture by organizing various kinds of programs such as ideation programs and collection of innovations from research undertaken in respect of academic, extension, extramural and outreach.
- The major outcome of the research shall be incubated in the incubation center.
- Students shall be allowed to select an incubated product and use the same to be developed in large scale through a separately established start-up. All the training required for the students to become entrepreneurs shall be imparted.
- Every innovation shall lead to filing a Patent. The institute shall provide the support required for filing the patents and also for completing the ground work required to get the patents registered and licensed.

PROMOTION OF RESEARCH

Research is the foundation of any institute in higher education and its promotion reflects both in vision and mission of the institute. To create a strong ecosystem in research, WCEM is committed to provide the required monetary and infrastructural support to the faculty members and students. WCEM shall ensure that research in all fields that include trans and multidisciplinary types grows exponentially, keeping the ethical norms and research standards intact.

- WCEM shall provide SEED money to the newly joined faculty to set up laboratories and initiate research.
- WCEM will recognize faculty and student research by offering incentives, including financial support for publishing papers, patents, copyrights and projects. Staff writing books/book chapters in springer, IEEE editions with ISBN will receive Rs. 10,000, also incentivize research scholars to publish in SCI, SCOPUS journals, covering up to 6 authors.
- WCEM will establish Doctoral Fellowship position to boost research and innovation. Upon PhD completion, eligible staff members will receive Rs. 25,000.
- WCEM will support faculty attending conferences, workshops, FDPs, MDPs, STTPs, etc., with Rs. 5,000 (registration fees + one-side travel).
- WCEM shall provide professor-based research labs to its faculty on a competitive basis for carrying out transdisciplinary research and enhancing the strong research ecosystem within the institute.
- WCEM shall provide internal grants for projects submitted by the faculty in innovative areas leading to quality publications, patents and external funding.



PUBLICATION AND DISSEMINATION OF RESEARCH

FACULTY STUDENT RESEARCH DISSEMINATION

- Faculty members are expected to maintain a strong research profile by publishing at least two research papers per year in SCI/Scopus indexed journals and two papers in UGC CARE listed journals. Additionally, they are required to publish two book chapters or one book with a valid ISBN number, and/or monographs.
- Faculty members must actively participate in research webinars and workshops throughout the academic year, alongside meeting publication requirements.
- Departments are expected to achieve the following research targets in an academic year: file a minimum of 2 patents and develop at least 2 prototypes. This initiative aims to foster innovation and translate research into practical solutions.
- Establish a minimum of 2 industry partnerships per academic year, fostering collaborative research, innovation, and experiential learning opportunities.

STUDENT RESEARCH DISSEMINATION

WCEM fosters a research-oriented culture by encouraging students to present their research, project work at academic conferences organized by the institute and publish papers in peer-reviewed journals. To support this endeavor, WCEM offers funding for student participation.

RESEARCH DISSEMINATION PLATFORMS

WCEM will host a Research Conference (International & National level) to highlight faculty and student research contributions. It will serve as a platform for sharing research findings, fostering collaborations, and networking with the research community.

RESEARCH PERFORMANCE METRICS:

outputs will be evaluated annually based on factors such as:

- Number and quality of publications (indexed in SCI/Scopus/ WoS)
- Number of patents filed
- Grants and funding received
- Collaborations with industry and research organizations
- Research-related awards and recognitions

Dean R & D

Director