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# **INSTITUTE OF ENGINEERING & MANAGEMENT, KOLKATA**

## **INSTITUTIONAL RESEARCH POLICY**



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## **1. Promotion of Research Activities**

Institute of Engineering & Management, Kolkata shall have several initiatives as detailed below to promote research.

### **a) Providing Seed money to the faculty research**

In order to encourage faculty members to undertake research work, the Institute shall provide financial support as seed money for commencement research. The research advisory board/Committee will decide the eligibility criteria, amount of funds, and manner of distribution and will be notified by the Institute at different time intervals.

### **b) Doctoral program is promoted and incentivized at IEM.**

The Institute's robust Research team is continuously engaged in supporting Ph.D. programmes of the institute in multiple disciplines. Various incentive schemes are also available to doctoral scholars of IEM.

### **c) Set up different laboratories and utilization of instruments (in house/ external)**

Both hardware and software developed by the faculty and students are encouraged to be used in-house. Some of them are already been incorporated into the functioning of the Institute. IEM supports and engages in developing research labs in a diversified field of study. The Institute has promoted Labs in emerging technologies, and innovation drives through electric vehicles including, cars, bikes, and cycles. For conducting major research projects or research projects with a multidisciplinary aspect the Institute shall provide infrastructural facilities including building space, laboratories, and allied facilities. Institute shall provide administrative support in terms of procedural flexibility to enable faculty members to utilize the resource and supports available in different government or other agencies. Incentive Scheme:

### **Tuition Fellowship & Research / Teaching Assistantship for PG students:**

Full time M.Tech of IEM doing in-person classes and attendance every day (90% attendance) will be eligible for full tuition waiver scholarships along with Teaching Assistantships / Research Assistantships of Rs. 20,000/- (for full-time M. Tech. students) if students have 8.0 and above (or 80% and above) throughout in aggregate. The tuition waiver scholarships and Teaching Assistantships / Research Assistants will not be applicable for part-time students or students who hold jobs or students whose attendance is not 90% or students who do not have aggregate 80% throughout to continue. The additional condition for the tuition waiver scholarship and TA / RA to continue is to publish at least 2 Scopus/SCI indexed papers publication after 1 year of coursework.

It has also been kept in the employability condition that at least two Scopus/SCI publications and one patent, one project, and one consultancy is mandatory per year. Co-authors cannot count on the same publication to fulfill publication criteria.

### **d) Maintaining research/statistical database**





All research publications/ Progress report/ Ph.D. dissertation copies and other related documents should be kept in the Central Library for future correspondence under the administrative control of senior academicians/officers nominated by the Director.

## **2. Resource mobilization for Research**

### **a) Mobilization of resource from Government agencies/ Industry**

The Institute shall inspire faculty members and students to approach different organizations under State Government and Central Government for funding different research projects under different schemes based on their area of specialization. With the research ideas generated through Internal funding in terms of seed money, faculty may apply for externally funded projects of further financial support.

### **b) Mobilization of resource from non-Government agencies/ Industry/ Other Recognized Organizations (National/ International)**

To congregate long-term expenditure of the research projects, The HOD, Deans, or faculty members may approach different non-Government sources (national/ international) to mobilize funds under different projects or schemes specified for the purpose.

### **c) Incentive Scheme**

Research Project Funded by Internal and External Funding Agencies: The Institute shall always inspire faculty to approach National and International funding organizations such as DST, DST-SERB, CSIR, DBT, DRDO and others to find funding research Projects undertaken by faculty and research students.

The Institute should also make arrangements to provide the seed money to create interest in research activities. With the research ideas generated through Internal funding faculty may apply for externally funded projects of longer financial requirements.

### **a. Grant in Aid Policy**

Grants up to Rs. 5 Lakhs are going to be disbursed to Project groups/Principal Investigator whose research aligns with Govt. of India's thrust areas in the emerging technology applications to practical and societal/national problems.

### **b. Incentive for Externally Funded Research**

The Institute shall pay the research team an incentive equivalent received from external funding agencies

## **3. Innovation ecosystem**

The Institute shall create an ecosystem for innovation and knowledge transfer through different initiatives like intellectual property awareness programs





#### **a. Intellectual Property Rights protection**

IEM has a robust policy to encourage research, consultancy, and extension.

The Institute is focused on developing its research output and making it available for the benefit of the greater community. In doing so, special care has to be taken with regard to Intellectual Property (IP) issues. A research output would ideally attract multiple IP issues, which should be handled professionally to avoid future complications. The Institute would host an Institution Innovation Council (IIC) to address the Institute's IP issues relating to innovation and research outputs. Through the council, the Institute would create an ecosystem for innovation, including establishing an incubation Centre to assist in the creation, protection, safeguarding and transfer of knowledge. ICC shall conduct an adequate number of workshops amongst the faculty and students to extend assistance in converting ideas to expression in the form of patents, copyright, trademark, designs etc. and create awareness amongst the students and faculty. ICC shall also conduct an IP awareness drive for students to understand the nuances of plagiarism.

#### **Patent**

The Institute aspires to strengthen research, leading to filing of Patents for which the guideline is already available. If any innovation is done, the Institute would encourage the researchers and scholars to patent it. The Institute also gives financial assistance to faculty concerned regarding patent filing. The Institute creates awareness about intellectual property signs among faculty, researchers and scholars from time to time.

Revenue Sharing: 50% of patent revenue will be retained by the institute and 50% will be shared amongst the inventors after selling the rights of the granted patent.

Reward: Rs 10,000 to the inventors after a patent is granted with the applicant name as the Incentive Scheme.

#### **b) Workshop/Seminar/Conference**

The Institute will encourage faculty members of various departments to conduct workshops/ seminars/ conferences on a regular basis. It shall be mandatory for the organizers to get approval from the Institute authority and from concerned Government agencies if applicable. The organizer of any workshop/ seminar/ conference should submit all the related necessary document to the office of Vice Chancellor / Registrar and keep records submission to Institute authority including regulatory bodies.

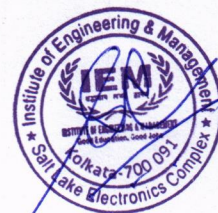
On an average the Institute organizes 35 international conferences annually. Nobel Laureates, foreign faculties are regularly involved in training and teaching our students. The Institute encourages research with the best universities across the globe.

#### **c) Industry academia partnership**

Continuous interaction with industry experts will help students to keep themselves updated with dynamics of the job market. Institute might encourage the participation of industry experts in different committees like Faculty council, academic council etc. and also in guest lecture! Workshop/seminars etc. All such interactions might require due endorsement and approval of concerned authority.

#### **d) Start-up**

Institute encourages ideas coming up from young minds and provides students start-up grants.





#### **4. Research publications and awards**

##### **a) Ethics of publication**

The Institute of Engineering & Management believes that the occurrence of misconduct is a threat to the basic principle of research. The Institute defines research misconduct, as any fabrication and falsification of data, plagiarism or any other deviation from accepted norms and practice in proposing, performing or reporting results arising out of research carried out in of the profession and undermines the fabrication and falsification of data, plagiarism or any other deviation from accepted norms and practice in proposing, performing or reporting results arising out of research carried out in Institute, Misconduct in research demands the integrity of the profession and undermines the credibility of scholars.

Students, research scholars and faculty members need to ensure that only original work would go for submission to any publishing house either in the form of Journal paper or book or presented in conference/ seminar. Plagiarism in any form represents unethical publishing practice and ought to have condemnation. Students, research scholars and faculty members should use Institute affiliation while publishing. All submitted thesis being considered for degree by the Institute should undergo appropriate detection test and anti-plagiarism certificate to be issued by the Office of Library for submission of thesis.

##### **b) Incentive for faculties on receiving grants/award /recognition from external agencies**

Institute of Engineering & Management encourages academic excellence of faculty members. If faculty members get recognition from an external agency in the form of research funding or award, the Institute shall provide incentives. The details shall be notified by the Institute from time to time.

##### **c) Publication of Books, Book chapters, Conference proceedings and other publications**

Academic activities like publication of books, book chapters, conference proceedings and other publications should be properly documented. Students, research scholars, faculty members should send information along with a copy of the publications to the publication committee about any publication of books, book chapters, conference proceedings and other publications.

##### **d) Bibliometric of publication based on citation index**

Research office of the Institute shall collect all the research outputs with segregation as- doctoral, post-doctoral, projects, inventions and discoveries, number of patents obtained and number of research publications. Based on the date mentioned above the Institute shall maintain Bibliometric of publication based on citation index as per recognized bureau like web of science, Scopus, PubMed, Indian citation index etc.

##### **e) Incentive Scheme**

###### **i. Reputed Journal Incentive**

In the case of First Author the institute will give an incentive for publications in journals by faculty members. In case of a team, if the faculty member is only the First Author then the amount shall be shared equally among our institute team members: The publication should have IEM affiliation. Either student faculty or the student of IEM will be the first or corresponding author. In case of First Author the institute will give an incentive for publications in journals by faculty members: Rs 5,000 for publications in SCI journals and list of IEM recognized Management Journals Rs 5,000 for publications in SSCI journals and list of IIM recognized Management Journals. Rs 5,000 for publications in SCI(E) Journal, Rs. 3,000 for publications in SCOPUS and ESCI or reimbursement of conference registration. Rs. 1,000 for IEM UEM foreign journals (except where the same article published in all conference).





## **ii. Book Publication Incentive**

In case of First Author Award for Publications of text books in relevant engineering discipline: Rs. 25,000/- if the text book is published by an international publishers like McGraw Hill, Prentice Hall, Oxford Institute Press, IEEE Press, Springer-Verlag GmbH or other internationally reputed publishers. Rs. 15,000/- if the text book is published by a national publisher like Tata McGraw Hill, Hall of India, MacMillan India, Sage. Rs. 10,000/- if the text book is published by Regional / Local publishers. Rs. 5,000 if a book chapter is published.

It has also been kept in the employability condition that at least two Scopus/SCI publications and one patent, one project and one consultancy is mandatory per year. Co-authors cannot count the same publication to fulfill the publication criteria.

**5. Consultancy:** The consultancy services in Institute are of two types:

**Institutional:** A specific work/ project to be done by a team or department or an individual staff on behalf of the Institute.

**Technical:** A routine technical data/information, guidance or analysis and fabrication where interpretation is not needed. Individual: consultancy undertaken by an academic staff member with her individual contact and expertise.

Any consultancy work should be routed through the competent authority of Institute.

Consultancy activities should not hamper the routine assignments of academic staff members and faculty members.

The cost of consultancy work shall be given under the following heads:

- i) Expert fee
- ii) Manpower
- iii) Equipment/Machinery
- iv) Field work
- v) Transport
- vi) Contingency
- vii) Miscellaneous

GST. TA and DA will be as per agreements with the client.

## **Incentive Scheme:**

**Consultancy Revenue Sharing:** 30% of consultancy revenue obtained by faculty will be retained by the Institute and 70% will be disbursed to the faculty members.

Timeliness of completion / progress of consultancy project is to be noted and assessed. After the completion of the consultancy project, a copy of the synopsis of the work with the audited statement of accounts will be required to be submitted to the office of Research Cell of the Institute.





## 6. Extension Activities

- a) Student awareness on social issues
- b) Alliance with Government/ Non-Government/ Recognized Organizations

## 7. Collaboration

- a) Collaborative research work

The Institute shall encourage faculty members to undertake project work jointly with eminent experts from other national or international academic institutions/ industry/ National laboratories. The Institute encourages faculty members to publish research outcomes jointly with experts from other institutes. Collaborative work would require endorsement through proper channel and formal agreement or understanding between institutes are encouraged.

- b) Faculty exchange
- c) Student exchange
- d) Association with institution /industry (project work/ Internship/ Job training/ Sharing instrumental or other research facilities) Students from different streams need hands on experience in addition to the knowledge gathered by the academic curriculum. Different Department of the Institute along with placement cells shall take initiative to allocate the students for internship, job training, project work and similar other knowledge-based work in different industry, research lab or other academic institution. Research facilities are updated on an annual basis in the Institute.
- e) Memorandum of Understanding

## 8. Incentive Scheme

**Foreign Visits Incentives:** Each faculty and a staff member will be eligible for incentives up to 2 lac per visit for Tickets, Accommodation and Research Assistantship, 3 times a year, for organizing conferences/ Study Abroad Programmes.

**Conference Incentives:** Each staff member is eligible, twice per year, towards registration and travel expenses for institute recognized list of Conference/Journal/Conferences organized by IEM group:

- Rs 5000 reimbursement for attending National conferences for presentation of paper/s.
- Rs 20,000 for attending International Conferences for presentation of paper/s/ publication of papers Publishing Patents with good commercial potential.

To establish state of art laboratories and research facilities with the help of funding support from National and International funding agencies.





## 9. Miscellaneous

### **Research Advisory Board:**

Research advisory board composed of senior experienced members of the Institute itself and external members from industry and academia is formed to provide direction for effective implementation of the above said objectives. Board also should provide suitable planning to make efforts to improve the quality of research infrastructure to facilitate research. Board should create suitable procedures for giving due recognition for supervision of research and also encourage the faculty to undertake research by collaborations with other research organizations/ industries in the area of interdisciplinary research. Internal Research committee under the chairmanship of Vice-chancellor and Dean (Research and as member secretary. This committee will be meeting on a regular basis to monitor the progress of the ongoing research project and submit its recommendation to the Director for internal seed fund related sanction.

### **• Research and Development Cell:**

The Research Cell of the Institute should be responsible for implementing the research policy of the Institute by working closely with the Institute Management.

The specific rules and functions of the cell will be as follows:

- a. To set up a research fund for providing seed money for the research.
- b. To encourage and promote a research culture.
- c. To provide facilities in terms of equipment, research journals and incentives required by the faculty.
- d. To prepare budgets for supporting students' research projects. e. To invite industry to use research facilities of the Institute of sponsored research projects.
- e. To encourage and promote the publications of research articles by the faculty in refereed Journals.
- f. To create and maintain a database of research work and research projects undertaken by the faculty and students as well as to collect data such as Citation index, Impact factor, h-index etc.
- g. To prepare research publications leading to patent/potential research activities.

### **Incentives for Outstanding Research:**

Institute should encourage quality research in different thrust areas. For this purpose, to encourage faculty researchers, and students for praise worthy research contributions, Institute has prepared a scheme for providing an incentive to faculties and research scholars.

The incentives are identified as follows:

- a. Incentives interns for financial benefit.
- b. Incentives interns for awards/prizes.
- c. Incentives interns for more funding for ongoing research. d. Incentive interns for certificates for career advancement.





### **Trainings for Research and Publication:**

Generally, faculty are eager to conduct research but because of lack of expertise to write research propose or hiring insufficient research skill, they are unable to channelize their efforts effectively. Hence in many cases research proposals are rejected by the funding agencies. Even for publication of papers because of lack of knowledge about how to write a paper and under which format it should be submitted, sometimes the papers are not accepted. Therefore, the Institute shall organize training programme for researchers.

### **Publication of Papers in Journals:**

Publication of research paper is critical for the effectiveness of the Institute. Faculty must publish research papers accordingly in quality accredited Journals. Therefore, the Institute plans to encourage the publication of papers by the faculty with a targeted aim. A faculty member should be expected to publish a certain number of research papers in referred Journals at National and International labels. The Institute entertains publication of research paper in conference proceedings organized by the Institute National/International and incentivize the same.

### **Research Ethics:**

The Institute believes that the occurrence of conduct is a threat to the basic principle o research. The Institute defines research misconduct, as any fabrication of falsification o plagiarism in proposal, performing or reviewing research, or in the reporting of research result Misconduct in research demands the integrity of the profession and undermines the credibility of scholars.

The Institute takes seriously of all misconduct and ensure that the procedures for the enquiry investigation and adjudication of any misconduct are well defined and all parties involved.

