Research Promotion Policy

The National Institute of Engineering
(An Autonomous Institute under VTU, Belagavi)
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1. Brief statement

Improving quality scientific research is a necessary obligation for creating successful applications for societal needs. Research and developmental activities creates and disseminates new knowledge in a range of fields, promotes innovations and these will motivate better learning and teaching among faculties and students of the National Institute of Engineering (NIE) as these are often incorporated in the courses. Our commitment to science and engineering interdisciplinary work is reflected in the nourishment of both basic research and applied research which may yield a long-term impact. NIE ensures that all the core and inter disciplines flourish in research by adopting the highest norms and standards of a scholarly undertaking. The purpose of research policy is to create a vibrant atmosphere of research among faculty and researchers in NIE. The policy shall serve as an overall framework within which research activities may be carried out.

2. Objective

To achieve a high quality research ambience, the following specific objectives have been formulated:

- ➢ To create an enabling environment within NIE to foster a research culture as well as provide required support through research framework and guidelines.
- ➢ Create the culture for inter–disciplinary collaborations and a platform for knowledge sharing.
- ➢ Ensure publications in quality journals, indexed in Scopus/Web of Science, SCI and/or with Thomas Reuter's impact factor.
- ➢ File patents and transfer technologies to relevant industries.
- ➢ Promote industrial collaborations involving active and mutually beneficial R&D projects.
- ➢ Forge interdisciplinary collaborations and partnerships at national and international level.

3. Establishment of Research Forum

The research forum implements wide range of activities which include; promoting basic and applied research, technology development, establishing centers of excellence, honing and cultivating appropriate research skills within faculty by deputing for Ph.D. studies, Conferences, Workshops and short – term training programs, promoting faculties to submit research proposals for various funding agencies. The implementation and updating of Research Policy shall be carried out by the Dean, Research and Development, NIE. The research policy shall have a research advisory body to function under Principal, NIE and NIE–CRD (NIE

Committee for Research and Development), to assist and advise in matters related to research within NIE.

Primary activities of Research Forum:

➤ Sharing of research by internal faculty members.

➤ Arranging expert lectures by eminent personalities.

➤ Developing training modules.

➤ Arranging conferences and workshops.

➤ Submitting research proposals for government and non-government funding agencies.

➤ Pursuing consultancy work, developing incubation centers.

➤ Writing patents.

➤ Establish research steering committee to coordinate the activities of the research forum.

Secondary activities of Research Forum include; arranging training/ discussion sessions, having a mentor from IITs/ IISc for every department, formalizing the procedure for departmental research data collection, formalizing training need identification, deputation and feedback process, formalizing the research appraisal scheme for faculty members, developing a policy for NIE Research Grant, developing Conferences and Workshop Deputation Policy, Conferences and workshops organized by research forum, NIE Research Forum funded Research projects.

Research Forum

Sl. No.	Name of the Member	Designation
1.	Prof. N.V. Raghavendra	Principal and Chairman
2.	Prof. K. Pushpalatha	Dean, Research and Development and Vice – Chairman
3.	Prof. M.V. Achutha	Former Dean (R&D) and Advisor
4.	Prof. K. Roopa	Co-ordinator – Research (ECE)
5.	Prof. Shankar Nalinakshan	Co-ordinator – Research (EEE)
6.	Prof. Bhat Geeta Lakshmi	Co-ordinator –Research (ISE)
7.	Prof. M.J.Yogesh	Co-ordinator – Research (CSE)
8.	Prof. A. Shailesh Rao	Co-ordinator – Research (IPE)
9.	Prof. K. Gourav	Co-ordinator – Research (Civil)
10.	Prof. K.S. Nithin	Co-ordinator – Research (Basic Science)
11.	Prof Yogesh K .K	Co-ordinator – Research (ME)

4. Planning the research

All research projects should be conceived, designed and implemented according to the highest standards as follows:

➢ Clear documentation of the rationale for the study and any subsequent modifications, either in laboratory notebooks or in the project files. Each key document and any changes should be signed with date by the researcher responsible to establish the provenance of the study and protect Intellectual Property Rights (IPR).

➢ Adherence to the current safety practices and ethical standards.

➢ Securing all necessary ethical and regulatory approvals.

➢ Assessment of the resources needed to ensure the study is viable within the available means.

➢ The economy in use of resources.

➢ Regular review of the research progress to identify new findings that can be taken into account and the project plan shall be modified accordingly.

5. Norms and Standards for the Research Grant Policy

The Management of NIE has allocated budget to fund research projects to be undertaken by the young faculty, PG and UG Scholars pursuing research in various areas. The aim of the scheme is to strengthen the research activity, which will act as a catalyst for them to apply to various funding agencies for major grants. The norms and guidelines of the scheme are given below to help the faculty in the preparation of the proposals.

➢ The Institute will provide **seed money** for each project and the duration of the project is 1 year. Research proposals from young faculty would be considered for acceptance after proper evaluation.

➢ Proposals written in collaborations with faculty from within and other departments (intra – and inter – departmental) involving interdisciplinary research areas are given preference.

➢ Number of research proposals to be sanctioned per department would be as per faculty strength of the department.

➢ The selection of the projects will be based on peer review and presentation of short – listed proposals in front of the Expert Committee. All assets generated out of the fund for the project including equipment, books and journals will become the property of the institution and an entry in the dead stock/ consumable stock/ library is mandatory for sanctioning the bills.

➢ A publication in the form of a research paper in a Scopus Indexed / Web of Science/ SCI peer reviewed journal is mandatory. The affiliation of the institute and an acknowledgement

therein is essential in the research paper. One copy has to be submitted to the Dean, R&D office.

➢ 3 or 4 students of UG and 1 student of PG are required to be associated with the project.

➢ A bound copy of the final report of the work done on the project, in thesis form, along with CD/pen drive must be submitted to Dean, R&D office on completion of the research project. Also, a copy of the "Final Report" of the work done should be kept in the library of the respective department.

6. Openness

Whilst recognizing the need for researchers to protect their own academic and where appropriate their IPR, the institute encourages researchers to be as open as possible in discussing their work with other researchers and to the public. The aim of disseminating research is to increase knowledge and understanding: its purpose should not be primarily to seek publicity for the researcher or the institute or the sponsor.

Once the results have been published, the institute expects the researchers to make the relevant data and the materials available to other researchers, on request. However, it should be reliable with any ethical approvals and consents which cover the data and materials, and any intellectual property rights associated with those publications. Procedures for managing the transfer of material in and out of the institute are outlined separately. It is recognized that publication of the results of research may need to be delayed for a reasonable period in order to protect the intellectual property arising from the research. Any such periods of delay in publication should be kept to a minimum and this should not be more than 3 months.

Researchers should be careful when discussing work that is not complete or has not been published, particularly if it has not undergone peer review. Exchange of confidential information is strictly not recommended, especially if patent applications are anticipated.

7. Professional guidance and legislation

Where available, the institute expects all researchers including students, trainees etc. to observe the standards of research practice set out in guidelines published by scientific and learned societies, and other relevant professional bodies. All researchers should be aware of the legal requirements, which regulate their work noting particularly health and safety legislation and data protection.

8. Leadership and Cooperation

The Head of the institute and senior colleagues should ensure that a research atmosphere of mutual cooperation is created, in which all members of a research team are encouraged to develop their skills and openly exchange their ideas.

9. Supervision

The Institute provides an appropriate direction of research and looks into the fact that research leaders are trained in supervisory skills. Research supervisors supervises all stages of the research process, including outlining or drawing up a hypothesis, preparing applications for grants, protocol design, data recording and data analysis.

10. Training

The institute will plan periodic courses to enable students and researchers to understand and adopt best research practices at the earliest. Supervisors should encourage students and colleagues to attend relevant courses whenever offered as a part of their overall career development.

11. Primary data/samples/equipment

Data generated in the course of research should be kept securely in paper or electronic format, as appropriate. Backup records should always be kept for data stored on a computer. Researchers should report any changes in the direction of sponsored research to the sponsoring agency or any other relevant body. Best practice would be to discuss any change in direction of the research with the sponsoring agency prior to its implementation.

12. Intellectual Property

Researchers must inform the Intellectual Property Cell (Coordinator of the program) of any intellectual property rights that may arise from an externally funded research. Researchers must also inform to the sponsoring agency if they have been recommended to do so.

The Institute's research as well as the funding from the government agencies is done for public benefit and not for direct commercial or private gain. However, industrially – sponsored research programs with definite objectives of finding solutions may have commercial gains.

13. Dissemination and publication of results

The institute encourages publication and dissemination of results of high-quality research but believes that researchers must do this responsibly and with an awareness of the consequences of any such dissemination in the wider media.

The institute tries to ensure that sponsors understand that researchers must have academic freedom and sponsors should not discourage publication or the dissemination of research or research findings. The Institute recommends that every effort should be made to inform the sponsors of any potential publication or dissemination of the research findings. This will enable the sponsor in question to have adequate time and accurate information to protect any arising intellectual property or plan their own public relations, in conjunction with the Institute. Publicity may be important to industrial sponsors and to fund-raising agencies and is increasingly important to institute itself.

Researchers should take into account the following guidelines when publishing or disseminating their research or research findings including any plans they may have to publish or publicize research in conferences or in websites.

a) The sponsoring agency should be notified in advance when the research might be published, publicized or disseminated.

b) Researchers should make every effort to make sure research is peer reviewed prior to it being published, publicized or disseminated. If research is placed in the public domain before peer review has been undertaken, the researcher must make this clear in any publicity.

c) All funding sources must be acknowledged in any publication or publicity.

d) Results of research should be published in an appropriate form, usually as papers in refereed journals.

e) Anyone listed as an author of a paper should accept responsibility for ensuring that he or she is familiar with the contents of the paper and can identify his or her contribution to it. The practice of honorary authorship is unacceptable.

f) The contributions of formal collaborators and all others who directly assist or indirectly support the research should be both specified and properly acknowledged.

g) Work should normally be published as a coherent entity rather than a series of small parts unless there is a legitimate need to demonstrate first discovery by publishing preliminary data.

h) Quality rather than quantity is paramount; the proliferation of multi-author papers to increase quantity should be discouraged.

i) Authors must not publish the same data in different journals.

j) If an error is found that degrades the worth of published findings, the principal author must take efforts to publish a correction as soon as possible

k) Where the findings are found to be in serious doubt, a retraction should be published speedily.

l) Where fraud is suspected it should be dealt with the procedure dealing with "Misconduct in research".

14. Integrity

NIE provides an adequate structure to promote and promulgate good research practice, emphasizing integrity and rigor in research and expects that the researchers adhere to the highest standards of integrity. Researchers should be ethical and honest to their own course of actions while pursuing research and their responses to the actions of other researchers. This applies to the whole range of research activities including designing of experiments, generating and analyzing data, publishing results, reviewing the work of other researchers and applying for grants. The direct and indirect contributions of colleagues, collaborators and others contributors should be appropriately acknowledged. Researchers are accountable to the society, their profession, the institutes where the research is taking place, the staff and students involved and in particular, the sponsoring bodies. Jeopardizing research integrity can collapse the advancement of knowledge, society and human health. Hence researchers are expected to understand and apply the following principles:

Plagiarism, deception, fabrication or falsification of results is regarded as a serious disciplinary offense.

Researchers are encouraged to report cases of suspected misconduct and to do so in a responsible and appropriate manner.

15. Conflict of Interest

A conflict arises when a person's judgment concerning a primary interest, such as scientific knowledge could be unduly influenced by financial gain or personal advancement. Researchers must pay as much attention to perceived and potential conflicts of interest as to actual conflicts. How one is perceived to act, influences the attitude and action of others and the credibility of scientific research to larger extent. Researchers should declare and manage any real or potential conflicts of interest, both financial and professional. Areas of potential conflict include:

➢ Where researchers have an existing or potential financial interest in the outcome of the research.

➢ Where there is a personal or private practice benefit, significantly dependent upon the outcome of research.

➢ Where the researcher's professional and personal gain arising from the research may be more than usual for research.

16. About Misconduct

16.1. Principles

a) This policy is designed to support the research activity of NIE.

b) The Institute is committed to ensuring that investigations are carried out as expeditiously as possible, at the same time ensuring the utmost degree of thoroughness.

c) Where time limits are indicated, these will be regarded as maximum limits and that all parties will work to ensure the prompt progression of the procedure.

d) Employees accused of Scientific Misconduct ("Respondents") will be provided with a copy of this procedure and will be informed in writing of the detail of the allegation.

e) Where a Respondent resigns from or otherwise leaves the Institute, the complaint is nevertheless investigated as far as possible according to this procedure.

f) The Institute will take disciplinary action against any individual who attempts to influence, victimize or intimidate the individual making the allegation of Scientific Misconduct (the "Complainant") or witnesses.

g) The Institute is committed to protecting its employees from malicious accusations and will take action against any individual(s) responsible for such allegations.

h) Individuals shall cooperate in the review of allegations and the conduct of assessments and investigations. They have an obligation to provide relevant evidence to the Head of the Institute.

i) Proven misconduct in research is considered as a serious or gross misconduct and normally merit dismissal.

16.2. What constitutes misconduct?

Research misconduct or fraud in science refers to the fabrication, falsification, plagiarism and deception in proposing, carrying out or reporting results of research and deliberate, dangerous or negligent deviations from accepted practice in carrying out research. It includes failure to follow established protocols if this failure results in unreasonable risk or harm to humans or the environment. It shall also include facilitating of misconduct in research by collusion in or concealment of, such actions by others, and any plan or conspiracy or attempt to do any of these things.

Misconduct does not include honest error or honest differences in interpretation or judgment in evaluating research methods or results, or misconduct unrelated to the research process.

a) Fabrication – reporting of experiments never conducted

b) Falsification – misrepresentation or suppression of data to project the desired result

c) Plagiarism – reporting another's data as one's own

d) Fraud – deliberate and wilful suppression of previous work in publications to claim originality or to avoid quoting previous publications contrary to present results.

e) Breach of confidentiality, i.e., presenting as one's own ideas or data obtained from privileged access to original grants, manuscripts etc. is also considered as misconduct in the same category.

16.3. Reporting of cases of scientific misconduct

a) All employees or individuals working within NIE are required to report observed, suspected or apparent Scientific Misconduct to the Head of the institute in accordance with this policy.

b) If an individual is unsure whether a suspected incident of misconduct falls within the definition of scientific misconduct, he or she should discuss this with the Head of the institute informally.

c) NIE will endeavour to organize seminars and workshops at regular intervals to create awareness among the research workers on issues related to integrity in the conduct of research. The website will provide access to articles, debates and examples of such misconduct to sensitize research workers about nature of questionable research practice.

16.4. Reporting and evaluation of the complaint

The charge of misconduct has serious implications for all concerned. Therefore, investigation related to the review of alleged misconduct will be kept confidential to the maximum extent possible. While investigating an allegation of misconduct, caution will have to be exercised to distinguish between differences in interpretation or unintended errors from the misrepresentation of information. Thus, the procedure adopted to address the issue of misconduct will perforce have to be flexible and determined on a case-to-case basis.

1) Reports of alleged misconduct are to be made directly to the office of the Dean (R & D), NIE.

2) If a complainant makes an allegation to Dean (R & D) informally, the former may ask them to put such allegation in writing.

3) Misconduct may be reported by either a staff of NIE or anyone else. The identity of the complainant will not be revealed.

4) The Dean (R & D) either himself or through an officer delegated, shall cause to investigate: (a) assess the allegations of research misconduct to determine if they fall within the definition of research misconduct and warrant an inquiry on the basis that the allegation is sufficiently credible and specific so that potential evidence of research misconduct may be identified, and (b) oversee enquiries and investigation.

5) A preliminary evaluation of the complaint will be made by the Dean (R & D) which may include consultation with other colleagues either independently or through the constitution of a committee and if the findings indicate that there are no reasonable grounds for the allegation, the complaint will be dismissed.

6) Written report stating the reasons for the dismissal shall be policy documented and maintained in the office of the Dean (R & D), but will not enter the subject's confidential file. The complainant will also be informed of the decision to dismiss the complaint.

7) If the preliminary evaluation indicates that the allegation of misconduct warrants a full investigation, the following processes will be initiated with the appropriate records.

16.5. Investigation

a) The person against whom the complaint is being made (respondent) will be informed of the allegation.

b) The Dean (R & D) will appoint a committee to conduct a full investigation into the allegations of misconduct.

c) The committee will comprise of a chairman, and 2 members, at least two of which will be experts from outside. The committee will be invested with complete confidentiality and will not be permitted to interact with Press or other faculty members individually during the course of the investigation. The committee is expected to function within the full cognizance of the rights of the respondent as well as the complainant.

d) The scope of the committee shall be:
➢ To investigate the accuracy of charge of misconduct.
➢ To assess the extent and nature of alleged misconduct.
➢ The relevance of any other material or information revealed during the course of the investigation into the alleged instance of misconduct.

16.6. Process of enquiry

The committee will be given access to material that is required to complete the investigation with due diligence and accuracy which will include grant approvals, reports, primary data,

electronic records, manuscripts and any other material requested and considered relevant to the investigation. The committee will be given access to laboratory and will be permitted to interview the complainant, the respondent and any other laboratory staff which the committee considers necessary to gather information. The committee is expected to complete the investigations within a period of 60 (sixty) days and submit a report.

16.7. Outcome of the investigation

a) The committee will submit its report with a recommended course of action to the Dean (R & D) within a week of completing the inquiry, explaining the modalities of the investigation, the source and method of obtaining information relevant to the investigation, the conclusions reached and the basis on which the conclusions are reached.

b) A copy of the report will be provided to the respondent and an opportunity given to him to comment in writing on the report and its findings within 15 days. The written comments will be attached as annexure to the original report.

c) The Dean (R & D) will discuss the report with Head of the institute. If the faculty against whom the complaint was lodged has been proved to have engaged him in research misconduct, the Head of the institute will take appropriate action, with the approval of the Board of Governance, which will be communicated to the individual and will be entered in the personal file and service book.

d) The individual may appeal to the Board of Governance against the decision of the Head of the institute and the Board's decision will be final and binding on the individual.

16.8. Safeguard against false allegations

Efforts should be made to safeguard the interests of the complainant. If it is established that the complaint itself was false and was done with malaise intentions, Dean (R & D) will formulate an appropriate action against the individual who lodged a false complaint. The person who has been charged with wrong allegations may appeal against the decision to the Board of Governance. The decision of the Board is final and binding on the individual.

17. Promotion for Research

Incentives

The following yardstick for assessment may be considered towards institute level research promotion by awarding incentives to honour faculty contributions.

	Parameters for Assessment	Incentive	Remarks
A	**Funded Research Projects**		
1.	Percentage of incentive for externally funded Research projects	5% of amount utilized* for the project	To be shared between the Principal Investigator (PI) & Co-investigator (CI) in the ratio 2:1, and the amount will be distributed after completion of the project.
B	**Publication of Original Research Papers/review papers**		
1.	Peer-Review Research Articles Published in Scopus/Web of Science/SCI indexed journal	Rs. 3,000/- Rs. 1,500/-	For first author/ corresponding author. For Co-author *Publication must be in the name of the Institute during the year. *The journal should be indexed in that year.
2.	Conference papers indexed in Scopus/Web of Science/SCI.	Rs. 2,500/-	Applicable only when no financial support (viz. registration fee, TA, DA, publication charges etc.) is taken from the institute.
C	**Authoring/Contributing to books/ publications**		
1.	Author of academic text books. (The book should have ISBN number)	Rs. 20,000/-	If it is single authored
		Rs. 15,000/-	If more than one author and if NIE faculty is the first author. If more than one in house faculty, then the incentive to be shared equally.
		Rs. 10,000/-	If more than one author and if NIE faculty is the

			second/third author. If more than one in-house faculty are involved, then the incentive to be shared equally
2.	Contribution to chapter(s) in research /Academic text book with publisher of repute	Rs. 3,000/-	If more than one in-house faculty are involved, then the incentive to be shared equally
3.	Editor of conference proceedings/Special Issue/Book based on research papers.	Rs. 3,000/- per conference.	
4.	Research Patents	Rs. 10,000/-	After publication of the filed research patent

Note:

1. All the amount payable related to any activity is subjected to the availability of funds.
2. To any of the external funded research project, if partial funding is done by the institute, that amount is not entitled for incentives.
3. The total financial incentives that the faculty will receive in return for his/her contribution (publication of research papers/book/book chapters/etc., other than funded research projects) shall not exceed Rs 50,000/- (Fifty thousand only) per academic year.
4. *For incentive under funded research project, the components such as the salary for JRF/SRF, travel expense, etc. are excluded from the received grants.
5. If publication fee is paid by the institute, such research articles are not entitled for incentives.
6. **This updated policy is implementable from 1st August 2019.**

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