



# Lloyd Institute of Engineering and Technology, Greater Noida

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## Research & Development Standard Operating Procedures

In this era of modern technology, research plays a vital role and is required in every area of education. Keeping in view the importance of research, Lloyd Institute of Engineering Technology has formed a Research & Development (R & D) Cell to facilitate and encourage research culture among the faculty members and students. The cell is responsible for maintaining a healthy environment for innovation, technology development and monitors the research activities of the institute.

### **OBJECTIVE**

The Research & Development Cell was established in LIET to strengthen and expand the research activities, and has the following objectives:

- Improve and maintain a healthy research atmosphere in the campus.
- Imbuing the research vision & outlook in and around the Core and Applied Engineering areas.
- Focus on exploring the latest technology to keep pace with technology happening around the globe.
- Encourage research-based teaching practices to aware students about the latest technologies.
- Develop a common platform to link academia and industry, and form policies to process products from theoretical research to application in real life.
- Encourage collaborative multidisciplinary research to explore interdisciplinary research areas.
- Focus on innovation, projects and enhancing the research output of the institute by publishing papers in reputed journals and conferences.
- To provide support and facilities to students and faculty members for the enhancement of their research potential.
- To encourage the faculty members and students for publishing the papers in national/ international journals and conferences to explore new areas of research.
- To encourage the students and faculty members for filing the patents.
- To encourage the faculty members to write the proposals for government and private sector research grants.
- To organize research based events such as conferences, workshops and expert lectures based on recent technological development.
- To enhance the knowledge and exposure of students and faculty members by collaborating with top international universities/ organizations.
- To publish E-research newsletter once in six months showcasing the research achievements of the institute.
- To create a network for research internship of students in collaboration with partner institutions in Indian and abroad.
- To create a platform for industries through R&D assistance on industrial problems.

- To reward the researchers for their achievements.

## **INSTITUTIONAL RESPONSIBILITIES**

The Institute is dedicated to ensuring that all the institute's operations, particularly those involving research, are carried out to the greatest possible standards while adhering to legal, ethical, and safety guidelines. Individuals' professional obligations on behalf of the Lloyd Institute of Engineering & Technology are referred to as accountability.

As a result, the Institute adheres to the following core research principles:

- Develop a research governance structure through policies and procedures.
- Promote training and development programs, as well as appropriate mentorship, to help people improve their skills and advance their careers.
- Focuses on research in order to achieve greatness.
- Establishes strong management mechanisms to guarantee adherence to established standards, as well as methods for resolving disputes and preventing wrongdoing.
- There is also a method for making good decisions and resolving grievances.
- Offers pertinent assistance in terms of resources, endurance, and services.

## **FUNCTIONS OF R & D CELL**

The main functions of R&D Cell are to provide support for:

- Organization of seminars, webinars, workshops and conferences.
- Sponsored Research Projects
- Research resource building through paper publication, editorial, authoring book & chapter propagation.
- Promotion of Institute and Industry Collaborative projects
- Promotion of filing Patents & IPR

## **CODE OF ETHICS FOR PAPER PUBLICATION**

Integrity, accountability, and responsibility are basic structure of a research and academic institute that helps in building a healthy and trustworthy relationship between the researchers and the research societies. Lloyd Institute of Engineering & Technology (LIET) has formed several policies and guidelines for code of ethics for maintaining decorum of research. It is mandatory that all faculties, students and researchers at LIET are aware of these policies and guidelines. Within the bounds of the institute's policies, a researcher is given apt freedom to explore about subjects, research findings and publishing valid data, in the manner that it is considered professionally appropriate. All the researchers must follow widely-recognized academic research standards and care must be taken that they are not violating these standards.

The Code of Ethics for research is same to all the researchers including students and faculties of the institution to ensure the integrity and reliability of the research work.

The researchers in academic and research institutions are well-known to preserve the honesty and truthfulness of the research work. So the researcher should aware of ethics of research and must oppose to misconduct of research. They must brought to the notice of the higher authorities if find anything suspicious behavior. The misconduct of research can include falsification or fabrication of data and plagiarism all such irresponsible practices.

Conduct the research according to appropriate research plan/protocol and the Researchers will be sole responsible for the trustworthiness of their research.

- All the researchers are expected to report the research finding accurately, without fabricating or misrepresenting the results.
- The researchers must acknowledge to all significant contributions including sponsors, funding agencies etc.
- To ensure the ethical and professional values of research, the research committee of the institute regulates and monitor the research activities. Proper guidance will be provided to the researches by the research committee to maintain quality of research.
- This committee comprising of
  - Director
  - Faculty Members from each department with good research background.
- Training and monitoring opportunities are also provided by R & D cell to support research activities in the campus.
- The Research & Development Cell provides training to the scholars, students and faculties regarding research ethics review process when required. In addition to this, The R& D cell also takes some measures for ensuring that the research work is as par the ethical standards.

## **PLAGIARISM CHECKING RULES AND POLICY**

Violation of research ethics and breaches in research transparency leads research misconduct and indicate an unhealthy research environment developing across the world. In order to maintain research integrity and ensure valued research performance in the institute, the code of ethics has been practiced at LIET.

- Among various aspects of research policies, plagiarism is a major issue in the present scenario of research. Dishonesty in research is observed and few researchers includes other's work in their research work without proper acknowledgement and permission that dismisses the integrity of research and also damage the reputation of the researcher's institution.
- For eliminating these types of irresponsibility and dishonesty of the researchers toward research, a research committee has been formed consisting of experienced researchers having good published work in the reputed journals and aware of research policies very well.
- A reliable software-based plagiarism check must be performed to research data before publishing it in the journal, conferences, and for including in project work by the researchers to maintain quality standards.
- Research community encouraged to the researchers to submit their original work for paper publications or project submission. There will be no compromise on plagiarism and any type of others work included in the research work must be properly acknowledged or with permission from the source.
- It is mandatory that all faculty members and students of LIET to follow to code of ethics to maintain the honesty and professionalism towards their research or project undertaken by them.
- The faculty member/guide must asked plagiarism report from the scholar/students working under their guidance and must ensure that research data/article is plagiarism free and eligible to publish or report.
- The maximum allowed limit of plagiarism must be specified according to the research standards (most of the research community has maximum allowed limit 10%) and the plagiarism report submitted by the researchers must follow the standards i.e. the plagiarism must be less than 10%).
- Violation of the code of ethics and other issues such as complaints regarding plagiarism will be considered strictly. Disciplinary action will be taken by the committee against the complaint.

## **RETENTION AND ACCESSIBILITY OF RESEARCH DATA**

- Maintaining research data is an essential part of research on its own. The HODs and the concern faculty will ensure that the research data is properly documented and kept available for a specific minimum duration (5 years). The availability of the data will also help the researcher in further research for reference.
- The concern faculty/ PI will be responsible for maintaining and retaining the research data that may be required for reconstructing and evaluating stated study outcomes, as well as the techniques that led to the experimental results.
- The scientific and other related data of research conducted under patronage of LIET, belongs to this Institute except the specific terms of funding/sponsorship or other agreements. The PI/researcher and LIET have the rights to access, use of the original research data.
- To prevent from any accusations of unethical conduct or conflicts of interest, the research
- Project data must be retained till the point all disputes are completely resolved.
- After the final submission of research data or project, the data must be kept in appropriate storage memory/device for a minimum duration of five years. Furthermore, the duration of holding data may be longer as per the importance of data/results according to area of research.
- Wherever researchers/students are involved, the research/project data must be kept for the minimum duration until the degree is conferred. The PI and the concerned department have the discretion to destroy the research record after the standard retention period has expired.
- Each project's scientific record at the LIET and/or utilizing Institute resources is its own resource except the research is supported by a non-LIET agency that will depend on the agreement between the agency and LIET.
- Furthermore, when LIET researchers transfer to other universities or institutions, the PI/HODs may allow to keep the research finding data with them that they have performed, but not necessarily entire data or associated documents. All such requests have to be authorized by the Director, LIET.
- If a PI/faculty leaves LIET then the project under the PI/faculty should be transferred as per the agreement of the funding agency at the time of allocation of project and the rights of the data may be transferred with proper approval of Directors of the institutions.

## **SPONSORED / COLLABORATIVE RESEARCH PROJECT**

- For collaborative or sponsored research based on the proposal from govt. /industrial agencies, the faculty shall apply for the funded/sponsored project as per the available proposal.
- A Research Committee comprises of senior faculties, subject expert and the HOD shall be constituted to view the application, objectives, technology proposed and cost of the project to be proposed.
- After the complete evaluations of the project proposal, Research Committee will forward the project proposals to the Director, LIET for approval. Then the Principal Investigator shall then submit the project proposal to the respective funding agency along with the supporting documents.
- For maintaining the project related financial record, The PIs shall create a separate account head and maintain a stock register with all entry records of recurring and non-recurring items purchased from the project fund with proper sanction from the respective authority.
- According to the requirement of the project, the PIs may hire project fellow(s) through proper procedure as per rule of the funding agency.

- As per agreement term between the PI and agency, The PIs shall present the progress report in review meeting (Once in six months) conducted by the Progress Review Committee. The committee may comprises of expert members, Dean-R&D and other senior faculties.
- After completion of the project PIs shall prepare Project Completion Report according to the guidelines of the funding agency along with some supporting documents including Utilization Certificate (UC) and list of publication publications / patent sponsored by the project fund. The Project Completion Report shall be submitted through proper channel by approving through the HOD and the Director of the Institute.

## **RESEARCH SEMINAR AT LIET**

- The primary purpose of the Research Seminar is to provide an open forum where LIET researchers & scholars can present & collaborate for their work.
- Empower LIET in bridging/cooperating/increasing their engagement with other international organizations through a dialogue between academic research, on one side, and the UN SDG (Sustainable Development Goals) framework and its redefinition towards 2030 on the other side.
- Provide an overview of existing initiatives in the field of research-policy interface with national & international organizations;
- Offer opportunities to the faculty base to establish direct contact with high-level decision makers of funding agencies based in India and discuss possible collaborations.

## **R & D CELL MEMBERS**

1. Prof (Dr.) Sudeshna Chakraborty
2. Dr. Pankaj Kumar
3. Dr. Sandeep Sharma
4. Dr. Nidhi Puri
5. Dr. Swati Chaudhary
  
6. Mr. Dharendra Kumar Singh
7. Mr. Rajat Garg