Indira Institute of Technology and Sciences Markapur.

RESEARCH & DEVELOPMENT (R&D) POLICY

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1. Introduction

The Research & Development (R&D) cell integrates all the department to fe c i lit ate the academic, sponsored-research, projects and consultancy services. The cell extends its full support to students/ staff/alumni/other-stakeholders through its facilities to present/publish papers in the conferences/journals of national /international repute which contributes towards academic transformation, professional and career advancement. The cell associates & sponsors various innovative research & development activities such as workshops, symposiums, seminars, conferences, research publications, projects, innovations, patents and IPR in diverse fields. The R&D activities also includes kill cum technology up-gradation programs, startups, entrepreneurship and participation in various national/international technical competitions. The cell extends its support to start-up of new ventures in association with innovation incubation entrepreneurship cell (IIEC).

The cell strive towards perfection and high-quality scientific research to take-up active research and contribute towards publications, patents, prototypes and filing of IPR and to build research culture, to tap global potential, support to strengthen the knowledge foundation and promote the creation of new R&D applications in multi-disciplinary areas by using social innovation and indigenous technology in support of Make in India and Digital India slogan of PMO and country. As a part of UBA the cell adopts social out-reach programs in support of education, research & innovation to households/children/adults/adolescence in rural villages& hamlets. To achieve the high quality research ambience the R&D cell enables the staff and students to pursue research and participate in consultancy works. R&D policy states that the rules & regulations pertinent to research are should be followed by every individual involved in R&D activities.

2. Vision:

To become a leading center for innovation and research, driving technological advancements and contributing to societal development through cutting-edge research and collaboration.

3. Mission

- To foster an environment conducive to high-quality research in engineering and technology.
- To build and strengthen partnerships with industry, academia and government agencies.
- To nurture the next generation of researchers and innovators by providing them with the necessary resources and support.
- To promote the commercialization of research outcomes benefiting the industry and society.

4. Objectives

- To promote and support high-quality research across all engineering disciplines.
- To encourage collaborations with national and international academic institutions and industries.
- To provide a platform for faculty and students to explore new ideas and innovative solutions.
- To foster industry-oriented research that leads to the development of cutting-edge technologies and products.
- To offer support for filing patents, intellectual property rights (IPR)and publishing research papers in leading journals.
- To contribute to societal needs through research focused on sustainability, smart technology and other pressing global challenges.

5. Composition of R&D Cell

The Research and Development (R&D) Cell was established as per decisions taken by the Board of Governors (BOG).

The R&DC ellis administrate d by the College Research Advisory Committee(RAC)which comprises of the following members

SN	Category	Status
1	Head of the Institution	Chairman
2	R&D coordinator	Member Secretary
3	One representative from BOG	Invitee
4	All H OD sand Deans	Member
5	One professor from each department	Member
6	One representative from industry nominated by BOG	Member
7	One student from each department nominated by respective HOD	Member
8	One entrepreneur alumni(Optional)	Member

5.1 Frequency of Meeting: The committee shall meet at least two times a year or asand when required. The member secretary in consultation with the chairman prepares and circulates the agenda of the meeting well in advance. The member secretary maintains the minutes of the meeting and action taken report.

5.2 Quorum: Two-third members constitute the quorum. If there is no quorum for the meeting convened up to half an hour, then the meeting shall stand adjourned to the next convenient day.

5.3 Term: The tenure of the members shall be three years.

6. Functions and Responsibilities

- The R&D Cell is responsible for assisting the Academic Council in respect of the establishment and promotion of excellence in the Institute's research and development and research training activities
- The development and enhancement ofthe Institute's research capacities. Motivate all faculties to pursue research in their respective areas of expertise.
- The protection and commercialization of the institute's intellectual property. Increasing consultancy activities related to R&D for industry and Society.
- The provision of research and development opportunities for academic staff to maintain enthusiasm, awareness of current scholarship and relevance in teaching and other institutional activities.
- Prepare the annual R&D action plan along with R&D incentive policy for various R&D activities and programs.
- Obtain the budget approval for various activities from finance&planning committee and GB.
- Prepare a comprehensive list of funding agencies that allocate funds for R& D projects.
- Motivate staff and students to publish papers/articles/manuscripts in conferences/journals of national/ international repute and to file and publish patents.
- Encourage staff & students to prepare and submit R&D/AQIS/project proposals for funding by ISRO, DRDO, CSIR, DST, AICTE, UGC, MSME, HUBs etc., within the stipulated time.
- Formulate strategies for mutual benefit of stakeholders by fostering research collaborations in interdisciplinary areas of industry/govt./IITs/TBIs/professional chapters to address societal needs.

- Monitor R&D project progress of various departments through visits to identify bottlenecks and propose remedial actions.
- Maintain close liaison with industry and undertake sponsored projects.
- Organize national and international conferences/workshops/seminars/training programs in thrust areas to enhance the professional and research skills among the staff and students.
- Promotes elf employ ability skills through innovation, incubation and entrepreneurship cell(IIEC).
- Insist faculty members to publish their research work in Wo S/Scopus indexed journals.
- Maintain&updated at a of research, consultancy and extension activities of staff and students
- Upload progress of R&D activities on the web portals of affiliating/accrediting/ranking agencies.
- Constitute a review committee to adjudicate the originality & quality of the publications/projects/ consultancies/patents of staff and students and to recommend for incentives/appreciation and suggestions for improvement.
- Allocation of funds/seed-capital to various departments and staff members to take up R&D activities to established researchers both individually and also in groups.
- Monitor the utilization of research funds appropriately as per sanctioned budget without any deviation.
- Monitor the progress of R&D activities and send report in Gantt chart format to the Principal and Management.
- Report on revenue generation by R&D projects/consultancies and maintain all registers and records for audit by CA/IQAC/Principal.
- Perform an yother duties as assigned bythe Principal time to time.

7. Promotion of Research

The staff and students have free-access to R&Dc ell and choose the topic of their interest and also can provide free guidance to seek funds from various government organizations and industries. The institute encourages the faculty, provide incentives for peer reviewed publications, consultancy works, writing books and filing patents. The institute takes care of complete patent filing process as per national and international IPR guidelines & policies to commercialize a product/prototype/design/service. The R&Dc ell provides necessary eco-system, conducive-environment with infrastructure and expert support to staff and students to take-up R&D, consultancy, innovation and intellectual capital. Staff is responsible to apply for various R&D agencies through individual/institutional login and pursue their R&D projects. However, the institute is always ready to provide seed -capital and ample support for all potential research projects which can generate revenue after commercialization of product and services.

8. Research at Student Level

To enhance quality research outcome, mentorship/internship shall be facilitated to encourage students to pursue research activities leading to tangible outcomes, such as publication, process, novel, prototype, design and functionality changes. Research component is already embedded in the curriculum a tall levels/years of their academic/professionals tay/association at the institute being a society member in various clubs/committees/cells/chapters/associations and also as a student member. The staff members of the institutes hall provide suitable professional/ expert guidance in all spheres of student R&D activities.

The students are encouraged to take up a module/content in the ongoing research projects funded by government agencies/industries with the support of investigators. Those students who are the part of funded projects should transfer and share the knowledge with other students for further research

9. Approval of Research Proposals

9.1 Sponsored Research Projects

The staff and students research proposals are to be submitted to R&D cell for scrutiny and further submission to the funding agencies such as AICTE, UGC, DST, etc. The institute supports the execution of a R&D project i nall manners. The funds must be credited into the college bank account from the sanctioned R&D organization and covers all the heads of budget proposal without any deficiency. No deviations of any nature are allowed and shortage of fund smet through honorarium and remuneration. However, escalation s ofcost of executing a project beyond control shall be brought to the notice of the Principal for further action and approval. Any staff member can collaborate in any research project for publications and patents. The students must be involved in the sponsored research projects and can be remunerate dif possible.

9.2 Collaborative Research Projects

921 Industry Sponsored Research Project: A public/private sponsored projects can utilize experts of the institution concerned to conduct research. If any patent is registered then there shall be a sharing of income generated from patent among the industry, researcher and institute. This will lead to following benefits:

- The researcher will get an exposure to the concerned area of research.
- The industry will get solutions to their problem.
- The researcher, institute and industry can get the end-benefits.
- The society is ultimate beneficiary with new R&D product and service.

922 Multi/Interdisciplinary Research: Interdisciplinary/multidisciplinary research is the need of the hour. No department, institution, researcher or scholar can alone address any problem. The end results of R&D can only be derived with proper interaction between and amongst various other discipline faculties. The institute motivates all the staff members to involve in multi/inter disciplinary R&D activities. The following actions are in vogue:

- Identify the multi/interdisciplinary R&Dareas.
- Identify the experts from various disciplines to work together on projects.
- Study the infrastructure requirement of various disciplines.
- Explore possibilities to find other resources for such multi/interdisciplinary research.

923 Inter-institutional Research: The staff members are encouraged to prepare the proposals in collaboration with well-established research institutes such as Universities, NITs, IIITs, IITs, and other organizations having similar interest. The staff may act as Principal investigator/Co-investigator depends on their contribution towards the research.

10. Intellectual Property

Incase of any innovation and invention, the institute will encourage the researcher to file a patent. The institute has collaboration with the third party agency, which will process the patent application. The institute shall bear all the expenditure in filing of patent application. If the patent is commercialized, then the revenues haring would be as per IP Policy of the Institute.

11. Code of Ethics for Research

INDIRA INSTITUTE OF TECHNOLOGY & SCIENCES (IITS), MARKAPUR is dedicated to upholding and promoting high quality research in the core areas of Science, Engineering and Technology. To ensure the integrity of academic research the institute has established a strict code of ethics to prevent malpractice s and plagiarism.

Both plagiarism and academic misconduct whether by faculty or students are strictly prohibited and must be addressed. IITS emphasizes that all faculty members and students must understand the nuances of plagiarism and ensure the originality of their work throughout the publication process. Adhering to this ethical framework is vital to preserving the institution’s integrity, dignity, and the overall quality of its research.

11.1 Plagiarism Detection Methods

An exclusive Research and Development Committee has been constituted to enhance the quality of academic research within the institution. The primary objective of this committee is to assess plagiarism levels and ensure that high academic and production standards are maintained.
This committee consists of all Ph D holders at the institute and responsible for evaluating the research output of both faculty and students that includes research publications, research proposals, project works and project reports.
Project guides, students and scholars are encouraged to utilize online plagiarism detection tools to avoid even unintentional copying of content. Faculty members pursuing Ph Ds are required to maintain plagiarism levels between 12-20% and must be approved by R&D Committee before submitting their work to conferences or journals for publication.

11.2 Disciplinary Action

Any malpractice s or violations of standard ethical guidelines concerning plagiarism in research will be taken very seriously with consequences depending on the severity of the plagiarism.
The R&D Committee will conduct a thorough investigation and submit a detailed report. Based on the findings the committee will recommend appropriate disciplinary action which will be implemented within a stipulated timeframe reflecting the seriousness of the misconduct.

12. Relationships with Community

- R&D outputs such as data, information, graphs, reports and documents are disseminated to the stakeholders i nall possible ways including social media without any loss of confidentiality.
- Researchers of the institute exercise due diligence and involve judiciously into research activities which are not detrimental to the interests of society/community/environment/stakeholders.
- Researchers will exercise their rights to academic and scientific research freedom and are accountable to the community.

13. Relationships with Sponsors

- The methods, contents, results, reports, documents, designs, publications, etc of research shall be fully disclosed to the funded agencies on final settlement.
- Researchers shall be honest with sponsors about their research contribution&involvement along with qualifications, research expertise and skills.
- Researchers should follow standard code of ethics in disclose of content of research and maintain confidentiality with sponsors.
- Researchers shall utilize sponsor’s funds only fort he purpose for which it is meant for.

14. Relationships with Research Participants and Research Objects

- Researchers should respect their team members with freedom, dignity, privacy and integrity.
- Researchers shall treat non-human living beings with care, respect, awareness, vulnerability and defenseless ness.
- No researcher should be harmful to the environment and maintain ecological balance. d. Researchers should follow standards and norms of global waste management system.
- Incase an dif research demands the use of human personal data&observations, the researchers have to obtain a prior consent from the person and their family members.

15. Withdrawal of membership from R&D project

Researchers can withdraw from the approved research in writing through proper channel and on the consent of sponsoring agency. Researchers should use the approved funds forth at project only asper sanctioned heads of budget. Researchers should return the received money/money's worth to the institute if they did n't attend any professional development activities which are contributory to the R&D project.

16. Facilitating Professional Development Programs for the Faculty

16.1 Eligible Employees

IITS E employees (excluding employees on leave without pay)with a regular full-time appointment are eligible.

16.2 Criteria for Professional Development

- IITS employees (excluding employees on leave without pay) with a regular full- time appointment are eligible employees.
- Courses (FDP/STTP), seminars, workshops and conferences intended to assist employees in maintaining and improving knowledge and skills relevant to the employees responsibilities or to their career development at the Institute are considered for financial support.
- Employees approved for Professional development Leave are entitled toup to 2 weeks paid working days.
- Training to meet minimum job requirements of the current job (basic level training for newly installed or upgraded computer hardware or software will not be approved whereas intermediate or advanced training may be considered for funding).
- General interest courses and a course that could be an asset to the employee for technology and development of the Institute.

16.3 Criteria for Funding

- The institute approves requests for financial support for development activities only.
- Allowable expenses must be submitted within two(2)weeks of the staff development activity.
- Approved funding for individual professional development activities will not be carried forward into the next financial year.

16.4 Application Procedures

- Requests for leave to participate in a professional activity must be obtained by the applicant from the Principal through their respective Head of the Department.
- Completed applications are tobe submitted to the Principal's office at leas tone week prior to the event.
- Completed applications a reconsidered on a first come first serve basis. Applications will be date stamped upon receipt and reviewed for completeness

16.5 Cancellation

Employees can request to withdraw their application or approved funding by writing to the Dean (R&D) after obtaining approval from Head of the Department and head of the Institution. Employees cannot use previously approved funding fora different purpose. Employees who do not attend the professional development event for which they have received approved funding must repay the money, which will also make ineligible for future internal grants.

17. Seed-Capital/funds to Student and Staff

INDIRA INSTITUTE OF TECHNOLOGY & SCIENCES (IITS) provides seed capital fund under the roof of R&Dcell, it is a capstone activity that provides early stage funding to ideas or concepts which areyet to publish and organize a forum to discuss on latest development relevant to the field of research and design process. Thea i mof seed capital fund is to encourage inventions and innovations to publish a paper, file patents, commercialization/new-venture in addition to exiting enterprise.

18. Incentive Policy

The institute follows a unique incentive scheme to reward the faculty for the R&D and consultancy project works carried out in the respective year. This scheme is introduced by the management to impart research culture and to motivate faculty to identify new innovations. The incentive schemes are as follows.

18.1 For Publishing Papers

As a part of the continual quality improvement policy, the institute encourages publication of papers in various conferences and journals by the staff members and can claim incentives. Staff members presenting their research papers in regional/national/international - seminars/conferences/ workshops will be provided by OD leave and reimbursed by the registration fee & travel expenses as per the rules in force and may vary time to time. Faculty research publications in reputed national/ international journals/conferences will be reimbursed, awarded and rewarded as per the table given below.

Category	Description	Reimbursement (Rs.)
A	Transactions of IEEE/ASME/ASCE/ACM/SCI with i) Impact Factor(IF)>8.1 ii) 5.1<IF<8 iii) 2.1<IF<5 iv) 0.5<IF<2 v) IF<0.5	 30,000 25,000 20,000 15,000 10,000
B	International Journals (Indexed by Scopus and ESCI)	10,000
C	International Journal(W OS indexed)	7,500
D	National Journal with I SSN number	2,500
E	Scopus Indexed International Conference Registration	7,500
F	National Conference Registration	4000
G	Journals approved by UG C existing for than5years with ISSN number	2000

Note:

- The publication charges should be paid in the name of Journal/Publisher and receipt tobe generated in the name of Author, who is applying for Reimbursement.
- All there im bur semen ts will be the original Fee paid, with a limitation of amount as Mentioned in the table.
- Neither Reimbursement, nor Reward will be given to paper published in list of discontinued Journals of Scopus/Cloned Journals list of UGC.
- Papers published in list of Journals banned by UGC (as annex ure from time to time) are also not eligible for Reimbursement and Reward's
- For papers publishing in journal through conference, the faculty can apply for Reimbursement either in journal category or in Conference category and not in both.
- The original registration fee will be reimbursed to the author publishing in Scopus Indexed &above journals through Conferences no reward is permissible.

- Once the paper is published, before applying for reimbursement, the faculty has to submit soft copy of publication in the Department.
- All Papers(to Journals or Conferences)are tobe submitted after proper plagiarism check And language check through proper channel i. e. HOD/Dean (R&D)/Principal.

18.2 Patents and Book / Book Chapters

- The fee for patent filling will be borne by institute if the applicant and Inventors file the patent with institute address and belong to the institute.
- For the Patents filed & published individually, wherein institute does not bear any filling charges the reward of Rs. 5000 /- will be given to the first Inventor with institute address.
- Authors of Books/Book Chapters indexed in Scopus or Published by International Publisher will be re warded Rs. 1500/- for one or more Book Chapter and Rs. 5000/- for complete book, provided the affiliation should be institute name. This reward is only for Authors not Editors.
- Affiliation of College name should be properly mentioned and even the institute to be acknowledged wherever possible.

18.3 Research and Consultancy Projects

The institute follows a unique incentive scheme to reward the faculty fort he R&D and consultancy project works carried out in the respective year. This scheme is introduced by the management to impart research culture and to motivate faculty to identify new innovations. The incentive scheme is as per the table below.

SN	Category	Name	Percentage of Sharing
1	Funded Research Project s from Govt. organizations, R&D Organizations, Industry, University etc.	Principal Investigator	2% of the received fund only upon submission of UC
		All Co-investigators	1%of the received fund shared only upon submission of UC
2	Consultancy/Testing Services	Individual/Team	60:40(institution : individual/team)
3	Patent Commercialization	Author(s)	50:50(institution : author(s))

19. Mandatory Research Publications by Faculty per Year

Doctorate Faculty **:** Minimum 1 article in Scopus indexed/UGC Journal and 1 article in Impact Factor Journals

Non-Doctorate Faculty **:** Minimum 2 articles in Scopus indexed/UGC Journals