

**R&D Policy**

R&D Cell is headed by the Dean of Research and Development at Dr.Ambedkar Institute of Technology (Dr.AIT), Bangalore. The various facilities, dynamic initiatives to promote research (both sponsored & academic research) and consultancy are unparalleled at Dr.AIT. The sparkling R&D culture fosters an innovative spirit to kindle the young minds at the campus under the able guidance and mentorship of motivated faculty members at all the departments. The support provided by our Chairman, Principal, Mentor, Deans, Heads of Departments, Professors, and Senior Faculty Members in the process of promoting research, filing patents is greatly acknowledged.

Dr.Ambedkar Institute of Technology(Dr. AIT), Bangalore is committed to creating a high-quality research ambiance in every department of the Institute for the faculty and students. Dr. AIT aims to provide a research environment that will promote a culture of high-quality research, which is ethical, competent, accountable, and safe. This policy document on Research & Development activities at Dr.AIT addresses specific aspects of conducting Research & Development activities within the college in compliance with the Visvesvaraya Technological University (VTU) regulations on Research.

**PURPOSE**

The purpose of the Research Policy is to provide a research environment that will promote a culture of high-quality research, which is ethical, competent, safe, and accountable. The policy shall serve as an overall framework within which research activities may be carried out.

**OBJECTIVES**

**This research policy provides a broad framework to promote research, consultancy and innovation while upholding the code of ethics**

**The main objectives of the research policy are as follows:**

- To promote and accelerate the quality research work within the college and in collaboration with industry, other institutes and R & D organizations.
- To create an environment within the College to build a research culture and to ensure an efficient and effective support system to facilitate faculty and researchers in their research activities.

- Ensure publications in SCI, Scopus indexed/Web of Science journals with high impact factor.
- Individual Citation Score needs to be improved by publishing in reputed journals.
- To foster an environment of undertaking socially relevant research with a prospective commercialization value.
- Catering to the specific needs of Industry for Product/Process development.
- Establish Research Centres of Excellence within the college
- To motivate the faculty to write the research projects thereby enhancing the research funding from Govt agencies and industries.
- Providing linkages with different sponsoring agencies for the development of R & D programmes in the emerging areas of engineering and Technology.
- To carry out rural oriented research under AICTE, Unnat Bharat Abhiyan Program
- Encourage partnerships nationally and globally through interdisciplinary collaborations.
- To Ensure quality, integrity, and ethics in research.
- To integrate teaching and research

## **CUSTODIAN OF POLICY**

The implementation and updating of the Research Policy shall be carried out by Research and Development Monitoring Committee (RDMC) constituted in the college with Chairman, the Managing Trustee/Secretary as the Vice-Chairman, followed by the Principal as Convener, Dean(R & D) as member secretary and representatives from each department as members. The Research Policy will be monitored by a high-level committee, the Research Advisory Committee (RAC) to function under the Principal, Vice Principal, Dean(R & D), HOD's, faculty representatives, and external experts from industry and academia.

## **POLICY AND GUIDELINES**

### **1. Undertaking Research**

- Faculty members of Dr.AIT are expected to undertake research, leading to quality publications, presentations in reputed National/International conferences, generation of Intellectual property with commercial potential, and social relevance.

- Dr.AIT aims to provide a research environment that will promote a culture of high-quality research, which is ethical, competent, safe, and accountable.
- HOD of the concerned department, along with faculty researchers, is responsible for developing and maintaining an ethical and safe research environment within each department. Researchers must comply with relevant legislation, guidelines, policies, and directives issued by the Government of India and Karnataka and its relevant agencies concerning ethical and safe practices in research
- All Heads of the Department must regularly and diligently update the R&D information on the Institution website for department and submit the reports to R&D team.

## 2. **Obligations of faculty**

Research output will be considered as one of the criteria for faculty recruitment and promotion along with other academic responsibilities.

## 3. **Research Management**

Overall management of research activities may be coordinated by RDMC under the direct supervision of the Chairman, Vice-Chairman, Principal and Dean(R & D). RDMC shall be responsible for the overall functioning of the research activities within the Institute.

## 4. **Research Promotion Measures**

Research enjoys a prominent place in any higher education institution and Dr.AIT takes all possible measures to develop a research culture among students and faculty. The activities which may be undertaken under Research Promotion Measures are listed as under.

- Constitution of the RDMC at the college level to advise Principal/Management on research-related matters and monitor research activities in the college.
- Setting up of specific research and development center in each department to promote, streamline and execute research activities in the department. The HOD of the research wing in the department *de facto* shall be the department representative in the RDMC.
- The research wing in each department shall undertake industry/government-funded projects without, affecting in any way the regular academic activities of each faculty member in the college.

- Faculty and student research work in the college shall be published as Dr.AIT Technical Transactions which shall be numbered and catalogued by the Central Library.

Upload all the student research reports on the college website with special emphasis on the outcome and social impact of research. Each department shall collect one hard copy of the Project report and the same shall be submitted to the college library.

## **5. Research Collaborations, Grants, and Funding**

- The college considers collaborations as an ideal tool for furthering research for the mutual benefit of the parties involved. Collaborations facilitating the sharing of resources, human and infrastructure are promoted by the college, provided it benefits the research endeavours of the college.
- Collaborations with universities abroad and premier institutions in India may be given special attention. However, due care must be taken so that such collaborations never result in any defame to the college and are in tune with relevant university statutes and regulations.
- The collaborating departments shall get prior sanction from the Chairman/Principal and RDMC for any type of collaboration with third parties.
- Copy of external grant applications has to be provided to RDMC as soon as the applications are submitted.

## **6. Research Facilities**

Every year, an internal review of existing facilities must be made by HOD at the behest of RDMC. The recommendations may be submitted to the management for appropriate actions preferably at the end of each academic year through Dean(R&D) and the Principal.

## **7. Conduct of Research by Students and Faculty**

- Research scholars that may include individual or teams of students and/or faculties, conducting research must comply with the provisions contained in the Research Policy of the College and the University.
- The supervisor and the research scholar should respect the human dignity and rights of all stakeholders, promoting shared ethical values, and fulfil all academic/research activities according to such values

- The research Supervisor of a research student shall be responsible for providing guidance to students on all matters of research practice and ensuring that students are informed of the relevant University policies and procedures that affect the conduct of student research.
- Where a student is researching as part of a research team, the use and storage of research data, publication of research findings, confidentiality, or commercialization, or other agreements will apply to all members of the research group.
- A supervisor shall be entitled to have access to research data and other relevant information about the research of a student to undertake normal supervisory responsibilities and ensure compliance with this Policy and other University policies.
- To commit no form of plagiarism during art-of-work and preparation and dissemination of reports and research articles.
- Students are required to obtain prior approval from the college authorities to enter into any contractual agreement for commercial research or any technology transfer. Maintain confidentiality in respect of research data, methodology, and findings.
- To practice and promote fairness in research.
- To uphold the values of freedom, democracy, equality, and respect for diversity.
- To maintain the secrecy of the research findings/technical information and to avoid communication of any official document or information to others without permission

## 8. **Research Publications and Authorship**

- The researchers have the freedom to publish their results in any of the journals which appear in the UGC list. Publications in online journals, which attract publication charges are not allowed.
- The researcher who holds the overall responsibility for the research should authorize the publication of results. Authorization should cover the integrity of results (no plagiarism), protection of intellectual property rights, and appropriate credit for authorship for persons who are directly involved in experimentation, interpretation of data, and such direct involvement in work, for publication.
- Anyone listed as an author in a paper must accept personal responsibility for ensuring familiarity with the contents of the paper, and that they can identify their contributions to it. The practice of granting honorary authorship is against the guidance referenced above. Other

contributions to the work like permission to publish, financial support should be suitably acknowledged.

- Any publication to journals other than RDMC publication or in Conference proceedings should be intimated to RDMC.

#### 9. Handling of research misconduct and fraud

In the event of misconduct, a disciplinary committee, on the instruction of the Principal, shall be formed to carry out an inquiry when academic dishonesty is reported against an individual/group. Suitable disciplinary action may be initiated, if found guilty, against such individual/group.

#### 10. Conflict of Interest

Researchers must disclose to the RDMC/HOD any affiliation with or financial involvement in any organization or entity with a direct interest in the subject matter or materials of the researcher.

#### 11. Policy Review

The Principal and Dean (R & D) shall initiate a review of this Policy as and when needed in association with RDMC.

#### Policy for Research and Consultancy Projects

The Institute follows a unique Incentive scheme to reward the faculty for the Research 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 towards identifying innovations. The incentive scheme is as per the table below

#### Terms and Conditions:

- The consultancy work will be carried out under the Head (Principal) of Dr. AIT.
- The revenue generated will be deposited in the Institution's account. This is done to avoid misuse of funds. The Institute will provide the remuneration to the respective faculty as per the below chart, based on the revenue generated after the completion of every consultancy work.
- The selection of project staff shall normally be made as per the guidelines provided by the sponsoring agency and with the approval of the Principal through the Dean (R&D)

- Within the framework of a sponsored project, PIs shall be permitted to have a consultancy fee/honorarium, if the sponsor so approves.
- Faculty should motivate the students towards participation in industrial consultancy projects.
- Consultancy assignments must have a letter from the organization, clearly mentioning the work to be carried out, period and value of consultancy and the benefit of the consultancy to the Institution - both intellectually as well as financially. Proof of expenditure must be maintained by the consultancy incharge.
- The Head of the Department along with some senior faculty members shall then carry out a rigorous scrutiny at the Department level and ensure that their recommendations reach the R&D cell.
- Depending on the availability of funds under the Travel head and with the approval of the Principal, expenses (TA, DA, Registration Fee, etc.) for presenting papers in National Conferences in fields relevant to the project shall be given to PIs/CoIs from the project fund.
- The Government of Karnataka TA & DA rules will apply to the PIs and project employees/Students for all sponsored research/consultancy projects related to traveling and boarding expenses.
- All departments shall strive for recognition by National/International agencies through schemes/funding from agencies such as AICTE, DST,UGC, ICMR and DRDO.
- The project staff may be allowed to register for Full-time MS (By Research)/Ph.D programme, if he/she fulfils all the requirements prescribed by the Institute.

S.No.	Category	Name	Percentage of Share
1	Funded Research Projects from Govt. organizations, R & D Organizations, Industry, universities, etc.	Principal Investigator	2% of the Received Fund only upon submission of Utilization Certificate (UC)
		All Co-investigators	A total of 1% on Received Fund will be shared (only upon submission of Utilization Certificate (UC))
2	Consultancy and Testing services	Individual / Team	The ratio of 60:40 is shared between Institution and Individual / Team respectively
3	Patent (US / Overseas / Indian)	Author(s)	A ratio of 50:50 will be shared only on the

			commercialization of the Patent.
4	Supervising the doctoral degrees	Supervisor	

#### **Policies for Journal Publications:**

To motivate the faculty members towards research and publishing their research findings in reputed journals with impact factors, incentives are given to faculty members.

- Affiliation must be Dr. AIT
- Applicable only for papers published in Science Citation Index (SCI) Journals.
- Faculties are requested to publish joint research papers with experts from Tier-1 Institutions / Industries.
- Student name should be the first author followed by guide name as the second author in the publication/patent in case of B.E, M.Tech Projects, and Ph.D. work.

S. No	Norms	Reward
1.	For the First and Second author	Rs. 15000/- each
2.	For the Third author and remaining authors	Rs. 5000/- equally shared
3.	Text/ Reference Book published by international publishers with an established peer review System	Rs. 25000/-
4.	Partial contribution to edited knowledge-based volumes published by international publishers.	Rs. 5000/-

Note: Exceptional contribution in Research Publication will be rewarded as Platinum Award and Gold Award categories, at the discretion of the Management.

#### **Faculty Development & Research Interactions:**

To get expertise in a specific domain and promote the research interest, Dr.AIT is providing full financial help (Registration/course Fee and TA/DA) to faculty members/Students attending International Conference/Seminar in India and abroad. A faculty can avail of these benefits once in an academic year. TA/DA and Honorarium are allowed for the experts coming to Dr. AIT for Research Interactions and Collaborative Research works

#### **PROCEDURE FOR ALLOTMENT OF SEED MONEY PROJECTS**

1. Invites applications from all the Faculty Members having with or without Ph.D. degrees.
2. The proposal is scrutinized in the office of the Dean (R & D).

3. Constitution of Committee for the award of Seed Money Project by the duly approved by the Management
4. Faculty members give their presentations on scheduled dates and times.
5. Based on the project proposal and presentation, the seed money budget is decided by the committee after proper justification given by the faculty member at the time of presentation.
6. Papers regarding the allocation of funds for seed money were sent to the Management for its approval
7. After approval from the Management, the Principal Order for the allotment of seed money projects was issued by the office of Dean (R&D) to the concerned faculty (Maximum amount for seed money project is Rs. 5.00 Lacs and project duration is three(3) years).

#### **Procedure for Ongoing Projects**

- Step 1. The Principal Investigator(PI) will be required to submit the Annual Progress Report(APR) in standard format at the end of every year, indicating the progress of the work accomplished during the concerned year.
- Step 2. Assessment of the project by the head of the concerned Research center
- Step 3. Review report received from the head of the research center
- Step 4. PI will be required to present the work before the RDMC
- Step 5. Recommendation by the members of the RDMC
- Step 6. Recommendation by the Dean(R &D) and the Principal
- Step 7. Approval of Hon'ble Secretary/Chairman, PVPWT
- Step 8. A letter from the office of the Dean(R&D) will be sent to the concerned faculty for further release of the grant.
- Step 9. Principal Investigators (PIs) shall arrange to maintain Procurement-cum-purchase Registers and Stock/Asset Register,
- Step 10. All expenditures shall normally be made within the proposed date of completion of the project.

#### **Responsibility of R & D cell:**

- To conduct seminars, workshops, conferences and training programmes for inculcating research interest among faculty.
- To encourage and motivate faculty for submitting proposals to externally funded research and development projects.

- To support interdisciplinary and multidisciplinary research, product design and development, publications in national and international journals of high standard.
- To facilitate collaborations with researchers from premier Institutions and to encourage joint research venture in the latest technology.
- To initiate and promote MoU with industries and R & D organizations for consultancy and collaborative research.
- To suggest peer reviewed national and international journals for subscription in central library
- To motivate students to present technical papers in National and International conferences and display projects in various competitions.
- To allow faculty to participate for seminars, workshops, FDPs and conferences to upgrade their knowledge.
- To instruct research scholars and faculty members to apply for projects.
- Discussion and review on department research activities, funded projects and consultancy activities.
- Conducting seminars and workshops on various research avenues.
- Encouraging submission of Journal Paper.
- Measures to motivate students to carry out innovative and socially relevant projects.
- Organizing the international and national conferences.

#### **11. Outcome of Research:**

The faculty and students can publish or implement the following categories but not limited to the following:

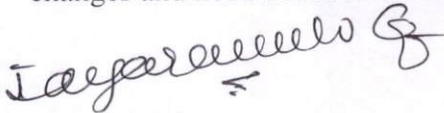
- Book chapters
- Books (authored research, edited)
- Journal articles
- Reviews
- Conference proceedings
- Edited volumes of conference proceedings
- Computer software
- Audio-visual recording
- Working models
- Research reports
- Patent
- Technical reports
- Legal cases
- Encyclopedia entries
- Maps
- Editing and translations of major works
- Case studies
- Proposal of new theories
- Database
- Technical drawings

### Facilities available on Campus:

The research facilities available on campus are:

- i. A well-equipped library with more than **4467037** Books, and e-journals by IEEE ASPP, Springer link, J-Gate, ASME, McGraw Hill access and ASTM digital Library access with 80 plus printed national and international journals.
- ii. Dr.AIT has an Institution membership with IEEE, ACM.
- iii. Access to high quality technical content is available for reference through DELNET facility in the library.
- iv. Software like MATLAB, Tanner, Xilinx, Lab View, Solid Works, ANSYS, Multi Sim, Oracle and DB2 are available.
- v. Various Microcontroller kits are available and hardware for clustering, android based platforms, Wireless sensor network sensor nodes, ARM platforms, 3D Printers, Squeeze casting machine, Impact testing machine, Fatigue testing machine, Shot peening machine, Flexural testing machine and industry Robots for experimentation are available in the departments.

This policy stands recommendatory but not sacrosanct pertaining to incorporating dynamic changes and need based modifications.



**Dean (R&D)**



**Principal**

**PRINCIPAL**

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