

COIMBATORE INSTITUTE OF TECHNOLOGY (CIT), COIMBATORE

POLICY AND GUIDELINES FOR RESEARCH & DEVELOPMENT CELL (RDC)

1. INTRODUCTION

Coimbatore Institute of Technology (CIT), Coimbatore, is committed to fostering a vibrant ecosystem of research, innovation, entrepreneurship, product development, technology transfer, and societal impact. As a premier autonomous engineering institution, CIT recognizes research as a fundamental pillar for academic excellence, technological advancement, sustainable development, and national growth.

2. Institutional alignment with:

- UGC Guidelines for Establishment of Research and Development Cell
- AICTE Research Promotion Schemes and Innovation Policies
- National Research Foundation (NRF) objectives
- Atal Innovation Mission (AIM)
- Intellectual Property Rights (IPR) policies of Government of India
- Anna University regulations and research norms

3. Establishment of RDC:

The Institute establishes the Research & Development Cell (RDC) as the apex institutional body responsible for promoting, coordinating, monitoring, and strengthening research, innovation, consultancy, intellectual property generation, product development, entrepreneurship, and industry collaboration.

The RDC shall serve as the central mechanism for developing a robust research ecosystem that contributes to knowledge creation, technological innovation, industry advancement, societal development, and the vision of Atmanirbhar Bharat.

4. OBJECTIVES

The objectives of the RDC are to:

Research Promotion

- Encourage research activities among faculty, students, research scholars, and staff.
- Develop a strong culture of innovation and inquiry.
- Promote publication in high-quality indexed journals.

Research Funding

- Identify and disseminate funding opportunities.
- Facilitate submission of research proposals.
- Increase externally funded research projects.

Innovation and Product Development

- Promote engineering innovation and technology development.
- Support prototype development and proof-of-concept projects.
- Facilitate product design, testing, validation, and commercialization.

Intellectual Property

- Promote patents, copyrights, trademarks, and design registrations.
- Facilitate intellectual property protection and management.

Industry Collaboration

- Strengthen academia-industry partnerships.
- Promote consultancy and sponsored research projects.
- Encourage joint research and technology transfer initiatives.

Entrepreneurship

- Support startups, incubators, and innovation centres.
- Facilitate commercialization of research outcomes.

Research Infrastructure

- Develop advanced laboratories and Centres of Excellence.
- Ensure optimal utilization of research facilities.

Capacity Building

- Conduct workshops, FDPs, seminars, and training programmes.
- Improve research competencies of faculty and students.

5. GOVERNANCE STRUCTURE

The RDC shall function under a transparent, accountable, and professionally managed governance structure.

5.1 Research Advisory Council (RAC)

The Research Advisory Council shall be the apex policy-making and strategic body.

Composition

Functions

- Formulate research strategy.
- Approve research policies.
- Identify thrust research areas.
- Review research performance.
- Recommend infrastructure development.
- Facilitate national and international collaborations.

Structure of R&D Cell

Sl. No.	Name of the Member	Designation	Department/ Organisation	Role in R&D Cell
1	Dr. A. Rajeswari	Principal/ Director)	Electronics & Communication Engineering	Chairperson
2	Dr. Moorthi Pichumani	Dean (Research)	Research	R&D Cell Coordinator
3	Dr. P. Varalakshmi	Professor CEG Campus, Anna University	Information Science & Technology	Academic Expert (External member)
4	Mr. Sudharsan Srinivasan	Co-Founder &Chief Digital Officer	nStore Rotech Private Ltd, Chennai	Industry Expert
5	Dr. K. Umamaheshwari	Professor, Computer Applications and Dean, Computing	Computer Applications and Computing	R&D Cell member
6	Dr. M. Thirumarimurugan	Professor & Head of the Department	Chemical Engineering	R&D Cell member
7	Dr. Valliappan Raman	Professor and Head of the Department	Artificial Intelligence and Data science	R&D Cell member
8	Dr. M. Mandhirasalam	Librarian & Dean (ARRA)	Library	R&D Cell member
9	Dr. S. Shanmugapriya	Professor	Civil Engineering	IIC Member
10	Dr. P. Balraju	Assistant Professor	Physics Department	Student Mentor

5.2 Responsibilities of RDC

Responsibilities

- Coordinate all RDC activities.
- Monitor research projects and grants.
- Facilitate research collaborations.
- Supervise functional committees.
- Maintain research databases.
- Submit periodic reports to management and statutory bodies.

6. FUNCTIONS OF RDC

Responsibilities

- Resource mobilization.
- Management of research funds.
- Laboratory development.
- Procurement of research equipment.
- Infrastructure planning.
- Coordination with funding agencies.
- Identification of thrust research areas.
- Development of institutional research policies.
- Monitoring research quality.
- Promotion of interdisciplinary research.
- Alignment with NEP 2020 and AICTE initiatives.
- Industry collaboration.
- Consultancy promotion.
- MoUs and partnerships.
- International collaborations.
- Community-oriented technology solutions.
- Research networking.
- Product development support.
- Prototype validation.
- Technology transfer.
- Startup support.
- Incubation activities.
- Commercialization of research outcomes.
- Industry adoption of technologies.
- Intellectual Property Rights support.
- Patent facilitation.
- Copyright and trademark support.
- Ethical review processes.
- Research misconduct prevention.
- Legal compliance.

Suggested Thrust Areas

- Artificial Intelligence & Machine Learning
- Data Science & Analytics
- Cyber Security
- Robotics & Automation
- Smart Manufacturing
- Industry 4.0
- Sustainable Energy Systems
- Electric Vehicles
- Internet of Things (IoT)
- Semiconductor Technologies
- Advanced Materials
- Healthcare Technologies
- Climate and Sustainability Engineering

7. RESEARCH ECOSYSTEM DEVELOPMENT

The Institute shall establish:

Research Centres

- Departmental Research Centres
- Interdisciplinary Research Centres
- Centres of Excellence

Innovation Ecosystem

- Innovation and Entrepreneurship Cell
- Startup Incubation Centre
- AICTE IDEA Lab
- Technology Business Incubator
- Product Development Centre

Industry Engagement

- Industry-sponsored laboratories
- Joint research centres
- Collaborative innovation projects

8. RESEARCH FUNDING AND RESOURCE MOBILIZATION

The RDC shall facilitate funding from:

Government Agencies

- AICTE
- UGC
- DST
- DBT
- DRDO
- ISRO
- CSIR
- ICMR
- SERB/ANRF
- MeitY
- MSME

International Agencies

- World Bank
- Erasmus+
- Horizon Europe
- International Foundations

Industry Sources

- Sponsored research projects
- Consultancy assignments
- CSR-funded research initiatives

The RDC shall maintain a Research Corpus Fund to support seed grants and emerging research initiatives.

9. RESEARCH INTEGRITY, ETHICS, AND QUALITY ASSURANCE

The Institute shall maintain the highest standards of academic integrity.

Measures

- Mandatory plagiarism screening.
- Use of approved plagiarism detection software.
- Adherence to ethical research practices.
- Data privacy and confidentiality protection.
- Compliance with Good Laboratory Practices (GLP).
- Prevention of predatory publishing.
- Ethical approval mechanisms where applicable.

Research misconduct shall be dealt with through appropriate disciplinary procedures.

10. INTELLECTUAL PROPERTY RIGHTS (IPR)

The RDC shall promote and support:

- Patent filing.
- Copyright registration.
- Trademark registration.
- Design registration.
- Technology licensing.
- Intellectual property commercialization.

The Institute shall establish an IPR Facilitation Centre to support researchers throughout the IP lifecycle.

11. STARTUPS, INCUBATION, AND ENTREPRENEURSHIP

In alignment with AICTE and Startup India initiatives, the RDC shall:

- Encourage student and faculty startups.
- Support prototype development.
- Facilitate incubation and mentoring.
- Promote entrepreneurship education.
- Connect startups with investors and industries.
- Support technology commercialization.

12. RESEARCH INFORMATION MANAGEMENT SYSTEM (RIMS)

The Institute shall establish a centralized Research Information Management System (RIMS).

The system shall maintain:

- Faculty research profiles.
- Publications database.
- Patents and IPR records.
- Funded projects database.
- Consultancy records.
- Research collaborations.
- Research infrastructure inventory.

The system shall be integrated with:

- INFLIBNET
- Shodhganga
- ORCID
- Scopus
- Web of Science

- Google Scholar

where applicable.

13. CAPACITY BUILDING

The RDC shall organize:

- Faculty Development Programmes (FDPs)
- Research Methodology Workshops
- Patent Drafting Workshops
- Grant Writing Programmes
- Innovation Challenges
- Entrepreneurship Development Programmes
- Industry Research Interaction Sessions

at regular intervals.

14. MONITORING AND EVALUATION

The RDC shall establish Key Performance Indicators (KPIs) relating to:

- Publications
- Citations
- Patents
- Funded projects
- Consultancy revenue
- Startups incubated
- Technology transfers
- Industry collaborations
- Research awards

Annual research audits and performance reviews shall be conducted.

15. CONCLUSION

The Research & Development Cell of Coimbatore Institute of Technology shall function as the institutional catalyst for research excellence, technological innovation, entrepreneurship, intellectual property generation, and societal impact. By integrating UGC RDC Guidelines, AICTE research and innovation frameworks, Anna University Guidelines, and best institutional practices, the RDC will strengthen CIT's position as a leading engineering and technology institution committed to knowledge creation, industry engagement, sustainable development, and global competitiveness.

Through continuous innovation, interdisciplinary collaboration, ethical research practices, and effective commercialization of research outcomes, CIT shall contribute significantly to national development, technological self-reliance, and the advancement of engineering education.