



Indian Institute of Technology, Kanpur Kotak School of Sustainability



Placement Brochure

Session 2026-27

M.Tech in **AI for Sustainability**

India's first AI program on climate change and sustainability.

Message from the Dean



Dr. Sachchida Nand Tripathi

Professor and Dean

The **Kotak School of Sustainability** at IIT Kanpur, through its flagship **M.Tech programme in *AI for Sustainability***, offers **India's first academic programme dedicated to applying Artificial Intelligence to climate change and sustainability.**

Our interdisciplinary curriculum combines rigorous foundations in AI with climate science, environmental systems, water management, and sustainable urban development, preparing students to develop innovative solutions to complex real-world challenges.

We strongly believe that the rigorous academic environment at IIT Kanpur, combined with the interdisciplinary training of our students, prepares them with strong technical competence, innovative thinking, and a well-rounded perspective.

As organisations increasingly seek talent at the intersection of technology and sustainability, we invite you to participate in our recruitment process and engage with our students, who are well prepared to contribute meaningfully across climate technology, energy, water, infrastructure, consulting, research, and policy.

AI for Sustainability

Programme Overview

The **M.Tech in AI for Sustainability** at IIT Kanpur combines **Artificial Intelligence, Data Science, and interdisciplinary expertise** to solve complex real-world challenges.

The programme develops expertise in **Machine Learning, Deep Learning, Generative AI, Reinforcement Learning, Computer Vision, and Predictive Analytics**, with applications in **climate, energy, water, environment, living systems and critical infrastructure**.

Through **research-driven projects and real-world datasets**, students develop skills to design **scalable, data-driven AI solutions** and pursue careers in **AI/ML, Data Science, AI Research, Analytics, and Consulting** across technology-driven industries.

Key Capabilities

AI Expertise

Advanced techniques in ML, DL, Computer Vision, and generative modeling.

Data-Driven Decision Making

Leveraging predictive analytics and spatiotemporal data for systemic solutions.

Interdisciplinary Problem Solving

Applying computational science to environmental and infrastructure systems.

Career & Industry Readiness

Prepared for roles like:

Data Scientist, ML Engineer, AI Researcher, Risk Analyst, Climate-Tech Consultant, Sustainability Researcher and Analytics Specialist.

Target Industries:

Technology, Energy, Climate-Tech, Infrastructure, Manufacturing, Finance, and Emerging Sectors.

Vision & Mission

Vision

To emerge as a leading hub for AI-driven innovation and interdisciplinary excellence, nurturing professionals who bridge the gap between cutting-edge Artificial Intelligence and complex real-world challenges.

The programme envisions empowering graduates to leverage AI, data, and emerging technologies to develop **intelligent, scalable, and responsible solutions** that drive technological advancement, industrial transformation, environmental resilience, and sustainable economic growth at national and global scales.

Our Vision in Action

- **AI & Data**
- **Interdisciplinary Expertise**
- **Research & Innovation**
- **Industry Readiness**
- **Real-World Impact**

Mission

The M.Tech in AI for Sustainability aims to **develop industry-ready professionals with strong foundations in AI/ML, Data Science, and emerging technologies, complemented by interdisciplinary expertise.** The programme focuses on:

- **Advancing AI Excellence** through rigorous technical education and research.
- **Integrating AI** with real-world domains including climate, energy, water, environment, and infrastructure.
- **Fostering innovation** and entrepreneurship through hands-on projects, research, and problem-solving.
- **Developing industry-ready talent** equipped for careers in AI/ML, Data Science, Research, Analytics, Consulting, and tech industries.
- **Promoting responsible AI** to create scalable solutions with technological, economic, environmental, and societal impact.



Courses & Program Structure

Fundamental Courses

- Fundamentals of Data Science and Machine Intelligence
- Math & Computing using Python
- Sustainability of AI
- Humans, Environment and Sustainable Development
- Applications of AI in Sustainability

Specialization Courses

- High-Performance Computing for Science and Engineering
- AI for Hydroclimate: Processes and Applications
- Biophysics, Ecology, and Sustainability
- Introduction to Reinforcement Learning
- Deep Reinforcement Learning

144

Total Credits

Admission through GATE in DA, CS & ST

14

M.Tech Students

Enrolled in the 2025-27 academic batch and eligible for campus placements.

2

Year Program

Structured curriculum integrating core capabilities and specializations.

M.TECH. PROGRAMME

A robust 2-year curriculum structured across compulsory core courses, specialized electives, and an extensive research-focused thesis project to build deep expertise in sustainability.

Key Features:

- Compulsory Departmental Courses & Electives
- 12 Months Thesis Project

72 Coursework Credits

Department core (36 Credits): Core foundational coursework to build essential analytical expertise in sustainability.

Department Elective(27 Credits): Specialized electives allowing students to tailor learning paths to domain interests.

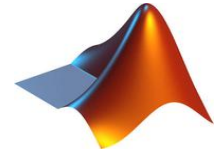
Open Elective(9 Credits): Multidisciplinary electives to broaden horizons across other departments.

72 Research Credits

M. Tech Thesis (72 Credits): Year-long M.Tech project solving real-world sustainability challenges using cutting-edge AI tools.

The students will identify a problem and address it systematically under the guidance of their thesis supervisor. They will develop advanced skills in addressing real-world problems while actively contributing to methodological development.

Coursework Skills



Broad Research Areas



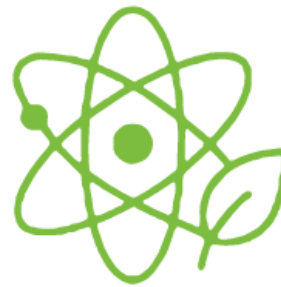
Climate Science
(Land, Atmosphere,
and Oceans)



Climate Change
Adaptation and
Mitigation



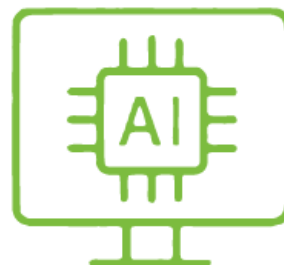
Sustainable
Water Systems



Physics of Living
Systems and
Sustainability



Environmental
Ecology and
Microfluidics

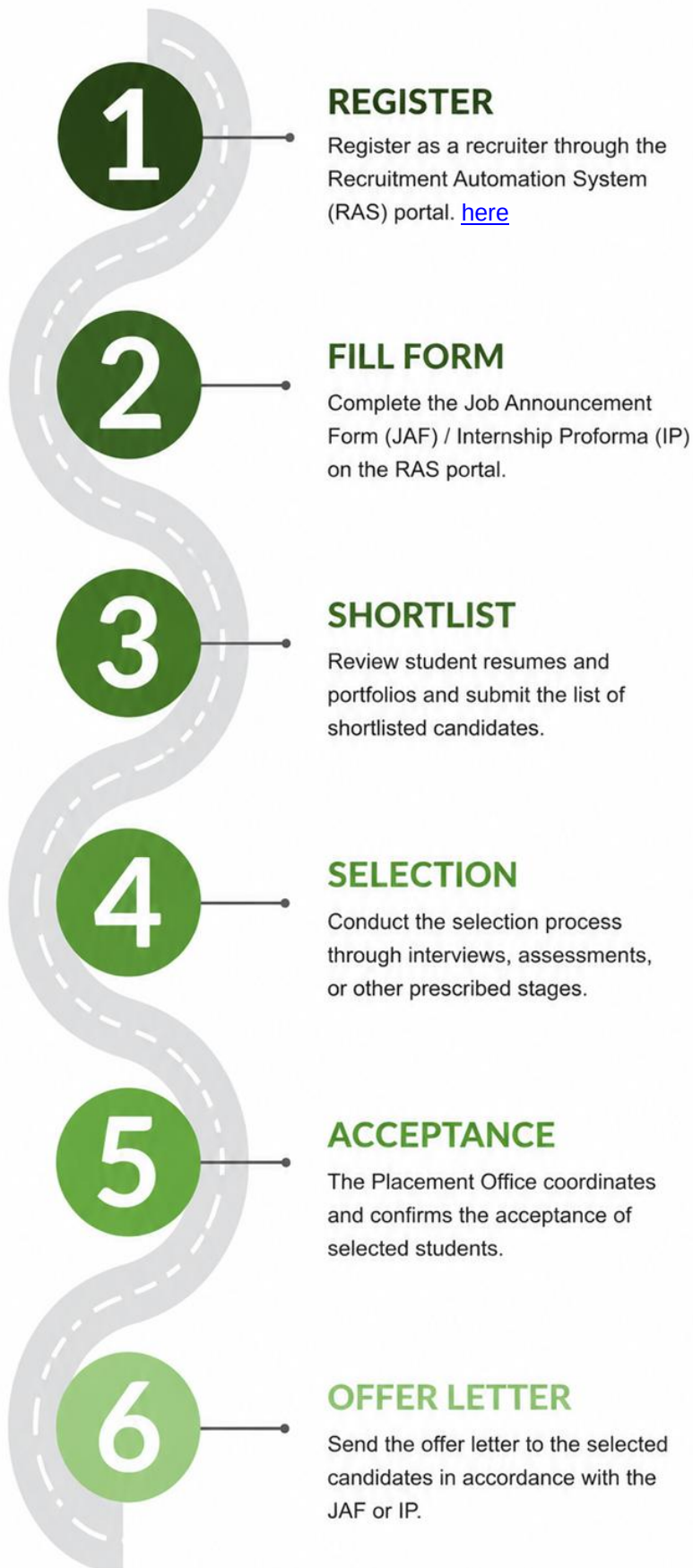


AI for
Sustainability
Analysis

Prospective Recruiters



Placement Process



Coordinators



FACULTY PLACEMENT COORDINATOR

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