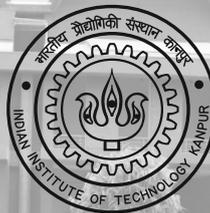




KOTAK SCHOOL OF SUSTAINABILITY
Indian Institute of Technology Kanpur



PG Programmes



भारतीय प्रौद्योगिकी संस्थान कानपुर
Indian Institute of Technology Kanpur

Website: <https://iitk.ac.in/kss>



About KSS

The Kotak School of Sustainability (KSS) at the Indian Institute of Technology Kanpur (IIT Kanpur), is a pioneering initiative to bring together engineers and scientists from different domains aimed at addressing the world's most pressing sustainability challenges. Established with the support of Kotak Mahindra Bank's CSR initiative, KSS serves as the Institute's central hub for sustainability research, innovation, and policy action. The School's vision is to provide thought leadership and practical solutions that advance India's transition towards a sustainable and resilient future. Its mission spans five core pillars: Climate and Energy Science & Technology, Water and Environmental Sustainability, Sustainable Technology and Innovation, AI for Sustainability, and Capacity Development for a Sustainable Future.

The school offers a Ph.D. program and an M. Tech. program.

Ph.D. Program

The Ph.D. Program is designed to cultivate the next generation of scientists, innovators, and policymakers committed to a sustainable and resilient future. The Ph.D. students will research in the key sustainability areas: Climate science (land, atmosphere and oceans), Climate change adaptation and mitigation, Environmental ecology and living systems sustainability, Sustainable water systems, AI and data driven solutions for sustainability. The program will train the scholars in selected domains of sustainability research and provide skills to invent technological solutions and policies to address the specific challenges. Before starting research, the students will learn the frontier topics via fundamental and advanced courses. The students will also have opportunities to participate in national and international seminars and workshops hosted by the school and the institute.

M. Tech in AI for Sustainability

India's First AI Program for Climate Change and Sustainability This program is designed to tackle global challenges like climate change and sustainability by seamlessly integrating Artificial Intelligence (AI) with environmental science, water management, and urban sustainability.

The Program offers a comprehensive foundational course on AI, Climate, Environment, Water Infrastructure, Smart Cities, and Future of Urbanization. Unique modules on Climate Change, Blockchain for Carbon Footprint, Sustainability of AI, and Entrepreneurship.



Why Choose these programs

- Join a vibrant, multidisciplinary research community tackling grand challenges in areas of sustainability.
- Work alongside distinguished faculty who are leading transformative research and innovation.
- Engage with cutting-edge scientific methods, analytical models, and experimental frameworks driving progress in sustainability science and solutions.
- Position yourself for a global career in academia, research, industry, or policy.
- Tailored for those aiming to become Sustainability Officers, Senior Executives, Policy Makers, or to pursue a career in Research and Innovation.

Faculty & Affiliates

Regular Faculty:

1. Prof. Sachchida Nand Tripathi

Professor

Research Interests: Climate Issues, Climate Modelling, Environment, Air Pollution

<https://www.iitk.ac.in/sachchida-nand-tripathi>

2. Prof. Mahendra Verma

Professor

Research Interests: Nonlinear Physics, Nonequilibrium Statistical Physics, Astrophysical Fluid and Plasma Dynamics, Turbulence

<https://www.iitk.ac.in/dr-mahendra-k-verma>

3. Prof. Praneet Prakash (PhD, IISc Bangalore)

Assistant Professor

Research Interests: Biophysics, Environmental Active Matter, Microfluidics, Complex Systems, Engineering of Living Materials, Sustainable Biotechnology.

<https://sites.google.com/view/praneetiitk/>

4. Prof. Sarosh Alam Ghausi (Ph. D, Max Planck Institute for Biogeochemistry)

Assistant Professor

Research Interests: Land-atmosphere Interactions, Extreme Weather events, Earth system Modelling, Hybrid AI-Physics Frameworks for Climate Modelling.

<https://www.iitk.ac.in/sarosh-alam-ghausi>

5. Prof. Nanditha J. S. (Ph. D., IIT Gandhinagar)

Assistant Professor

Research Interests: Hydrology, Hydroclimatic Extremes, Flood Processes, Forecasts and Projections.

<https://www.iitk.ac.in/nanditha-j-s>

Visiting Faculty:

1. Prof. Raghu Murtugudde

Adjunct Faculty:

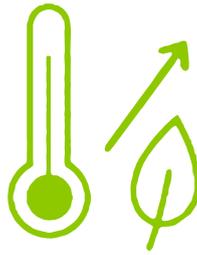
1. Prof. Ashutosh Sharma (Department of Chemical Engineering)
2. Prof. Manoj Tiwari (Department of Civil Engineering)
3. Prof. Abhijith G. R. (Department of Civil Engineering)
4. Prof. Pranamesh Chakraborty (Department of Civil Engineering)
5. Prof. Anindita Chakrabarti (Department of Humanities and Social Sciences)
6. Prof. Jillet Sam (Department of Humanities and Social Sciences)
7. Prof. Devlina Chatterjee (Department of Management Sciences)
8. Prof. Rajesh M. Hegde (Department of Electrical Engineering)



Broad Research Areas



Climate Science
(Land, Atmosphere,
and Oceans)



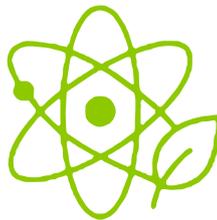
Climate Change
Adaptation and
Mitigation



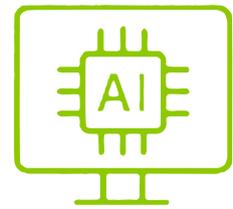
Sustainable
Water Systems



Environmental
Ecology and
Microfluidics



Physics of Living
Systems and
Sustainability



AI for
Sustainability
Analysis

Contact

Prof. Sachchida Nand Tripathi

(Dean, KSS)

Email: dkss@iitk.ac.in

Phone No.: +91-512-679-7274

Prof. Sarosh Alam Ghausi

(DPGC Convener, KSS)

Email: dpgc_kss@iitk.ac.in

Phone No.: +91-512-679-2114

Mr. Vineet Dwivedi

(Senior Assistant, KSS)

Email: office_kss@iitk.ac.in

Phone No.: +91-512-679-7199



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