



Vision of the Institute

To make this Institution the unique of its kind in the field of Research and development activities in this part of the world.

Mission of the Institute

To impart highly innovative and Technical knowledge to the urban and unreachable rural student folks through "Total Quality Education".

Quality Policy

Committed to impart Quality Technical Education imbued with proficiency, human values and continual improvement.

Vision of the Department

To make the Department of Biotechnology, unique of its kind in the field of research and development activities pertaining to the field of biotechnology in this part of the world

Mission of the Department

To impart highly innovative and technical knowledge in the field of biotechnology to the urban and rural student folks through "Total Quality Education"

Registration Details



Scan the QR code or visit
<http://tiny.cc/kcetbtfdp25>

Registration Fee: ₹ 400

Account Details

Account Number : 004100050147438
Account Name : KAMARAJ College of Engineering and Technology
Bank Name : TamilNad Mercantile Bank Ltd.
Branch Name : Virudhunagar
IFSC Code : TMBL00000004

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Contact Us

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KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY
(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)
S.P.G. Chidambara Nadar - C. Nagammal Campus
S.P.G.C Nagar, K. Vellakulam - 625 701, (Near VIRUDHUNAGAR).

DEPARTMENT OF BIOTECHNOLOGY

(Accredited by National Board of Accreditation, New Delhi)

Organizes

6 Days Online

Faculty Development Program

on

**Frontiers of Environmental
Science: Integrating AI/ML
and Biotechnology for
Sustainable Development
15-20 December 2025**



About the Institute

Established in 1998, Kamaraj College of Engineering and Technology (KCET), Virudhunagar, is an autonomous, self-financing institution affiliated with Anna University. Approved by AICTE and accredited by NAAC, the college offers UG, PG, and Ph.D. programs with a strong emphasis on academic excellence, innovation, and research. Seven departments are recognized as Anna University Research Centres, reflecting the institution's commitment to advanced scholarship. KCET promotes a student-centric learning environment supported by modern infrastructure, experienced faculty, and industry collaborations. With its focus on holistic development, skill enhancement, and real-world problem-solving, the institution continues to nurture globally competent professionals prepared to meet evolving technological challenges.

About the Department

The Department of Biotechnology at Kamaraj College of Engineering and Technology, established in 2002, offers a B.Tech programme with an intake of 60 students and has maintained continuous NBA accreditation since 2008, demonstrating its commitment to quality education. The department has received over ₹1 crore in funding from agencies such as AICTE, DBT, DRDO, and DST, strengthening its research facilities and laboratory infrastructure. With strengths in Environmental Biotechnology, Industrial Biotechnology, Drug Discovery, and Food Biotechnology, the department provides students with hands-on training, project-based learning, and exposure to emerging technologies. Regular workshops, conferences, guest lectures, and FDPs enrich academic engagement and industry linkage. Supported by qualified faculty and a strong alumni network, the department nurtures skilled graduates equipped for careers in biotechnology, research, and related sectors.

About the FDP

The Six-Day Online Faculty Development Programme on "Frontiers of Environmental Science: Integrating AI/ML and Biotechnology for Sustainable Development" is designed to enhance the knowledge base of faculty members by introducing them to advanced, technology-driven solutions that address current and emerging environmental challenges. It focuses on the powerful intersection of Biotechnology, Artificial Intelligence, and Machine Learning, highlighting how these fields collectively contribute to sustainable development and environmental resilience.

Throughout the FDP, participants will explore innovative methodologies for environmental monitoring, waste management, climate modelling, resource conservation, and ecosystem restoration. The sessions include expert talks, case-based discussions, demonstrations of AI/ML tools, and hands-on problem-solving activities, offering a blend of theoretical insight and practical exposure. Eminent speakers from academia, research institutions, and industry will share real-world applications, best practices, and future trends in environmental technologies.

By promoting interdisciplinary learning and research collaboration, this FDP encourages faculty to integrate modern computational tools and biotechnological approaches into their teaching, curriculum design, and research initiatives.

Objective of the Program

To enhance the competency of faculty members in the latest advancements of Environmental Science by integrating AI/ML and Biotechnology for sustainable development, enabling them to adopt cutting-edge tools, conduct interdisciplinary research, and strengthen the teaching-learning ecosystem

Sessions

- 1 Big Data Pathogenomics of a Priority Pathogen**
Dr. Shankar Manoharan, IIT Jodhpur
- 2 Advanced AI Driven Models for AMR Surveillance of Wastewater**
Dr Rajesh. T, CSIR-NEERI, Chennai
- 3 AI-Integrated Biosensors for Rapid Environmental Pollution Detection**
Prof. Prakash Balu, Vels Institute of Science, Technology and Advanced Studies
- 4 Green AI: Towards a sustainable future.**
Dr. Jeya Marimuthu, National Institute of Ocean Technology, Chennai.
- 5 AI Enabled Bio-Solutions for Waste Management and Circular Economy**
Dr A. Ronaldo Anuf, Scinicorn Labs Pvt Ltd,
- 6 AI-Driven Bioinformatics for Microbial Genomics and Environmental Biomarker Discovery**
Dr. Gnanendra Shanmugam, Yeungnam University, Gyeongsan, South Korea
- 7 Integrating Remote Sensing, GIS & AI for Monitoring Climate Change and Biodiversity Shifts.**
Dr T.Sivasudha, Bharathidasan University.
- 8 Next-Generation Computational Intelligence for Bioprocessing and Environmental Systems**
Dr V.C. Padmanaban, National Institute of Technology Agartala.
- 9 Machine Learning, Knowledge Engineering**
Dr A. Meenakshi, Kamaraj College of Engineering & Technology
- 10 Lichens Diversity and Environment**
Dr R.Shyam Kumar, Kamaraj College of Engineering & Technology
- 11 Rural Empowerment Through Biotechnology Tools Integrated with AI/ML**
Dr S. Karthikumar, Kamaraj College of Engineering & Technology