About the Institution

Kongunadu College of Engineering and Technology (KNCET) is an Autonomous, self-financing Engineering College established in the year 2007, Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai, Accredited by NBA(CSE, ECE, EEE & Mech), NAAC, Recognized by UGC with 2(f) & 12(B) and Certified by ISO 9001:2015. The College has 9 UG courses(AD ,AE,BME, Civil, CSE, ECE, EEE, IT and Mechanical Engineering) and 2 PG courses such as Applied Electronics and CSE. ECE and Mechanical departments have been recognized as approved research centers by Anna University. A Separate department Campus to Corporate is to train the students in the area of communication, soft skills and aptitude etc., through which obtaining top notch placements with the facilitation of diverse options in IT industries, core industries, ITES and startup firms respectively. The Kongunadu International Cell assists students explore opportunities to work and study in foreign countries. The college has obtained many awards & recognition from various government/private authorities and received research grants from funding agencies for doing projects, establishing MODROBS labs, organizing FDPs, STTPs, National and International Conferences,Seminars and Workshops. MSME Incubation Center and Unnat Bharat Abhiyan (UBA) schemes are approved by the Government of India. The College has signed MOUs with Industries, academics, hospitals and R&D Institutions. Various Professional societies, clubs and cells are supporting students to become industry ready graduates, to do higher studies and to become successful entrepreneurs. The sports teams have won many prizes in various events at National level including Zonal, Inter Zonal and University level Sports Championship. The College attracts outstanding students by virtue of its discipline, modern infrastructure, library and faculty members.

About the Department

The Department of Information Technology (IT) was established in the year 2007, with an intake of 60 students in it for UG course - B.Tech. IT. The Department is supported by a team of well qualified and highly experienced faculty members and technical staff who deliver their skills to the students through effective teaching-learning environment. The faculty members in the department are specialized in various areas like Wireless Networks, Network Security, Data Science, Cyber Security, Artificial Intelligence, Machine Learning, Image Processing, Cloud Computing, Mobile Computing and Software Engineering.

Address for Communication

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Online Faculty Development Programme on

"Next-Generation AI and Machine Learning Applications for Smart IoT Solutions"

16.01.2023 to 20.01.2023

Organized by

Department of Information Technology

KONGUNADU COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous)
Approved by AICTE, New Delhi,
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Tamilnadu.
Website : www.kongunadu.ac.in

DEPARTMENT VISION AND MISSION

Vision

To become an Internationally Renowned Institution in Technical Education, Research and Development by Transforming the Students into Competent Professionals with Leadership Skills and Ethical Values.

Mission

- Providing the Best Resources and Infrastructure.
- Creating Learner-Centric Environment and Continuous Learning.
- Promoting Effective Links with Intellectuals and Industries.
- Enriching Employability and Entrepreneurial Skills.
- Adapting to Changes for Sustainable Development.

About the FDP

The integration of advanced Artificial Intelligence (AI) and Machine Learning (ML) technologies into Internet of Things (IoT) systems to create more intelligent, autonomous, and efficient solutions. AI refers to machines or systems that can perform tasks that typically require human intelligence, like decision-making, pattern recognition, and problem-solving. Machine Learning, a subset of AI, involves training systems to learn from data and improve over time without explicit programming. When applied to IoT, AI/ML allows devices to analyze large volumes of data collected from sensors and make smart decisions in real-time. This creates systems that are adaptive and can optimize processes without human intervention. The term "next-generation" highlights the future-focused innovations, where the combination of AI, ML, and IoT is moving beyond basic automation to more sophisticated tasks. It involves applications that offer predictive insights, self-learning systems, real-time problem-solving, and autonomous decision-making. Smart cities that use AI-driven IoT devices to optimize traffic, reduce energy consumption, or enhance public safety, and healthcare systems where wearables monitor patients and use AI to predict health issues before they occur.

IoT (Internet of Things) refers to a network of interconnected devices (smartphones, appliances, sensors, wearables, etc.) that can collect and exchange data. When AI and ML are applied to IoT, these devices become "smart", capable of understanding their environment, predicting outcomes, and performing tasks autonomously. IoT (Internet of Things) refers to a network of interconnected devices (smartphones, appliances, sensors, wearables, etc.) that can collect and exchange data. When AI and ML are applied to IoT, these devices become "smart", capable of understanding their environment, predicting outcomes, and performing tasks autonomously.

This FDP will provide an excellent opportunity for participants to have an interaction with renowned experts in the area of wireless networks.

FDP Objectives

- Help participants understand the foundational concepts of Artificial Intelligence (AI), Machine Learning (ML), and Internet of Things (IoT), and how these technologies have evolved and converged over time. This includes basic terminologies, architectures, and real-world relevance.
- Inspire faculty to initiate interdisciplinary research and innovations in intelligent IoT systems. This includes identifying research gaps, developing new algorithms, and publishing in reputed journals.
- Discuss data privacy, cybersecurity, bias in AI models, and regulatory frameworks. Faculty should understand the societal and ethical implications of deploying AI in connected environments.
- Provide a platform for faculty to network with industry professionals, startups, and researchers for internships, projects, and knowledge exchange, ensuring alignment with real-world demands.

Course Contents

- Foundations of AI and Machine Learning
- IoT System Architecture and Communication Protocols
- Machine Learning Techniques for Smart IoT Applications
- Gen AI Application and Real-Time Data Processing
- Leveraging AI-Driven IoT for Smart City Solutions
- Advanced Neural Networks and Deep Learning in IoT Applications
- Applications of GenAI in Various Domains

Resource Persons:

The resource persons for the program shall include faculty members of the NIT, Host institute, Industry experienced and skilled experts from reputed organizations/industries.

Eligibility:

Faculty members of the AICTE approved institutions, Research scholars, PG Scholars, participants from Government, Industry Bureaucrats/Technicians/ Professionals/School Teachers and staff of host institutions.

Registration Procedure:

Candidates will be informed about their registration status via email and will receive a confirmation email upon successful registration. A digital certificate will be issued to all candidates who achieve a minimum of 80% attendance.