### **About The Institute**

Indian Institute of Information Technology Design and Manufacturing, Kurnool (IIITDMKNL) was announced in 2014 after receiving the assent of President of India to the Institutes of Information Technology Act, 2014, and its subsequent publication in the Gazette of India, Extraordinary, Part- II, Section I, on December 08, 2014. The institute was announced by Government of India to give effect to its obligation under the Andhra Pradesh state reorganization act 2014. The IIITDM Kurnool campus is located far away from the bustling life of the metropolis in the mineral-rich mountain trails of the Rayalaseema region of Andhra Pradesh. The campus is situated atop a hill that oversees Kurnool city. The place offers a perfect environment to nurture a peaceful state of mind required to carry out research and other student activities

# **About The Department**

Department of Mechanical Engineering came into existence in the year 2016. The department has 10 qualified and dedicated faculty members with specializations in various areas of Mechanical Engineering. At present, the department is conducting an undergraduate course, two post graduate courses and research programmes leading to Ph.Ds.

### **CHIF PATRON**

Dr. B.S. MURTY

Director

**IIITDM Kurnool** 

**PATRON** 

Dr. AKHTAR KHAN

Head of the Department

Mechanical Engineering

**IIITDM Kurnool** 

## **Course Coordinators**



Dr. Ravi Kumar Mandava
Assistant Professor,
Department of Mechanical
Engineering
IIITDM Kurnool

Experience: 12 Years



Dr. R. Seetharam
Assistant Professor,
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Experience: 10 Years

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**Faculty Development Programme** 

on

# IMPORTANCE OF ARTIFICIAL INTELLIGENCE IN ROBOTICS

(20<sup>th</sup> January - 25<sup>th</sup> January 2025)







# Organized by

**Department of Mechanical Engineering** 

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN AND MANUFACTURING KURNOOL

Kurnool- 518008

### **About The FDP**

Artificial intelligence (AI) and robotics are a powerful combination for automating tasks in industry and non-industrial applications. AI provides robots a computer vision to navigate. sense and calculate their reaction accordingly. The demand of Artificial Intelligence has become an increasingly common presence in robotic solutions, introducing flexibility and learning capabilities in various applications. To make an intelligent robot in various applications the present workshop will provide the basic knowledge on robotics and Artificial Intelligence. Participants will learn kinematics, dynamics trajectory planning, motion planning, Control and intelligence algorithms for manipulators, mobile robots and legged robots. This course will be useful for faculty members, Ph.D and PG students those who are interested in the learning robotics and intelligent systems.

## Who May Be Benefitted

The programme is specifically designed for faculty members, research scholars, PG scholars, engineers & professionals, who are working in the field of Robotics and AI. The course is useful for understanding the fundamental concepts of Robotics, applications and its programming.

### **List of Keynote Speakers:** Name: Dr Pengcheng Liu Designation: Associate Professor, University of York. Experience: 15 Years Name: Dr. Youngshik Kim Designation: Professor, Hanbat National University. South Korea Experience: 20 Years Name: Dr. Pandu Ranga Vundavilli Designation: Professor, IIT Bhubaneswar Experience: 21 Years Name: Dr. Kiran Akella Designation: Scientist G. DRDO, Pune Experience: 20 Years Name: Mr. Vinod Atpadkar Designation: CEO, SVR Infotech Experience: 17 Years Name: Dr. Santa Kumar Mohan Designation: Professor, IIT Palakkad Experience: 15 Years Name: Mr. Aditya Marte Designation: CEO, Nugenix Robotics Experience: 13 Years Name: Mr. Satish Padavala Designation: CEO, Ramson Tech Labs Experience: 12 Years Name: Dr. Ram Prasad Padhy **Designation:** Assistant Professor, IIT Bhubaneswar Experience: 10Years Name: Dr. Ravi Kiran S Designation: Associate Professor, IIIT Hyderabad Experience: 15Years Name: Dr. Vijay Bhaskar Samewal **Designation:** Assistant Professor, MANIT Bhopal Experience: 12 Years Name: Dr. Viswanath Bijalwan **Designation:** Assistant Professor, SR University Experience: 10Years Name: Dr. Ravi Kumar Mandaya **Designation:** Assistant Professor, IIITDM Kurnool Experience: 12Years

#### **Course Contents:**

- Introduction to Robotics
- \* Robot Kinematics & Dynamics
- Motion planning Algorithms
- Intelligent Controllers
- Internet of things in Robotics
- Robotic Vision
- ❖ Artificial Intelligence for Robots
- ❖ Machine learning algorithms for Robots
- Industrial Robots and its applications.
- \* Robots Applications in various fields

**Registration Fee:** There is no registration fee for participants.

**Certification:** E-certification shall be awarded to the participants with 80% attendance and with a score of Minimum 60% marks in the test.

**How to register:** Participants need to register for the FDP in the AICTE ATAL portal given below:

https://www.aicte-india.org/atal

Create your login ID and password.

Search for and apply to the FDP titled "Importance of Artificial Intelligence in Robotics" (Application No. 1730689808)

Last Date for Registration: 12th January 2025

Confirmation of Registration: 15th January 2025