



5-Days Workshop on

# Connected Intelligence: Harnessing IoT with Deep Learning

Organized by DeepSkills in Collaboration with VS Tech Horizon

Overview: This 5-day hands-on workshop introduces students to the concepts of the Internet of Things (IoT) and Deep Learning. Participants will learn to connect IoT devices to the cloud, analyze real-time data, and apply AI models for intelligent decision-making.

Register Now

Registration Fee: 500 INR

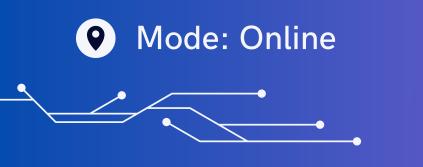
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or





7:00 PM - 9:00 PM IST





# Day 1 - Introduction to IoT and Deep Learning

- What is IoT? Architecture and real-world use cases
- Basics of Deep Learning and its role in IoT
- Overview of ESP32, sensors, and cloud dashboards
- Virtual IoT setup in Wokwi and sending live data to ThingSpeak
- Practical: Students replicate setup and visualize live graph.

#### Day 2 - Cloud Connectivity and Data Communication

- Communication protocols: MQTT, HTTP
- Introduction to Blynk and ThingSpeak APIs
- Demo: Connect simulated ESP32 to ThingSpeak
- Practical: Students implement MQTT/HTTP and view live data online.

#### Day 3 - Deep Learning Fundamentals (Hands-on with Colab)

- Machine Learning vs Deep Learning
- Structure of neural networks and CNN
- Demo: Build and train CNN model on Google Colab (Mask vs No Mask)
- Practical: Students train model and observe accuracy results.

# Day 4 - Integrating IoT with Deep Learning

- Data flow: IoT → Cloud → AI → Decision
- Edge AI vs Cloud AI
- Demo: Predict 'Normal/Abnormal' using IoT data with small model
- Practical: Run pretrained model with IoT data input in Colab.

# Day 5 - Final Mini Project and Showcase

- Integrating all concepts learned: IoT data collection, cloud connectivity, and AI-based prediction
- Understanding project workflow: Device → Cloud → Model → Output
  Display
- Setting up dashboards for result visualization (ThingSpeak / Blynk)
- Presentation and feedback session

# **Mini Project Options:**

- Smart Health Monitoring System
- Smart Home Energy Analyzer
- Air Quality Monitoring and Prediction
- Face Mask Detection IoT Alert System

Practical: Students select and complete a mini project integrating of and

Al concepts.

Outcome: Participants will be able to design and demonstrate a real-time

IoT+AI system

**Contact Us** 

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