

## Training of Faculty members in Collaboration with Uniconvergence Technologies Pvt. Ltd, Noida at Centre for IoT

The Centre for IoT has developed centre of excellence for IoT in collaboration with **Uniconvergence Technologies Pvt. Ltd, Noida** and trainers from company has successfully conducted **eight day training** program for the faculty members during 29/05/2024 to 05/06/2024.

Total Faculty Trained: 08

S.No.	Date	Topic
1.	29.05.2024 (Online)	<ul style="list-style-type: none"><li>• Introduction to Arduino</li><li>• Installation and library installation</li><li>• Selecting board and Port selection serial monitor and plotter</li><li>• Tinker cad hands-on</li><li>• Installation of Node MCU on Arduino board</li><li>• Node MCU architecture</li><li>• Installation of Esp32</li><li>• esp32 architecture</li><li>• RPI Theory and installation of Rpi OS</li></ul>
2.	30.05.2024 (Online)	<ul style="list-style-type: none"><li>• Introduction to ARM Processor and Architecture</li><li>• Installation of STM32cube mx and keil</li><li>• Introduction to IOT Cloud</li><li>• MQTT and HTTP</li><li>• Installation of node red</li><li>• Installation of node-red-dashboard and plates</li></ul>
3.	31.05.2024 (Offline)	<ul style="list-style-type: none"><li>• LpWAN / LoRaWAN Architecture</li><li>• Edge AI and its application</li><li>• Nvidia jetson/Google coral/TPU/GPU/VPU</li></ul>
4.	01.06.2024 (Offline)	<b>[LoRaduino Board]</b> <ul style="list-style-type: none"><li>• Led blink</li><li>• Led control using button</li><li>• Show data of temperature and humidity on 16x2 display</li><li>• Home automation on connectify</li></ul>
5.	02.06.2024 (Offline)	<b>[Node Mcu Board]</b> <ul style="list-style-type: none"><li>• Show temperature humidity and Ultrasonic on OLED display.</li><li>• Show temperature humidity and Ultrasonic on thing speak cloud.</li><li>• MQTT Dashboard building on Node-Red.</li><li>• Show temperature humidity and Soil Moisture on Node-Red.</li><li>• Use case Air quality monitoring</li><li>• Use Hydroponics</li></ul>

माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत  
**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA**  
 Deemed to be University  
 (Declared under Distinct Category by Ministry of Education, Government of India)  
 NAAC ACCREDITED WITH A++ GRADE

6.	<b>03.06.2024 (Offline)</b>	<b>[ESP-32 and LoRaduino Board]</b> <ul style="list-style-type: none"> <li>• Receive temperature humidity data on LoRaduino and also show on 16x2 display via ESP-32 LoRasender.</li> <li>• Send Temperature humidity data on LoRawan using ESP-32 LoRa.</li> <li>• Send Temperature humidity data using BLE in ESP-32 and receive on NRF Connect Application.</li> <li>• Use case LoRawan Asset Tracking.</li> <li>• Use-case Smart Street Light on LoRawan.</li> </ul>
7.	<b>04.06.2024 (Offline)</b>	<b>GUI Designing of DWIN HMI and its interfacing with ESP-32.</b> <ul style="list-style-type: none"> <li>• Real time data show on DWIN HMI Display.</li> <li>• ARM Daughter Board led Blink BSP generate by STM32 CubeMx, Coding and Debugging Using Keil IDE.</li> <li>• Control led using push button on ARM.</li> <li>• Energy monitoring solution.</li> <li>• Smart Domestic Meter on LoRawan</li> </ul>
8.	<b>05.06.2024 (Offline)</b>	<ul style="list-style-type: none"> <li>• Interfacing Ultrasonic Sensor on RPI Kit.</li> <li>• Edge AI Vibration analysis Using Node-Mcu kit.</li> <li>• Industry 4.0, Predictive Maintenance, Smart Irrigation.</li> </ul>

**Glimpses of Training Session Conducted in Centre for IoT**

**Glimpses of Training**



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# Certificate of Participation

This is to certify that

**Dr. Bhavna Rathore**

from MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.)  
has successfully participated in the

Two weeks faculty Training in "IoT and Edge AI" from 29<sup>th</sup> may onwards.

7<sup>th</sup> June 2024

Date



**Kaushlendra Singh Sisodia**  
Chief Mentor, The IoT Academy  
Director, Uniconverge Technologies

Ref no: TIA-2024/6/1006

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