



## Add-on Course on “Pi Your Way to the Future: Building Smart Things with Raspberry Pi”

**Academic Year:** 2024-2025

**Name of the Event:** Add-on Course on “Pi Your Way to the Future: Building Smart Things with Raspberry Pi”.

**Date & Time of the Event:** 24<sup>th</sup> July to 27<sup>th</sup> July 2024 8:30am to 4:30 pm

**Name of the Speaker:** Mr. Tushar Kute

**Designation:** Data Scientist

**Name of the Company / Institution with Address:** MITU Skillologies

**Targeted Audience:** SE - IT

**Coordinator:** Prof. Deepali Bhatarkar

**Number of Participants:** 96

### Activity Description in Nutshell:

The IOT workshop at the International Institute of Information Technology provided an in-depth exploration of the Internet of Things (IOT) using Raspberry Pi. On the first day, the session began with an introduction to the importance and usage of IOT in our daily lives. The various applications of IOT, such as smart homes, wearable devices, and industrial automation, emphasizing how these technologies are transforming our world. Following this, session moved on to the practical aspect of setting up our Raspberry Pi kits. The installation of the operating system on the Raspberry Pi and connected the kits to laptops via Wi-Fi, although a LAN connection was also an option. This initial setup was crucial as it laid the foundation for the hands-on experiments that followed.

On the second day, started learning how to use different sensors with the Raspberry Pi. The instructor introduced us to a variety of sensors, including Light Dependent Resistors (LDR), photodiodes, motion sensors, infrared sensors, and LEDs. Additionally, used ultrasonic sensors and servo motors, combining multiple components to create more complex systems. The sessions were mentored by Mr. Tushar Kute, who taught all the concepts and workings of the sensors and Raspberry Pi in a very simple and understandable manner.

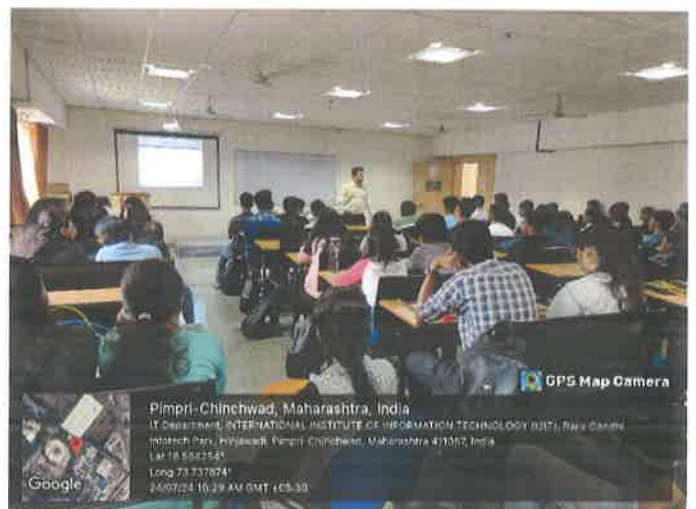
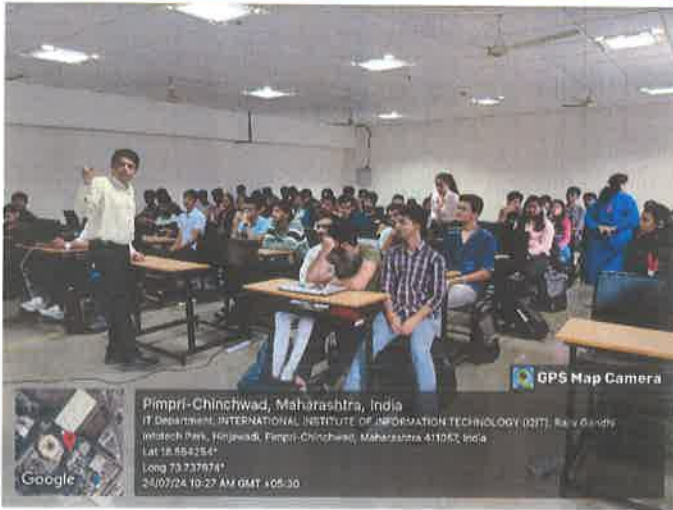
Students constructed various circuits to understand the functionality and application of each sensor. The instructor also explained the use cases and provided detailed information on how these sensors operate and interact with the Raspberry Pi. This practical experience was invaluable, giving us hands-on exposure to the components and systems that drive IOT innovations. The workshop will help to build real-world projects.



# INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY (I<sup>2</sup>IT)

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*Deepali*

Prof. Deepali Bhatnurkar  
Add-On Course Coordinator

*Jyoti*

Dr. Jyoti Surve  
HOD