



## REPORT

### **Title:**

Seven day's workshop on "IoT and Industry 4.0" (27<sup>th</sup> to 29<sup>th</sup> March and 9<sup>th</sup> April to 12<sup>th</sup> April 2025)

### **Objective:**

To enable students to know the critical aspects of IoT technology using Arduino and Raspberry-pi, sensor interfacing, ESP 32.

### **Benefit:**

1. 66 students of TY ECS attended the seven day's workshop.
2. Students learned about the industry 4.0 and related experimentation.
3. Students got hands on training on various sensors interfacing with ESP32 and data sharing on cloud.
4. Students got hands on training on various sensors interfacing with Raspberrypi

### **Overall Report:**

An offline seven-day course on "Internet of Things and Industry 4.0" was arranged from March 27<sup>th</sup> to March 29<sup>th</sup> and April 9<sup>th</sup> to April 12<sup>th</sup> 2025. Dr. K. K. Pandeyaji, Head of Electronics and Computer Science Engineering, and Dr. A. B. Shinde (IIC committee member) supervised the workshop for third-year Electronics and Computer Science engineering students. This session aims to provide students with hands-on training using contemporary technology.

Mr. Parshwa Patil, Ashutosh Mahindrakar, and Prathamesh Anande, expert industry professionals from TRIMAP Tech Solutions, were invited to serve as resource persons for the aforementioned workshop. Students have the opportunity to actively engage with industry experts.



Schedule	
Day 1 27 <sup>th</sup> March 2025	Industry 4.0, Arduino basics, microcontrollers, and project demo
Day 2 28 <sup>th</sup> March 2025	Digital I/O, transducers, M2M communication, LDR sensors
Day 3 29 <sup>th</sup> March 2025	Libraries, object-oriented programming, DHT11, PWM, linear actuators
Day 4 9 <sup>th</sup> April 2025	IoT introduction, ESP32, Ultrasonic sensors, buzzer integration
Day 5 10 <sup>th</sup> April 2025	Cloud platforms (ThinkSpeak, Blynk, Arduino Cloud), IEEE, Adafruit, relays
Day 6 11 <sup>th</sup> April 2025	Android app development (Kodular, Blynk, IR remote)
Day 7 12 <sup>th</sup> April 2025	Raspberry Pi 5, project demo, research paper guidance, and career mentorship



*Picture: Workshop day 1: 27<sup>th</sup> March 2025*



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D. BATU, Lonere.  
**Institution Innovation Council**  
**2023-2024**



*Picture: Workshop day 2: 28<sup>th</sup> March 2025*



*Picture: Workshop day 3: 29<sup>th</sup> March 2025*





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*Picture: Workshop day 4: 09<sup>th</sup> April 2025*



*Picture: Workshop day 5: 10<sup>th</sup> April 2025*





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*Picture: Workshop day 6: 11<sup>th</sup> April 2025*



*Picture: Workshop day 7: 12<sup>th</sup> April 2025*



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***Picture: Group Photo: 12<sup>th</sup> April 2025***