



IIC S.P.I.T.
Institution * Innovation * Council



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Empowered Autonomous Institute Affiliated to University of Mumbai)
Electronics and Telecommunication Engineering Department

Academic year 2024-2025
IIC ID: IC201811085

Program driven by: F.E.T.S.

Program /Activity Type: MathWorks MATLAB & SIMULINK Event

Event Theme: Introduction to MATLAB

Duration of the Event: 3 hours

Start Date: 12/09/24,13:30

End Date: 12/09/24 ,16:30

Event Name: Hardware Integration with MATLAB for IoT Applications

Conduction Mode: Offline

Event IN charge: Piyush Aade

Objective of the Event:

The primary objective of the workshop titled "**Hardware Integration with MATLAB for IoT Applications**" was to provide third-year Electronics and Telecommunication Engineering students with hands-on experience in integrating low-cost hardware with MATLAB, focusing on Internet of Things (IoT) applications. Organized by the FETS Committee, the event aimed to equip participants with practical knowledge and technical skills essential for leveraging hardware in IoT solutions. It emphasized building IoT systems using MATLAB tools, creating ThingSpeak channels, and analyzing sensor data. The workshop also introduced MATLAB's campus-wide license, enabling students to access resources that enhance their learning experience.

Introduction:

The FETS Committee at Bharatiya Vidya Bhavan's Sardar Patel Institute of Technology (SPIT) organized a highly engaging and informative workshop for third-year Electronics and Telecommunication students. The event, held on September 12, 2024, was centered on **"Hardware Integration with MATLAB for IoT Applications."** Students and faculty members interested in learning about hardware connectivity and IoT were invited to attend. The workshop aimed to provide participants with valuable insights into practical hardware integration and IoT analytics using MATLAB's extensive suite of tools. Renowned speakers, including Ajay Kumar Talluri from MathWorks and Kunal Khandelwal from DesignTech Systems, shared their expertise, offering guidance on creating robust IoT solutions.

Event Highlights:

The workshop on "Hardware Integration with MATLAB for IoT Applications" featured several key highlights. It began with an introduction to MATLAB's campus-wide license, providing participants with access to valuable resources. The event then moved on to demonstrate how to leverage low-cost hardware to develop efficient IoT solutions. A hands-on session on setting up ThingSpeak channels enabled students to collect and analyze sensor data. Practical demonstrations included basic hardware integration, such as blinking an LED and reading sensor data, which illustrated how real-time data can be acted upon in IoT systems. The workshop concluded with an in-depth look at IoT analytics using ThingSpeak, focusing on applications and data explorers, helping attendees understand how to derive meaningful insights from IoT projects. The event was successfully coordinated with the invaluable assistance of Prof. Priya Deshpande, whose efforts ensured a smooth and engaging experience for all participants. Overall, the workshop emphasized the practical application of hardware integration with MATLAB tools, giving students valuable exposure to real-world IoT solutions.

Conclusion:

The workshop on "Hardware Integration with MATLAB for IoT Applications" was a valuable learning experience for the students. Coordinated by the FETS Committee, the event successfully provided participants with practical knowledge and skills crucial for developing IoT solutions using MATLAB. The speakers, Ajay Kumar Talluri and Kunal Khandelwal, delivered insightful sessions that empowered students to explore hardware connectivity and analytics in real-world applications. The event left participants equipped with the technical know-how needed to further their expertise in IoT and hardware integration, paving the way for innovative projects and future careers in the field.

Photo 1:



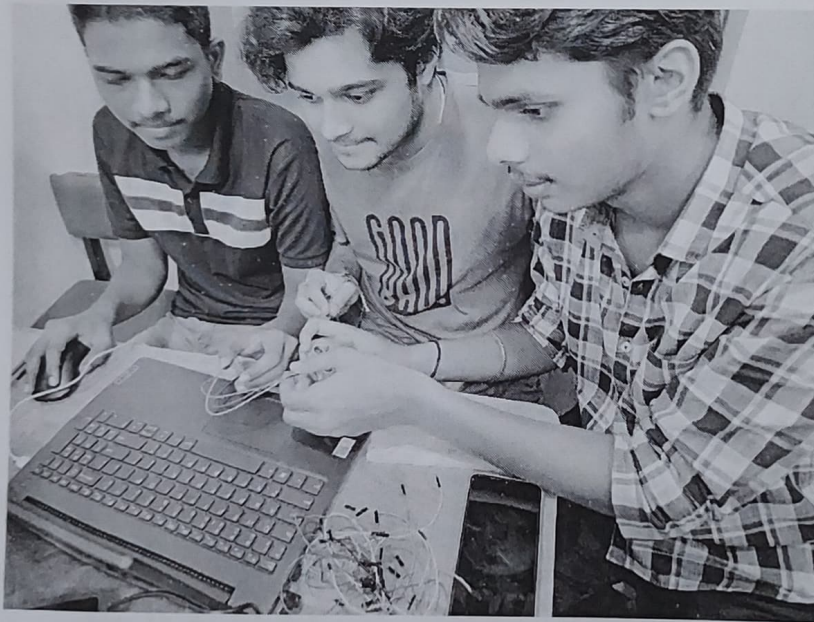
Photo 2:



Photo 3:



Photo 4:



Attendance

SARDAR PATEL INSTITUTE OF TECHNOLOGY
 COLLEGE OF ELECTRONICS & TELECOMMUNICATIONS ENGINEERING
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In I Lab Extra Session

| S. No. | UICD | Students Name | Present | Absent | Remarks |
|--------|------|---------------|---------|--------|---------|
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| 12 | | ... | | | |

Sardar Patel Institute of Technology, Anther (w)
 Electronics & Telecommunication Engineering Department
 Class: TE EXTC (A&R Division) Academic Year: 2017-18

In I Lab Extra Session

| S. No. | UICD | Students Name | Present | Absent | Remarks |
|--------|------------|-------------------|---------|--------|---------|
| 1 | 2017200003 | Ajithkela Girouge | Present | | |
| 2 | 2017200004 | Piyush Vijay Rode | Present | | |
| 3 | 2017200005 | Rishabh Shrikant | Present | | |
| 4 | DSE-EXTC | Aditya Ganil | Present | | |
| 5 | DSE-EXTC | Aarav Patel | Present | | |
| 6 | DSE-EXTC | Ashwin Quesshi | Present | | |
| 7 | DSE-EXTC | Niel Pithi | Present | | |

Raman

Signature of Student chairperson

[Signature]

Signature of Committee Faculty Advisor

[Signature]

Signature of Dean Student affairs

Signature of IIC President/Vice president/ Convener