ONE CREDIT COURSE

Event No	CB001
Organizing Department	Computer Science and Business Systems
Date	04/03/2024 to 05/03/2024 (2 Days)
Time	09:00 AM to 04:30 AM
Event Type	VAC / Training Program
Event Level	Dept. Level
Venue	IoT COE , ECE block
Total Participants	36
Students - Internal	36

Related SDG

Involved Staffs

Sl	Name	Role
1	Siva Sangari M	Coordinator
2	Bazila Banu A	Convenor

Outcome

This practical knowledge equipped attendees with a solid foundation for comprehending sensor data acquisition and utilization

Event Summary

The Department of Computer Science and Business Systems (CSBS) organized a One-Credit Course titled 'Google Firebase and MIT-based IoT Applications' workshop. The course was conducted during 04.03.2024 to 05.03.2024 at the IoT Centre of Excellence. Dr. Rajesh Tirupathi, Technical Lead at IEP Solutions, Coimbatore, was the resource person for the One Credit Course.**Day 1: Establishing the Fundamentals**The first day commenced with a session on Introduction to sensors. Participants gained a thorough understanding of their history, various applications, and integration methods within projects. Detailed diagrams showcasing sensor types and their connection schematics to microcontrollers were covered. This practical knowledge equipped attendees with a solid foundation for comprehending sensor data acquisition and utilization.The afternoon session focused on the ESP8266, a popular Wi-Fi-enabled microcontroller prevalent in IoT projects. The instructors guided the installation of the Arduino IDE, the development environment used to program the ESP8266. To solidify understanding, a captivating demonstration was presented showcasing an ESP8266 sensor controlling an LED. This demo, featuring an LED blinking at specific intervals (e.g., blinking every 2 seconds), provided valuable technical insights into code structure and its translation to real-world behavior.**Day 2: Integration and Application Development**The second day ventured into the realm of cloud-based communication and user interaction. The morning session introduced Google Firebase, a powerful backend platform that facilitates real-time data storage and communication. Participants explored the concept of Realtime Databases, which enable seamless data exchange between devices and applications. Additionally, the session covered the fundamentals of MIT App Inventor, a visual programming tool specifically designed for building Android applications without extensive coding experience. Learning how to integrate all three elements – ESP8266, Firebase, and MIT App Inventor – provided a clear roadmap for crafting interactive IoT applications.

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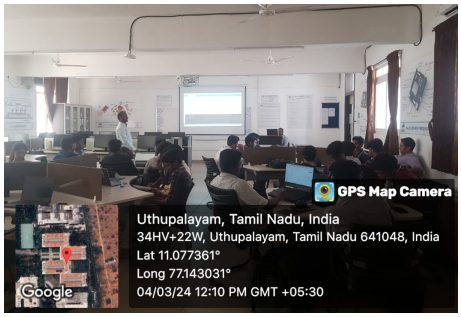

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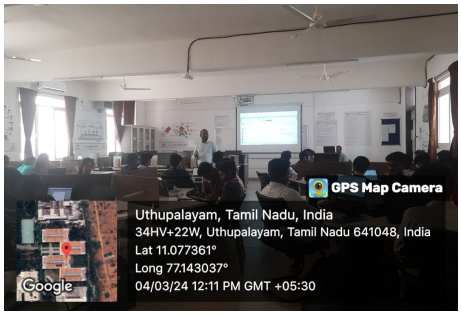

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