

College Automation System using IoT



Our Team

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What we implemented

- Smart Lights: Remote Access
- Smart Attendance: Facial Recognition
- Automatic Control: Person Count

Smart Lights: Remote Access

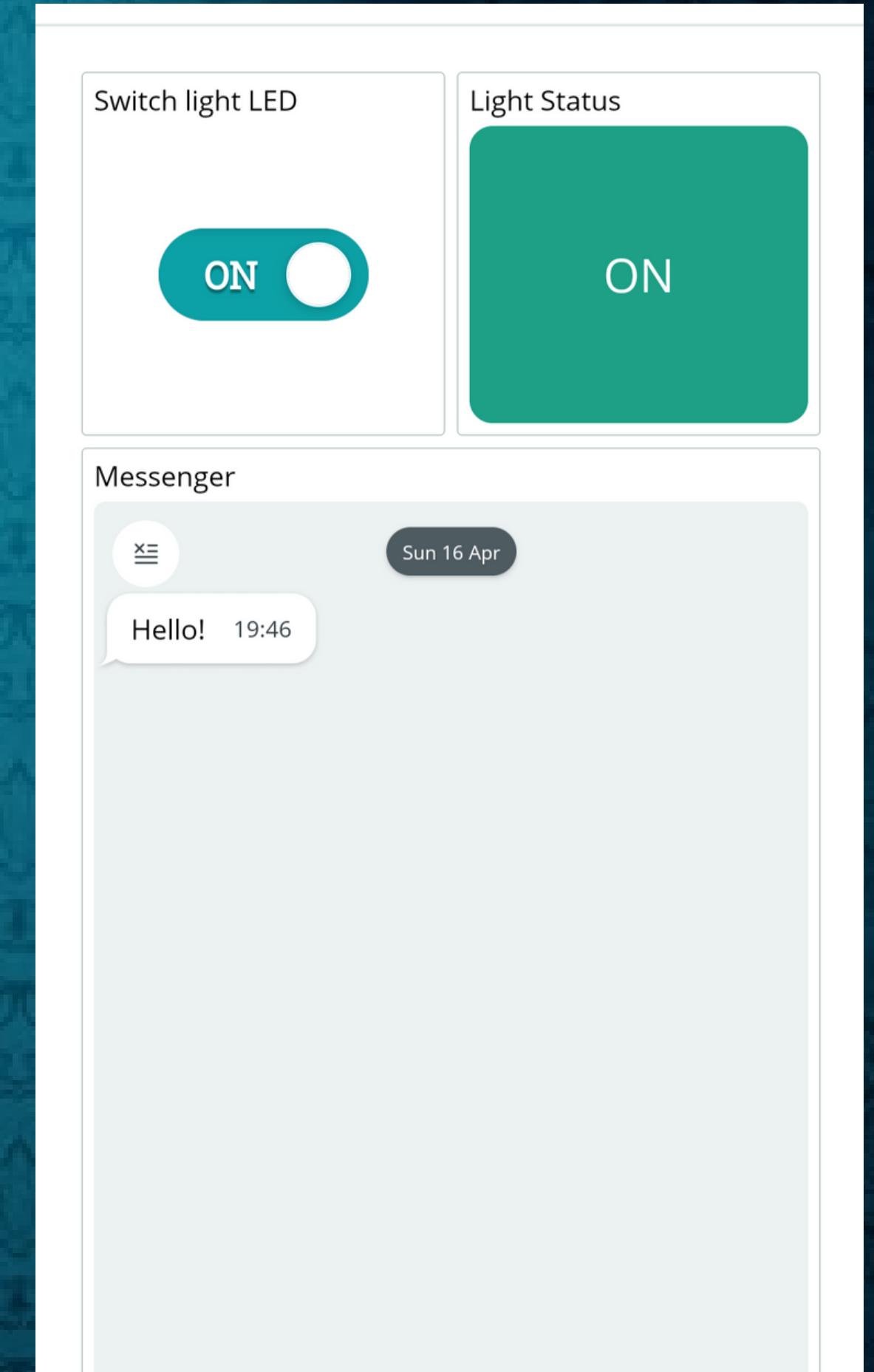
- **ESP 32**
- **Arduino IoT cloud**
- **Relays**



Appliance control Implementation

- An **ESP32 microcontroller** is used to control a light bulb over **WIFI** by using a relay to switch the power to the bulb on and off.
- **Arduino IOT Cloud** is used to create dashboard for remote access.

Dashboard: Appliance control



Automatic Control: Person Count

- **ESP-32**
- **IR Sensor**
- **Arduino IoT Cloud**
- **Arduino IoT Application**



What we Implemented:

The Automatic Room Lights using ESP-32 and IR Sensors, where the lights in the room will automatically turn ON upon the presence of a human and stay turned ON until the person has left.



Dashboard: Person Count

Manual Mode

OFF

Switch light LED

ON

Person Count

3

Light Status

ON

Messenger



Sat 15 Apr

System in MANUAL mode 02:29

System in AUTO mode 02:29

Smart Attendance: Facial Recognition

- Linux OS
- Google Sheet
- Python

What we Implemented:

- The system mark the attendace using face detection.
- The image captured during enrollment is used to train the system and based on these registered image one should be marked present/absent.
- The result is updated in the google sheet and we can access the attendance details from anywhere.

Thank
You

