INTEGRAL ROBOTICS LAB

INTEGRAL UNIVERSITY LUCKNOW

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Project Description:

Our goal is to develop a comprehensive remote monitoring system consisting of three components: an IoT-based water level monitoring system, an IoT-based power monitoring system, and an IoT-based centralized temperature and humidity monitoring device. The water level system visualizes water levels, sets up alarms for critical situations, graphs daily changes, and provides analysis. The power monitoring system measures and graphs power consumption, while the temperature and humidity device tracks environmental conditions. All data is remotely accessible on cloud servers.

To address constraints such as cost, non-toxic materials, reliable connectivity, and durability, the device uses waterproof components and weather-proof casings. Water detection sensors transmit data to a microprocessor, which sends it to an IoT platform for remote access via mobile phones. Widgets and graphs offer visualizations, and push notifications alert users to issues. This system integrates with smart home technologies and has applications in both domestic and industrial settings.

Tasks Involved:

1. Design and Development of a Centralized Water Level Monitoring Device
2. Design and Implementation of Power Monitoring Devices for Each Block in Phase 3
3. Development of Centralized Temperature and Humidity Monitoring IoT Device
4. Alarm and Alert System Creation for Critical Conditions

Supervisor:

Dr. Mohd. Atif Siddiqui

Mentor:

Mr. Mohd. Zaid

Start Date: 20/JUN/2024

Expected End Date: 20/DEC/2024