MUTHAYAMMAL ENGINEERING COLLEGE

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IBM (Nalaiya Thiran) Project Ideas 2022

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1)Smart Street Light Monitoring System

One of the major challenges related to street lights is that they are left on even during daylight hours or when there's no one on the street. An IoT-powered street light monitoring system can help us handle this challenge. Besides, the system will also ensure consumption monitoring, low power consumption, and instant faulty light detection.

The Smart Street Light Monitoring System consists of LDR sensors to monitor the movement of people or vehicles on the street. If sensors detect any movement, they will signal the microcontroller, which will turn on the street light. It can also monitor the estimated power consumption and detect any fault in the lights and send the data over to the IoT monitoring system to fix it.

2) Smart Gas Leakage Detector Bot

Gas pipes are an indispensable component of both homes and industrial companies. Any leakage in gas pipes can lead to fire accidents and also contaminate the air with pollutants, thereby causing a disastrous effect in the air and the soil. This IoT-based project is explicitly built to combat the issue of gas leakage.

This tiny bot includes a gas sensor that can detect any gas leaks in a building. All you have to do is insert the bot into a pipe, and it will monitor the condition of the pipe as it moves forward. This is one of the important and best IoT projects. In case the bot detects any gas leak in the pipeline, it will transmit the location of the leakage in the pipe via an interface GPS sensor over the IoT

network. The bot uses IOT network to receive and display any gas leakage alert and its location over the IoT network.

3) Smart Anti-Theft System

This IoT-based security system is programmed to monitor the entire floor of the building for tracking any kind of unusual movement. When turned on, a single movement could trigger an alarm, thereby alerting the owners of the property about unwanted visitors. It works something like this – whenever you vacate a house or a building, the Piezo sensor is turned on for tracking any movement in and around the property.

4) Smart Irrigation System

Often, farmers have to irrigate the land manually. Not only is this a time-intensive task, but it is also labour-intensive. After all, it is quite challenging for farmers to continuously monitor the moisture level of the whole field and sprinkle the pieces of land that require water. This IoT project is a smart irrigation system that can analyze the moisture level of the soil and the climatic conditions and automatically water the field as and when required.

We can use the smart irrigation system to check the moisture level, set a predefined threshold for an optimum moisture level of soil, on reaching which the power supply will get cut-off. An Arduino/328p microcontroller controls the motor that supplies water, and there's an on/off switch with which you can start or stop the motor. The smart irrigation system will automatically stop if it starts raining.