

Project planning using agile methodologies

Project planning Tools

Date	19 September 2022
Team ID	PNT2022TMID43270
Project Name	Signs with smart connectivity for better road safety
Maximum Marks	2 Marks

INTRODUCTION:

LOT technology spread its wings to the Medical sector to save many lives. The aim of developing this project is to monitor the health condition of a person anywhere and send the information to a specialized doctor to check up. Using this frequency of visiting doctor decreases. We developed a project using Wearable sensors with solar harvesting and Bluetooth low energy transmission that creates a wireless body area network (WBAN). Using this project you can detect the heartbeat, Blood pressure, hemoglobin content, etc., All these reports can be used for analyzing a person's health.

Based Smart Energy Meter Monitoring with Theft Detection:

This Iot project aims to put an end to power wastage or theft by automatically alerting the owner via SMS. This project is designed using a microcontroller – Atmega 328, IoT message, a sensor interfaced to microcontroller detects electric energy if there is a power theft, sends an alert message to a configured user, and 4 buttons to set power consumption connection, a GSM module interfaced with a mobile phone so that user can get the notification units.

2). IoT Based Three-Phase Power Failure Monitoring with SMS Alerts

This project aims to notify the concerned authority via SMS whenever there is a phase failure. This IoT project is designed using a buzzer to ring whenever there is a breakdown, an LCD to display the voltage failure status, and a GSM module is interfaced with an IoT device for connecting the call to the authority whenever on phase breakdown.

3). IoT Based DC Motor Speed Control Using GSM

This IoT project is designed using a DC motor interfaced with a GSM modem, a microcontroller (Atmega), and an LCD to display readings. A system is configured with a mobile number from which control instructions are sent, to a GSM modem that validates the message and then the system reads and executes the command provided by the user to the DC motor. The motor runs until a stop instruction is executed.

4). IoT Based Monthly Electricity Billing With Bill SMS Using PIC Controller

This project aims to automatically calculate, generate and provide the consumer with electricity bill details via SMS (Short Message Service) and also display on LCD of the smart system. The SMS provides details like how much power and units, charges are consumed. This project is designed using a PIC microcontroller which is interfaced with a GSM modem.

5). IoT Based Fire & Gas Accident Avoider System

This IoT project aims to automatically detect, alert and take necessary action whenever it detects a gas leakage or a fire breakdown. This system uses MQ-6 LPG CNG gas and fire sensors for detection, and a SIM 800 GSM modem interfaced with the microcontroller (Atmega). This system detects any gas leakage or fire breakdown and auto-turns off the supply of the gas using a stepper motor and turns ON's the exhausted fan and alerts the authenticator via SMS.

IoT Projects using Arduino

A microcontroller is designed on a metal oxide semiconductor that is integrated into a chip. It comprises more than one computer with programmable input and output peripherals and memory. They are interfaced using a network to communicate with other devices and transfer the data to the IoT application for any analysis.

They support more than one network protocol like Wi-Fi, Cellular networks like 2G/3G, Bluetooth, or even RFID. The advantage of using a microcontroller with IoT is that it is an intelligent scalable processor that works with the endpoint device and makes intelligent control, it is cost-effective, and executes the task concurrently and isolate, with higher efficiency. The **list of IoT Projects Using Microcontroller – Arduino** are discussed below

