To
Head of the Department
Electronics and Communication Engineering

Subject: Application for approval of project title and objectives of the project

Dear sir, we would like to inform you that our project team has proposed title of the project as

IOT Based Underground Cable Fault Locator

With following work/Objectives:

- Detect underground cable faults promptly as they occur to minimize service disruption and reduce repair costs.Pinpoint the precise location of cable faults, both in terms of distance and depth, to expedite repair and minimize excavation.
- Continuously monitor cable parameters such as voltage, current, and temperature to identify potential issues before they escalate into full-scale faults.Provide remote access to real-time data and fault information to enable quick decision-making and response from maintenance teams.
- Generate alerts and notifications to relevant personnel when a fault is detected, ensuring rapid response and reducing downtime.Improve customer satisfaction by reducing service interruptions and providing a more reliable power or communication service.

For this project we have selected base paper as
Paper Title: IoT based underground cable fault locator
Journal Name :
Publisher: IOP Publishing Ltd.
Publication year: 2020
Submitted by student Name/s:

Name	Roll No	Signature
Aman Gangwani	2004331010	
Aman Verma	2004331013	
Sanjana Sonkar	2004331045	

forwarded by

_____

Signature of the supervisor

Prof. Mahendra Kumar

Dr. Atul Kumar Dwivedi

----------For office use only----------

The proposed project title is

1. Approved
2. To be improved ---------- Signature of HOD

ABSTRACT

Project Title : **IOT based underground cable fault locator**

Keywords : Internet of things, 89552 microcontroller, GPRS Modem, bridge rectifier, filter capacitor, 7805 regulator, level converter, GSM Modem, real-time monitoring and precise fault location.

Short Summary :In this project we will develop a system which will detect the faulty cable precisely and return an SMS to the user giving information regarding the exact latitude and longitude and distance of the faulty cable. For tracking we are using GPS to track the latitude and longitude to track the location and the user will be intimated with respective details through SMS using the satellite information through GSM. The status of the cable (latitude and longitude)will be displayed on the LCD and we can take backup of the data using a memory card.

An IoT-Based Underground Cable Fault Locator is a specialized system designed to detect and pinpoint faults in underground power or communication cables. This technology combines IoT, sensors, and data analytics to quickly identify and locate cable faults, minimizing downtime and repair costs.

The IoT-Based Underground Cable Fault Locator is a cutting-edge solution for early fault detection in underground cables. Using advanced sensors and data analytics, it identifies and categorizes faults accurately, minimizing service disruption. With real-time monitoring and precise fault location, it streamlines maintenance, reduces downtime, and lowers costs. Historical data aids in preventive maintenance, optimizing efficiency, and ensuring compliance, ultimately elevating reliability, safety, and customer satisfaction in cable management.

List of components to be used:

1.AT89552 Microcontroller

2.LCD Display

3.Resistance based cables

4. Power Supply:230 i/p step down transformer, bridge rectifier, filter capacitor, 7805 regulator 9V output AC Supply