

**IoT Based Underground Power Cable Fault Monitoring System**

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This study proposes a fault detection method for *Underground cables* using a *Microcontroller* and software. The *Microcontroller* calculates the fault distance and notifies the user through software with the location of the fault in the *Underground cable*. The system is able to identify the location of faults by measuring the capacitance and resistance of the cable and applying the principles of Ohm's law. The system includes an oled display device that shows the fault distance from the *Base station*. If a fault is detected, the system provides details to the user. These details can be entered and viewed using an *Android application*. Overall, the proposed system is designed to improve the efficiency and performance of *Electrical systems* by quickly identifying the location of faults in *Underground cables*. By reducing the time required to find faults, the system can help prevent damage to transformers and other electrical equipment, while also improving safety and reducing operating expenses.

**Keywords:** *Microcontroller; Android application; Base station; Underground cables; Electrical system*