

SMART UNDERGROUND CABLE FAULT DETECTION SYSTEM WITH IOT INTEGRATION FOR REAL-TIME SMS ALERT AND GPS LOCALIZATION

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Underground cable faults pose significant challenges in power distribution systems, often leading to prolonged outages and service disruptions. This proposal introduces a novel solution for underground cable fault detection and automatic alerting using Internet of Things (IoT) technology. The system integrates fault detection sensors, IoT devices, and communication modules to enable real-time monitoring and remote alerting. Upon detecting a fault, the system automatically sends SMS alerts to designated mobile devices, providing crucial information about the fault location. Additionally, the system utilizes GPS technology to accurately determine the geographical coordinates of the fault, facilitating swift response and repair efforts by maintenance personnel. By leveraging IoT capabilities, this solution enhances the efficiency and reliability of underground cable fault detection, minimizing downtime and improving overall system resilience.