

Transmission Line Fault Detection Using IoT

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Abstract: Due to transmission line conditions, transmission lines are susceptible to a wide range of defects. The defect is difficult to diagnose, and the entire cable should be replaced. Using a microcontroller, this project will detect the location of a fault in transmission cable lines from the base station in kilometers. When a defect occurs, the voltage between series resistors changes, which is then supplied to an ADC, which produces exact digital data for a programmed destination. It also shows the distance between faults. Location may be tracked using GPS. On a 16X2 LCD connected to the microcontroller, the fault distance, phase, and time are displayed. The Wi-Fi module is utilized in IOT to display information over the Internet. The information concerning the occurrence of the defect is shown in a webpage produced with HTML code.

Key Words: Internet of Things, Short Circuit Fault, Open Circuit Fault, Voltage Sensor, Current Sensor, Arduino, Microcontroller, GPS, etc.

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