TRANSMISSION LINE MULTIPLE FAULTS DETECTION AND INDICATION TO ELECTRICITY BOARD

ABSTRACT:

In this paper, a scheme for fault detection and identification of SIGNLE PHASE overhead transmission lines is proposed. Fault detection techniques based on mean square value of the difference between incoming and outgoing single phase currents of each section. These differences are compared against threshold setting values. Faulty phase identification is based on the analysis of single phase currents at one end of transmission line. The transient currents are processed by Discrete Wavelet Transform multi-resolution analysis. It is used as input to a rule-base system to identify the fault type. Many case studies are provided to validate the proposed algorithm.

Detect faults in remote transmission lines

- ♣ Immediately transmit any fault information to the Electricity board.
- ♣ Monitor multiple parameters such as voltage, current and temperature simultaneously
- ♣ Transfer data through a wireless medium such as RF Tx and RF Rx.

Features

- ♣ No wires involved
- ♣ Can detect faults due to over current, under voltage, increased temperature etc.,.
- ♣ Can operate in any environment in a transmission line.
- ♣ Can announce multiple transmission lines sitting in an office.