

A New Method Presentation for Locating Fault in Power Distribution Feeders Considering DG

Authors : Rahman Dashti, Ehsan Gord

Abstract : In this paper, an improved impedance based fault location method is proposed. In this method, online fault locating is performed using voltage and current information at the beginning of the feeder. Determining precise fault location in a short time increases reliability and efficiency of the system. The proposed method utilizes information about main component of voltage and current at the beginning of the feeder and distributed generation unit (DGU) in order to precisely locate different faults in acceptable time. To evaluate precision and accuracy of the proposed method, a 13-node is simulated and tested using MATLAB.

Keywords : distribution network, fault section determination, distributed generation units, distribution protection equipment

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020