Abstract

This paper dealt with possible type of contingencies which occurred in several power systems in the world which related to maloperation of a protection system for a line or a transformer and their consequences related to overloading another branches and hence, lead to cascading outages. To minimize the fault level and prevent the cascading outages and hence, prevent partial (brownout) or complete (blackout) collapse of the system an earthing (grounding) transformer is used on both sides of the faulted line. This suggested solution to able the system to be a secure system against maloperation of a protective system. This paper offers the simulation results of the IEEE 14 Bus system which represented in MATLAB at off line security analysis.

References

Earthing Transformer to Support the Normal Operation of the Power System at Failure of a Protection System


Index Terms

Computer Science Power Systems

Keywords

Earthing Transformer, Maloperation of relay, Static Security, Cascading outages.