

Application of Optimization Techniques in Overcurrent Relay Coordination: A Review

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Abstract : In power system properly coordinated protection scheme is designed to make sure that only the faulty part of the system will be isolated when abnormal operating condition of the system will reach. The complexity of the system as well as the increased user demand and the deregulated environment enforce the utilities to improve system reliability by using a properly coordinated protection scheme. This paper presents overview of over current relay coordination techniques. Different techniques such as Deterministic Techniques, Meta Heuristic Optimization techniques, Hybrid Optimization Techniques, and Trial and Error Optimization Techniques have been reviewed in terms of method of their implementation, operation modes, nature of distribution system, and finally their advantages as well as the disadvantages.

Keywords : distribution system, relay coordination, optimization, Plug Setting Multiplier (PSM)

Conference Title : ICECECE 2014 : International Conference on Electrical, Computer, Electronics and Communication Engineering

Conference Location : Singapore, Singapore

Conference Dates : January 09-10, 2014