Abstract

This paper deals with the overview of a control strategies for power system security assessment of an interconnected power system coordinated with different loads which is being governed using Flexible AC Transmission system (FACTS) devices when the system is approaching an extreme emergency state. FACTS controllers can be employed to enhance power system stability in addition to their main function of power flow control. In this method, the island is prevented from the total loss of supply using few FACTS devices. The optimization process is carried out using bacterial foraging optimization algorithm. The optimized result exhibits tremendous improvement in the system performance. The proposed scheme is adopted in IEEE 14 bus test system.

References

- E. Handschin and D. Karlsson, "Nonlinear dynamic load modelling: model and


Index Terms

Computer Science

Power Systems

Keywords
Flexible Ac Transmission System (facts)  Svc (static Voltage Control)  Upfc (unified Power Flow Controller)
Interline Power Flow Controller (ipfc)
Vdi (voltage Dependent Load)
Zip Load
Dynamic Security Assessment (dsa)