

**Special Issue for Recent Advances in Digital Protection Techniques using
Wireless Technology and Wide Area Monitoring System for Complex Power
System, Smart Grid and Micro-grid**

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Aims & Scope: Innovation Protection Schemes based on new technology for facing the challenges of the complexity of the power system, Smart Grid/Microgrid and DGs Penetration

Distributed Generation expected to increase sharply as more and more renewable are integrated to power system with the realization of smart grid, consequently complex distribution smart grid is given. The traditional protection devices cannot be able to protect complex power system configuration due to many fault current loops will feed the fault point. Relays based on standalone decisions cannot provide reliable and correct action when use on a complex distribution system. Protecting the distribution grid in a smart and cost-effective way can be a major challenge when faced with the complexity of expanding network topologies. Robust protection systems integrated with modern automation and information systems and control and optimization protection settings limit outage-related damage, help ensure fast restoration of the smart grid. The technology of synchronized phasor measurements is well established. It provides an ideal measurement system with which to protect, monitor and control a power system, in particular during conditions of stress. Communication system approaches and interface techniques are one of the most important parts in the process of monitoring, control and protection of power systems. The wireless communication network assists the protective relays to exchange the information among them. The exchange of information among the relays assists the protective relays to take an accurate decision.

Key words:

Digital Protection, Complex Power System, Smart Grid, Micro-grid, Renewable Source Penetration, Wide Area Monitoring system, Wireless Technology, PMU, FDR, FNET.

Subtopics:

- Power system with large Scale, STATCOM, FACTS
- Smart Grid with DGs and MicroGrid
- Digital Protection Techniques based on New Signal Processing Tools
- Digital Protection Techniques based on Communication issues
- Digital Protection Techniques based on Wide Area Measurements with PMUs or FDRs
- Digital Protection Techniques based on Wireless Technology (Wi-Fi- Wi-Max- Token Ring, etc.)

Schedule:

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