

National Tutorial on Advances in Power System Protection Applications

3-5 November 2020 at 1500 - 1630 hrs.



KEY SPEAKER



Shri Sanjay. G. Patki

Former Vice President with Tata Power, Mumbai, He has 42 years of experience in various Roles in Generation, Transmission, Distribution and Technical Services.

Sh. Patki has contributed several Technical Papers in National and International conferences and participated in several committees/working groups at national and international level. He was Chairman of CIGRE India committee on Protection and Automation and chaired the expert group of CBIP for preparing the Manual on Power system Protection and Automation. He was awarded by CIGRE, Paris as Distinguished Member.

TAKEAWAYS



Relay Coordination for High Reliability of Power system

Modern protection relays and control systems have much improved sensitivity, selectivity and speed. Importance and difficulty of coordination increases with the size and complexity of the power system. Power system engineers have had to make increasing efforts to maintain the reliability of the power systems, and coordination between relays. Since no single protection relay gives complete and selective protection for every kind of fault, coordination between relays is necessary to fully protect the power system and to avoid undesirable trippings. This webinar specifically targets coordination issues based on the practical experiences and accumulated knowledge of engineers. The participants will get insights into coordination issues at interface between Generator and Transmission network, Short and long lines, Lines and Transformers, Back up protection coordination ,system protection etc.



Optimization of protection Performance during power system Disturbances

When system faults occur, their rapid clearance by protection relays is essential to prevent the onset of a wide area disturbance. While the initial incidents that trigger the disturbances vary, the ultimate result could be voltage instability, transient and frequency instability, cascade tripping due to overloading (by either active or reactive power flows). The response of protection and control system would depend on the sensitivity and proper coordination. The webinar would provide insights into best practices regarding technical solutions, settings and coordination for optimizing the response from various functions in protection and control systems in disturbed power system.



Advanced Features in Numerical Relays for improved performance of Power system Protection

The large power system has many complexities and various types of fault conditions. While most power system abnormalities are well known, the previous generation of Relays had technology limitations in dealing with such abnormalities. Powerful processing power of Modern Numerical Relays have enabled many advanced features that can greatly improve the performance of relays in dealing with various types of fault conditions. This webinar would provide the participants insights into some of the advanced features and improve the understanding for applications of the same in dealing with issues.

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