System-based Protection Testing – state of the art simulation-based verification of protection system behavior

Solutions: CMC-Family, RelaySimTest

Summary: Learn how to efficiently create application-oriented protection tests with RelaySimTest. Explore a comfortable way of end-to-end testing using the TestSetRemoteAgent. Get familiar with the test procedure in hands-on and theoretical sessions. Work with special test set-ups to gain immediate testing experience.

Prerequisites: Basic knowledge of protective relaying and protection testing

Duration: 2 days Language: English Code: C.0149.AAA

Objectives

> Exploring the benefits of application-oriented testing in comparison to parameter testing
> Designing different grid scenarios to create realistic fault conditions
> Simulating faults to test the behavior of your protection systems
> Using RelaySimTest from scratch

Content

> Introduction to application-oriented testing
> Definition of suitable test cases for different protection schemes
> Modelling of test grid topologies in RelaySimTest
> Application-oriented distance protection testing
> Iterative closed loop testing of the autoreclosure function
> Easy end to end testing of distance teleprotection and line differential protection
> Testing of the power swing blocking function of a distance protection relay
> Easy end to end testing of line differential protection taking CT saturation into account
> Short introduction to further test applications (e. g. busbarprotection testing)
> Synchronized injection with TestSetRemoteAgent and CMGPS588

Solutions

> RelaySimTest, TestSetRemoteAgent
> CMC-Family

Audience

Technical staff from utilities, transmission and distribution networks, service companies and manufacturers involved in protection testing or grid simulation