





## Online-Course: System-based protection testing with CMC



 Four 2.5h sessions over two days  English

 oCprs05en

Learn how to efficiently create system-based protection tests with RelaySimTest. Explore a comfortable way of end-to-end testing using the TestSetRemoteAgent. Get familiar with the test procedure in live demo and theoretical sessions.

### Objectives

- Exploring the benefits of system-based 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 system-based testing
- Definition of suitable test cases for different protection schemes
- Modelling of test grid topologies in RelaySimTest
- System-based 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. busbar protection 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

### Prerequisites

Basic knowledge of protective  
relaying and protection testing