Training Content

Introductory course: Time Domain Simulation

MODULE 1: Time Domain Simulation (Estimated Time: 0.5h)

Time Domain Simulations in *PowerFactory*

Calculation methods: balanced/unbalanced RMS simulation, EMT simulation. Handling of the time domain simulation. Visualisation of simulation results. Exporting simulation results (*.csv, *COMTRADE format, etc.).

MODULE 2: Time Domain Simulation - RMS (Estimated Time: 1.5h)

Exercise: RMS Simulation

Running RMS simulations in a test network. Calculation of initial conditions, definition of result variables and simulation events. Graphical visualisation of results.

MODULE 3: Time Domain Simulation - Simulation Scan (Estimated Time: 1h)

Exercise: Simulation scan

Execute a simulation with different simulation scan modules and configurations: fault-ride through, loss of synchronism, voltage scan, variable scan module.

MODULE 4: Definition of Dynamic Models in *PowerFactory* (Estimated Time: 1.5h)

Dynamic Models in *PowerFactory*

System modelling in *PowerFactory*: the general approach. The composite plant model and the controller models (DSL elements). Use of templates from the global library (e.g. for non-conventional generation).

Exercise: Add a dynamic model from the global templates library

Handling. How to add a dynamic model from the global templates library and how to configure/changes its parameters.