

Dynamic Analysis of Renewable Energy Generation

Objective:

The objective of the course is to provide users of Powerfactory with the relevant knowledge to effectively analyse renewable energy generation sources dynamically, when integrating this form of generation to the electrical network. The course covers the required dynamic analysis required for grid code compliance, plant design and optimisation.

Pre-requisites:

- **MUST have attended the 'Introduction to Renewable Generation Analysis' course**
- A good working knowledge of the basic techniques used in PowerFactory.

No of participants: Minimum: 6; Maximum: 12.

Cost: see www.digsilent.co.za for latest course fees, which includes a set of course notes, lunch and refreshments.

Computers and PowerFactory licences are also supplied.

Please note the booking clauses on the registration form.

CPD Points: 2

Duration: 2 days

Topics to be covered:

- Handling Powerfactory for dynamic analysis:
 - Overview of Composite models and frames
 - DSL blocks
 - Simulation variables and Plotting results
- Powerfactory default renewable controller models:
 - Wind turbine generator controllers (DFIG, fully rated)
 - PV controllers
- LVRT studies
 - Model setup of LVRT studies
- HVRT Studies power compliance
 - Model setup of HVRT studies
- Frequency control
 - Model setup for frequency studies