

Electromagnetic Transients

Objective:

The course is intended for all power system engineers interested in the use of the electromagnetic transient (EMT) simulation tool in PowerFactory. The time domain simulation function for electromagnetic transient phenomena is introduced.

Pre-requisites:

- A good working knowledge of the basic techniques used in PowerFactory.
- Delegates should have attended the Basic Training Course
- User to bring own laptop or PC. NOTE: laptops can also be hired from Digsilent Buyisa

Experience with PowerFactory's time domain simulation function is not required.

Software used: PowerFactory V14

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

Costs include:

- A set of course notes, lunch and refreshments.
- PowerFactory licences, pens and notepads are also supplied.
- Please note the booking clauses on the registration form.

Topics to be covered:

- **Introduction to Transients**
- **EMT vs RMS simulations**
- **Models for EMT simulation**
- **Handling of time domain simulations**
- **Transformer Inrush current**
- **Capacitor switching transients**
- **Transient recovery voltage**
- **Lightning Overvoltages**