

# Subsynchronous Resonance

## Objective:

To provide a theoretical understanding of Subsynchronous Resonance and the methods used to analyse and predict SSR. To be able to understand and interpret SSR study results from different study methods. To understand various mitigation techniques to prevent SSR damage to generators.

## Pre-requisites:

- None

**No of participants:** Minimum: 8;

## 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:

### **Theoretical Background**

- Introduction to SSR
- Mathematical Modelling for SSR
- Techniques of Analysis
- Study Cases

### **Practical Application and Operational Issues**

- Measurement of SSR
- Types of Dampers/Filters
- Definition of System Stability
- SSR Protection-requirements of a good relay
- Consequences of SSR
- Operational factors affecting SSR
- Interpretation of SSR results
- Philosophy for living with SSR