Online course: Time-optimized power transformer diagnostics with TESTRANO 600

2 days | **English** | **# oCptr02en**

After an introduction to the maintenance of transformers, you will expand your knowledge of transformer diagnostics and applications in theory and practice. You will get familiar with the TESTRANO 600 functions for turns ratio, winding resistance and capacitance or dissipation/power factor measurements. Practical measurements will enable you to gain immediate testing experience.

Objectives

- Get a comprehensive overview of the structure of the transformer insulation, the bushings and the tap-changer
- Analyze of the condition of power transformers to fully exploit the lifetime of your asset
- Carry out time-optimized tests and diagnostics in the substation, power station or workshop
- Perform fast, simple and safe condition assessment of your power transformer

Content

- Negative influences on the expected lifetime of a transformer
- Overview of frequent defects in transformer components and their fault patterns
- Construction of the transformer insulation, the bushings and the tap-changer
- Common conventional measurement methods such as turns ratio, winding resistance, short-circuit impedance and demagnetization of the transformer
- Theoretical background to capacity and dissipation/power factor measurements of winding and bushing insulation
- Automatic execution of three-phase measurements using the Primary Test Manager (PTM) software
- Evaluation of the measurement results by means of practical examples
- Assessment of diagnostic measurements and recognize possible defects and influences
- Analyzing case studies of most common defects on various power transformers

Solutions

TESTRANO 600
Primary Test Manager (PTM)

Audience

Technical staff involved in transformer testing in utilities, transmission, distribution and generation networks, railway grids, service companies and manufacturers.

Prerequisites

Knowledge of electrical engineering