



OMICRON 

Interactive Workshop on Diagnostic Measurements on Power Transformers

September 9 -10 , 2010 • New Delhi

Diagnostic Measurements on Power Transformers

Power transformers are critical and capital-intensive assets for utilities and in industry. Due to the ever-increasing cost pressure, the power industry is forced to keep old power transformers in service as long as possible. Transformers are not automatically replaced even if they have already exceeded their design life. Although transformers are usually extremely reliable, **diagnostic tools** are vital in such situation in order to avoid unexpected breakdowns and plan for systematic replacement.

The workshop “Diagnostic Measurements on Power Transformers” (DMPT) covers a wide range of diagnostic treatments. It provides a forum for professionals and specialists to share ideas, innovations and experiences to promote the reliable, efficient and sustainable development of the electricity supply industry. In addition to covering established methods, it also examines new techniques currently in development, including their theory and demonstrations of how they can be applied on-site. The workshop considers topics such as the determination of the **water content in paper, impedance measurements**, the use of **FRA** (Frequency Response Analysis) for detecting winding faults and new aspects of **PD measurements** on power transformers

In order to deepen the knowledge gained about the latest developments concerning power transformers, there will be **practical sessions** which allow participants to learn about the handling and application of the new measuring methods. The focus and the extent of these sessions will be flexible, with its final content depending on the needs and interests of the participants.



Topics

We invite papers on a wide range of topics on diagnostic methods on power transformers as listed below:

- Condition monitoring, diagnostics and life management of power transformers
- Aging mechanism and life assessment of OIP insulation by DP and Furan
- Diagnosis and location of insulation faults with digital Partial Discharge measurement
- Frequency Response Analysis for mechanical condition assessment of power transformers and analysis of winding deformation
- Capacitance and dissipation factor / power-factor measurement on power transformers
- Dissolved Gas Analysis (DGA) and other oil analysis
- Impedance measurements (leakage reactance, and frequency response of stray loss measurements)
- Moisture in oil paper insulation – sources, risk and measurement methods like Polarization / Depolarization Current (PDC) & Frequency Domain Spectroscopy (FDS) methods
- Diagnosis of on-load tap changers (OLTC) by dynamic contact transition current monitoring during off line winding resistance measurements
- Ratio, excitation current & winding resistance measurements
- Diagnostic measurements on high-voltage bushings and current transformer
- Online diagnostic techniques for critical transformer units and its future prospects



Call for Papers / Case Studies

Papers / Case studies on the above topics are invited. Authors of the accepted papers will have the chance to present their papers during the workshop.

Important dates for prospective authors:

- title and abstract (200-250 words) on or before Jul 20, 2010
- full paper based on the author's original work / before Aug 15, 2010
- Powerpoint corresponding to the submitted paper (for 30 / 45-minute presentation) on / before Sep 4, 2010

Who should participate?

Senior officers, managers, engineers & technicians of power utilities, transformer manufacturers, research / academic Institutions, service companies etc. who deal with maintenance, trouble-shooting, life management and life assessment of power transformers.

Date and Location

The Workshop will be held on Sep 9-10, 2010 in New Delhi, India.

Tentative Programme

DMPT is a workshop consisting of technical presentations from the industry experts and a half-day practical session. In addition to the the technical know-how and the latest developments of the discussed topics, the workshop also provides excellent networking opportunities to meet industry experts from throughout the event.

Address for Correspondence

For enquiries and paper (abstract) submission, please contact the workshop organiser:

OMICRON Energy Solutions Private Limited

108-109, first Floor, Ansal Majestic Tower, G-Block, Vikaspuri, New Delhi -110018, India.

Tel: +91 11 415 86601/02/03, Email: imteyaz.siddiqui@omicron.at

Event contact: Mr. Imteyaz Siddiqui

Key Speaker



Jill Duplessis has joined OMICRON in the position of Primary Manager Transformers (North America), and is working out of the Waltham office in Massachusetts. Jill received a BSEE degree from Georgia Institute of Technology in 1991. She brings more than 18 years of experience in the area of primary apparatus and related diagnostic testing; she previously worked at Doble Engineering Company where she served as an Officer of the Transformers Committee and was primary author of a comprehensive instructional guide to processing reactive equipment. She is regarded as one of the industry's experts on exciting current field testing of power transformers and has published several papers regarding transformer diagnostics. Jill has prior electric utility work experience, with exposure to a wide breadth of engineering functions.



Diagnostic Measurements on Power Transformers

Paper Abstract Submission Form

Please complete and submit the form on or before Jul 20, 2010 to the organiser by:
Email: imteyaz.siddiqui@omicron.at

Paper Title: _____

Name of Author in Full: _____ (Prof. / Dr. / Mr. / Ms.)

(Surname) (First Name)

Designation: _____

Organisation Name: _____

Organisation Address: _____

Phone: _____ Fax: _____

E-mail: _____

I have enclosed an abstract of the paper in this application.

Author's signature: _____

Date: _____