

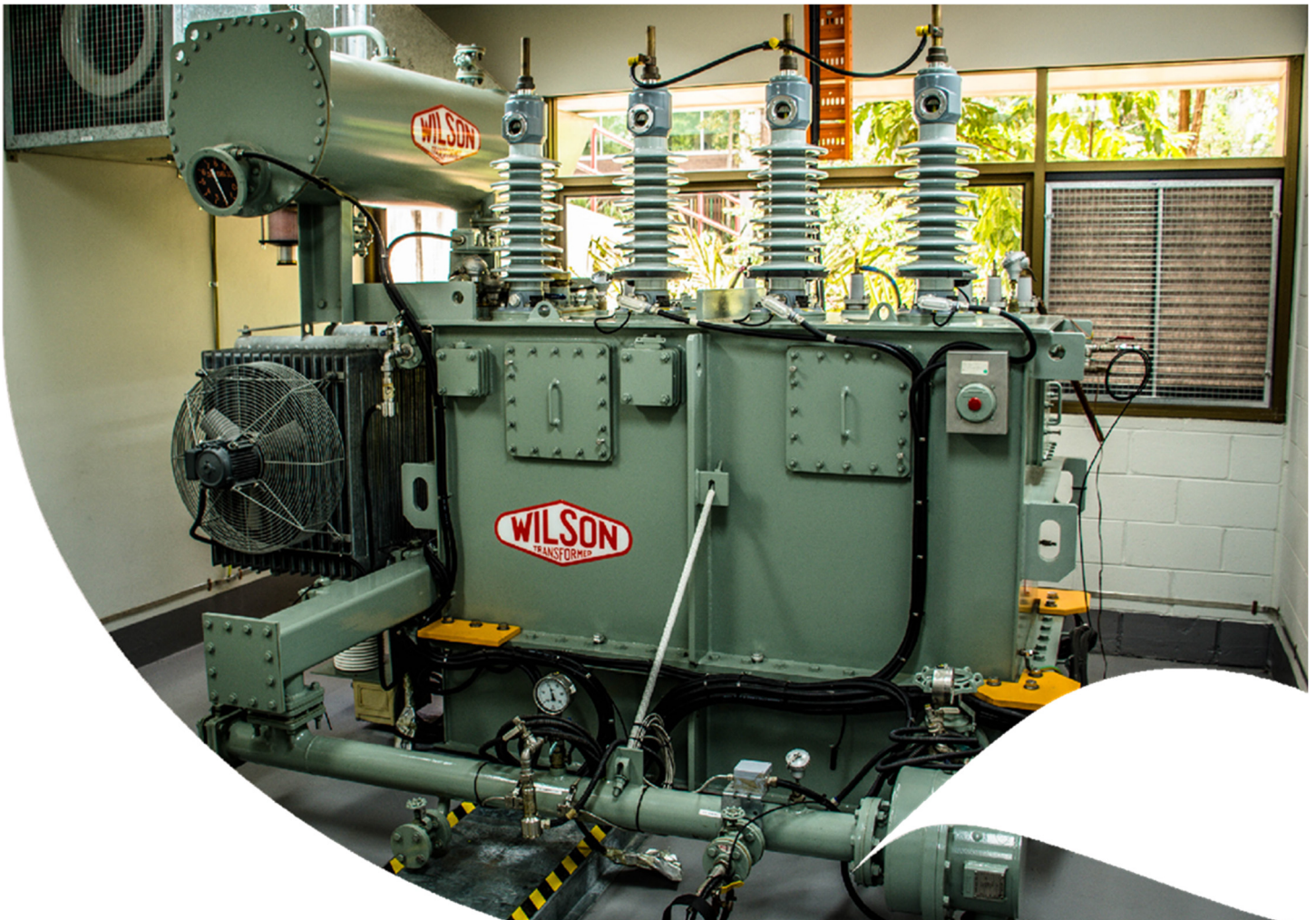
# Partial Discharge- Fundamentals, Testing and Industry Experience

CPD Course, 30-31 January 2025

The University of Queensland's Australasian Transformer Innovation Centre (TIC) is pleased to announce a two-day face-to-face CPD course on Partial Discharge- Fundamentals, Testing and Industry Experience".

This CPD course will feature presentations by Prof. Dr.-Ing. Stefan Tenbohlen from the Institute of Power Transmission and High Voltage Technology at the University of Stuttgart in Germany. This course will deliver the theoretical background information necessary to develop a good understanding of the

phenomena of partial discharge (PD) in high-voltage equipment, as well as current measurement techniques for partial discharge. Along with this, the course will look at the experience of industry using partial discharge for diagnostic and testing work. Using the high-voltage laboratory at the University of Queensland, there will be demonstrations of some key measurement techniques for partial discharge. This course is aimed at procurement, asset strategies, operations and maintenance managers and engineers in generation, transmission and distribution, renewables manufacturing mining industrial and infrastructure organizations.



This two-day face-to-face course will bring industry professionals together for dialogue and

sharing of knowledge to better understand the operation of Partial Discharge- Fundamentals, Testing and Industry Experience.

### Key outcomes

- Understand the basic principles of partial discharge development in high-voltage equipment.
- Develop an appreciation as to the failure mechanism associated with partial discharge.
- Learn the differences detection and measurement techniques that can be applied to the quantification of partial discharge in high voltage equipment.
- Understand how the detection and quantification of partial discharge in high voltage equipment is used for diagnostic purposes.
- Learn how power utilities as well as equipment manufacturers apply partial discharge detection in their business for quality assurance as well as diagnostic purposes.
- Observe the detection of partial discharge in the laboratory using current commercial techniques.

### Presenters

The presenters in this course will include industry experts from:

- Dr.-Ing. Stefan Tenbohlen from the Institute of Power Transmission and High Voltage Technology at the University of Stuttgart in Germany.
- Transmission and distribution companies.
- Measurement equipment suppliers.
- Researchers from University of Queensland.

### Who should attend?

- Procurement, Asset Strategists, maintenance managers and engineers.
- Generation, transmission, and distribution personnel.
- Consultants, designers and operations staff in the renewables, manufacturing, mining, industrial and infrastructure groups.
- Yong engineers just starting out in their career in Power.

### Practical component

The course will have a half-day practical component at the end of Day 1, giving attendees the opportunity to witness firsthand a few concepts discussed during the course.

### PRICE

#### TIC Members

TIC Industry Platinum Members

- One Complimentary attendee (Conditions Apply)

- Platinum Members additional attendees: \$1300 pp.

#### Non-TIC Members

- \$2000 pp.

### PROGRAM

Day 1 – Thursday 30 January 2025	
8.30-9.00	Arrival/Registration
9.00-9.15	Welcome: Dr Shawn Nielsen TIC Manager
9.15-11.00	Partial Discharge Theory, Dr.-Ing. Stefan Tenbohlen.
11.00 -11.30	Morning tea
11.30-13.00	Partial Discharge Measurement Techniques, Dr. Hui Ma University of Queensland.
13.00-14.00	Lunch
14.00-15.00	Partial Discharge Detection Methods Using IEC60270 and IEC62478, TBA.
15.00-15.30	Afternoon tea
15.30-17:00	Laboratory Demonstration, Axon High Voltage Laboratory at the University of Queensland.
17.30-19.00	Light meal at Saint Lucy at the University of Queensland
Day 2 – Friday 31 January 2025	
9.00-9.15	Arrival/Registration
9.15-10.45	Partial discharge data interpretation, Dr.-Ing. Stefan Tenbohlen and Dr Hui Ma.
10.45 -11.15	Morning tea
11.15-12.45	Partial Discharge field measurement: Case studies, Florian Predl Omicron.
12.45-13.45	Lunch
13.45-15.00	Advances in Partial discharge measurement technology, Dr.-Ing. Stefan Tenbohlen.
15.00-16.00	Knowledge sharing, All participants.
16.00-16.10	Course close and certificates of attendance: Dr Shawn Nielsen TIC Manager

### VENUE

Andrew N. Liveris Building (Building Number 46)  
Room 371 Collaborative Room  
The University of Queensland  
St Lucia Campus.

A link to venue on Google Maps is:

<http://maps.app.goo.gl/3wb5SRXLQKNwB8ar6>

### ENQUIRIES

For enquires please email us at [transformer@itee.uq.edu.au](mailto:transformer@itee.uq.edu.au) or contact Dr Shawn Nielsen, TIC Manager at [shawn.nielsen@uq.edu.au](mailto:shawn.nielsen@uq.edu.au)

### REGISTRATION

For registration details and updates to the course, please got to the TIC CPD website at:

<http://eecs.uq.edu.au/event/3960/australasian-transformer-innovation-centre-webinar-and-cpd-courses>