

Partial Discharges in Electrical Insulation

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Iris Power – Qualitrol

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Partial discharges (PD) are small electrical sparks that can occur within or on the surface of electrical insulation in power cables, transformers, switchgear and stator windings rated 4 kV and above. In most equipment, PD directly attacks the insulation and will result in electrical breakdown of the equipment. In rotating machines, PD is normally a symptom of other types of insulation degradation. By measuring PD, either off-line or on-line, it is sometimes possible to obtain a warning of imminent equipment failure.

This seminar will review the following:

- What is PD and under what conditions does it occur
- Examples of PD in power cables, transformers, switchgear and stator windings
- PD measurement as factory acceptance test of equipment
- Off-line PD testing at site
- On-line condition monitoring of power cables, transformers, switchgear and machines.

Location: Events Center C
(University of Calgary Downtown Campus)
906 - 8th Avenue SW
Calgary, Alberta

Date: Wednesday, June 1, 2016

Time: 6:30PM to 8:30PM (2 hours) All times are: Canada/Mountain

Agenda:
5:30pm: Doors open
5:30pm-6:25pm Networking and Light meal
6:30pm Presentation

Register at: <https://meetings.vtools.ieee.org/m/36808>

Advance registration closes May 25.

Speaker:

Dr. Greg Stone was one of the developers of on-line partial discharge test methods to evaluate the condition of the high voltage insulation in stator windings. From 1975 to 1990 he was a Dielectrics Engineer with Ontario Hydro, a large Canadian power generation company. Since 1990, Dr. Stone has been employed at Iris Power L.P. in Toronto Canada, a motor and generator condition monitoring company he helped to form. He is a past-President of the IEEE Dielectrics and Electrical Insulation Society, and continues to be active on many IEEE standards working groups. He is also active on several IEC rotating machine standards working groups, and from 2007-2012 was an elected member of the IEC's Council Board, its main governing body. He has published two books (both of which are translated into Chinese) and >200 papers concerned with rotating machine insulation. He has awards from the IEEE, Cigre and IEC for his

technical contributions to rotating machine assessment. He is a "distinguished lecturer" for the IEEE Dielectrics and Electrical Insulation Society. Greg Stone has a PhD in Electrical Engineering from the University of Waterloo (Canada), is a Fellow of the IEEE, a Fellow of the Engineering Institute of Canada and is a registered Professional Engineer in Ontario, Canada.

Please contact Dapo Oyenuga [a.o.oyenuga@ieee.org] if you have any problems registering for the seminar, or if you have any questions.