



IEEE-NCS, IAS/PES Presents

Tuesday, November 25th, 2014, 6:00 to 9:00pm, doors open at 5:30pm

"Mitigating Harmonics in Power Systems"

Abstract:

This seminar will focus on managing harmonics in power systems. The basic concepts will initially be summarized. Subsequently, coverage of harmonics limit standards and requirements from IEEE and IEC will be discussed. Once the objectives have been established for mitigation, harmonic filters, both passive and active, and other mitigation measures will be presented. The seminar will conclude with a discussion of the advantages and disadvantages of using mitigation methods to meet limit requirements.

For more details for the event or registration questions or concerns please contact Peter Rothwell prothwell@igbtech.com or Alex Nassif alexandre.nassif@atcoelectric.com.

Biography:



Dr. Mark Halpin is the Alabama Power Company Distinguished Professor in the Electrical and Computer Engineering Department at Auburn University in Alabama (USA). He has been involved in many aspects of harmonics for more than 20 years. He has been involved in standardization activities in IEEE, ANSI, NEMA, IEC, and CIGRE including membership in IEC TC77/SC77A/WG1 (focusing on equipment-level harmonic requirements and measurements) and WG8 (focusing on system-level EMC coordination including IEC 61000-3-6). He serves as the Chair of the IEEE Task Force in charge of IEEE Std 519. He is a Past-President of the IEEE Industry Applications Society and a Fellow of the IEEE.





YP Speaker:

To promote IEEE's Affinity Group of Young Professionals (YP) we will have a 15 minute opening presentation from an YP Guest Speaker on Anomalies and Practical Considerations of Arc Flash Hazard Analyses.

Anomalies and Practical Considerations of Arc Flash Hazards Analyses

Over the last two decades, Arc Flash Hazard Analyses have become increasingly utilized as a principal factor of any electrical safety program. As arc flash studies are primarily done using software packages, it is quite easy for the engineer to overlook the parameters and formulae used to produce a single incident energy calculation. The goal of this presentation is to explore the anomalies and inconsistencies in the formulae used to calculate incident energies, and to show examples where theory does not always translate into practice. While in some circumstances, the error involved with the calculation is well above acceptable levels, most arc flash incidents produce energies close to the predicted values. With these observations in mind, engineers can ensure that the results they produce reflect the actual electrical constraints and physical conditions as seen on site.

Bio

Daniel Lang is a 2010 graduate of the electrical engineering program at the University of Alberta. He currently works as an engineer with GP Technologies Ltd. in Edmonton conducting power systems studies for industrial clients. Specifically, his work encompasses modeling electrical systems, fault analysis, protective device coordination, and arc flash hazard studies. His main areas of interest include arc flash mitigation techniques and the mathematical modeling of transient events and arc flash energy. Since graduating, he has also done work in low voltage distribution design and construction for commercial and industrial buildings.





Agenda:

At the Door Registration, Cash Bar Social with Appetizers: 5:30pm

YP Speaker Presentation with Q&A: 6:00 – 6:25pm
Main Speaker Presentation with Q&A: 6:30 – 9:00pm

Online Registration (October 24th – November 18th)

https://meetings.vtools.ieee.org/m/29741

Registration

IEEE Members: \$20 Non-IEEE members: \$30 IEEE Student Members: \$10 Non-IEEE Student: \$12.50 IEEE Life Members: Free

At the Door Registration - (Payable by cash or cheque)

IEEE Members: \$25 Non-IEEE members: \$35 IEEE Student Members: \$15 Non-IEEE Student: \$17.50 IEEE Life Members: Free

Please have your **IEEE membership card** ready to obtain the discount.





Location:

German Canadian Cultural Centre 8310 Roper Road, Edmonton





Contact:

Peter Rothwell: prothwell@ibgtech.com

Alex Nassif: alexandre.nassif@atcoelectric.com

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