

IEEE Canada Northern Canada Section



IEEE-NCS, IAS/PES Presents

Tuesday, October 1st, 2013, 6:00 to 9:00pm, doors open at 5:30pm

Grounding and Bonding – A Code Perspective

"This workshop will clarify fundamental aspects of electrical system and electrical equipment grounding, and equipment bonding. Discussion will touch on confusion related to the question whether the bonding, grounding and neutral conductors carry a fault current, on grounding requirements for numerous electrical systems in a building, on specific provisions for bonding and grounding in HV installations The discussion will also elaborate on differences between the safety requirements for bonding and grounding and good engineering practice."

To promote the Graduates Of the Last Decade (GOLD) we have a 15 minute opening presentation from a GOLD Guest Speaker on Harmonic emission of DFIG-based wind farms.

Location:

German Canadian Cultural Centre 8310 Roper Road, Edmonton

63 Ave Nw 62 Ave Nw 60 Ave Nw 58 Ave Nw 56 Ave Nw တ္ 53 Ave Nw 50 Ave Nw 49 Ave Nw Whitemud Dr Nw 43 Ave Nw StNw 42 Ave Nw St Nw 41 Ave Nw & Ave Nw 39 Ave Nw 37 Ave Nw 36 Ave Nw 35 Ave Nw



Online Registration

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https://meetings.vtools.ieee.org/meeting_view/list_meeting/20189



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Speaker: Arkady Tsisserev



Biography: "Arkady Tsisserev is the Stantec Corporate Electrical Discipline Leader and one of the company Principals. Prior to his current position, Ark was the Electrical Safety Regulator for more than 25 years. Since 1993 he has held the position of the Electrical Safety Manager, Chief Electrical Inspector & City Electrician for the City of Vancouver. Before moving to the City of Vancouver he was Head of Electrical Section for the City of Winnipeg Inspections Department. Mr. Tsisserev has written and published many articles, course notes, and taught various CE Code and fire alarm and emergency system courses at the University(s) of B.C. and Manitoba and via other venues. He is an active member of many industry associations and is involved in numerous technical committees and associations such as CSA/CEC, NFPA/NEC, IEEE, ULC, SCC and IEC. Mr. Tsisserev is currently chairing the technical committee for the development of the CE Code and represents Canada on the NEC and IEC Code Committees. As Chief Electrical Inspector for the City of Vancouver for the past 17 years, Ark was active in communication

with various stakeholders of the electrical industry, including the IEEE. Ark started his work in the electrical industry in 1962 as a construction electrician. Ark is a certified electrical inspector in the Province of BC. Ark was the recipient of the IEEE Vancouver Section Centennial Award He obtained his PhD from the State University in Ukraine in 1972, and he also holds a Master's Degree in Electrical Engineering from the University of Manitoba."



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GOLD Speaker:

Abstract-Harmonic emission of DFIG-based wind farms

The Type 3 Induction Generator, also referred to as Doubly-Fed Induction Generator (DFIG), is one of the most popular generator types used for wind generation applications. This presentation focuses on the harmonic emissions from DFIG-based wind farms. In the first part of the presentation, the DFIG operation principles will be covered. A Pulse Width Modulation (PWM) switching scheme will be presented and a method to calculate the associated characteristic harmonics will be provided. In the second part of the presentation, simulated models will be used to characterize the harmonic emissions. These harmonic injections will be compared with those of more well-known harmonic sources such as DC drives, Plug-In Electric Vehicle chargers and residential service transformers. This comparison will be done through the presentation of two case studies.

Biography-Hesam Yazdanpanahi received the B.Sc. and M.Sc. degrees in electrical engineering from Amirkabir University of Technology, Tehran, Iran, in 2007 and 2009, respectively. He is currently working towards the Ph.D. degree in electrical and computer engineering at the University of Alberta, Edmonton, Canada. His research interests are Distributed Generation (DG) and power system protection.

Online registration (closes 1 week before the event, September 24th 2013):

IEEE Members: \$20 Non-IEEE members: \$30 IEEE Student Members: \$10 Non-IEEE Student: \$12.5 IEEE Life Member: Free

At the door registration:

IEEE Members: \$25 Non-IEEE members: \$35

IEEE Student Members: \$15 Non-IEEE Student: \$17.5 IEEE Life Member: Free

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