

## POWER & ENERGY SOCIETY INDUSTRY APPLICATIONS SOCIETY LIFE MEMBERS AFFINITY GROUP NEW YORK SECTION



You are invited to a meeting of the PES & IAS NY Chapter and the NY LMAG on:

**Preparation of Power Transformer Specifications** 

Tuesday, November 15<sup>th</sup>, 2016

## THE PRESENTATION:

The purpose of this presentation is to assist attendees in preparation of Transformer Specifications to procure economical and reliable transformers which meet system needs. By knowing the implications of transformer parameters on operation and on cost, functional specifications can be prepared. Some of the topics covered in the presentation/tutorial are rating, voltages, transformer type, vector group, loss capitalization, over excitation, insulation levels, cooling type, sound levels, tap range, taps in HV or in LV, operation of taps for input voltage fluctuations or for compensation of regulation, impedance, overloads, short-circuit, accessories, parallel operation, alternatives etc. Often the bid with the lowest evaluated cost does not give the lowest operational cost transformer, but a good specification is most influential in achieving this. Specifications should not only reduce the capital cost, should also reduce the operational cost. Specifications should help the maintenance and reduce the maintenance cost. To repair a transformer quickly at a low cost should be an important aspect in finalizing an order and to be covered in the specifications. A clear specification with all system requirements is of at most important in procuring reliable and economical transformers. A specification with no ambiguities and with no missing information avoids manufacturing design engineers to assume the requirements which are not clear or missing. When the manufacturing design engineers have to assume, most likely they will assume to obtain the lowest cost transformer, often this does not meet the system needs.

## THE SPEAKER: Ronnie Minhaz, P.Eng, Transformer Consulting Services Inc.



Ronnie holds B.Sc. degree in Electrical Engineering from University of Manitoba, Canada. Before founding his own company "Transformer Consulting Services Inc (<a href="www.tc-servicesinc.com">www.tc-servicesinc.com</a>)", Ronnie worked as Transformer Designer at Pauwels Canada (Manufacturer), as Equipment Engineer at SNC Lavelin (EPCM) and Enmax Power (Utility), as Substation Lead Engineer at McGregor Construction (Substation Construction). Ronnie is a registered professional engineer in the province of Alberta, Canada and an IEEE Senior member. He has held various leadership positions at IEEE Section level and is a regular member of IEEE PES society. He is a member of several working groups and task forces in the IEEE Transformers Committee.

## ALL ARE INVITED – PLEASE POST

RSVP:https://meetings.vtools.ieee.org/m/41809

Chair Programs: Arnold Wong wongar@coned.com or (212) 460-4189 Chair Technical Committee: Sukumar Alampur salampur100@hotmail.com or (917) 522-2844

FOR SECURITY REASONS: NO WALK-INS!

When: 5:00 pm — Starts-Refreshments & Program

7:00 pm — Program Ends

Where:

Con Edison Annex 4 Irving Place, New York, NY 10003 Nearest Subway: 14<sup>th</sup> St/Union Sq.

This program will be awarded IEEE Continuing Education Units.



