

Institute of Electrical and Electronic Engineers Joint Akron/Canton Section/PES

# Saturday, October 21, 2017 **Two Transformer Tutorials**

#### 1) Preparation of Transformer Specifications 10:00 am to Noon (2 CPD Hrs)

The purpose of this presentation/tutorial 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.

#### 2) Fundamentals of Auto Transformers 1:00 pm to 3:00 pm (2 CPD Hrs)

The fact that Auto-Transformers have weight and overall dimension that is less than 2-winding transformers of the same outputs permits them to be produced with a considerably larger capacity per unit. Auto-Transformers, however, call for several unique design considerations which require special attention and careful study. This presentation will assist end-users to procure reliable and economical autotransformers. This tutorial will also assist manufacturers, consultants and others to familiarize with various aspects of taps in autotransformers. How to specify the taps in autotransformer procurement specifications is highlighted. Methods to procure autotransformers that meet system needs are suggested. Influence of taps on maintenance and operation are explained.

## Speaker: Ronnie Minhaz, P.Eng.

President, Transformer Consulting Services, Inc.

### Cost: \$25 per person per Tutorial (IEEE members) Non-IEEE members - \$50

(Free to those who join IEEE at the tutorial) Students: IEEE - \$5; non-IEEE - \$20

Boxed Lunch available for \$5 per person

Location: CEI Headquarters 6896 Miller Road, Brecksville, OH



Please contact Rick Buchanan at (330) 497-8250 or <u>R.Buchanan@ieee.org</u> for reservations no later than Wednesday, October 18.