



# IEEE Canada

## Northern Canada Section



### IEEE-NCS, IAS/PES Presents

#### Technical Seminar "API 541 5th Edition – Understanding the Changes and Updates to the Petroleum Industry's Premier AC Induction Motor Specification"

Tuesday, May 9<sup>th</sup>, 2017, 6:00 to 8:30pm, doors open at 5:30pm  
116 St NW, Edmonton, Alberta Canada T6G 2V4  
Building: Engineering Teaching and Learning Complex  
Room Number: E1 007

#### Concurrent "Guided tour of the University of Alberta's District Energy System"

Tuesday, May 9<sup>th</sup>, 2017, 5:00 to 6:00pm  
116 St NW, Edmonton, Alberta Canada T6G 2V4  
Building: Cooling Plant On Campus (CPOC)

**Technical Seminar Abstract** – In December of 2014, the American Petroleum Institute (API) released its 5th Edition of the API Standard 541, Form-wound Squirrel Cage Induction Motors – 375 kW (500 Horsepower) and Larger specification. Since its first release as a recommended practice in 1972, API 541 has been commonly viewed as the premier specification for AC induction motors in the petroleum market.

This presentation will provide an overview of the API 541 specification starting with the content of the 4<sup>th</sup> Edition (which remains widely used in the industry), and then progressing to design, accessory and testing changes associated with the 5<sup>th</sup> Edition, before closing with a detailed look at the motor data sheet transformation. Questions will be welcomed throughout the seminar.



**Bart Sauer** graduated from Case Western Reserve University (Cleveland, Ohio, USA) in 1989 with a BSME degree. He has been an employee of Siemens Industry, Inc. at the ANEMA motor plant in Norwood, OH, since 1990, serving in roles as a Mechanical Product Engineer, Sales Application Engineer, and his current role as a Market Segment Manager for the oil and gas industry since 2009. In this role he serves as the technical lead for the API 547/541 specifications for Siemens AboveNEMA motors.

Bart has been an author on three previous IEEE papers, and is a current committee member of the 2018 Cincinnati IEEE-IAS PCIC conference.

Bart has 3 daughters and has been happily married for 27 years. He is an avid fisherman, a high school Sunday school teacher and a Canadian Olympic hockey team fan.



### Opening Talk: “Mission to Mars”



**Opening Talk Abstract-** The IEEE Student Branch recently hosted a speaker from NASA's jet propulsion team. This team is currently working on the Dawn mission which is now orbiting the dwarf planet Ceres, as well as the next Mars mission, Insight, now due to launch in May 2018. We'll hear an update from NASA's Jet Propulsion Laboratory's (JPL) Team and their role in exploring our Solar System and beyond

**Dominique Dubbeldam** is a 4th year electrical engineering student and co-chair of the IEEE student branch at the University of Alberta.

### Concurrent “Guided tour of the University of Alberta’s District Energy System”

The University of Alberta has one of Canada’s largest district energy systems. Come and hear about how utilities services are centralized and how this leads to cost savings and reduced environmental impact. Tour the Heating Plant which generates steam for heating the campus and has two steam turbine generators. Tour the Cooling Plant, where medium voltage chillers produce chilled water for the campus. Tour the underground corridors and see the mini-motorbikes trades staff use. See the 13.8kV switchgear, switches, cables, protective relaying and metering. Learn how the U of A’s 13.8 kV power distribution system topology provides a high degree of flexibility and reliability.

#### Please note:

1. Tour participants are required to wear full length pants and closed-toed shoes. Hardhats, safety glasses and hearing protection will be supplied by the Utilities Department.
2. Pictures and video recording are not permitted during any part of the tour.



**Lorne Clark** , P.Eng graduated from the U of A in 1999. For the next 5 years he was in consulting, mainly at TransAlta Utilities. He joined the U of A’s Utilities group in 2005 and has been doing project management, design and operations work through a period of tremendous growth.



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### Agenda:

“Guided tour of the University of Alberta’s District Energy System” 5:00 – 6:00pm

At the Door Registration, Social and refreshments/appetizers: 5:30 – 6:00pm  
 YP Speaker Presentation with Q&A: 6:00 – 6:15pm  
 PES/IAS Speaker Presentation with Q&A: 6:15 – 8:15pm

### Technical Seminar Online Registration (Open from March 28th – May 8th)

<https://events.vtools.ieee.org/m/44681>

\*Pricing has been adjusted for \$5 Parking at U of A.

<b>Early bird online registration fee</b> IEEE Members: \$15 Non-IEEE members: \$20 IEEE Student Members: Free IEEE Fellows/Life Members: Free	<b>At the Door Registration - (cash or cheque)</b> IEEE Members: \$20 Non-IEEE members: \$25 IEEE Student Members: \$5 IEEE Fellows/Life Members: Free
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### Guided Tour Online Registration (Open from March 22nd – May 9th)

<https://events.vtools.ieee.org/m/44680>

#### **Early bird online registration (*Limited spots available, register to reserve your spot*)**

IEEE Members: Free  
 Non-IEEE members: Free  
 IEEE Student Members: Free  
 IEEE Fellows/Life Members: Free

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



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### Technical Seminar Location:

116 St NW, Edmonton, Alberta Canada  
T6G 2V4

Building: Engineering Teaching and  
Learning Complex (ETLC)

Room Number: E1 007



### Questions or comments, contact:

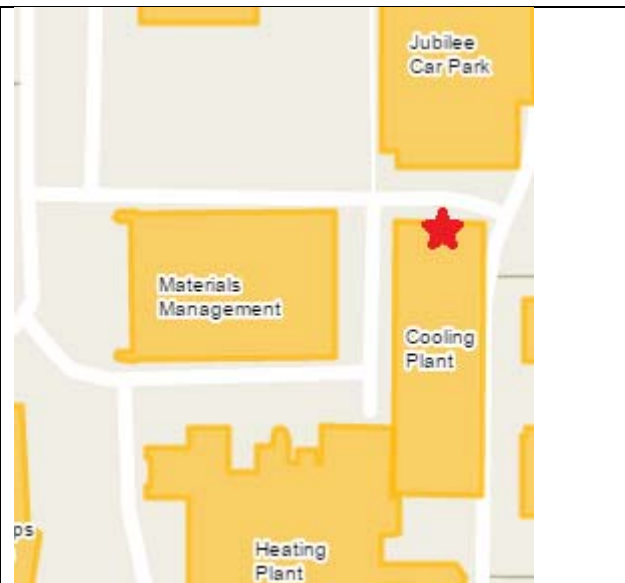
David Roth (davidroth@siemens.com)

Blaine Larson (blaine@altec.net)

### Guided Tour Location:

116 St NW, Edmonton, Alberta Canada  
T6G 2V4

Building: Cooling Plant on Campus  
(CPOC)



### Questions or comments, contact:

Carl Lam (carllam@ieee.org)