



**IEEE-NCS, IAS/PES Presents**

Tuesday, November 22<sup>nd</sup>, 2016, 6 to 8:30pm, doors open at 5:30pm  
The Facility Tour will start at 5pm and will precede this presentation

**Technical Seminar:**

***“Protective Relays: Principles of Applications”***

**Abstract:**

Since the inception of industrial and power distribution electrical systems, coordination tasks were performed to ensure that protection systems would operate with the necessary reliability, security and speed. Meanwhile, protective devices have also gone through significant advancements from the electromechanical devices to the multifunctional, numerical devices of present day. As the protected components of the electrical systems have changed in size, configuration and their critical roles in the power system supply, some protection aspects need to be revisited (i.e the use of protection systems to reduce arc flash energy in distribution systems).

This presentation reviews the established principles and the advanced aspects of the selection and application of protective relays in the overall protection system, multifunctional numerical devices application for power distribution and industrial systems, and addresses some key concerns in selecting, coordinating, setting and testing of smart relays and systems.



About the Speaker:

**Rasheek Rifaat, P.Eng., FIEEE of Jacobs Canada Inc.**

Biography:

Rasheek Rifaat is an IEEE Fellow – He received a B.Sc. from Cairo University in 1972 and a M.Eng. from McGill University in Montreal in 1979 in Electrical Engineering. In 1975, he worked for Union Carbide Canada Ltd. in Quebec. In 1981, he joined Monenco Consultants Limited in Calgary, Alberta, and Saskmont Engineering Limited in Regina, Saskatchewan. He has been involved in thermal power-generating plant projects with special interest in generator protection systems and power-plant systems. Since 1991, he has been working for Delta Hudson Engineering Ltd. (Now Jacobs Engineering) in Calgary. Mr. Rifaat is a registered professional engineer in three Canadian provinces. Mr. Rifaat has published more than 25 papers on cogeneration plant protection, operation and economics and he is the current Chair of the Protection & Coordination Work Group for the revision of the Buff Book into Standard 3400 Series.



## Young Professional (YP) Presentation

### *“The Rosetta Mission”*

#### **Abstract:**

An overview of The Rosetta Mission, its difficulties and successes encountered along the way.

#### About the Speaker:

**Dominique Dubbeldam**

#### Biography:

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

## Facilities Tour

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

#### **Abstract:**

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.

#### About the Speaker:

**Lorne Clark, P.Eng.**

#### Biography:

Lorne 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.



## Technical Seminar & Young Professional (YP) Presentation

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### When

Date: 22-Nov-16

Time: 6 to 8:30 pm (2.5 hours)

### Where

University of Alberta

Building: ELTC

Room: E1 013

### Agenda

5:30pm: Doors open

5:30 - 6pm: Networking and Light meal

6 - 6:15pm: YP Presentation

6:15 - 8:30pm: Presentation starts

## Online Registration (Open from 25-Oct to 18-Nov-16)

**CLICK HERE** => <https://meetings.vtools.ieee.org/m/41837>

### Early bird online registration fee

IEEE Members: \$20

Non-IEEE members: \$25

IEEE Student Members: Free

Non-IEEE Student: \$10

IEEE Life Members: Free

Volunteers: Free

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

IEEE Members: \$30

Non-IEEE members: \$35

IEEE Student Members: \$5

Non-IEEE Student: \$10

IEEE Life Members: \$5

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

<http://sites.ieee.org/northern-canada-pesias/>



## Facilities Tour

### When

Date: 22-Nov-16

Time: 5 to 6 pm (1 hour)

### Where

University of Alberta

Building: CPOC

### Agenda

5 - 6pm: Facility Tour

**Online Registration (Open from 25-Oct to 18-Nov-16)**

**CLICK HERE** => <https://meetings.vtools.ieee.org/m/41849>

### **Online registration fee**

Everyone: No Charge but maximum limit of 30 people

### **Event email contacts:**

Alex Nassif (Alexandre.Nassif@atco.com)

Peter Rothwell (prothwell@IGBTech.com)

### **Event Sponsor:**

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