



# IEEE Canada

## Northern Canada Section



### IEEE-NCS, IAS/PES Presents

Tuesday, January 22, 2013, 6:20 to 9:00pm, doors open at 5:30pm

## Transmission Lines – Electricity's Highways

**Abstract:** Electric transmission lines are a vital component of every electric power system. These lines connect load to generation. Transmission lines have different voltages and various lengths. Transmission lines are challenges for civil, mechanical and electrical engineers. This seminar will examine transmission lines from the electrical point of view. Topics to be covered:

- Surge Impedance Loading (SIL).
- Visualizing how a transmission line works using the St. Clair Curve.
- Picking the correct voltage using the St Clair Curve.
- Understanding reactive power flow on a transmission line.
- Selecting the right conductor.
- Calculating the voltage and angle across a transmission line.
- Rating of transmission lines
- Illustrating the reliability of transmission lines.
- Developing an economic conductor evaluation.
- Using shortcut methods.

By the end of the seminar the attendee will come away with a better understanding of the electrical properties of transmission lines.

For more details for the event or registration questions or concerns please contact the event coordinator Peter Rothwell at [prothwell@igbtech.com](mailto:prothwell@igbtech.com)



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**Speaker:** W.O. (Bill) Kennedy is Principal of b7kennedy & Associates Inc., a



consulting firm based in Calgary. He has over 40 years' experience in the power system industry. He has appeared as an expert witness before the Alberta Utilities Commission and its predecessor board. He has worked in seven of Canada's ten provinces. Some of his Canadian experience includes the Nelson River HVDC project in Manitoba, transmission planning in Saskatchewan, generator additions to industrial facilities in British Columbia and extensive interconnection work in Alberta. His overseas experience includes 500 kV transmission in Pakistan, 400 kV transmission in Iran, 138 kV transmission in Peru and power supply to a pulp mill in the former Yugoslavia.

He is a registered Professional Engineer in Alberta, Saskatchewan, Manitoba and British Columbia.

Active in IEEE, he is a Senior Member. In 1998, he made a Fellow of the Engineering Institute of Canada.

He can be reached during weekdays at this office. During weekends, he's usually skiing in the mountains in the Winter and biking the Summer.

His website is: [www.b7kennedy.com](http://www.b7kennedy.com)



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### Agenda:

At the Door Registration, Cash Bar Social with Appetizers: 5:30pm  
Speaker Presentation with Q&A: 6:20 – 8:30pm

### Online Registration

[https://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/15845](https://meetings.vtools.ieee.org/meeting_view/list_meeting/15845)

#### **Early Bird (Monday, December 24, 7am to Tuesday January 15, 5pm):**

IEEE Members: \$15  
Non-IEEE members: \$25  
IEEE Student Members: \$5  
Non-IEEE Student: \$7.50  
IEEE Life Members: Free

#### **Late Registration (Tuesday January 15, 5pm to Monday January 21, 7am):**

IEEE Members: \$20  
Non-IEEE members: \$30  
IEEE Student Members: \$10  
Non-IEEE Student: \$12.50  
IEEE Life Members: Free

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

IEEE Members: \$25  
Non-IEEE members: \$35  
IEEE Student Members: \$15  
Non-IEEE Student: \$17.50  
IEEE Life Members: Free

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



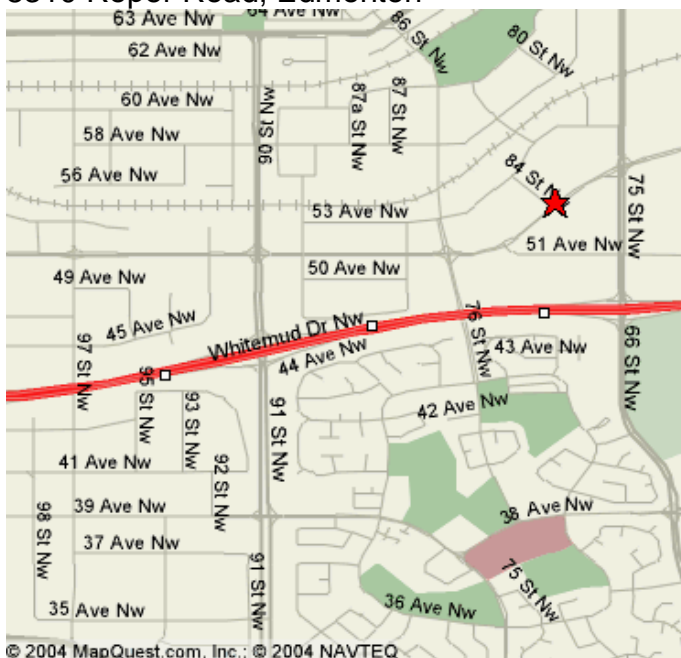
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### Location:

German Canadian Cultural Centre  
8310 Roper Road, Edmonton



### Contacts:

Peter Rothwell: [prothwell@IGBTech.com](mailto:prothwell@IGBTech.com) & 780-456-3128 (email preferred)

Blaine Larson: [blaine@altec.net](mailto:blaine@altec.net) & 780-455-2020 (email preferred)

### Event Sponsor:

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