



# IEEE Power & Energy Society Winnipeg Section PRESENTS...A LUNCHEON MEETING

**TOPIC:** Hydrokinetic Power: Potentials and Challenges  
**PRESENTER:** Farid Mosallat  
**TIME AND DATE:** 12:00 Noon, Tuesday, November 20, 2012  
**LOCATION:** Holiday Inn South, 1330 Pembina Highway, Winnipeg

- ◇ Cash bar available at Noon.
- ◇ Lunch served at 12:15 PM.
- ◇ Meeting concluded at 1.30 PM.
- ◇ Cost of the meal (payable at the door).

**Early registration** (*On or Before 16<sup>th</sup> Nov.*)  
IEEE Members - **\$15.00**  
Non-Members - **\$19.00**

**Late registration** (*After 16<sup>th</sup> Nov.*)  
IEEE Members - **\$17.00**  
Non-Members - **\$21.00**

The IEEE PES Winnipeg Chapter must guarantee a minimum attendance to the hotel, so please take a moment to register early by RSVP to **Jieping Shao** by **Friday Noon, 16<sup>th</sup> November 2012**, in one of the following ways:

Phone: 204-360-7347  
Email: [JShao@hydro.mb.ca](mailto:JShao@hydro.mb.ca)  
Fax: 204-360-6142

**Abstract:**

In many remote communities, the transmission grid is not within economic reach. Therefore, electricity has to be produced by local diesel-generator units.

Small-scale hydro units have the potential to serve as the primary electrical supply in locations where water currents with suitable flow rates are available. This helps reduce emission of greenhouse gases and reliance upon fossil fuels.

Hydrokinetic generation is an emerging form of small-scale hydropower. Hydrokinetic turbines do not require dams or powerhouses. They are submerged and installed in a river or a marine current at locations where water flows at relatively high velocities. Water currents are of fluctuating nature. A power interface is required to provide regulated voltage for the load from this resource.

This presentation will explain a few aspects of power interface design for this application, and will discuss feasible strategies to control a hydrokinetic plant.

**Biography:**

Farid Mosallat received the B.Sc. degree in electrical engineering from Tabriz University, Tabriz, Iran, in 1995 and the M.Sc. degree in electrical engineering from Sharif University of Technology, Tehran, Iran, in 1998, and the Ph.D. degree from the University of Manitoba in 2012.

His areas of expertise include electrical drive systems, control of power electronic converters, and industrial automation.

He is currently with Manitoba HVDC Research Centre, a division of Manitoba Hydro International Ltd. In Winnipeg.

**Re: IEEE PES Luncheon Meeting at 12:00 Noon on Tuesday, November 20, 2012**

Name: \_\_\_\_\_ Any Diet Restrictions: \_\_\_\_\_

Company: \_\_\_\_\_

Telephone no.: \_\_\_\_\_ Number in party: \_\_\_\_\_

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