Seminar by IEEE Ottawa Educational Activities, Power and Energy Chapter, Reliability Chapter, Women in Engineering Affinity Group, and Algonquin College Student Branch

The IEEE Ottawa Section is inviting all interested IEEE members and nonmembers to a seminar on

Marine Renewable Energy
Growing Canada's Renewable Energy Supply

by

Ms. Melanie Nadeau, P.Eng., Manager, Marine Energy
CanmetENERGY, Natural Resources Canada

DATE: Thursday, April 23, 2009.
TIME: Refreshments, Registration and Networking: 06:30 p.m.; Seminar: 07:30 p.m. – 08:00 p.m.
PLACE: Algonquin College, 1385 Woodroffe Ave., Advanced Technology Building (T), Room T129.
PARKING: No fee at the parking lots 8 and 9 at the time of seminar. Please respect restricted areas.

Abstract Canada's wave and tidal energy resources have been recognized globally as one of the richest in the world. The National Energy Board forecasts about 20,000 MW of ocean energy potential in Canada. Marine energy has the potential to replace emitting power generation in the coastal provinces and in remote coastal and northern communities reliant on diesel power generation.

Research and development testing on marine energy devices has been ongoing in Canada for over 25 years. Canada was thought to be a pioneer with the first tidal generating power plant in Northern America commissioned at Annapolis Royal, Nova Scotia in 1984. This power plant was based on harnessing tidal differences created by large tides, operating similarly to a hydropower dam. Given the environmental impacts associated with these types of barrages, today's research focuses on developing technologies that use only the kinetic energy created by tidal currents. Over 100 concepts are being developed worldwide to capture the kinetic energy produced by tidal currents and waves.

In Canada, technology research and development, tank testing, and demonstration is occurring on both the Pacific and Atlantic coasts, keeping Canada at the forefront of marine energy device development. Canadian technologies and research facilities are on the leading edge in several of the areas within this emerging industry, with potential for a strong and sustained future in research and development, manufacturing, deployment and power generation.

Canada has also been actively engaged in the International Energy Agency's Implementing Agreement on Ocean Energy Systems since 2003 and is providing leadership in Chairing the International Electrotechnical Commission Technical Committee on Marine Energy Standards (IEC TC 114).

Melanie Nadeau is the technology manager for the marine energy research and development initiative that aims to advance the commercialization of wave, tidal and water current energy technologies. She is the Canadian delegate on the Executive Committee of the International Energy Agency Implementing Agreement on Ocean Energy Systems. Melanie is also the Chairman for the International Electrotechnical Commission (IEC) Technical Committee 114 on Marine Energy leading the development of international standards for marine energy technologies. She has been involved in numerous national and international committees and produced several publications related renewable energies.

She is an accredited professional engineer and holds a Bachelor of Applied Science degree with a specialization in renewable energy and water resources from the University of Waterloo, Canada.

Admission: Free. Registration required.
Please register by e-mail contacting: branislav@ieee.org