

2010 Lieutenant Governor's Award for Excellence in Engineering

Design of the Sequoia Detector and Sample Vessels for Spallation Neutron Source

Date: 04/29/2010

Time: 12:00 noon

Abstract: The Spallation Neutron Source (SNS) project in Oak Ridge, Tennessee is an accelerator-based neutron source that provides the most intense pulsed neutron beams in the world for scientific and industrial research and development. At the end of 2007, the SNS was listed in the Guinness Book of Records as the most powerful neutron source in the world. The research instruments at SNS, located on the eighteen beam lines from the neutron source, will make possible neutron scattering studies of complex materials that are of interest to a great range of industries.

RSVP to:
Christine Larocque
429-1213

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One of the research instruments at SNS is the Sequoia Fine-Resolution Fermi Chopper Spectrometer, a direct geometry time of flight chopper spectrometer with fine energy transfer and wave vector resolution. During 2006, Grantec Engineering Consultants Inc. of Halifax, Nova Scotia, was engaged to perform the mechanical and structural design of the Sequoia Detector and Sample vessels, the primary neutron containment envelopes for the Sequoia Spectrometer instrument. The Sequoia Detector Vessel is considered to be one of the largest vacuum chambers in North America and is the largest vacuum chamber at any neutron scattering facility in the world.



Location Details

Four Points Sheraton,
Explorer Room
1496 Hollis Street, Halifax, NS

The presentation will provide an overview of the design and analysis performed by Grantec for the Sequoia Detector and Sample vessels. The presentation will also include a video overview of the Spallation Neutron Source project.

Event Details

This is a free event for Engineers Nova Scotia Members. Refreshments and a light lunch will be available

This is also a Professional Development Opportunity for Engineers Nova Scotia Members.

Richard Grant, P.Eng.

Biography: Richard Grant is the recipient of the 2010 Engineers Nova Scotia Lieutenant Governor's Award for Excellence in Engineering. He is the President and Founder of Grantec Engineering Consultants Inc. Richard is a graduate of Dalhousie University (B.Eng. 1983 and M.Eng. 1984) and has over twenty-five years experience in areas that include: mechanical and structural engineering, and naval architecture. He has held senior management positions with various organizations within the Halifax-Dartmouth area. His firm, Grantec, is a specialist engineering consulting firm that provides services to the offshore, energy, research, petro-chemical, marine, manufacturing, and defence sectors. Information on Grantec can be found on their website, <http://www.grantec.ca/>.

