



## 35<sup>th</sup> Annual Conference of the Canadian Nuclear Society and 39<sup>th</sup> Annual CNS/CNA Student Conference

*Nuclear Innovation through Collaboration*  
*La collaboration facilitant l'innovation nucléaire*



**2015 May 31-June 3**

**Hilton Saint John / Saint John Trade & Convention Centre, Saint John, NB, Canada**

### Call for Technical Papers

The Canadian Nuclear Society's 35<sup>th</sup> Annual Conference will be held in Saint John, New Brunswick, Canada, 2015 May 31 - June 3, in conjunction with the 39<sup>th</sup> Annual CNS/CNA Student Conference, at the Hilton Saint John / Saint John Trade & Convention Centre.

The central objective of this conference is to provide a forum for exchanging views, ideas and information relating to the application and advancement of nuclear science and technology, and for discussing energy-related issues in general.

- Invited speakers in Plenary sessions will address broad industrial and commercial developments in the nuclear field.
- Speakers in *technical sessions* will present papers on industrial, research and other work in support of nuclear science and technology.
- Plenary, technical and student poster sessions will highlight future developments in the field and discuss the challenges faced by the nuclear community.
- University students in student poster sessions will talk about their research and academic work (a separate Call for Students' Extended Abstracts will be issued for the Student Conference).

#### Deadlines

**Abstracts: 2014 November 26 (EXTENDED)**

**Receipt of Full Papers: 2015 February 1**

**Notification of accepted paper: 2015 March 1**

#### General Guidelines

- Paper abstracts should be <100 words in length.
- Full papers should present facts that are new and significant or represent a state-of-the-art review. They should include enough information for a clear presentation of the topic.
- For details on abstracts and full paper format and requirements, please see the Conference Website.

#### NOTES

For a paper to appear in the Conference Proceedings, at least one of the authors must register for the Conference by the "early" registration date (2015 April 15).

#### Paper Submission Procedure

The required format of submission is electronic (Word or pdf). Submissions should be made via:  
[www.softconf.com/f/CNS2015Technical](http://www.softconf.com/f/CNS2015Technical)

#### Conference Website

**[www.cnsconference2015.org](http://www.cnsconference2015.org)**

Questions regarding papers and the technical program should be sent to:

**Ruxandra Dranga**

CNS-2015 Technical Committee Chair  
e-mail: [cns2015@cns-snc.ca](mailto:cns2015@cns-snc.ca)  
Tel: 613-584-3311, Ext. 46856

General questions regarding the Conference may be addressed to:

**Benjamin Rouben**

CNS-2015 Conference Organizer  
e-mail: [cns2015org@cns-snc.ca](mailto:cns2015org@cns-snc.ca)  
Tel: 416-977-7620



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**CALL FOR PAPERS – TECHNICAL TOPICS**

<b>Enhancing Safety and Security</b>	Perspectives after Fukushima; Extreme events; Severe accidents; Accident management; Emergency planning; Plant security; Human performance; Safety culture; Stress testing; Shielding analysis; Criticality Safety Analysis; Risk assessment; Probabilistic analysis; Regulatory perspective
<b>New Technology and Applications in Nuclear Research and Development</b>	Advanced reactor physics, radiation physics and health physics; Thermalhydraulics; Fusion; Hydrogen production; Modern fuel cycles; Used fuel recycling, reusing and reprocessing; Adopting new materials; Efficiency enhancements; Gen IV and SMR concepts; Space and mining applications; New nuclear codes and standards
<b>Operation and Aging Management</b>	Refurbishment and life extension; Economics; Maintenance; Reliability; Quality Assurance / Inspection; Risk assessment; Outage reduction; Fuel and equipment performance; New developments; Reliability enhancement; Power uprating; Obsolescence; Component replacement; Supply chain; OPEX
<b>Facilitating Energy Policy and Global Consensus</b>	Policy development; Energy mix; Sustainability; Climate change; Public acceptance; Education; Communications; International and regional cooperation; Safeguards; Proliferation-resistant fuels
<b>Environmental Protection and Waste Management</b>	Designing for environmental protection; Assessment of environmental effects; Decommissioning and environmental remediation; Waste stream management and reduction; Progress in repository development; Interim used fuel storage strategies; Waste treatment, packaging and transportation
<b>Deploying New Reactors and Building to Time</b>	Establishing new build program; International collaborations; Risk-informed safety regulation; Policy; Regulation and risk assessment; Probabilistic & deterministic risk analysis; Addressing life extension and licensing renewal; Design and construction; Economics and financing; New- site licensing; New developments and designs; Gen-III+ designs/ Gen IV and SMR concepts/ advanced systems and components; Passive safety
<b>Fuel Cycles</b>	Uranium and thorium mining, milling, refining, conversion and enrichment; Uranium and Thorium fuel manufacturing; Fault tolerant fuel design; Open and closed fuel cycle
<b>Addressing Public Concerns about Radiation Impacts</b>	Experience from Fukushima; Social impacts; Educating & partnering with public; Opinion surveys; Radiation protection; Linear-no-threshold issues; Radiation health effects; Lessons learned; Outreach
<b>Facing Competitors and Reducing Cost</b>	Design and construction; Manufacturing and modularity; Economics and financing; Supply chain assurance; Outage management; Market and competitive challenges
<b>Acquiring Medical and Biological Benefits</b>	Medical and biological systems; Treatments and protocols; New isotope manufacture; Novel accelerators and target development; Supply assurance; Handling waste streams; Economics; International trends; Advanced reactor physics; Isotope production and use; Agricultural applications

