

Symposium on Plasma And Nuclear Systems



SPANS-2016

Thursday, December 22, 2016, 9 am to 5 pm

Room: UA 1220 (TBC)

UOIT – Oshawa, ON, Canada

**Sponsors: IEEE-Toronto, NPSS Chapter, CNS – UOIT Chapter,
CNS – Fusion Science and Technology Division, CAP – Plasma Physics Division, IEEE-Canada**

Chair: Professor Hossam A.Gabbar (UOIT),

Contacts: Hossam.Gabbar@uoit.ca

Information and updates, visit: www.sege-conference.com/SPANS.PDF

Canadian Nuclear Society, SEGE

Message from SPANS Chair, Dr. Hossam A. Gabbar



Professor in the Faculty of Energy Systems and Nuclear Science, and cross appointed in the Faculty of Engineering and Applied Science, UOIT

UOIT is welcoming all attendees at SPANS. IEEE NPSS (Nuclear and Plasma Sciences Society), Toronto Chapter has been active in organizing workshops in plasma and nuclear systems since its establishment. The recent workshop was on Real Time Measurement, Instrumentation, and Control (RTMIC). This has been extended with the collaboration with CNS-Fusion Science and Technology Division, CAP – Plasma Physics Division to organize SPANS or Symposium on Plasma and Nuclear Systems. This symposium provides a unique opportunity for fruitful discussions and collaboration between industries and academia. In addition it provides great opportunities for students to present their work and have closer discussions with researchers, scientists, and professionals from industries to add great values to their skills and awareness of real industrial projects.

TOPICS

- **Plasma Devices and Applications.**
- **Plasma Experiments, Diagnostics and Control.**
- **Plasma Simulation and Modeling.**
- **Nuclear Power Plant Safety Systems.**
- **Nuclear Power Plant Control Systems.**
- **Nuclear Power Plant Monitoring and Measurement Systems.**

Objectives of Symposium

- **This symposium is providing forum for researchers from academia and industry to present and discuss latest research innovations in nuclear and plasma systems.**
- **SPANS will provide attendees with state-of-the-art research and technologies and engage in active discussions with industry. Also it will provide industry with opportunities to promote their products and business cases.**
- **Attendees from regulators and standards will engage in fruitful discussions on how R&D is linked with regulations and standards.**

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Call for Papers

Please send abstracts for papers to: ieee.sege@gmail.com

Presentations are organized by subtopics of this symposium

Abstract Deadline

20-Nov, 2016

Agenda

AGENDA: SPANS-2016				
8:15	9:00	Registration		
9:00	9:10	Opening Message	Hossam A.Gabbar	SPANS Chair, IEEE Toronto - NPSS Chapter Chair
9:10	9:55	Current Status and Future Developments in Nuclear-Power Industry in the World	Igor Piro	Professor, Faculty of Energy Systems and Nuclear Science, UOIT
9:55	10:40	Research Advances in Plasma Engineering for Clean Energy and Industrial Applications	Hossam A.Gabbar	Professor, Faculty of Energy Systems and Nuclear Science, and Faculty of Engineering and Applied Science, UOIT
10:40	11:00	BREAK		
11:00	11:45	Challenges of Demonstrating the Feasibility of HOPE's Fusion Concept	Andrew Wallace	Technical Director, Kinectrics, HOPE Inc.
11:45	12:30	Pellet Cladding Interaction - An On-Going Concern in Fuel Reliability in the Nuclear Industry	Markus Piro	Canada Research Chair in Nuclear Fuels and Materials, UOIT
12:30	13:00	LUNCH		
13:00	13:45	Fusion 2030 Roadmap (SKYPE)	Matthew Dalzell	Partnerships Manager, Sylvia Fedoruk Canadian Centre for Nuclear Innovation
13:45	14:05	Plasma Propulsion: Types of Technology in Astronautics	Barry Stoute	Postdoc Fellow, ESCL, UOIT
14:05	14:25	Methods for Optimization of Neutron Detector Performance at Aged Conditions at NPPs	Elnara Nasimi	PhD Student, ESCL, UOIT
14:25	14:45	Uncertainty quantification for safety verification applications in nuclear power plants	Emmanuel Bofo	PhD, ESCL, UOIT
14:45	15:05	Electrode-less Plasma Generation: Design and Analysis	Daniel Bondarenko	MSc. , ESCL, UOIT
15:05	15:25	Utilization of Thermal Plasma for Conversion of Thermoplastic Waste to Oil Products in a Pyrolysis Reaction	Mohamed Aboughaly	MSc. , ESCL, UOIT
15:25	15:45	Plasma Diagnostics, Control & Experimentation for Nuclear Fusion	Capstone Team	Faculty of Energy Systems and Nuclear Science, UOIT
15:45	16:30	Open discussions / tour		

Public Transportation

- From Toronto:
GO Train from Union Station to Ajax GO Station,
Durham Transit Bus (No. 915 East) from Ajax Station
direct to UOIT Campus.

Train and Bus schedules are available at:

[GO Schedule](#)

[Durham Transit](#)

Select schedules from Toronto to Oshawa and vice versa. Choose "Lakeshore East" from the pull down menu.

Public Transportation

- From Airport:
You can use public transportation to move from airport to reach UOIT: [See Details](#)

SPANS-2016

Registration Fees: \$50

(Discount fee of \$30 for students, IEEE, CNS, and CAP Members)

Space is Limited (60 to 100 max)

(please send registration information to: Hossam.gaber@uoit.ca)

Registration

Visit the link: www.sege-conference.com/SPANS.html