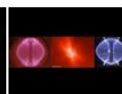




IEEE Toronto Section
serving members and the community since 1903



The Toronto Section of the Institute of Electrical and Electronics Engineers



UNIVERSITY
OF ONTARIO
INSTITUTE OF TECHNOLOGY
OSHAWA | CANADA

Advanced Plasma Engineering Lab



Energy Safety and Control Lab

UNIVERSITY
OF ONTARIO
INSTITUTE OF TECHNOLOGY
OSHAWA | CANADA



HOPE Innovations



GPROSYS.COM
Green Production Systems (GPROSYS) Corp.



FUSION 2030
ROADMAP FOR CANADA

Symposium on Plasma and Nuclear Systems

SPANS 2016

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

Room: UA 1220

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

SPANS was successfully concluded with great participation and discussions between industry, academia, researchers, and students. Also, included number of high school students from North Toronto C.I., who showed high interests to learn about nuclear and plasma systems and fusion energy. SPANS provided active forum for researchers from academia and industry to present and discuss latest research innovations in nuclear and plasma systems. With high engagement and high quality presentations from invited speakers, researchers and students, SPANS provided attendees with latest research methods, theoretical foundations, and case studies, as well as state-of-the-art technologies where all are involved in active discussions. We had great opportunities to discuss latest development in fusion research in Canada under the Fusion 2030 Roadmap and involved industries. Industries presented active projects and business cases. Presentations included advances in plasma engineering and applications in fusion energy, waste-to-energy, plastic-to oil, aerospace, and advances in nuclear fuel safety and integrity, as well as solutions for the ageing of nuclear systems.

Student Innovation Completion

SPANS included student innovation competition, with judges from industry and academia who are expert in the field of Plasma and Nuclear Systems. The winners of the competition are:

- Mohamed Aboughaly, MASc – Mechanical Engineering, UOIT, Topic: Utilization of Thermal Plasma for Conversion of Thermoplastic Waste to Oil Products in a Pyrolysis Reaction
- Elnara Nasimi, PhD – Electrical, Computer, and Software Engineering, UOIT, Topic: Methods for Optimization of Neutron Detector Performance at Aged Conditions at NPPs



