

## Séminaire

Le mardi 19 février 2019, 14h45  
Des rafraîchissements seront servis dès 14h15  
Complexe de recherche avancée, pièce 233  
Université d'Ottawa, 25, rue Templeton  
\*Le séminaire se déroulera en anglais.\*

## Seminar

Tuesday, February 19, 2019, 2:45 p.m.  
Refreshments to be served starting at 2:15 p.m.  
Advanced Research Complex, room 233  
University of Ottawa, 25 Templeton Street

### Printed electronics and its role in the development of battery-free sensors

Ye Tao, National Research Council Canada

**Abstract:** Printable Electronics is a promising technology that will enable the manufacturing of ubiquitous and low cost electronic devices, which covers from simple printed conducting lines, resistors, capacitors, to OLEDs, OFETs, OPV, and memory cells. More complicated electronic circuits can be formed using these basic building blocks to perform logic, sensing, human-machine interaction, and control functions. In this talk, I will introduce the research activities on the development of printed electronics under NRC's Printable Electronics Flagship Program, and our recent work on the development of low power level electricity generators based on photovoltaic, piezoelectric, and triboelectric effects and their applications in wearable electronics and autonomous sensor systems.



**Bio:** Dr. Ye Tao is a Principal Research Officer in the Advanced Electronics and Photonics (AEP) Research Centre, National Research Council Canada (NRC). He received his PhD degree from École Polytechnique de Montréal in 1993, and became a research associate at NRC working on Si and III-V semiconductors. From 1995 to 1998, he pursued a post-doctoral career at ETH-Zurich on organic thin films and electronics. In late 1998, he returned to NRC to join a newly started organic electronics program. He is the leader of the Organic Materials and Devices group at AEP and the leader for the Functional Devices Thrust of NRC's Printable Electronics Flagship Program. His research interest has been in the areas of organic semiconductor materials and devices, materials structure-property relationship, charge transport and recombination behaviour, surface and interface physics and chemistry.

**TOP-SET** est un programme de formation FONCER du CRSNG en puissance optoélectronique ayant pour but de façonner une cohorte de personnel hautement qualifié détenant des connaissances approfondies en systèmes optoélectroniques pour rejoindre les rangs d'équipes de recherche et développement.

NSERC CREATE Training in Optoelectronics for Power: from Science and Engineering to Technology (**TOP-SET**) is a training program that aims to form a cohort of highly qualified personnel with comprehensive understanding of optoelectronic systems, capable of joining advanced R&D teams.

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