ADVANCED STUDY INSTITUTE

OPTICAL WAVEGUIDE SENSING & IMAGING

in Medicine, Environment, Security and Defence

October 12-21, 2006, Holiday Inn Plaza la Chaudière, Gatineau, Québec

Organized By: **Université du Québec en Outaouais, Gatineau, Québec, Canada**
Tel Aviv University, Tel Aviv, Israel
Vitesse Re-Skilling™ Canada Inc. , Kanata, Ontario, Canada

Objectives

The objective of the ASI is to build a creative advanced research and learning environment by bringing together world experts, researchers, Ph.D. students and postdoctoral fellows from industry, university and government research organizations. The ASI will explore various aspects of both applied research and commercialization of existing and emerging optical waveguide, fiber, micro and nanophotonics imaging and sensing technologies as well as their current and potential applications in the biomedical sciences, environment, security and defence.

Scientific Directors:

Dr. Wojtek J. Bock, Professor
Département d'informatique et d'ingénierie
Université du Québec en Outaouais
Québec, Canada

Dr. Israel Gannot, Professor
Tel Aviv University, Tel Aviv, Israel
School of Eng. & Applied Sciences
George Washington University, DC, USA

Scientific Secretary: Dr. Stoyan Tanev, Innovation Development Officer, Ottawa-Gatineau Innovation Alliance

The Advanced Study Institute will be held in conjunction with the:

ADVANCED TECHNOLOGY COMMERCIALIZATION WORKSHOP

OPTICAL IMAGING AND SENSING

October 16, 2006, Holiday Inn Plaza la Chaudière, Gatineau, Québec

Organized By: Ottawa-Gatineau University-College Innovation Alliance and the Ottawa Photonics Cluster

The objective of the Advanced Technology Commercialization Workshop is to provide an efficient mechanism for the commercialization of advanced technologies developed by regional, national and international academic and government research organizations. Its main focus will be on establishing commercialization partnerships and business venture development activities by matching the interests of industrial, academic and government research groups, commercialization funding agencies, VCs and angel investors. The morning session will be in the form of a series of invited talks discussing technology commercialization best practices and issues in Canada, USA, Europe, Asia and Japan. The afternoon session and evening reception will merge into a *technology showcase forum*.

INNOVATION ALLIANCE

Dr. Stoyan Tanev, T: (613) 562-5800 x1681, M: (613) 220-2995
E-mail: stanev@uottawa.ca

ADVANCED STUDY INSTITUTE - INVITED SPEAKERS

Rick Claus
Virginia Tech, Blacksburg, VA, USA
Self-assembled nanostructured fibers and sensors
Karl Fridriech Klein
Friedberg Gissen University, Germany
UV fibers: materials, properties and applications
Jim Harrington
Rutgers University, NJ, USA
Infrared fiber optic sensors
Laser power delivery using infrared fiber optics
Anders Bjarklev
Research Center COM, Technical University of Denmark
Sensors and active devices based on hybrid photonic crystal fiber structures
Ilko Ilev
Food and Drug Administration – CDRH, MD, USA
Fiber optics nanobiosensors for biomedical applications
Julian Jones
Heriot-Watt University, UK
Optical fiber interferometric sensing systems
Tinko Eftimov
Plovdiv University, Sofia, Bulgaria
Applications of traditional and long period fiber Bragg gratings
Jacques Albert
Carleton University, Ottawa, ON, Canada
Novel sensing mechanisms using tilted fiber Bragg gratings
Brian MacCraith
Biomedical Diagnostics Institute, NCSR, Ireland
Enhanced fluorescence-based sensors
Xiaoyi Bao
University of Ottawa, ON, Canada
Fiber sensor development for health monitoring of civil structures
Siegfried Janz
Institute for Microstructural Sciences-NRC, Canada

Francis Berghmans
Belgium Nuclear Research Centre (SCK-CEN), Belgium
Ionising radiation effects and reliability of optical fiber components
Ulrich Krull
University of Toronto at Mississauga, ON, Canada
Optical waveguides as a platform for detection of DNA hybridization
Leonid Butvina
Prohorov GPI RAS, Moscow, Russia
FTIR ATR infrared fiber sensors for field environmental and bio-chemical reactor monitoring
Wojtek Bock
Univeristé du Québec en Outaouais, Gatineau, QC, Canada
Optical fiber sensing technologies for explosive detection
Israel Gannot
George Washington University, USA and Tel Aviv University, Israel
Sensors for the smart medical home
Yuji Matsuura
Tohuko University, Sendai, Japan
Deep UV, x-ray laser and Raman waveguides for medical treatments
Stoyan Tanev
Innovation Alliance, Ottawa, ON, Canada
Simulation tools for light wave scattering and propagation modeling – implications for biomedical research
Jessica Ramella Roman
The Catholic University of America, DC, USA
Polarized light imaging of skin- surface and subsurface effects
Tomasz R. Wolinski
Warsaw University of Technology, Poland
Photonic Liquid Crystal Fibers - new sensing opportunities

****detailed program available at www.vitesse.ca***

Advanced Study Institute Participation Cost: $2,000 CAD (US$ 1,700 or EURO 1,380) + 7% tax
Cost includes shared accommodation, breakfast, lunch, coffee breaks, receptions, course materials, an excursion and your participation in the one-day advanced technology commercialization workshop

To Apply Contact: Annalisa Garbe, Vitesse Program Coordinator, T: (613) 254-9880 x221, E: annalisa.garbe@vitesse.ca

ADVANCED TECHNOLOGY COMMERCIALIZATION WORKSHOP PROGRAM

October 16, 2006, Holiday Inn Plaza la Chaudière, Gatineau, Québec

8:30am - 12:30pm: Invited talks and panel discussion
2:00pm - 6:00pm: Technology Showcase Forum
6:30pm - 9:00pm: Reception

****detailed program available at www.vitesse.ca***

Workshop Cost (in CAD$): Participants: Regular: $125, Student: $95
Exhibitors: Academic: $295, Corporate: $395

For More Information Contact:
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Cooperating Organization

The International Society for Optical Engineering

Sponsor

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