Office of the Dean
Faculty of
Engineering
and Design

Infrastructure Resilience Research Group



# 2017 International Urban Security and Resilience

CONFERENCE, WORKSHOP & EXHIBITION

**NEW REALITIES-NEW STRATEGIES** 

May 16 – 19, 2017 | The Sheraton Centre, Toronto, Ontario, Canada

# **WORKSHOP PROGRAM**



Friday, May 19th, 2017

# CONCURRENT TRAINING COURSES

\*\* Separate Registration Required \*\*

Click on link below to register:

http://carleton.ca/irrg/2017-urban-security-and-resilience-conference-workshop-and-exhibition/workshop/

### CRITICAL INFRASTRUCTURE PROTECTION OVERVIEW

# **Course Description**

**Summary**: Critical Infrastructure Protection requires an effective risk-based approach to management. This program teaches the fundamental steps for creating and managing a critical infrastructure protection platform. This entry level critical infrastructure protection course introduces key terminology, essential program elements to build off and define process for managing security in a complex security environment. This program is a necessary background for the more comprehensive instructional program, "Security Program Management" which sets out the building blocks for a complete security program within the critical infrastructure domain.

#### **Instructor's Biography**

Doug Powell, CPP, PSP

Project Manager - Security (Site C Clean Energy Project) - BC Hydro

Doug has 34 years of management experience in the security industry. He joined BC Hydro in 2006. Doug assumed management responsibility for BC Hydro as head of corporate security. Doug gave guidance to protect critical infrastructure during the 2010 Winter Olympics. In 2010 Doug became lead for BC Hydro's Smart Meter and Infrastructure Project Security, Privacy & Safety Risk, and Governance. In September 2015, Doug became the project management security lead for BC Hydro's "Site C" dam construction project. Doug is an expert in several areas related to critical infrastructure protection and security management.

Doug shows leadership internationally serving in committees and professional organizations, such as ASIS International; *Utilities Security Council;* and *Critical Infrastructure Working Group*. He was a

Council Vice President for ASIS International until 2016, overseeing security subject matter experts in four professional councils. Doug is also an advisor to Canada's National Electricity Infrastructure Test Centre (NEITC) and participates as a Research and Education Associate for Carleton University's Infrastructure Resiliency Research Group. Doug is a member of IRRG's Steering Committee for the 2017 Urban Security & Resilience Conference, being held in Toronto May 16 – 19, 2017.

Doug won the **2012 Security Seven Award** by *Information Security Magazine*. He was named **2010 CSO of the Year** and his team won the **2011 Security Program of the Year, both** from *SC Magazine*. Doug is a speaker of high-profile, internationally and has authored numerous industry papers and articles.

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# CYBER VULNERABILITIES OF CITIES: UNDERSTANDING THE CYBER RISKS TO URBAN CENTRES

# **Course Description**

A growing challenge for urban planners, managers and decision makers is to ensure that cities are resilient against cyberattacks. A unique feature of urban centres is its dependence on a multitude of vital services. From public transportation to emergency services, to water and waste water management, cities depend on critical services to operate normally. In this one-day training session, participants will discover the vulnerabilities that can expose cities to cyber risks that can cause the functional breakdown of urban centres. This awareness training session will provide a strategic understanding of the cyber threats, risks and vulnerabilities that can impact the operation of cities.

# **Instructor's Biography**

# Dr. Tiago Alves de Jesus

Dr. Alves de Jesus received an undergraduate degree in mathematics and physics from l'Université de Montréal before obtaining a Masters in theoretical physics from the University of British Columbia (UBC). He later attended McGill University where he completed a Ph.D. in nano-electronics. After his doctorate, Dr. Alves de Jesus worked in the financial sector on Bay Street in Toronto, where he developed risk management models for the global portfolio of one Canada's "Big Five". He left the financial world to start-up two high-tech companies that developed state-of-the-art computer simulation software for chip designers.

After his time as an entrepreneur, Dr. Alves de Jesus came to Ottawa to pursue a career in National Security. He joined the RCMP's National Security program where he worked as a *Senior Intelligence Research Specialist* for the Critical Infrastructure Criminal Intelligence (CICI) unit. While working there he became the Subject Matter Expert (SME) for the National Security Criminal Investigations (NSCI) program. In this role he was the RCMP's lead for the development of the Government of Canada's Information Technology Incident Management Plan

(GC IT IMP); key member of the Cyber Triage Unit (CTU), which was responsible for analyzing cyberattacks against GC networks; played a leading role in the International Cyber Strom Exercises; and pursued National Security cyber investigations with Tech Crime investigators.

During this time, Dr. Alves de Jesus also sponsored multiple Science and Technology (S&T) security Defense Research projects funded by Development Canada (DRDC), including Canada's first cybersecurity research project involving Industrial Control Systems (ICS). He later worked to set up an ICS test-bed at Natural Resources Canada, which evolved into the National Energy Infrastructure Test Centre (NEITC). Today, he is a Senior Advisor for the Energy Infrastructure Security Division (EISD) and the Deputy Project Manager for NEITC, where he develops and delivers hands-on cybersecurity training exercises for security professionals within the Energy and Utilities Sector.

Dr. Alves de Jesus is also a Civilian Expert for NATO's Rapid Response Team.

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#### **RESILIENT SECURITY IN AN URBAN ENVIRONMENT**

# **Course Description**

This one-day training seminar will focus on the specific challenges associated with creating a Robust and Resilient Security Posture in an Urban Environment. During the course of the seminar, topics, such as Intelligence Collection and Analysis, Valued Strategic Partnerships, and Threat & Risk Assessment and Mitigating Strategies will be explored and contextualized.

The day will be divided into three specific areas:

- Recognizing and Fostering Strategic Partnerships;
- Understanding and Meeting the Real Threat Reality vs Perception
- Identification and Deployment of Critical Protective Measure

This one-day of advanced training will present the above topics from a strategic perspective, providing professional insight into the particulars of a resilient security program that compliments and enables an Organization's mission, while fostering an environment for efficient business recovery.

Who should attend this one-day training?

- Security Professional,
- Security Managers;
- Chief Security Officers; and
- Executives and Senior Executives responsible for Security,
   Business Continuity Program, and Asset Protection.

#### **Instructor's Biography**

# Raynald J. Lampron, CPP, MSM, RMC President of SITERA Global Security Solutions

Raynald has a Bachelor of Arts in Psychology and Political Science and a Masters in Security Management. He has served for more than 27 years in the Military Police, both as a Non-Commissioned and Commissioned Officer. He is currently a Director in the Federal Public Service. During his career, Raynald has served in both Operational and Strategic positions, culminating as Provost Marshal of 19 Wing Comox.

Raynald has extensive experience and knowledge in the fields of security and investigation. He has served on numerous domestic security operations and has gained international experience through assignments with the Department of Foreign Affairs in South America and four Operational Deployments with the United Nations and NATO, as well as numerous security evaluations and investigations worldwide.

Raynald is a proficient, trilingual lecturer in the field of Security, Investigation and Leadership/Ethics. He is a dedicated and professional specialist who is passionate about his field. He continues to broaden and enrich his knowledge in the field of security through his teaching and lecturing, his ongoing association with ASIS, and his position with Carleton University's Infrastructure Resiliency Research Group (IRRG).

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### SAMPLE OF COURSE CERTIFICATE OF COMPLETTION



Infrastructure Resilience Research Group (IRRG) Office of the Dean, Faculty of Engineering and Design

# Certificate of Completion

This is to certify that

Mr. Smith

completed the course

# Critical Infrastructure Protection Overview

Friday, May 19th, 2017

Felix Kwamena, Ph.D. Adjunct Professor and Director Infrastructure Resilience Research Group Doug Powell, CPP, PSP
Research Associate
Infrastructure Resilience Research Group



Infrastructure Resilience Research Group (IRRG)
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### Cyber Vulnerabilities of Cities: Understanding the Cyber Risks to Urban Centres

Friday, May 19th, 2017

Felix Kwamena, Ph.D. Adjunct Professor and Director Infrastructure Resilience Research Group Tiago Alves de Jesus, Ph.D. Research Associate Infrastructure Resilience Research Group



Infrastructure Resilience Research Group (IRRG)

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# Resilient Security in an Urban Environment

Friday, May 19th, 2017

Felix Kwamena, Ph.D. Adjunct Professor and Director Infrastructure Resillence Research Group Raynald J. Lampron, CPP, MSM, RMC President, SITERA Global Security Solutions Research Associate Infrastructure Resilience Research Group

