Engineering Innovations Forum 2018 presents ...

Securing Our Networked Infrastructure

Hacked websites, identity theft, industrial espionage, denial of service attacks, phishing attempts……..
Hardly a day goes by without a news report of some theft of sensitive personal date from a corporate
database, or a foreign attack on a government computer system. With all its benefits in terms of enhanced
information and productivity, the Internet has brought with it serious risks to the safety and security of our
society which we are just beginning to understand and mitigate. This year's Forum presentations will show
how communications infrastructure engineers are protecting the confidentiality, integrity, and availability of
our critical networked infrastructure.

GUEST PRESENTATIONS

► **George Comrie, P.Eng., CMC:** *Cyber Insecurity*
What are the objectives and concerns of cyber security?   How are our critical infrastructures
dependent on the security of our IP networks? What threats do we face as a society?

► **Joe DiAdamo, P.Eng.:** *Securing the Smart Electric Power Grid*
Today' smart electric power grid is an example of a critical infrastructure that is dependent on
cyber security. How is it being protected from failure and attack?

► **Tyson Macaulay, CISA, CISSP:** *RIoT Control: Securing the "Internet of Things"*
What is the *internet of things*, and what security risks does it raise? How can these be
addressed?

WHERE:	JAPANESE CANADIAN CULTURAL CENTRE 6 GARAMOND COURT TORONTO, ONTARIO M3C 1Z5
WHEN:	WEDNESDAY MARCH 21ST, 2018
SUPPER & EXHIBITS:	6:00 PM
PRESENTATIONS:	7:00 PM TO 9:00 PM
EXHIBITS:	6:00 PM TO 7:00 PM, 9:00 PM TO 10:00 PM

$15.00 ADMISSION INCLUDES A LIGHT SUPPER.
PLEASE RESERVE YOUR SEAT ONLINE BY VISITING:
http://www.EIForum.ca

WE LOOK FORWARD TO SEEING YOU THERE !

Mission: To raise public awareness of engineering innovations and their impact on our quality of life.

Professional Engineers Ontario

ONTARIO SOCIETY OF PROFESSIONAL ENGINEERS

Securing Our Networked Infrastructure

PRESENTATIONS

PRESENTERS

Cyber Security: Our Dependence on Networked Infrastructure

This presentation will serve as an introduction to the emerging discipline of *communications infrastructure engineering (CIE)*. It will begin by discussing the risks and challenges associated with our society's dependence on IP-based networks, with particular emphasis on the critical infrastructures that depend on those networks for their security, and then describe some of the basic principles of network security that are being used to address those risks.

George Comrie, P.Eng., CMC, FEC
Past President, Professional Engineers Ontario
Chair, Communications Infrastructure Engineering Task Group

A licensed professional engineer and certified management consultant, George Comrie holds Bachelor's and Master's degree in Industrial Engineering from the University of Toronto. His career as a software engineer spans over 40 years, during which he founded a successful software products and services company, and oversaw the development and implementation of several mission-critical / safety-critical information and control systems. He has had a long-standing interest in high-security and high-availability systems, and continues to be active in promoting these scopes of practice within the engineering profession.

Securing the Smart Electric Power Grid

Defending the grid from cyber attacks is more difficult than ever and security practices need to adapt in response to an ever-changing security landscape. This presentation will explore strategies and architectures that leverage emerging cognitive computing and advanced analytics. A use case for smart meters will be reviewed to explore threat assessment processes and cyber security solutions.

Joe DiAdamo, P.Eng.
Executive Consultant, IBM Canada
Technical Architect, Dx Modernization

Joe DiAdamo is an Executive Consultant working in the Energy and Utilities practice with IBM Canada. Prior to joining IBM, Joe was CTO and VP Product Development at Siemens Enterprise Communications, focusing on telecommunications for smart grid solutions. Joe has been involved in a wide range of distribution automation projects and is currently engaged in a large smart grid project in Ontario while also providing consulting to customers creating smart grid roadmaps and strategies.

Joe graduated from the University of Toronto with a B.S. degree in Engineering. He is a licensed Professional Engineer in the province of Ontario.

RIoT Control: Managing Risk and the Internet of Things

The Internet of things (IoT) is penetrating all industries, offering new service-delivery opportunities and operational benefits. This talk will look at some of the risks in the IoT and emerging requirements and techniques for IoT security available to users and service providers.

IoT device makers, users, service providers and regulators face many security challenges. The situation right now related to IoT security is dire and probably going to get worse. Devices are made quickly and cheaply, often failing to take security into account. At the same time, conventional Enterprise IT networks are not designed or tuned to protect IoT services and devices. But there are ways to identify risks associated with security and safety in the IoT and to treat or transfer these risks using new technologies and security designs.

Tyson Macaulay
Consultant on Network Security
Author: RIoT Control

Tyson Macaulay is a veteran of the information security industry with 25 years' experience spanning most industries and critical infrastructures. His past experience includes Chief Technology Officer (CTO) – Cyber for BAE Systems Applied Intelligence, CTO Telecommunications Security at Intel**,** and Chief Security Strategist at Fortinet. These roles all involved international business strategy, corporate development (M&A), technical leadership, media and speaking events. Prior to this, Tyson was Security Liaison Officer at Bell Canada from 2005 to 2012.

The author of four books, dozens of periodicals and standards contributions, and two registered patents in security, Tyson continues to support the development of engineering and security standards through the International Standards Organization (ISO), the International Telecommunications Union (ITU), and Professional Engineers Ontario.