Nineteenth Annual IFIP WG 11.10 International Conference on Critical Infrastructure Protection

SRI International
1000 Wilson Boulevard, 20th Floor
Arlington, Virginia 22209
March 17-18, 2025

March 17, 2025 (Monday)

8:00am - 8:50am: Breakfast

9:00am - 9:10am: Welcoming Remarks and Logistics
Laura Tinnel, Conference General Chair, SRI International, Arlington, Virginia, USA

9:10am - 10:40am: Session 1
Chair: Laura Tinnel, SRI International, Arlington, Virginia, USA

Bridging Design and Testing Through Threat Modeling-Driven Penetration Testing – A Microgrid Case Study
Shaymaa Mamdouh Khalil, Hayretdin Bahsia and Tarmo Korotko
Tallinn University of Technology, Tallinn, Estonia
Northern Arizona University, Flagstaff, Arizona, USA

Building Insider Threat Detection Use Cases for Power Grid SCADA Systems
Antoine Lemay, Ewa Piatkowska and Michal Ostoja-Gajewski
Hitachi Energy Research, Montreal, Canada
Hitachi Energy Research, Krakow, Poland

Topology-Sensitive Attacks on Process and Bay-Level Communications in Power System Automation
Arzhan Tong and Stephen Wolthusen
Royal Holloway University of London, Egham, United Kingdom
Norwegian University of Science and Technology, Gjøvik, Norway

10:40am - 11:00am: Break

11:00am - 12:00pm: Session 2
Chair: Elizabeth Kurkowski, Johns Hopkins University Applied Physics Laboratory, Laurel, Maryland, USA

An Effects Analysis of Hard and Soft Measures in the First European Network and Information Security Directive
Oyvind Toftegaard
Norwegian Energy Regulatory Authority, Oslo, Norway
Norwegian University of Science and Technology, Gjøvik, Norway

Combining Threat Modeling and Cascading Effects Analysis for Critical Infrastructures
Stefan Schauer, Stefan Rass, Manuel Egger, Benjamin Rainer, Sebastian Chlup, Christl Korbinian and Christoph Schmittner
Austrian Institute of Technology, Linz, Austria

12:00pm - 1:00pm: Lunch

1:00pm - 2:00pm: Keynote Lecture
Peering into the Future: Anticipating Emerging Security and Privacy Issues
Ulf Lindqvist, Senior Technical Director, Computer Science Laboratory, SRI International, San Luis Obispo, California, USA

March 17, 2025 (Monday) (continued)

2:00pm - 2:50pm: Invited Lecture
Bridging the Gap: Powering Research with Real-World Operational Technology Insights
Tricia Schulz, Interim Section Head, Resilient Cyber Physical Systems, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA

2:50pm - 3:10pm: Break

3:10pm - 4:10pm: Session 3
Chair: Stefan Schauer, Austrian Institute of Technology, Linz, Austria

Deploying Honeynets to Safeguard Smart Farming Infrastructure
Radwan Rouzky, Jason Green and Abdolhossein Sarrafzadeh
North Carolina Agricultural and Technical University, Greensboro, North Carolina, USA

Reverse Engineering an Obfuscated Proprietary Advanced Metering Infrastructure Protocol – Methods and Implications
Parker Adams and Sujeet Shenoi
University of Tulsa, Tulsa, Oklahoma, USA

4:10pm - 5:00pm: Invited Lecture
Using Side-Channels for Critical Infrastructure Protection
Tristen Mullins, Research and Development Associate – Signal Processing Engineer, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA

5:00pm - 5:20pm: IFIP WG 11.10 Business Meeting

5:30pm - 8:00pm: Conference Dinner

March 18, 2025 (Tuesday)

8:00am - 8:30am: Breakfast

8:30am - 10:00am: Session 4
Chair: Sujeet Shenoi, University of Tulsa, Tulsa, Oklahoma, USA

Applying Long Language Models in Programmable Logic Controller Development
Raymond Chan
Singapore Institute of Technology, Singapore

Artificial-Intelligence-Assisted Steganography for Critical Infrastructure Protection in Adversarial Environments
Yi Anson Lam, Kam-Pui Chow and Siu-Ming Yiu
University of Hong Kong, Hong Kong, China

Keychain-Based Re-Keying Function for Securing Device-to-Device Communications
Rongqi Richie Wang, Sye Loong Keoh and Raymond Chan
University of Glasgow, Glasgow, United Kingdom
Singapore Institute of Technology, Singapore

10:00am - 10:30am: Break

10:30am - 11:30am: Invited Lecture
Driving Down Cybersecurity Risk Across the National Critical Infrastructure Sectors
Arun Seelagan, Senior Data Scientist, Cybersecurity and Infrastructure Security Agency, Washington, DC, USA

11:30am - 12:30pm: Invited Lecture
CyManII Research and Development Pipelines for Manufacturing Cyber Security
Curtis Taylor, Senior Cybersecurity Research Scientist, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA

12:30pm - 1:30pm: Lunch