

**Sixth Annual IFIP WG 11.10 International Conference
on Critical Infrastructure Protection
Marshall Hall
National Defense University
Fort McNair, Washington, DC
March 19-21, 2012**

A government-issued photo ID is required to enter Fort McNair

March 19, 2012 (Monday)

8:00am - 8:50am: Breakfast (Marshall Hall Atrium)

9:00am - 9:10am: Welcoming Remarks

Robert Miller, Conference General Chair, National Defense University, Washington, DC, USA
Robert Childs, Chancellor, iCollege, National Defense University, Washington, DC, USA

9:10am - 10:10am: Keynote Lecture

Why I am Going to Target Your Infrastructure

Daniel Kuehl, National Defense University, Washington, DC, USA

10:10am – 10:30am: Break (Marshall Hall Atrium)

10:30am - 12:00pm: Session 1: Infrastructure Security

Chair: Robert Miller, National Defense University, Washington, DC, USA

Understanding the Risk to the Internet Infrastructure

Ginger Armbruster, Barbara Endicott-Popovsky and Jan Whittington
University of Washington, Seattle, Washington, USA

On the Classification of Telecoms as Critical Infrastructures

Fabio Bisogni, Simona Cavallini, Luisa Franchina and Giovanni Saja
FORMIT Foundation, Rome, Italy

Secretariat for Critical Infrastructures, Presidency of the Council of Ministers, Rome, Italy
Telecom Italia, Milan, Italy

Critical Infrastructure Protection in the Dutch Financial Sector

Matthijs van Oers, Leon Strous and Ron Berndsen
De Nederlandsche Bank, Amsterdam, The Netherlands
Tilburg University, Tilburg, The Netherlands

12:00pm - 1:15pm: Lunch (Lincoln Hall Cafeteria)

1:15pm - 3:15pm: Session 2: Cyber-Physical Systems Security

Chair: Leon Strous, De Nederlandsche Bank, Amsterdam, The Netherlands

Analysis of the Requirements for Critical Control Systems

Cristina Alcaraz and Javier Lopez
University of Malaga, Malaga, Spain

Modeling Security in Cyber-Physical Systems

Michael Burmester, Emmanouil Magkos and Vassilis Chrissikopoulos
Florida State University, Tallahassee, Florida, USA
Ionian University, Kerkyra, Greece

Vulnerabilities and Security Models of Automobile Systems

Gerry Howser and Bruce McMillin
Missouri University of Science and Technology, Rolla, Missouri, USA

March 19, 2012 (Monday) (continued)

1:15pm - 3:15pm: Session 2: Cyber-Physical Systems Security (continued)

Chair: Leon Strous, De Nederlandsche Bank, Amsterdam, The Netherlands

Agent Interaction and State Determination in SCADA Systems

Thomas McEvoy and Stephen Wolthusen

Royal Holloway, University of London, London, United Kingdom

Gjøvik University College, Gjøvik, Norway

3:15pm - 3:45pm: Break (Marshall Hall Atrium)

3:45pm - 4:45pm: Session 3: Infrastructure Security

Chair: Barbara Endicott-Popovsky, University of Washington, Seattle, Washington, USA

Emergency Messages in the Commercial Mobile Alert System

Paul Ngo and Duminda Wijesekera

George Mason University, Fairfax, Virginia, USA

Implementing a National Critical Information Infrastructure Protection Structure in Developing Countries

Ian Ellefsen and Sebastian von Solms

University of Johannesburg, Johannesburg, South Africa

5:00pm - 5:45pm: Tour of Fort McNair

5:45pm - 8:15pm: Conference Dinner (Lincoln Hall South Atrium)

March 20, 2012 (Tuesday)

8:00am - 8:50am: Breakfast (Marshall Hall Atrium)

8:50am - 10:10am: Session 4: Infrastructure Security

Chair: Sebastian Hess, Supreme Headquarters Allied Powers Europe (SHAPE), Casteau, Belgium

Measuring Name System Health

Emiliano Casalicchio, Marco Caselli, Alessio Coletta, Salvatore Di Blasi and Igor Nai Fovino

University of Rome Tor Vergata, Rome, Italy

Global Cyber Security Center, Rome, Italy

Enabling the Experimental Exploration of Operating Procedures in Critical Infrastructures

Christos Siaterlis, Bela Genge, Marc Hohenadel and Marco Del Pra

Joint Research Centre of the European Commission, Ispra, Italy

Polymedia SPA, Milan, Italy

Sparse Space-Time Specification of the Generalized Railroad Crossing

Michael Gosnell and Bruce McMillin

Missouri University of Science and Technology, Rolla, Missouri, USA

10:10am - 11:00am: Keynote Lecture

Achieving Trust and Confidence in Our Critical Infrastructures

Robert Joyce, Deputy Director, Information Assurance Directorate, National Security Agency, Fort Meade, Maryland, USA

11:00am - 11:20am: Break (Marshall Hall Atrium)

11:20am - 12:00pm: Keynote Lecture

How to Declare War and Win!

Billy Rios, Lead Security Engineer, Google, Mountain View, California, USA

12:00pm - 1:10pm: Lunch (Lincoln Hall Cafeteria)

1:15pm - 2:15pm: Keynote Lecture

Security for the U.S. Air Force's Industrial Control Systems

Kenneth Brodie, Office of Information Dominance and Chief Information Officer

Office of the Secretary of the Air Force, Washington, DC, USA

2:15pm - 3:15pm: Session 5: Security Methodologies

Chair: Bruce McMillin, Missouri University of Science and Technology, Rolla, Missouri, USA

Integrity-Organization Based Access Control

Abdeljebar Ameziane El Hassani, Anas Abou El Kalam and Abdellah Ait Ouahman

Cadi Ayyad University, Marrakesh, Morocco

University of Toulouse, Toulouse, France

Networked Evidence Theory Framework for Critical Infrastructure Modeling

Chiara Foglietta and Stefano Panzieri

University of Rome Tre, Rome, Italy

3:15pm - 3:40pm: Break

3:40pm - 5:00pm: Session 6: Electrical Power Grid Security

Chair: Stephen Wolthusen, Royal Holloway, University of London, London, United Kingdom

Evaluation of the Vulnerability of Phasor Measurement Units to GPS Spoofing

Daniel Shepard, Todd Humphreys and Aaron Fansler

University of Texas at Austin, Austin, Texas, USA

Northrop Grumman, Parker, Colorado, USA

Effects of Time Delays in the Electrical Power Grid

Mohammad Hasan Ali and Dipankar Dasgupta

University of Memphis, Memphis, Tennessee, USA

Privacy-Preserving Power Usage Control in the Smart Grid

Hu Chun, Wei Jiang and Bruce McMillin

University of Science and Technology, Rolla, Missouri, USA

March 21, 2012 (Wednesday)

8:00am - 8:50am: Breakfast (Marshall Hall Atrium)

9:00am - 10:30am: Session 7: Control Systems Security

Chair: Igor Nai Fovino, Global Cyber Security Center, Rome, Italy

Industrial Control System Device Analysis

John Mulder, Moses Schwartz, Michael Berg, Jonathan Van Houten, Mario Urrea and Alex Pease
Sandia National Laboratories, Albuquerque, New Mexico, USA

Radio-Frequency-Based Anomaly Detection for Programmable Logic Controllers

Samuel Stone and Michael Temple

Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, USA

Checking Access Control and Authentication Requirements for SCADA Field Devices Using Bloom Filters

Jeffrey Hieb, Jacob Schreiber and James Graham

University of Louisville, Louisville, Kentucky, USA

10:30am - 10:45am: Break (Marshall Hall Atrium)

10:45am - 11:45am: Session 8: Control Systems Security

Chair: Arthur Conklin, University of Houston, Houston, Texas, USA

Behavioral Characterization to Quantify the Resilience of Programmable Logic Controllers against Malicious Exploits

Henry Bushey, Juan Lopez and Jonathan Butts

Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, USA

A Firmware Verification Tool for Programmable Logic Controllers

Lucille McMinn and Jonathan Butts

Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio, USA

11:45am - 12:45pm: Lunch (Marshall Hall Atrium)