March 22, 2009 (Sunday)

06:30pm – 09:00pm: Reception and Dinner
Hayward Lounge/Wheelock Room, Hanover Inn, Main Street, Hanover, NH 03755

March 23, 2009 (Monday)

07:45am – 08:20am: Breakfast
Basement Foyer, Moore Hall, Dartmouth College

08:20am – 08:30am: Welcoming Remarks and Logistics

08:30am – 09:30am: Keynote Lecture
Statistics, Nature and the Future of Security
Daniel Geer, Chief Information Security Officer, In-Q-Tel, Washington, DC

09:30am – 10:25am: Session 1: Critical Infrastructure Protection: Challenges and Solutions
Chair: Charles Palmer, Institute for Information Infrastructure Protection, Dartmouth College, Hanover, New Hampshire

The Economics of Information Security
T. Moore
Harvard University, Cambridge, Massachusetts

Redefining Risk Analysis for Critical Infrastructure Protection
M. Theoharidou, P. Kotzanikolaou and D. Gritzalis
Athens University of Economics and Business, Athens, Greece
University of Piraeus, Piraeus, Greece

10:25am – 10:45am: Break

10:45am – 11:40am: Session 2: Control Systems Security
Chair: Stig Johnsen, SINTEF/Norwegian University of Science and Technology, Trondheim, Norway

A Taxonomy of Attacks on the DNP3 Protocol
S. East, J. Butts, M. Papa and S. Shenoi
University of Tulsa, Tulsa, Oklahoma

Understanding the Physical Consequences of Attacks on Control Systems
Z. Lin, A. Cardenas, H. Tsai, S. Amin, Y. Huang and S. Sastry
National Chiao Tung University, Hsinchu, Taiwan
University of California at Berkeley, Berkeley, California

11:40am – 01:00pm: Lunch
Occum Commons, Goldstein Hall, Dartmouth College

01:00pm – 02:00pm: Keynote Lecture
Tackling the Thorny Problem of Critical Infrastructure Dependencies
Eric Luijif, Principal Consultant, TNO Defence, Safety and Security, The Hague, The Netherlands
March 23, 2009 (Monday) (continued)

02:00pm – 03:00pm: Session 3: Railroad Security
Chair: Robert Miller, National Defense University, Washington, DC

Does Liberalization Increase Systemic Risk in the Railway Sector?
M. Laperrouza
Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland

Integrating Secure Train Control and Scheduling
M. Hartong, R. Goel and D. Wijesekera
Federal Railroad Administration, Washington, DC
Howard University, Washington, DC
George Mason University, Fairfax, Virginia

03:00pm – 03:30pm: Break

03:30pm – 04:50pm: Session 4: Infrastructure Modeling and Simulation
Chair: James Graham, University of Louisville, Louisville, Kentucky

Ontology-Based Modeling and Simulation of Critical Infrastructures
V. Masucci, F. Adinolfi, G. Dipoppa, P. Servillo and A. Tofani
Center for Research in Informatics and Industrial Automation (CRIAI), Portici, Italy
Italian National Agency for New Technologies, Energy and the Environment (ENEA), Rome, Italy

A Mixed Holistic-Reductionistic Approach for Modeling Interdependent Infrastructures
S. De Porcellinis, G. Oliva, S. Panzieri and R. Setola
University Campus Biomedica, Rome, Italy
University of Rome III, Rome, Italy

Japan’s Critical Infrastructure Protection: Risk Components and Modeling Framework
Z. Aung and K. Watanabe
Nagaoka University of Technology, Niigata, Japan

07:30pm – 09:00pm: Dinner
Collis Common Ground, Collis Center, Dartmouth College
March 24, 2009 (Tuesday)

07:30am – 08:15am:  Breakfast  
Basement Foyer, Moore Hall, Dartmouth College  

08:15am – 09:15am:  Keynote Lecture  
Global Risks, Global Solutions: Next Steps for the International Critical Infrastructure Protection Community  
Brandon Wales, Director – Risk Analysis, Homeland Infrastructure Threat and Risk Analysis Center (HITRAC)  
Department of Homeland Security, Washington, DC  

09:15am – 10:15am:  Session 5:  Risk Management  
Chair: Tyler Moore, Harvard University, Cambridge, Massachusetts  

Information Risk Management in Tightly and Loosely Coupled Organizations  
S. Dynes  
Dartmouth College, Hanover, New Hampshire  

Risk Modeling and Management of Billing Infrastructures  
F. Baiardi, C. Telmon and D. Sgandurra  
University of Pisa, Pisa, Italy  

10:15am – 10:45am:  Break  

10:45am – 11:30am:  Keynote Lecture  
An Assessment of the Protection of Critical Infrastructure Systems from Electromagnetic Pulse Attacks  
Henry Kluepfel, Member, Commission to Evaluate the Threat of High-Altitude Electromagnetic Pulse Attacks and Vice President, Science Applications International Corporation (SAIC), Mendham, New Jersey  

11:30am – 01:00pm:  Lunch  
Occum Commons, Goldstein Hall, Dartmouth College  

01:00pm – 01:45pm:  Keynote Lecture  
Securing the Financial Services Infrastructure – Managing Third Party Risk  
Kevin Streff, Director, Center for Information Assurance, Dakota State University, Madison, South Dakota  

01:45pm – 02:45pm:  Session 6:  Control Systems Security  
Chair: Eric Luijff, TNO Defense, Security and Safety, The Hague, The Netherlands  

Consequences of Non-IT Directed Disturbances in Energy Sector Control Systems  
R. Mullen  
Robert Mullen Consulting, Bisbee, Arizona  

Safety Assessment and Improvement of SCADA/ICT Systems Based on Action Research  
S. Johnsen, T. Skramstad, A. Aas and J. Hagen  
SINTEF/Norwegian University of Science and Technology  
Norwegian Defence Research Establishment, Kjeller, Norway  

02:45pm – 03:15pm:  Break  

03:15pm – 04:45pm:  Session 7:  Analysis and Visualization  
Chair: John Saunders, National Defense University, Washington, DC  

Interactive Visualizations for Critical Infrastructure Analyses  
W. Tolone  
University of North Carolina at Charlotte, Charlotte, North Carolina  

Non-Deducibility Based Analysis of Cyber-Physical Systems  
T. Gamage and B. McMillin  
Missouri University of Science and Technology, Rolla, Missouri  

An Ontological Approach for Identifying Cyber-Induced Faults in Process Control Systems  
J. Hieb, J. Graham and J. Guan  
University of Louisville, Louisville, Kentucky
March 24, 2009 (Tuesday) (continued)

07:30pm – 09:00pm: Dinner
Alumni Hall, Hopkins Center, Dartmouth College
March 25, 2009 (Wednesday)

07:30am – 08:00am:  Breakfast
Basement Foyer, Moore Hall, Dartmouth College

08:00am – 09:30am:  Session 8: Infrastructure Security
Chair: Stephen Wolthusen, Royal Holloway, University of London, Egham, United Kingdom

*Stack-Based Overflow Vulnerabilities in Embedded Systems*
K. Watts and P. Oman
University of Idaho, Moscow, Idaho

*Analysis of Security Threats to MPLS Virtual Private Networks*
University of Tulsa, Tulsa, Oklahoma

*Implementation and Analysis of a Secure Modbus Protocol*
I. Nai Fovino, A. Carcano, M. Masera and A. Trombetta
Joint Research Center of the European Commission, Ispra, Italy
University of Insubria, Varese, Italy

09:30am – 10:00am:  Break

10:00am – 11:30am:  Session 9: Control Systems Security
Chair: Igor Nai Fovino, Joint Research Center of the European Commission, Ispra, Italy

*Physical Model Constraints on Intrusion Detection in Control Systems*
N. Svendsen and S. Wolthusen
Gjovik University College, Gjovik, Norway
Royal Holloway, University of London, Egham, United Kingdom

*An Estimation-Inspection Algorithm for Anomaly Detection in Process Control Networks*
J. Rrushi and K. Kang
State University of New York at Binghamton, Binghamton, New York
Oak Ridge National Laboratory, Oak Ridge, Tennessee

*Implementing Situational Awareness for Pipeline Control Operations*
J. Butts, H. Kleinhans, R. Chandia, M. Papa and S. Shenoi
University of Tulsa, Tulsa, Oklahoma

11:30am – 12:30pm:  Lunch
Occum Commons, Goldstein Hall, Dartmouth College