

November 2017 S²ERC SHOWCASE AGENDA

November 8-9, 2017 • Hosted by Virginia Tech • Arlington, VA

Tuesday, November 7

6:00-9:00 PM **Meet & Greet Reception** – Holiday Inn at Ballston, Lobby
Appetizers & Cocktails

Wednesday, November 8

8:00-8:50 AM **Registration** – Virginia Tech Research Center (VTRC), Second Floor Foyer
Poster Set-Up / Breakfast – VTRC, East/West Falls Church Foyer

8:50-9:00 **Welcome & Introductions** – VTRC, East/West Falls Church

9:00-9:20 **State of the S²ERC** - Wayne Zage, S²ERC Director, Ball State University

9:20-9:30 **NSF Program Update & Surveys** - Vida Scarpello, I/UCRC Assessment Coordinator

Session 1: New Proposals

9:30-9:45 *Network User Activity and Location Tracing by Mining Device Internal States*
Presenter: Fu-Shing Sun; PIs: Fu-Shing Sun, Xin Sun; Ball State University

9:50-10:05 *Securing Aircraft Communications from Cyberattacks*
Ahmed Abdelhadi; Virginia Tech

9:30-11:10 10:10-10:25 *Improving Software Code Security with Automated Vulnerability Analysis and Inference with Multi-Case Based Reasoning*
Shaoen Wu; Ball State University

10:30-10:45 *An Active Defense Mechanism for Physical-Layer Attacks in Adversarial Environments*
Presenter: Tam Chantem; PIs: Ryan Gerdes, Tam Chantem; Virginia Tech

10:50-11:05 *Fingerprinting of GPS Satellites to Detect GPS Spoofing*
Presenter: Ryan Gerdes; PIs: Jeffrey Reed, Bob McGwier, Ryan Gerdes; Virginia Tech

11:10-12:00 **IAB Meeting** – VTRC, Vienna Room 

12:00-1:00 **Lunch Break** 

1:00-1:15 **University of Oulu – S²ERC's Newest Site!** – VTRC, East/West Falls Church
Tapio Frantti, Site Director, University of Oulu, Finland

Session 2: New Proposals

1:15-1:30 *Querying Invisible Objects: A Programming Framework for Data-Intensive, Privacy-Preserving Applications*
Eli Tilevich; Virginia Tech

1:35-1:50 *How Far Could Mathematics and Rigor Take Us?*
Lan Lin; Ball State University

1:15-2:55 1:55-2:10 *A Framework for Software Safety*
Presenter: Dolores Zage; PIs: Dolores Zage, Wayne Zage; Ball State University

2:15-2:30 *Evaluating the Economic Benefits of NIST's Advanced Encryption*
Presenter: Andrew Stewart; PI: Eric Burger, Georgetown University

2:35-2:50 *Low Complexity Orchestrated Reconnaissance Resource Allocation*
Ahmed Abdelhadi; Virginia Tech

2:55-3:45 **IAB Meeting** – VTRC, Vienna Room 



Session 3: New Proposals – VTRC, East/West Falls Church

3:45-4:00 *Concolic Analysis for Malware Grouping, Assessment, and Vulnerability Discovery*
Daniel Krutz; RIT

3:45-4:45 4:05-4:20 *Ensuring Trust in Autonomous Systems*
Michael Fowler; Virginia Tech

4:25-4:40 *Substation and IoT-Smart Building Testbed*
Ryan Gerdes; Virginia Tech

Wednesday, November 8 (cont.)

4:45-5:15	IAB Meeting – VTRC, Vienna Room	
6:00-9:00	Cocktails & Banquet Dinner Grand Cru Wine & Bistro, 4301 Wilson Blvd. #100, Arlington, VA 22203 Special Guest – Rita Rodriguez Program Director of the Computer and Network Systems (CNS) Division in the Computer and Information Science and Engineering (CISE) Directorate at the National Science Foundation	

Thursday, November 9

8:00-8:45 AM	Registration – VTRC, Second Floor Foyer Breakfast – VTRC, East/West Falls Church Foyer	
8:45-9:55	Session 4: Proposals, New Projects, & Reports – VTRC, East/West Falls Church 8:45-9:00 <i>A Standard Benchmark Suite For Security Tools</i> Daniel Krutz; Rochester Institute of Technology 9:05-9:20 <i>Empirical Studies to Discover Vulnerability Analysis Patterns</i> Presenter: Joanna Cecilia da Silva Santos; PI: Mehdi Mirakhorli, Rochester Institute of Technology 9:25-9:35 <i>Data Protection and the Right to Privacy in the IoT Era - Status</i> Clare Sullivan, Georgetown University 9:40-9:50 <i>Attack Graph Modeling and Generation - Final</i> Ratnesh Kumar; Iowa State University	
9:55-10:35	IAB Meeting – VTRC, Vienna Room	
10:35-11:35	Session 5: Status Reports – VTRC, East/West Falls Church 10:35-10:45 <i>Automated and Assurable Security Policy Migration to Software-defined Networking</i> Xin Sun; Ball State University 10:50-11:00 <i>Code Duplication</i> Presenter: Dolores Zage; PIs: Dolores and Wayne Zage; Ball State University 11:05-11:15 <i>Compiler Tools for CPI Protection</i> Presenter: Eli Tilevich; PIs: Tam Chantem, Charles Clancy, Eli Tilevich; Virginia Tech 11:20-11:30 <i>ICSCSE / Advanced Open Source Virtual Machine Introspection Tools for Malicious Activity Detection and Analysis</i> Presenter: Samuel Laurén; PI: Ville Leppänen; University of Turku, Finland	
11:35-12:00	IAB Meeting – VTRC, Vienna Room	
12:00-1:00	Lunch Break	
1:00-2:00	Poster Parade – VTRC, East/West Falls Church Foyer	
2:00-2:45	Session 6: Status & Final Reports – VTRC, East/West Falls Church 2:00-2:10 <i>Cyber Threat Intelligence Information Exchange Ecosystem (CyberISE): International Sharing</i> Presenter: Clare Sullivan; PI: Eric Burger; Georgetown University 2:15-2:25 <i>Quantifying Software Quality through Rigorous Testing and Test Automation: From Theory to Practice - Final</i> Lan Lin; Ball State University 2:30-2:40 <i>Machine Learning for Radar State Determination</i> Presenter: Tom Krauss; PIs: Tom Krauss, Alan Michaels; Virginia Tech	
2:45-3:05	Closed IAB Meeting – VTRC, Vienna Room	

Thursday, November 9 (cont.)

	Session 7: Status & Final Reports – VTRC, East/West Falls Church
	3:05-3:15 <i>The Impact of AI and Deep Learning on International Data Protection</i> Clare Sullivan; Georgetown University
	3:20-3:30 <i>USAID Guidelines for Responsible Development Data: Legal and Policy Analysis Project - Final</i> Clare Sullivan; Georgetown University
3:05-4:20	3:35-3:45 <i>Interactive Module Dependency Visualization for Go Language Programs - Status</i> Paul Buis, Ball State University
	3:50-4:00 <i>Development of IoT-Enabled Smart Building Testbed - Final</i> Ryan Gerdes; Virginia Tech
	4:05-4:15 <i>Productive Browser - Follow-on to Virtual Browser</i> Presenter: Jianan Su; PI: Eric Burger; Georgetown University
4:20-4:35	Closing Remarks – Wayne Zage, S²ERC Director, Ball State University
4:35-5:35	Final IAB Meeting – VTRC, Vienna Room 

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