



S²ERC SHOWCASE AGENDA

May 17 & 18, 2021

| Monday, May 17 (US Eastern Daylight Time) | |
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| 9:00-9:20 | Opening Remarks & State of the Center Lan Lin, S ² ERC Director, Ball State University |
| Status Reports | |
| 9:20-9:35 | <i>Automated Test Case Generation with Deep Learning</i> Noah Ziems, Ball State University (presenting); Shaoen Wu, Illinois State University (PI) |
| 9:35-9:50 | <i>Combinatorial Design-based Input Models for Effective Function Testing</i> Eric Wong, University of Texas – Dallas |
| 9:50-10:05 | <i>Visualizing Any Software System Using a Template-Based Converter</i> Huseyin Ergin, Ball State University |
| 10:05-10:20 | <i>Improving the Generality and Robustness of Automated Software Vulnerability Detection with Deep Learning</i> – Noah Ziems, Ball State University (presenting); Shaoen Wu, Illinois State University (PI) |
| Final Reports | |
| 10:20-10:35 | <i>Co-operative Governance Approaches for Blockchain Enabled Distributed Networks</i> [formerly: Collaborative Governance Approach for Blockchain Systems (COOL)] Gabriella Laatikainen (presenting), Pekka Abrahamsson (PI); University of Jyväskylä |
| 10:35-10:50 | <i>Automated Red Teaming with Deep Reinforcement Learning</i> (formerly: Autonomous cyber defense systems) Kalle Kujanpää (presenting), Alexander Ilin (PI); Aalto University |
| 10:50-12:00 | IAB Meeting |

| Tuesday, May 18 (US Eastern Daylight Time) | |
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| Final Reports | |
| 9:00-9:15 | <i>Modeling and Detecting Threats in Smart Building Ecosystems (formerly: Augmented Analysis: Achieving Situational Awareness in Cyber-Physical Systems with Data Enrichment)</i> Lauri Haverinen (presenting), Teemu Tokola; University of Oulu |
| 9:15-9:30 | <i>Next Generation Authentication, Authorization and Accounting for Wireless Roaming (formerly: Secroam)</i> – Bilhanan Silverajan; Tampere University |
| 9:30-9:45 | <i>Proof of Concept for the Application of Machine Learning to Educational Data</i> Joni Kultanen (presenting), Pekka Abrahamsson (PI); University of Jyväskylä |
| 9:45-10:00 | <i>Security and Visualization of Sigfox Sensor Network (formerly: IoT Space)</i> Hanning Zhao (presenting), Marko Helenius (PI, presenting); Tampere University |
| 10:00-10:15 | <i>Crowdsensing Study to Understand Sleep and Smartphone Use (formerly: Profiling User Activity for Security with Ethical Oversight)</i> Vappu Schroderus (presenting); Susanna Pirttikangas, Ella Peltonen (PIs); University of Oulu |
| 10:15-10:30 | <i>Binary Software Security Hardening</i> Kevin Hamlen; University of Texas – Dallas |
| 10:30-10:50 | Final Remarks Lan Lin, S ² ERC Director, Ball State University |
| 10:50-12:00 | Final IAB Meeting |