



Aalto University

IoT Security Workshop

Hosted by SELIoT project



Program for today

- 9:00 – 10:00

Intel Collaborative Research Institute for Secure Computing

Announcement of new initiative

“Digital State-of-the-Nation”, Pekka Sivonen, Tekes



- 10:30 – 16:30 IoT Security Workshop, hosted by SELIoT project



Collaborative Research Institute
for Secure Computing

Announcement

Dr. Matthias Schunter

Intel Principal Investigator and Chief Technologist, ICRI-SC

Prof. Jouko Lampinen

Dean of Science, Aalto University

Prof. Ahmad-Reza Sadeghi

Professor, TU Darmstadt and Director, ICRI-SC



TECHNISCHE
UNIVERSITÄT
DARMSTADT



Research on Collaborative Autonomous and Resilient Systems (CARS)

Three-year investment: 2017 - 2020

Team:

- TU Darmstadt (A. Sadeghi, Hub)
- Aalto University (N. Asokan)
- Ruhr-University Bochum (C. Paar, T. Gueneysu, T. Holz)
- Univ. Luxembourg (P. Verissimo)
- TU Vienna (A. Steiniger)





Research on Collaborative Autonomous and Resilient Systems (CARS)

Mission: Securing Collaborative Autonomous and Resilience Systems

- Trusted and Controllable Autonomy – Virtual Guardrails for Autonomous Systems
- Fair and Safe Collaboration – Tolerating Attacks and Failures
- Strong Resilience by Integrating Real-time, Functional Safety, and Security
- Flexible and Secure HW Acceleration by Security-enhanced FPGA Infrastructure





Collaborative Research Institute
for Secure Computing



<http://www.icri-sc.org/>



Prof. Ahmad-Reza Sadeghi

Director, ICRI-SC

Pekka Sivonen

*Executive Director of Digitalisation Strategies and Programmes
Tekes*

Schedule	Presenter	Title (click on tile to access abstract)
9:00 - 9:45 New Initiative	N. Asokan (Aalto) / Matthias Schunter (Intel) / Ahmad-Reza Sadeghi (TU Darmstadt) / Dean Jouko Lampinen (Aalto)	Announcement and overview of new initiative
9:45 - 10:00 Invited talk	Pekka Sivonen (Tekes)	Digital State-of-the-Nation
10:00 -10:30 Coffee break		
10:30 - 10:45 Overview	N. Asokan (Aalto University, Finland)	SELIoT presentation + workshop overview
10:45 - 12:30 SELIoT updates	Gene Tsudik (University of California Irvine, USA)	Presence Attestation: The Missing Link In Dynamic Trust Bootstrapping
	Patrick Traynor (University of Florida, USA)	Sound Principles: Verifying Voice Commands in an IoT World
	Samuel Marchal (Aalto University, Finland)	chownIoT: Secure Handling of Smart Home IoT Devices Ownership Change
	Thomas Nyman (Aalto University, Finland)	Secure Firmware Update for Resource Constrained Devices
12:30 - 13:30 Lunch		
13:30 - 15:00 Invited talks	Will Enck Terrence O'Connor (NC State University, USA)	Classifying and Enforcing Network Profiles of Smart Home IoT Devices
	Jari Arkko (Ericsson, Finland)	Architecture, Economics and the Value of Security for Things
	Ahmad-Reza Sadeghi (TU Darmstadt, Germany)	Things, Trouble, Trust: On Building Trust in IoT Systems
15:00 - 15:30 Coffee break		
15:30 - 16:30 Invited talks	Sasu Tarkoma (University of Helsinki, Finland)	The Internet of Things Research Program and Beyond
	Mihalis Maniatakos (NYU Abu Dhabi, UAE)	Hardware-based Solutions for Critical Infrastructure Security