

## IFIP SEC 2021 Conference Program

Tuesday, 22.06.2021

10:00 –	Conference Opening	
11:00	Lynn Fitcher, Janne Hagen and Audun Jøsang (General Co-Chairs and Program Co-Chairs), Nils Gruschka	
11:00 –	Session 1: Digital Signatures	Session 2: Vulnerability Management
12:30	<i>Session chair: Rauli Kaksonen</i>	<i>Session chair: Georgios Kampanos</i>
	XML Signature Wrapping Still Considered Harmful: A Case Study on the Personal Health Record in Germany <i>Paul Höller, Alexander Krumeich and Luigi Lo Iacono</i>	A Performance Assessment of Free-to-use Vulnerability Scanners – Revisited <i>Ricardo Araújo, António Pinto and Pedro Pinto</i>
	Trust Me If You Can: Trusted Transformation Between (JSON) Schemas to Support Global Authentication of Education Credentials <i>Stefan More, Peter Grassberger, Felix Hörandner, Andreas Abraham and Lukas Daniel Klausner</i>	QuickBCC: Quick and Scalable Binary Vulnerable Code Clone Detection <i>Hajin Jang, Kyeongseok Yang, Geonwoo Lee, Yoonjong Na, Jeremy Seideman, Shoufu Luo, Heejo Lee and Sven Dietrich</i>
	SIUV: A Smart car Identity management and Usage control system based on Verifiable credentials <i>Ali Hariri, Subhajit Bandopadhyay, Athanasios Rizos, Theo Dimitrakos, Bruno Crispo and Muttukrishnan Rajarajan</i>	Automatic Inference of Taint Sources to Discover Vulnerabilities in SOHO Router Firmware <i>Kai Cheng, Dongliang Fang, Chuan Qin, Huizhao Wang, Yaowen Zheng, Nan Yu and Limin Sun</i>
13:30 –	Kristian Beckman Award Keynote: “Security Engineering”	
14:30	Ross Anderson (Cambridge University) <i>Chair: Steven Furnell</i>	
14:30 –	Session 3: Covert Channels and Crypto	Session 4: WISE I
16:30	<i>Session chair: Stefan More</i>	<i>Session chair: Grace Leung</i>
	ESQABE: Predicting Encrypted Search Queries <i>Isaac Meers, Mariano Di Martino, Peter Quax and Wim Lamotte</i>	Electronic Voting Technology Inspired Interactive Teaching and Learning Pedagogy and Curriculum Development for Cybersecurity Education <i>Ryan Hosler, Xukai Zou, Matt Bishop</i>
	Reconnection-based Covert Channels in Wireless Networks <i>Sebastian Zillien and Steffen Wendzel</i>	Minimizing Cognitive Overload in Cybersecurity Learning Materials: An Experimental Study using Eye-tracking <i>Leon Bernard, Sagar Raina, Blair Taylor, Siddharth Kaza</i>

Minecraft Altered Skin Channel (MASC)

*Sam Abrams, Brandon Keller, Kenneth Nero, Gino Placella and Daryl Johnson*

Lattice-based weak curve fault attack on ECDSA  
*Weiqiong Cao, Hongsong Shi, Hua Chen, Wei Wei and Jiazhe Chen*

What parts of Usable Security are most important to users?

*Joakim Kavrestad, Steven Furnell, Marcus Nohlberg*

Measuring Self-Efficacy in Secure Programming  
*Matt Bishop, Ida Ngambeki, Shiven Mian, Jun Dai, Phillip Nico*

Wednesday, 23.06.2021

10:00 – IFIP 60 years

11:00 Bill Caelli, Yuko Murayama, Basie von Solms, Leon Strous, Louise Yngström  
*Chair: Steven Furnell*

11:00 – Session 5: Application and System Security  
*Session chair: Sebastian Pape*

12:30 HyperSec: Visual Analytics for blockchain security monitoring  
*Benedikt Putz, Fabian Böhm and Günther Pernul*  
100 Popular Open-Source Infosec Tools

*Rauli Kaksonen, Tommi Järvenpää, Jukka Pajukangas, Mihai Mahalean and Juha Rönning*

RootAsRole: Towards a Secure Alternative to sudo/su Commands for Home Users and SME Administrators  
*Ahmad Samer Wazan, David Chadwick, Rémi Venant, Romain Laborde and Abdelmalek Benzekri*

13:30 – IFIP and National Computer Societies

14:30 Terje Wold, Tony Parry, Margaret Havey, Liesbeth Ruoff, Jee-In Kim, David Cook, John Higgins  
*Chair: Moira de Roche*

14:30 – Session 8: Network Security

16:30 *Session chair: Benedikt Putz*  
Secure and Scalable IoT: An IoT Network Platform Based on Network Overlay and MAC security  
*Junwon Lee and Heejo Lee*  
Enriching DNS Flows with Host-Based Events to Bypass Future Protocol Encryption  
*Stanislav Špaček, Daniel Tovarňák and Pavel Čeleda*

Session 6: Privacy I

*Session chair: Andre Büttner*

Accept All: The Landscape of Cookie Banners in Greece & the UK

*Georgios Kampanos and Siamak Shahandashti*

The AppChk Crowd-Sourcing Platform: Which third parties are iOS apps talking to?  
*Oleg Geier and Dominik Herrmann*

Compiling Personal Data and Subject Categories from App Data Models  
*Christian Burkert, Maximilian Blochberger and Hannes Federrath*

Session 9: Privacy II

*Session chair: Christian Burkert*

Privacy Concerns Go Hand in Hand with Lack of Knowledge: The Case of the German Corona-Warn-App  
*Sebastian Pape, David Harborth and Jacob Leon Kröger*  
Perceived Privacy Problems within Digital Contact Tracing: A Study Among Swedish Citizens  
*Ali Padyab and Joakim Kävrestad*

Session 7: WISE Workshop I

*Session chair: Jacques Ophoff*

Reimagining Inclusive Pedagogy in Cybersecurity Education

*Angela Jackson-Summers*

*(This session is done in a Teams meeting. You will receive the link via email shortly before the event.)*

Session 10: WISE Workshop II

*Session chair: Steve Furnell*

Foundations for Collaborative Cyber Security Learning: Exploring Educator and Learner Requirements  
*Steven Furnell, Gregor Langner and Gerald Quirchmayr*

Advanced Cowrie Configuration to Increase Honeypot  
Deceptiveness

*Warren Cabral, Craig Valli, Leslie Sikos and Samuel  
Wakeling*

Less is Often More: Header Whitelisting as Semantic  
Gap Mitigation in HTTP-based Software Systems

*Andre Büttner, Hoai Viet Nguyen, Nils Gruschka and  
Luigi Lo Iacono*

Thursday, 24.06.2021

10:00 – EU Cybersecurity Competence Centre

11:00 – Martin Übelhör (European Commission), Ivonne Herrera (Research Council of Norway), Silje Johansen,  
*Chair: Audun Jøsang*

11:00 – Session 11: Machine Learning for Security

13:00 – *Session chair: Stanislav Špaček*

TAR: Generalized Forensic Framework to Detect  
Deepfakes using Weakly Supervised Learning  
*Sangyup Lee, Shahroz Tariq, Junyaup Kim and Simon  
Woo*

Anomaly Detection for Insider Threats: An Objective  
Comparison of Machine Learning Models and  
Ensembles

*Filip Bartoszewski, Mike Just, Michael Lones and Oleksii  
Mandrychenko*

Revitalizing Self-Organizing Map: Anomaly Detection  
using Forecasting Error Patterns

*Simon Woo, Young Geun Kim, Hyoung Chun Kim, Jeong-  
Han Yun and Siho Han*

Session 12: WISE II

*Session chair: Dirk Snyman*

Formation of General Professional Competencies in  
Academic Training of Information Security Professionals  
*Natalia Miloslavskaya, Alexander Tolstoy*

Children's awareness of digital wellness: A serious  
games approach

*Johann Allers, Günther Drevin, Dirk Snyman, Kruger,  
Lynette Drevin*

A Layered Model for Building Cyber Defense Training  
Capacity

*Erik Moore, Steven Fulton, Roberta Mancuso, Tristen  
Amador, Daniel Likarish*

Environmental Uncertainty and End-User Security  
Behaviour: A Study During the COVID-19 Pandemic  
*Popyeni Kautondokwa, Zainab Ruhwanya, Jacques  
Ophoff*

13:30 – Session 13: Security Management

15:30 – *Session chair: Filip Bartoszewski*

What is lurking in your backups?

*Ben Lenard, Alexander Rasin, Nick Scope and James  
Wagner*

Session 14: WG11.8 AGM meeting

*Session chair: Erik Moore*

TC 11, WG11.8: Annual General Meeting

*(This meeting is done via Zoom. The participants  
will receive the link via email.)*

How Do Users Chain Email Accounts Together?

*Lydia Kraus, Maria Svidronova and Elizabeth Stobert*

Tensions that hinder the implementation of digital security governance

*Stef Schinagl, Svetlana Khapova and Abbas Shahim*

Networking

15:30 – Yves Deswarte Best Student Paper Award

16:30 Erik Moore (Chair of the Best Student Paper Award Committee)

IFIP TC-11

Steven Furnell (IFIP TC-11 Chair)

Closing of the conference

Lynn Fitcher, Janne Hagen and Audun Jøsang (General Co-Chairs IFIP SEC 2021)

Presentation of IFIP SEC 2022

Christian Damsgaard Jensen, DTU, Copenhagen, Denmark