

Table of Contents

Analysing Trends and Success Factors of International Cybersecurity Capacity-Building Initiatives <i>Faisal Hameed, Ioannis Agraftotis, Carolin Weisser, Michael Goldsmith, and Sadie Creese</i>	1
Towards a Quantitative Approach for Security Assurance Metrics <i>Goitom Weldehawaryat and Basel Katt</i>	13
Sensitive Data Anonymization Using Genetic Algorithms for SOM-based Clustering <i>Fatemeh Amiri, Gerald Quirchmayr, and Peter Kieseberg</i>	21
New Covert Channels in Internet of Things <i>Aleksandra Mileva, Aleksandar Velinov, and Done Stojanov</i>	30
Towards a Protection Profile for User-Centric and Self-Determined Privacy Management in Biometrics <i>Salatiel Ezennaya Gomez, Jana Dittmann, and Claus Vielhauer</i>	37
Exploiting User Privacy in IoT Devices Using Deep Learning and its Mitigation <i>Rana AlAmeedee and Wonjun Lee</i>	43
Secure Collaborative Development of Cloud Application Deployment Models <i>Vladimir Yussupov, Michael Falkenthal, Oliver Kopp, Frank Leymann, and Michael Zimmermann</i>	48
Pro-SRCC: Proxy-based Scalable Revocation for Constant Ciphertext Length <i>Zeya Umayya and Divyashikha Sethia</i>	58
A Logic-Based Network Security Zone Modelling Methodology <i>Sravani Teja Bulusu, Romain Laborde, Ahmad Samer Wazan, Francois Barrere, and Abdelmalek Benzekri</i>	67
Towards a Blockchain-based Identity Provider <i>Andreas Gruner, Alexander Muhle, Tatiana Gayvoronskaya, and Christoph Meinel</i>	73
Enhancement of Usability of Information Security Systems <i>Gwangil Ju and HarkSoo Park</i>	79
Information Security Resilience for Public Sector <i>HarkSoo Park and Gwangil Ju</i>	83
Cyber Security Threats Targeting CPS Systems: A Novel Approach Using Honeypot <i>Sameera Almulla, Elias Bou-Harb, and Claude Fachkha</i>	85
Metrics for Continuous Active Defence	92

George O. M. Yee

The Probable Cyber Attack Concept Exploiting Interrupt Vulnerability in Nuclear Power Plants 99
Taehee Kim, Soomin Lim, and Sangwoo Kim

Secure Cooperation of Untrusted Components 103
Roland Wismuller and Damian Ludwig

Implementation of Eavesdropping Protection Method over MPTCP Using Data Scrambling and Path Dispersion 108
Toshihiko Kato, Shihan Cheng, Ryo Yamamoto, Satoshi Ohzahata, and Nobuo Suzuki

Deployment Enforcement Rules for TOSCA-based Applications 114
Michael Zimmermann, Uwe Breitenbacher, Christoph Krieger, and Frank Leymann

A Botnet Detection System Based on Machine-Learning Using Flow-Based Features 122
Chien-Hau Hung and Hung-Min Sun

Enhanced Software Implementation of a Chaos-Based Stream Cipher 128
Guillaume Gautier, Safwan El Assad, Olivier Deforges, Sylvain Guilley, Adrien Facon, and Wassim Hamidouche

Adopting an ISMS Based Model for Better ITSM in Financial Institutions 134
Zidiegba Seiyaboh and Mohammed Bahja

Authentic Quantum Nonces 139
Stefan Rass, Peter Schartner, and Jasmin Wachter

Cyber-Security Aspects for Smart Grid Maritime Infrastructures 143
Monica Canepa, Giampaolo Frugone, Stefan Schauer, and Riccardo Bozzo

Practical Risk Analysis in Interdependent Critical Infrastructures - a How-To 150
Sandra Konig, Thomas Grafenauer, Stefan Rass, and Stefan Schauer