## **Table of Contents**

PCache: Permutation-based Cache to Counter Eviction-based Cache-based Side-Channel Attacks  Muhammad Asim Mukhtar, Muhammad Khurram Bhatti, and Guy Gogniat	1
Efficient AES Implementation for Better Resource Usage and Performance of IoTs  Umer Farooq, Maria Mushtaq, and Muhammad Khurram Bhatti	7
Challenges of Using Performance Counters in Security Against Side-Channel Leakage  Maria Mushtaq, Pascal Benoit, and Umer Farooq	12
Side Channel Attacks on RISC-V Processors: Current Progress, Challenges, and Opportunities Mahya Morid Ahmadi, Faiq Khalid, and Muhammad Shafique	18
Exploiting Vulnerabilities in Deep Neural Networks: Adversarial and Fault-Injection Attacks Faiq Khalid, Muhammad Abdullah Hanif, and Muhammad Shafique	24
Cyber and Emergent Technologies: Current and Future Ramifications  Joshua Sipper	30
The Cyber Microbiome and the Cyber Meta-reality  Joshua Sipper	37
Dismissing Poisoned Digital Evidence from Blockchain of Custody  David Billard	42
A Privacy-Preserving Architecture for the Protection of Adolescents in Online Social Networks  Markos Charalambous, Petros Papagiannis, Antonis Papasavva, Pantelitsa Leonidou, Rafael Constaninou, Lia  Terzidou, Theodoros Christophides, Pantelis Nicolaou, Orfeas Theofanis, George Kalatzantonakis, and Michael  Sirivianos	48
Resilient Communications Availability Inverting the Confidentiality, Integrity, and Availability Paradigm Steve Chan	58
Mitigation Factors for Multi-domain Resilient Networked Distributed Tessellation Communications  Steve Chan	66
Virtual Private Blockchains: Security Overlays for Permissioned Blockchains.  Samuel Onalo, Deepak Gc, and Eckhard Pfluegel	74
Security Requirement Modeling for a Secure Local Energy Trading Platform  Yasamin Mahmoodi, Christoph Gross, Sebastian Reiter, Alexander Viehl, and Oliver Bringmann	80

Analyzing Power Grid, ICT, and Market Without Domain Knowledge Using Distributed Artificial Intelligence

Eric Veith, Stephan Balduin, Nils Wenninghoff, Martin Troschel, Lars Fischer, Astrid Niesse, Thomas Wolgast,

Richard Sethmann, Bastian Fraune, and Torben Woltjen

Fast Electronic Identification at Trust Substantial Level using the Personal Online Bank Account *Michael Massoth and Sam Louis Ahier* 

94