

Contents

Contributing Authors	ix
Preface	xv
PART I INFRASTRUCTURE PROTECTION	
1	
Protecting the Transportation Sector from the Negative Impacts of Climate Change	3
<i>Georgia Lykou, George Stergiopoulos, Antonios Papachrysanthou and Dimitris Gritzalis</i>	
2	
Evaluation of Additive and Subtractive Manufacturing from the Security Perspective	23
<i>Mark Yampolskiy, Wayne King, Gregory Pope, Sofia Belikovetsky and Yuval Elovici</i>	
3	
Detecting Data Manipulation Attacks on the Substation Interlocking Function Using Direct Power Feedback	45
<i>Eniye Tebekaemi, Edward Colbert and Duminda Wijesekera</i>	
4	
Network Forensic Analysis of Electrical Substation Automation Traffic	63
<i>Megan Leierzapf and Julian Rrushi</i>	
PART II INFRASTRUCTURE MODELING AND SIMULATION	
5	
Multiple Security Domain Model of a Vehicle in an Automated Platoon	81
<i>Uday Kanteti and Bruce McMillin</i>	

6	Distributed Data Fusion for Situational Awareness in Critical Infrastructures with Link Failures	99
	<i>Antonio Di Pietro, Stefano Panzieri and Andrea Gasparri</i>	
7	Exploiting Web Ontologies for Automated Critical Infrastructure Data Retrieval	119
	<i>Luca Galbusera and Georgios Giannopoulos</i>	
PART III INDUSTRIAL CONTROL SYSTEM SECURITY		
8	Enforcing End-to-End Security in SCADA Systems via Application-Level Cryptography	139
	<i>Adrian-Vasile Duka, Bela Genge, Piroska Haller and Bogdan Crainicu</i>	
9	Software Defined Response and Network Reconfiguration for Industrial Control Systems	157
	<i>Hunor Sandor, Bela Genge, Piroska Haller and Flavius Graur</i>	
10	Threat Analysis of an Elevator Control System	175
	<i>Raymond Chan and Kam-Pui Chow</i>	
11	Generating Honeypot Traffic for Industrial Control Systems	193
	<i>Htein Lin, Stephen Dunlap, Mason Rice and Barry Mullins</i>	
12	Challenges to Automating Security Configuration Checklists in Manufacturing Environments	225
	<i>Joshua Lubell and Timothy Zimmerman</i>	
13	Categorization of Cyber Training Environments for Industrial Control Systems	243
	<i>Evan Plumley, Mason Rice, Stephen Dunlap and John Pecarina</i>	
14	Multi-Controller Exercise Environments for Training Industrial Control System First Responders	273
	<i>Joseph Daoud, Mason Rice, Stephen Dunlap and John Pecarina</i>	

PART IV INTERNET OF THINGS SECURITY

15

Defending Building Automation Systems Using Decoy Networks 297
Caleb Mays, Mason Rice, Benjamin Ramsey, John Pecarina and Barry Mullins

16

Securing Bluetooth Low Energy Locks from Unauthorized Access and Surveillance 319
Anthony Rose, Jason Bindewald, Benjamin Ramsey, Mason Rice and Barry Mullins



<http://www.springer.com/978-3-319-70394-7>

Critical Infrastructure Protection XI
11th IFIP WG 11.10 International Conference, ICCIP
2017, Arlington, VA, USA, March 13-15, 2017, Revised
Selected Papers
Rice, M.; Sheno, S. (Eds.)
2017, XVI, 338 p. 116 illus., Hardcover
ISBN: 978-3-319-70394-7