Contents

Industry 4.0: An Overview of Key Benefits, Technologies, and Challenges .............................................. 1
Lane Thames and Dirk Schaefer

Customized Encryption of CAD Models for Cloud-Enabled Collaborative Product Development ......................... 35
X.T. Cai, S. Wang, X. Lu and W.D. Li

A New Approach to Cyberphysical Security in Industry 4.0 .............. 59
Andre Wegner, James Graham and Eli Ribble

SCADA System Forensic Analysis Within IIoT .......................... 73
Peter Eden, Andrew Blyth, Kevin Jones, Hugh Soulsby, Pete Burnap, Yulia Cherdantseva and Kristan Stoddart

Big Data Security Intelligence for Healthcare Industry 4.0 .......... 103
Gunasekaran Manogaran, Chandu Thota, Daphne Lopez and Revathi Sundarasekar

Decentralized Cyber-Physical Systems: A Paradigm for Cloud-Based Smart Factory of Industry 4.0 ......................... 127
Zhinan Zhang, Xiang Li, Xin Wang and Hui Cheng

Applying and Assessing Cybersecurity Controls for Direct Digital Manufacturing (DDM) Systems .................... 173
Dominick Glavach, Julia LaSalle-DeSantis and Scott Zimmerman

Rahul Nair, Chinmohan Nayak, Lanier Watkins, Kevin D. Fairbanks, Kashif Memon, Pengyuan Wang and William H. Robinson
Practical Security Aspects of the Internet of Things .......................... 225
Jörn Mehnen, Hongmei He, Stefano Tedeschi and Nikolaos Tapoglou

Cybersecurity for Industry 4.0 and Advanced Manufacturing Environments with Ensemble Intelligence .......................... 243
Lane Thames and Dirk Schaefer
Cybersecurity for Industry 4.0
Analysis for Design and Manufacturing
Thames, L.; Schaefer, D. (Eds.)
2017, XIII, 265 p. 112 illus., 99 illus. in color., Hardcover
ISBN: 978-3-319-50659-3