Record Nr. UNINA9910254323703321 Cybersecurity for Industry 4.0: Analysis for Design and Manufacturing Titolo // edited by Lane Thames, Dirk Schaefer Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2017 **ISBN** 3-319-50660-9 Edizione [1st ed. 2017.] 1 online resource (XIII, 265 p.): ill Descrizione fisica Collana Springer Series in Advanced Manufacturing, , 1860-5168 Classificazione 32.24.56 005.8 Disciplina Soggetti Computer security Electrical engineering Industrial engineering Production engineering Management Industrial management Economic policy Computer crimes Systems and Data Security Communications Engineering, Networks Industrial and Production Engineering Innovation/Technology Management R & D/Technology Policy Cybercrime Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Industry 4.0: An Overview of Key Benefits, Technologies, and Challenges -- Customized Encryption of CAD Models for Cloudenabled Collaborative Product Development -- A New Approach to Cyberphysical Security in Industry 4.0 -- Big Data Security Intelligence for Healthcare Industry 4.0 -- Decentralized Cyber-physical Systems: A Paradigm for Cloud-based Smart Factory of Industry 4.0 -- Applying and Assessing Cybersecurity Controls for Direct Digital Manufacturing

(DDM) Systems -- The Resource Usage Viewpoint of Industrial Control

System Security: An Inference-based Intrusion Detection System -- Practical Security Aspects of the Internet of Things -- Cybersecurity for Industry 4.0 and Advanced Manufacturing Environments with Ensemble Intelligence.

Sommario/riassunto

This book introduces readers to cybersecurity and its impact on the realization of the Industry 4.0 vision. It covers the technological foundations of cybersecurity within the scope of the Industry 4.0 landscape and details the existing cybersecurity threats faced by Industry 4.0, as well as state-of-the-art solutions with regard to both academic research and practical implementations. Industry 4.0 and its associated technologies, such as the Industrial Internet of Things and cloud-based design and manufacturing systems are examined, along with their disruptive innovations. Further, the book analyzes how these phenomena capitalize on the economies of scale provided by the Internet. The book offers a valuable resource for practicing engineers and decision makers in industry, as well as researchers in the design and manufacturing communities and all those interested in Industry 4.0 and cybersecurity.