Record Nr. UNINA9910303454803321 Cyber-Physical Systems Security [[electronic resource] /] / edited by **Titolo** Çetin Kaya Koç Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-319-98935-9 Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (347 pages) 006.22 Disciplina Data structures (Computer science) Soggetti Data protection Public safety System safety Data Structures and Information Theory Security Crime Control and Security Security Science and Technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Robust Digital Computation in the Physical World -- Constraint-Based Nota di contenuto Framework for Reasoning with Differential Equations -- Approximate

Framework for Reasoning with Differential Equations -- Approximate Computing and Its Application to Hardware Security -- Mathematical Optimizations for Deep Learning -- A Zero-Entry Cyber Range Environment for Future Learning Ecosystems -- Parallel Programming in Cyber-Physical Systems -- Automatic Application of Software Countermeasures Against Physical Attacks -- Time-Delay Attacks in Network Systems -- Attack Tree Construction and Its Application to the Connected Vehicle -- Reinforcement Learning and Trustworthy Autonomy -- Identifier Randomization: An Efficient Protection Against CAN-Bus Attacks -- Public-Key-Based Lightweight Swarm Authentication -- Physical Security Versus Masking Schemes -- Embedded Classifiers for Energy Constrained IoT Network Security -- Challenges in Cyber Security: Ransomware Phenomenon -- Applying Model-Based Situational Awareness and Augmented Reality to Next-

Generation Physical Security Systems.

Sommario/riassunto

The chapters in this book present the work of researchers, scientists, engineers, and teachers engaged with developing unified foundations, principles, and technologies for cyber-physical security. They adopt a multidisciplinary approach to solving related problems in next-generation systems, representing views from academia, government bodies, and industrial partners, and their contributions discuss current work on modeling, analyzing, and understanding cyber-physical systems.