Record Nr. UNINA9910591042103321 Big Data Analytics and Computational Intelligence for Cybersecurity // **Titolo** edited by Mariya Ouaissa, Zakaria Boulouard, Mariyam Ouaissa, Inam Ullah Khan, Mohammed Kaosar Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 3-031-05752-X **ISBN** Edizione [1st ed. 2022.] 1 online resource (336 pages) Descrizione fisica Studies in Big Data, , 2197-6511; ; 111 Collana 005.7 Disciplina 005.8 Soggetti Engineering - Data processing Computational intelligence Big data Artificial intelligence Cooperating objects (Computer systems) **Data Engineering** Computational Intelligence Big Data Artificial Intelligence Cyber-Physical Systems Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto New Advancements in Cybersecurity: A Comprehensive Survey -- CPSs Communication using 5G Network in the Light of Security -- A Survey on Security Aspects in RPL Protocol over IoT Network -- Analysis of Cybersecurity Risks and their Mitigation for Work-from-Home Tools and Techniques -- A Systemic Security and Privacy Review: Attacks and Prevention Mechanisms over IoT Layers -- Software-Defined Networking Security: A Comprehensive Review. Sommario/riassunto This book presents a collection of state-of-the-art artificial intelligence and big data analytics approaches to cybersecurity intelligence. It

illustrates the latest trends in Al/ML-based strategic defense

mechanisms against malware, vulnerabilities, cyber threats, as well as proactive countermeasures. It also introduces other trending technologies, such as blockchain, SDN, and IoT, and discusses their possible impact on improving security. The book discusses the convergence of AI/ML and big data in cybersecurity by providing an overview of theoretical, practical, and simulation concepts of computational intelligence and big data analytics used in different approaches of security. It also displays solutions that will help analyze complex patterns in user data and ultimately improve productivity. This book can be a source for researchers, students, and practitioners interested in the fields of artificial intelligence, cybersecurity, data analytics, and recent trends of networks.