Record Nr. UNINA9910851987303321 Autore Odhiambo Marcel Ohanga Titolo From Internet of Things to Internet of Intelligence / / edited by Marcel Ohanga Odhiambo, Weston Mwashita Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 3-031-55718-2 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (XVI, 192 p. 52 illus., 41 illus. in color.) Collana Transactions on Computational Science and Computational Intelligence, , 2569-7080 004.678 Disciplina Soggetti Telecommunication Internet of things Artificial intelligence Computational intelligence Communications Engineering, Networks Internet of Things Artificial Intelligence Computational Intelligence Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Security and privacy issues of an IoT/IA 6G converged Nota di contenuto wireless network -- New IoT and AI applications driven by 6G --Pervasive artificial intelligence -- Big data analytics -- THz communications -- Cell-free networks -- Quantum communications --Al and machine learning an enabler of 6G technology -- Use cases in healthcare, smart grid, transport and Industry 4.0/5.0, smart cities, energy efficiency, smart homes automation -- Blockchain technology for the fulfilling of the requirements for massive 6G-based IoT/IA --Blockchain's intrinsic properties enable academic bodies to detect academic fraud -- Autonomous Driving and V2V communications --Unmanned area vehicles (UAVs) and drones -- IoT/IA and 6G convergence assists by offering a safe data sharing framework --Conclusion. Sommario/riassunto The book focuses on the open challenges associated with the

convergence of the Internet of Things and Artificial Intelligence, as

accommodated in 6G architecture. The authors discuss how in many fields, such as Natural Language Processing (NLP), interactive computer games, robotics, and multiuser virtual environments, this convergence is likely to have enormously benefits, from artificial intelligence mimicking human intelligence, attempting to simulate human intelligence, and producing a new intelligent machine capable of processing information with human consciousness, behaviour, and thinking integrated with appropriate algorithms. The book provides users with the fundamentals of IoT architecture, Al technology, and the architecture of AI and IoT converged networks. Furthermore, to provide hands-on experience with the technology, some proposed systems are discussed, along with their applications in various sectors such as healthcare, transportation, smart homes, production, manufacturing, renewable energy and agriculture. The book will discuss new technological advances, current research trends, and industry requirements. Discussed open challenges in the field will motivate researchers and stakeholders in industry to provide solutions, with some presented in the book to help spark ideas. Provides an insight into developing AI and IoT convergence techniques to meet industrial demands; Presents an assessment of the convergence of AI and IoT, with a focus on applications, architectures, techniques, and hardware platforms; Appropriate for industry professionals, health practitioners, healthcare workers, computer scientists, agriculturists, policymakers, researchers, scholars, instructors, and students.