1. Record Nr. UNINA9910824961003321 The smart cyber ecosystem for sustainable development / / edited by Titolo Pardeep Kumar, Vishal Jain, Vasaki Ponnusamy Pubbl/distr/stampa Hoboken, NJ:,: John Wiley & Sons, Inc.,, [2021] ©2021 **ISBN** 1-119-76166-2 1-119-76165-4 1-119-76167-0 Descrizione fisica 1 online resource (480 pages) Disciplina 006.3 Soggetti Artificial intelligence Internet of things Computer networks - Social aspects Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Cover -- Half-Title Page -- Series Page -- Title Page -- Copyright Page -- Contents -- Preface -- Part 1: INTERNET OF THINGS -- 1 Voyage of Internet of Things in the Ocean of Technology -- 1.1 Introduction --1.1.1 Characteristics of IoT -- 1.1.2 IoT Architecture -- 1.1.3 Merits and Demerits of IoT -- 1.2 Technological Evolution Toward IoT -- 1.3 IoT-Associated Technology -- 1.4 Interoperability in IoT -- 1.5 Programming Technologies in IoT -- 1.5.1 Arduino -- 1.5.2 Raspberry Pi -- 1.5.3 Python -- 1.6 IoT Applications -- Conclusion -- References 2 Al for Wireless Network Optimization: Challenges and Opportunities -- 2.1 Introduction to AI -- 2.2 Self-Organizing Networks -- 2.2.1 Operation Principle of Self-Organizing Networks -- 2.2.2 Self-Configuration -- 2.2.3 Self-Optimization -- 2.2.4 Self-Healing -- 2.2.5 Key Performance Indicators -- 2.2.6 SON Functions -- 2.3 Cognitive Networks -- 2.4 Introduction to Machine Learning -- 2.4.1 ML Types

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Sommario/riassunto

The Smart Cyber Ecosystem for Sustainable Development As the entire ecosystem is moving towards a sustainable goal, technology driven smart cyber system is the enabling factor to make this a success, and the current book documents how this can be attained. The cyber ecosystem consists of a huge number of different entities that work and interact with each other in a highly diversified manner. In this era, when the world is surrounded by many unseen challenges and when its population is increasing and resources are decreasing, scientists, researchers, academicians, industrialists, government agencies and other stakeholders are looking toward smart and intelligent cyber systems that can guarantee sustainable development for a better and healthier ecosystem. The main actors of this cyber ecosystem include the Internet of Things (IoT), artificial intelligence (AI), and the mechanisms providing cybersecurity. This book attempts to collect and publish innovative ideas, emerging trends, implementation experiences, and pertinent user cases for the purpose of serving mankind and societies with sustainable societal development. The 22 chapters of the book are divided into three sections: Section I deals with the Internet of Things, Section II focuses on artificial intelligence and especially its applications in healthcare, whereas Section III investigates the different cyber security mechanisms. Audience This book will attract researchers and graduate students working in the areas of artificial intelligence, blockchain, Internet of Things, information technology, as well as industrialists, practitioners, technology developers, entrepreneurs, and professionals who are interested in exploring, designing and implementing these technologies.