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Autore	Misra Sanjay
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Altri autori (Persone)	SiakasKerstin LampropoulosGeorgios
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Nota di contenuto	Chapter 1. Reconsidering a Sustainable Future through Artificial Intelligence of Things (AIoT) in the Context of Circular Economy (Georgios Lampropoulos, Harjinder Rahanu, Elli Georgiadou, Dimitrios Siakas, and Kerstin Siakas) -- Chapter 2. The Digital Paradigm: Unraveling the Impact of Artificial Intelligence and Internet of Things on achieving Sustainable Development Goals (Hanane Thamik, Juan David Figueroa Cabrera, and Jiang Wu) -- Chapter 3. The role of the Artificial Intelligence of Things in Energy Poverty alleviation (Ascensión López Vargas, Agapito Ledezma-Espino, and Araceli Sanchis-de-Miguel) -- Chapter 4. AIoT-Enabled Smart Grids: Advancing Energy Efficiency and Renewable Energy Integration (Fadele Ayotunde Alaba, Usman Sani, Emmanuel Gbenga Dada, and Baydaa Hashim Mohammed) -- Chapter

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Sommario/riassunto

This book covers various topics and trends regarding Artificial Intelligence (AI), Internet of Things (IoT), and their applications in society, industry, and environment for achieving Sustainable Development Goals (SDGs) suggested by the United Nations. Additionally, it discusses their advancements and fusion as well as the realization of Artificial Intelligence of Things (AIoT). The book aims to provide an overview and recent research into the fusion, integration, advancements, and impact of these technologies in the context of SDGs achievement. The topics include the applications of AI, IoT, big data, AI-based and IoT-based cloud computing, machine learning and deep learning techniques, and blockchain among others for achieving SDGs. It also presents findings and discussions on potential application domains, addresses open issues and challenges, offers solutions, and provides suggestions for future research for achieving SDGs. The chapters are clustered, according to particular SDGs or areas of focus, into: i) the realization of AIoT for SDGs, ii) the role of AIoT in achieving society and wellbeing-related SDGs, iii) the fulfillment of industrial sectors, infrastructure, and economy-related SDGs through AIoT, and iv) the use of AIoT to aid natural resources and environment-related SDGs. The book assists researchers, practitioners, professionals, and academicians of various scientific fields in exploring and better understanding these state-of-the-art technologies, their advancements, impact, future potentials and benefits, and their role in successfully achieving SDGs. The book: · Offers an in-depth overview of AIoT for achieving SDGs. · Presents the fusion of AI and IoT for bringing a significant change in everyday life and fulfilling SDGs. · Highlights innovative solutions and results of AIoT integration in several domains for achieving SDGs. · Showcases the influence of AIoT on promoting and improving sustainability in the context of SDGs. · Discusses the issues, benefits, solutions, and impact of AIoT in society, industry, and environment for achieving SDGs.