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Sommario/riassunto

"A good management strategy must be expected to mitigate the dangerous consequences of rapid urbanization that modern society, the economy, and the environment may face. Sustainable smart cities include established structures, infrastructures, communities, institutions, and individuals. On the other hand, this book also deals with energy consumption. Such energy consumption leads to a rapid depletion of energy resources, an increased need for building maintenance, an improvised comfortable lifestyle, and an increase in time spent on building construction. A sustainable building mainly explains the renewable sources used for construction, which helps the structure withstand atmospheric changes. Currently, all countries are looking for ecological materials, that is, renewable plant materials such as straw and clay bricks, wood from forests certified for sustainable management, recycled materials, and other non-toxic, reusable and renewable products. For sustainable and durable construction, energy efficiency is an urgent problem, and researchers are currently actively involved in this area. This book will provide an in-depth analysis of design technologies that lay a solid foundation for sustainable buildings. The book also highlights smart automation technologies that help save energy, as well as various performance indicators needed to make construction easier. The book aims to create a strong research community, to have a deep understanding and the latest knowledge in the field of energy and comfort, to offer solid ideas in the nearby future for sustainable and resilient buildings. These buildings will help the city grow as a smart city. The smart city has also focused on low energy consumption, renewable energy, and small carbon footprints. To find the optimal use of energy resources, researchers must study optimization methods."--