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Nota di contenuto	Part I :Parallels in Built Environment: managing cities and buildings with Artificial Intelligence and Distributed Computing: Chapter 1. Smart Cities and Technology: The Role of Digital Technology in The Urban Fabric -- Chapter 2. Use of Advanced Digital Technologies in Re-Presentation of an Ottoman Caravanserai and its Surrounding Historic Built Environment, in Bursa, Turkey -- Chapter 3. A Metaheuristic-Based Subspace Search Approach for Outlier Detection in High Dimensional Data Streams -- Chapter 4 Artificial intelligence and crowd-sourced social media data for biodiversity monitoring and conservation -- Part II : Parallels In Architectural design: new perspectives, workflows and tools involving robotics and Artificial Intelligence: Chapter 5. Client Brief to 3D Printed Construction – an Artificial Intelligence Workflow for Architectural AI Design Process -- Chapter 6. Sketch Plan Recognition and Vectorization of Floor Plan Sketches for BIM Design Environment -- Chapter 7.Enhancing Architectural Plan Generation with Machine Learning and Space Syntax

Analysis for Optimized Spatial Configuration -- Chapter 8. Machine learning based QSAR classifications for PIM kinases inhibition prediction : Towards the neoplastic insilico drug design -- Part III: Parallels In Performance Assessment: Energetic and Structural analysis aided by Computing Techniques. Chapter 9. Calculating Cost Optimal Energy Efficiency Levels for Opening Elements on an Exemplar Residential Building -- Chapter 10. The Effect of Urban Design for Residential Complexes on the Efficiency of Environmental Performance and Carbon Emissions -- Chapter 11 Influence of Embedded Crack on the Mechanical Failure of TI-6Al-4V Locking Compression Plates Using Finite Element Analysis -- Chapter 12. Analysis of the impact of new singular ventilation technologies on enhancing indoor air quality in schools. Part IV: Disruptive Business Models and Innovative Market Strategies: Digital Marketing and social innovations. Chapter 13. Shaping disruptive solutions for sustainable futures: zooming in on the social in socio-technical transformation -- Chapter 14 Unveiling the Complexities of Purchaser Retention in Non-Fungible Token (NFT) Platforms: Investigating Direct, Strengthening, and Constraining Moderating Factors for Single and Multiple NFT Purchasers -- Chapter 15. Exploring Determining Factors for SMEs' Access to Alternative Financing Through the Technology-Organization-Environment (TOE) Framework -- Chapter 16. Into the Secret Garden or a Dark Pool? An Exploration of whether DeFi Gardens/Pools Provide a viable democratic alternative to Principal-agent Investment -- Chapter 17. The Nature Smart Future - In Search for the Next Gen Innovation.

Sommario/riassunto

This book offers a captivating discussion into the cutting-edge developments at the intersection of architecture, engineering, construction, and technology. With a focus on the power of big data analytics and computational design, this book delves into the transformative potential of these domains in shaping the built environment and business. This book discovers the fusion of architectural and engineering innovations with the capabilities of big data analytics, machine learning, and AI and explores how this parallelism is revolutionizing the design process, enhancing efficiency, and opening new horizons for creativity. This book steps into a world where predictive models, statistical algorithms, and what-if scenarios drive advancements in architectural and engineering practices and witnesses the seamless integration of technology in design generation, data visualization, task automation, and performance testing. It is an essential read for researchers and professionals seeking to leverage the potential of big data analytics to transform the built environment, maintaining the central role of humans.
