1. Record Nr. UNINA9910992783203321

Titolo	Advances in Information Technology in Civil and Building Engineering : Proceedings of ICCCBE 2024, Volume 2, Simulation and Automation / / edited by Adel Francis, Edmond Miresco, Silvio Melhado
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	3-031-87364-5
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (X, 671 p. 249 illus., 218 illus. in color.)
Collana	Lecture Notes in Civil Engineering, , 2366-2565 ; ; 629
Disciplina	690
Soggetti	Buildings - Design and construction Engineering - Data processing Building information modeling Facility management Building Construction and Design Data Engineering Building Information Modeling Facility Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Transparency and Trust Evaluating XAI for Critical Infrastructure Systems A Comprehensive Analysis.-Quantum computing in civil engineering Potentials and Limitations -- A contribution to process oriented graph data management for structural data exchange -- Machine Learning and Internet of Things for Construction Air Pollution Monitoring and Prediction -- Exploring the potential of BIM models for deriving synthetic training data for Machine Learning applications -- Natural Language Communication with Sensor Data through a LLM integrated Protocol a Case Study -- Integrating Machine Learning for Cyber Risk Analysis in Construction 4 0 -- Automated Hierarchical Object Clustering for Multi Image Documentation A Comprehensive Image Analysis Pipeline.
Sommario/riassunto	This book gathers the latest advances, innovations, and applications in the field of information technology in civil and building engineering, presented at the 20th International Conference on Computing in Civil

and Building Engineering (ICCCBE), held in Montreal, Canada on August 25-28, 2024. It covers highly diverse topics such as BIM, construction information modeling, knowledge management, GIS, GPS, laser scanning, sensors, monitoring, VR/AR, computer-aided construction, product and process modeling, big data and IoT, cooperative design, mobile computing, simulation, structural health monitoring, computer-aided structural control and analysis, ICT in geotechnical engineering, computational mechanics, asset management, maintenance, urban planning, facility management, and smart cities. Written by leading researchers and engineers, and selected by means of a rigorous international peer-review process, the contributions highlight numerous exciting ideas that will spur novel research directions and foster multidisciplinary collaborations.