

1. Record Nr.	UNINA9910595049903321
Autore	Dounas Theodoros
Titolo	Blockchain for Construction // edited by Theodoros Dounas, Davide Lombardi
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2022
ISBN	9789811937590 9811937591
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (229 pages)
Collana	Blockchain Technologies, , 2661-8346
Disciplina	005.74
Soggetti	Construction industry - Management Blockchains (Databases) Security systems Business logistics Computational intelligence Artificial intelligence - Data processing Construction Management Blockchain Security Science and Technology Supply Chain Management Computational Intelligence Data Science Cadena de blocs (Bases de dades) Indústria de la construcció Processament de dades Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. The Promise of Blockchain for the Construction Industry: a Governance Lens -- 2.Decentralised Autonomous Organisations for the AEC and Design industries -- 3. The integration of automatic BIM validation and smart contracts for design compliance and payment reliability in the design process -- 4. Capturing and Transforming

Planning Processes for Smart Contracts -- 5. Blockchain for supply chain ledgers: tracking toxicity information of construction materials.

Sommario/riassunto

This book highlights the design, use and structure of blockchain systems and decentralized ledger technologies (B/DLT) for use in the construction industry. Construction remains a fragmented change-resistant industry with chronic problems of underproductivity and a very low digitization factor compared to other fields. In parallel, the convergence, embedding and coordination of digital technologies in the physical world provides a unique opportunity for the construction industry to leap ahead and adopt fourth industrial revolution technologies. Within this context, B/DLT are an excellent fit for the digitization of the construction industry. B/DLT are effective in this as they organize and align digital and physical supply chains, produce stigmergic coordination out of decentralization, enable the governance of complex projects for multiple stakeholders, while enabling the creation of a new class of business models and legal instruments for construction.
