1.	Record Nr.	UNINA9910627261603321
	Autore	Xu Guanghui
	Titolo	Introduction to Intelligent Construction Technology of Transportation Infrastructure / / by Guanghui Xu, Dongsheng Wang
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
	ISBN	3-031-13433-8
	Edizione	[1st ed. 2023.]
	Descrizione fisica	1 online resource (241 pages)
	Collana	Springer Tracts in Civil Engineering, , 2366-2603
	Disciplina	624.0285
	Soggetti	Transportation engineering
		Traffic engineering
		Engineering - Data processing
		Buildings - Design and construction
		Sustainability
		Internet of things
		Transportation Technology and Traffic Engineering
		Data Engineering
		Building Construction and Design
		Internet of Things
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di bibliografia	Includes bibliographical references.
	Nota di contenuto	What is Intelligent Construction? -- Representing things in systematic Approach -- Make Machines Capable of Learning -- Entering a Data Era -- Understanding Perception Technology -- The Intelligence of Engineering Construction -- The Road to the Future.
	Sommario/riassunto	This book expounds on the related technologies of intelligent transportation infrastructure construction. Based on the essential characteristics of intelligent construction, "perception, analysis, decision-making, and execution," the basic structure of intelligent construction technology (ICT) is established. With the integration of engineering construction technologies, the analyses of the essence of intelligent algorithms and the feasibility of Artificial Intelligence (AI) are provided. The book introduces the essential characteristics of Big Data

and the Internet of Things and their relationship with engineering construction. On this basis, the feasibility and implementation plan of intelligent technology applications in design, construction, and maintenance are analyzed and demonstrated with engineering examples. The book also combines ICT with intelligent construction talent training, the professional knowledge required for intelligent construction, and the theoretical basis to provide the methods for mastering new technologies. This book can be used by technical personnel in related fields such as highways, railways, airports, and urban road construction to understand and master innovative, intelligent construction technologies. It can also be a reference book for ICT-related college courses.