

1. Record Nr.	UNINA9910881098203321
Autore	Wu Gang
Titolo	Intelligent Bridge Maintenance and Management : Emerging Digital Technologies // by Gang Wu, ZhiQiang Chen, Ji Dang
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	9789819738274 9789819738267
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (475 pages)
Collana	Springer Tracts in Civil Engineering, , 2366-2603
Altri autori (Persone)	ChenZhiqiang DangJi
Disciplina	352.56
Soggetti	Facility management Big data Internet of things Facility Management Big Data Internet of Things
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Intelligent Bridge Maintenance and Management System -- IoT Sensing Technology -- Bridge Inspection Automation -- Big Data Enabled Computating.
Sommario/riassunto	This book provides a timely introduction to the methodology of Intelligent Bridge Maintenance and Management (IBM&M) and a comprehensive synthesis of emerging digital technologies for realizing IBM&M. The authors, who carry research, teaching, and consulting experience in the USA, Japan, and China, present the background, principles, methods, and application examples of essential IBM&M solutions in eight dedicated chapters. The digital technologies covered in this book include: • Artificial intelligence, big data, machine learning, computer vision. • Data fusion, 3D building information, digital twin modeling, virtual and augmented reality. • Internet of things sensors, robotics including unmanned vehicles. The book targets the audience in the broader Bridge Engineering community, including academic researchers, students, bridge owners, and

technology providers.
