1.	Record Nr.	UNINA9910966106403321
	Titolo	Resilience of civil infrastructure systems : developments in testing, sensing, monitoring, and control / / edited by Jian Zhang, Zhishen Wu and Mohammad Noori
	Pubbl/distr/stampa	Boca Raton, FL : , : CRC Press, , 2021
	ISBN	1-00-309056-7 1-003-09056-7 1-000-17865-X 1-000-17869-2
	Edizione	[First edition.]
	Descrizione fisica	1 online resource (611 pages)
	Collana	Taylor and Francis series in resilience and sustainability in civil, mechanical, aerospace and manufacturing engineering systems
	Disciplina	621.811 624.176
	Soggetti	Vibration - Testing
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Includes index.
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Sommario/riassunto

"Resilience of civil infrastructure systems : developments in testing, sensing, monitoring, and control covers a wide range of topics in the areas of vibration testing, instrumentation, and analysis of civil engineering and critical infrastructure. It explains how recent research, development, and applications in experimental vibration analysis of civil engineering structures have progressed significantly due to advancements in the fields of sensor and testing technologies, instrumentation, data acquisition systems, computer technology, computational modeling and simulation of large and complex civil infrastructure systems. The book also examines how cutting-edge artificial intelligence and data analytics can be applied to infrastructure systems. Features : Explains how recent technological developments have resulted in addressing the challenge of designing more resilient infrastructure, examines numerous research studies conducted by leading scholars in the field of infrastructure systems and civil engineering, presents the most emergent fields of civil engineering design, such as data analytics and AI for the analysis and performance assessment of infrastructure systems and their resilience, emphasizes the importance of an interdisciplinary approach to develop the modeling, analysis, and experimental tools for designing more resilient and intelligent infrastructure. Appropriate for practicing engineers and upper-level students, Resilience of civil infrastructure systems : developments in testing, sensing, monitoring, and control serves as a strategic roadmap for further research in the field of vibration testing and instrumentation of infrastructure systems"--