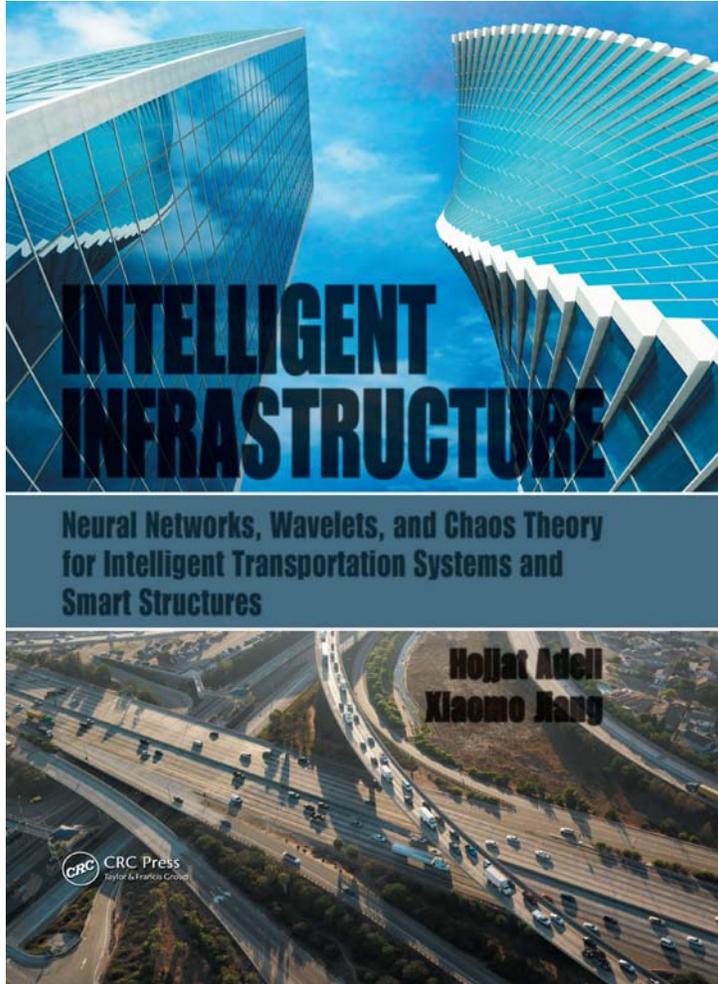


Intelligent Infrastructure

Neural Networks, Wavelets, and Chaos Theory for Intelligent Transportation Systems and Smart Structures



Hojjat Adelli, Xiomo Jiang



Recent estimates hypothesize that the US will need \$1.6 trillion dollars for rehabilitation, replacement, and maintenance of existing infrastructure systems within the next 20 years. Presenting a new vision and way of designing and managing the civil infrastructure of the nation, this text introduces novel technologies, methods, and detailed computational algorithms for the creation of smart structures and intelligent freeways. Cutting across the disciplines of structural and transportation engineering, it provides a unique treatise for attacking and solving some of the most complex and intractable problems encountered in the emerging fields of smart structures and intelligent transportation systems.

October 2008 440 pp. 7"x10"
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