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Titolo	Advanced Intelligent Pipeline Management Technology / / edited by Huai Su, Qi Liao, Haoran Zhang, Enrico Zio
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Descrizione fisica	1 online resource (199 pages)
Collana	Intelligent Technologies and Robotics Series
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Soggetti	Automatic control Robotics Automation Building - Design and construction Underground construction Artificial intelligence Control, Robotics, Automation Building Construction and Design Underground Engineering and Tunnel Construction Intelligence Infrastructure
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1 - Overview for pipeline scheduling -- Chapter 2 - Advanced Modelling and algorithm for pipeline scheduling -- Chapter 3 - Demand Side Management in smart pipeline networks -- Chapter 4 - Operation condition monitoring for pipeline -- Chapter 5 - Operation condition prediction for pipeline -- Chapter 6 - Intelligent inspection for pipeline system -- Chapter 7 - Probabilistic Safety Analysis in complex pipeline systems -- Chapter 8 - Risk pre-warning method for pipeline systems -- Chapter 9 - Fault detection and diagnose method for pressurization devices -- Chapter 10 - Intelligent leakage detection for pipelines -- Chapter 11 - Smart emergency management of pipeline system -- Chapter 12 - Simulation of natural gas pipeline system.
Sommario/riassunto	This book summarizes the advanced intelligent pipeline management

technologies. The text discusses the main challenges of how to define and reinvent data-driven intelligent pipeline systems by studying scheduling-operation- safety management systems. Additionally, within an all-around intelligent pipeline system technology development framework, this book characterizes the scientific problems of intelligent pipeline system services among different processes, such as scheduling, demand-side management, operation condition monitoring, safety analysis, fault detection, etc. This book also introduces the existing positive and successful intelligent pipeline system projects that can be identified in the studied domain, and how can they be best applied for practical success. The text is supported by informative illustrations and case studies so that practitioners can use the book as a toolbox to improve understanding in applying the novel technologies into intelligent pipeline system management and development.