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Titolo	Handbook of stochastic models and analysis of manufacturing system operations / / J. MacGregor Smith, Bars Tan, editors
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Descrizione fisica	1 online resource (396 p.)
Collana	International series in operations research & management science, , 0884-8289 ; ; v. 192
Altri autori (Persone)	SmithJ. MacGregor TanBars
Disciplina	670
Soggetti	Production management - Mathematical models Production control - Mathematical models Manufacturing processes - Mathematical models Stochastic analysis Stochastic processes
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	The Design of Manufacturing Systems to Cope with Variability -- Modeling Automated Warehouses Using Semi-Open Queueing Networks -- Exact Analysis of Discrete Part Production Lines -- Models of Leveling for Lean Manufacturing Systems -- Value of Advance Demand Information in Production and Inventory Systems with Share Resources -- Production Systems Engineering -- Production Release Control -- Queueing Network Models of Material Handling & Transportation Systems -- Modeling and Analysis of Output Variability in Discrete Material Flow Production Systems -- Stochastic Lot Sizing Problems -- From Operational to Financial Evaluation of Manufacturing Systems.
Sommario/riassunto	This handbook surveys important stochastic problems and models in manufacturing system operations and their stochastic analysis. Using analytical models to design and control manufacturing systems and their operations entail critical stochastic performance analysis as well as integrated optimization models of these systems. Topics deal with the areas of facilities planning, transportation, and material handling systems, logistics and supply chain management, and integrated

productivity and quality models covering: • Stochastic modeling and analysis of manufacturing systems • Design, analysis, and optimization of manufacturing systems • Facilities planning, transportation, and material handling systems analysis • Production planning, scheduling systems, management, and control • Analytical approaches to logistics and supply chain management • Integrated productivity and quality models, and their analysis • Literature surveys of issues relevant in manufacturing systems • Case studies of manufacturing system operations and analysis Today’s manufacturing system operations are becoming increasingly complex. Advanced knowledge of best practices for treating these problems is not always well known. The purpose of the book is to create a foundation for the development of stochastic models and their analysis in manufacturing system operations. Given the handbook nature of the volume, introducing basic principles, concepts, and algorithms for treating these problems and their solutions is the main intent of this handbook. Readers unfamiliar with these research areas will be able to find a research foundation for studying these problems and systems.