



Optimal Flow Control in Manufacturing Systems

By Maimon, Oded / Khmelitsky, Eugene

Condition: New. Publisher/Verlag: Springer, Berlin | Production Planning and Scheduling | This book presents a unified optimal control approach to a large class of problems arising in the field of production planning and scheduling. It introduces a leading optimal flow control paradigm which results in efficient solutions for planning and scheduling problems. This book also introduces the reader to analytical and numerical methods of the maximum principle, used here as a mathematical instrument in modeling and solving production planning and scheduling problems. The book examines control of production flows rather than sequencing of distinct jobs. Methodologically, this paradigm allows us to progress from initial assumptions about a manufacturing environment, through mathematical models and construction of numerical methods, up to practical applications which prove the relevance of the theory developed here to the real world. Given a manufacturing system, the goal is to control the production, subject to given constraints, in such a way that the demands are tracked as closely as possible. The book considers a wide variety of problems encountered in actual production planning and scheduling. Among the problems are production flow sequencing and timing, capacity expansion and deterioration, subcontracting and overtime. The last chapter is entirely devoted to...



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Reviews

Very beneficial to all of class of people. I am quite late in start reading this one, but better then never. You may like just how the writer create this publication.

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Thorough information! Its this type of great go through. It is amongst the most incredible publication i actually have read through. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- **Germaine Welch**