1. Record Nr. UNINA9910254081603321

Autore	Pinedo Michael L
Titolo	Scheduling : Theory, Algorithms, and Systems / / by Michael L. Pinedo
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-26580-6
Edizione	[5th ed. 2016.]
Descrizione fisica	1 online resource (XX, 670 p. 124 illus., 21 illus. in color.)
Disciplina	658.53
Soggetti	Operations research Management science Industrial engineering Production engineering Probabilities System theory Operations Research, Management Science Industrial and Production Engineering Probability Theory and Stochastic Processes Systems Theory, Control
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Preface -- Supplementary Electronic Material -- Introduction -- Part I: Deterministic Models -- Deterministic Models: Preliminaries -- Single Machine Models (Deterministic) -- Advanced Single Machine Models (Deterministic) -- Parallel Machines Models (Deterministic) -- Flow Shops and Flexible Flow Shops (Deterministic) -- Job Shops (Deterministic) -- Open Shops (Deterministic) -- Part II Stochastic Models -- Stochastic Models: Preliminaries -- Single Machine Models (Stochastic) -- Single Machine Models with Release Dates (Stochastic) -- Parallel Machine Models (Stochastic) -- Flow Shops, Job Shops and Open Shops (Stochastic) -- Part III Scheduling in Practice -- General Purpose Procedures for Deterministic Scheduling -- More Advanced General Purpose Procedures -- Modeling and Solving Scheduling Problems in Practice -- Design and Implementation of Scheduling

Systems: Basic Concepts -- Design and Implementation of Scheduling Systems: More Advanced Concepts -- Examples of System Designs and Implementations -- What Lies Ahead? -- Appendices.

Sommario/riassunto

This new edition of the well-established text Scheduling: Theory, Algorithms, and Systems provides an up-to-date coverage of important theoretical models in the scheduling literature as well as important scheduling problems that appear in the real world. The accompanying website includes supplementary material in the form of slide-shows from industry as well as movies that show actual implementations of scheduling systems. The main structure of the book, as per previous editions, consists of three parts. The first part focuses on deterministic scheduling and the related combinatorial problems. The second part covers probabilistic scheduling models; in this part it is assumed that processing times and other problem data are random and not known in advance. The third part deals with scheduling in practice; it covers heuristics that are popular with practitioners and discusses system design and implementation issues. All three parts of this new edition have been revamped, streamlined, and extended. The references have been made completely up-to-date. Theoreticians and practitioners alike will find this book of interest. Graduate students in operations management, operations research, industrial engineering, and computer science will find the book an accessible and invaluable resource. Scheduling: Theory, Algorithms, and Systems will serve as an essential reference for professionals working on scheduling problems in manufacturing, services, and other environments. Michael L. Pinedo is the Julius Schlesinger Professor of Operations Management in the Stern School of Business at New York University. Review of third edition: "This well-established text covers both the theory and practice of scheduling. The book begins with motivating examples and the penultimate chapter discusses some commercial scheduling systems and examples of their implementations." (Mathematical Reviews, 2009).