An introduction to queueing theory : modeling and analysis in applications /

Bhat, U. Narayan (1933-)

Birkhäuser ;
Springer [distributor],
2008

Electronic books

Monografía

This introductory textbook is designed for a one-semester course on queueing theory that does not require a course in stochastic processes as a prerequisite. By integrating the necessary background on stochastic processes with the analysis of models, the work provides a sound foundational introduction to the modeling and analysis of queueing systems for a broad interdisciplinary audience of students in mathematics, statistics, and applied disciplines such as computer science, operations research, and engineering. Key features: * An introductory chapter including a historical account of the growth of queueing theory in the last 100 years. * A modeling-based approach with emphasis on identification of models using topics such as collection of data and tests for stationarity and independence of observations. * Rigorous treatment of the foundations of basic models commonly used in applications with appropriate references for advanced topics. * A chapter on modeling and analysis using computational tools. * A comprehensive treatment of statistical inference for queueing systems. * A discussion of operational and decision problems. * Modeling exercises as a motivational tool, and review exercises covering background material on statistical distributions. An Introduction to Queueing Theory may be used as a textbook by first-year graduate students in fields such as computer science, operations research, industrial and systems engineering, as well as related fields such as manufacturing and communications engineering. Upper-level undergraduate students in mathematics, statistics, and engineering may also use the book in an elective introductory course on queueing theory. With its rigorous coverage of basic material and extensive bibliography of the queueing literature, the work may also be useful to applied scientists and practitioners as a self-study reference for applications and further research

https://rebiunoda.pro.baratznet.cloud:28443/OpacDiscovery/public/catalog/detail/b2FpOmNlbGVicmF0aW9uOmVzLmJhcmF0ei5yZW4vMjE0OTMxMDY

Título: An introduction to queueing theory modeling and analysis in applications U. Narayan Bhat

Editorial: Boston, Mass. Birkhäuser London Springer [distributor] 2008

Descripción física: 1 online resource (xii, 268 pages) illustrations

Mención de serie: Statistics for industry and technology

Bibliografía: Includes bibliographical references and index

Contenido: System Element Models -- Basic Concepts in Stochastic Processes -- Simple Markovian Queueing Systems -- Imbedded Markov Chain Models -- Extended Markov Models -- Queueing Networks -- Renewal Process Models -- The General Queue //1 and Approximations -- Statistical Inference for Queueing Models -- Decision Problems in Queueing Theory -- Modeling and Analysis Using Computational Tools -- Poisson Process: Properties and Related Distributions -- Markov Process -- Results from Mathematics

Lengua: English

Copyright/Depósito Legal: 243828067 316064437 316862167 402376247 443675950 466344695 468442866 488909314 605677209 985055978 990476811 1005790085 1035690870 1044258463 1056380625 1058401437 1065403569

ISBN: 9780817647254 0817647252 9780817647247 hbk.) 0817647244 hbk.) 1281492159 9781281492159 9786611492151 6611492151

Materia: Queuing theory MATHEMATICS- Applied MATHEMATICS- Probability & Statistics- General Queuing theory Wachtrijtheorie Wiskundige modellen

Enlace a formato físico adicional: Print version Bhat, U. Narayan, 1933-. Introduction to queueing theory. Boston, Mass. : Birkhäuser ; London : Springer [distributor], 2008 0817647244 9780817647247 (OCoLC) 173719181

Punto acceso adicional serie-Título: Statistics for industry and technology

---