Record Nr. Autore Titolo Pubbl/distr/stampa	UNINA9910139466203321 Obaidat Mohammad S (Mohammad Salameh), <1952-> Fundamentals of performance evaluation of computer and telecommunications systems [[electronic resource] /] / Mohammad S. Obaidat, Noureddine A. Boudriga Hoboken, NJ, : John Wiley & Sons, 2010
ISBN	1-282-49138-5 9786612491382 0-470-56720-1 0-470-56719-8
Descrizione fisica	1 online resource (477 p.)
Altri autori (Persone)	BoudrigaNoureddine
Disciplina	004.2 004.6
Soggetti	Computer systems - Evaluation Computer systems - Simulation methods Telecommunication systems - Evaluation Telecommunication systems - Simulation methods Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	FUNDAMENTALS OF PERFORMANCE EVALUATION OF COMPUTER AND TELECOMMUNICATION SYSTEMS; CONTENTS; PREFACE; 1 INTRODUCTION AND BASIC CONCEPTS; 1.1 Background; 1.2 Performance Evaluation Viewpoints and Concepts; 1.3 Goals of Performance Evaluation; 1.4 Applications of Performance Evaluation; 1.5 Techniques; 1.6 Metrics of Performance; 1.7 Workload Characterization and Benchmarking; 1.8 Summary; References; Exercises; 2 PROBABILITY THEORY REVIEW; 2.1 Basic Concepts on Probability Theory; 2.2 Elementary Sampling; 2.3 Random Variables; 2.4 Sums of Variables; 2.5 Regression Models 2.6 Important Density and Distribution Functions2.7 Markov Processes; 2.8 Limits; 2.9 Comparing Systems using Sample Data; 2.10 Summary; References; Exercises; 3.2 Event Tracing; 3.3 Monitors; 3.4 Program

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	 Optimizers; 3.5 Accounting Logs; 3.6 Summary; References; Exercises; 4 BENCHMARKING AND CAPACITY PLANNING; 4.1 Introduction; 4.2 Types of Benchmark Programs; 4.3 Benchmark Examples; 4.4 Frequent Mistakes and Games in Benchmarking; 4.5 Procedures of Capacity Planning and Related Main Problems; 4.6 Capacity Planning for Web Services 4.7 SummaryReferences; Exercises; 5 DATA REPRESENTATION AND ADVANCED TOPICS ON VALIDATION MODELING; 5.1 Data Representation; 5.2 Measurements; 5.3 Program Profiling and Outlining; 5.4 State Machine Models; 5.5 Petri Net-Based Modeling; 5.6 Protocol Validation; 5.7 Summary; References; Exercises; 6 BASICS OF QUEUEING THEORY; 6.1 Queue Models; 6.2 Queue Parameters; 6.3 Little's Law; 6.4 Priority Management; 6.5 Analysis of M/M/1 Systems; 6.6 The M/M/M Queue; 6.7 Other Queues; 6.8 Queueing Models with Insensitive Length Distribution; 6.9 Summary; References; Exercises; 7 QUEUEING NETWORKS 7.1 Fundamentals of Queueing Networks; 7.4 Closed Queueing Networks; 7.5 Product Form Networks; 7.6 Mean Value Analysis; 7.7 Analysis Using Flow Equivalent Servers; 7.8 Summary; References; Exercises; 8.0 PERATIONAL AND MEAN VALUE ANALYSIS; 8.1 Operational Laws; 8.2 Little's Formula; 8.3 Bottleneck Analysis; 8.4 Standard MVA; 8.5 Approximation of MVA; 8.6 Bounding Analysis; 8.7 Case Study: A Circuit Switching System; 8.8 Summary; References; Exercises; 9 INTRODUCTION TO SIMULATION TECHNIQUE; 9.1 Introduction 9.2 Types of Simulation9.3 Some Terminology; 9.4 Random-NumberGenerators; 9.6 Seed Selection; 9.7 Random Variate Generation; 9.8
	Generation Techniques; 9.5 Survey of Commonly Used Random Number Generators; 9.6 Seed Selection; 9.7 Random Variate Generation; 9.8 Testing of Random Number Sequences; 9.9 Summary; References; Exercises; 10 COMMONLY USED DISTRIBUTIONS IN SIMULATION AND THEIR APPLICATIONS; 10.1 Exponential Distribution; 10.2 Poisson Distribution; 10.3 Uniform Distribution; 10.4 Normal Distribution; 10.5 Weibull Distribution; 10.6 Pareto Distribution; 10.7 Geometric Distribution; 10.8 Gamma distribution; 10.9 Erlang Distribution 10.10 Beta Distribution
Sommario/riassunto	The only singular, all-encompassing textbook on state-of-the-art technical performance evaluation Fundamentals of Performance Evaluation of Computer and Telecommunication Systems uniquely presents all techniques of performance evaluation of computers systems, communication networks, and telecommunications in a balanced manner. Written by the renowned Professor Mohammad S. Obaidat and his coauthor Professor Noureddine Boudriga, it is also the only resource to treat computer and telecommunication systems as inseparable issues. The authors explain the basic concepts of performance evalua