1. Record Nr. UNINA9910143578303321

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Titolo	Design and analysis of distributed algorithms [[electronic resource] /] / Nicola Santoro
Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2007
ISBN	1-280-72154-5 9786610721542 0-470-07264-4 0-470-07263-6
Descrizione fisica	1 online resource (610 p.)
Collana	Wiley series on parallel and distributed computing
Disciplina	005.1
Soggetti	Electronic data processing - Distributed processing Computer algorithms
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 indexes.
Nota di contenuto	DESIGN AND ANALYSIS OF DISTRIBUTED ALGORITHMS; CONTENTS; Preface; 1 Distributed Computing Environments; 1.1 Entities; 1.2 Communication; 1.3 Axioms and Restrictions; 1.3.1 Axioms; 1.3.2 Restrictions; 1.4 Cost and Complexity; 1.4.1 Amount of Communication Activities; 1.4.2 Time; 1.5 An Example: Broadcasting; 1.6 States and Events; 1.6.1 Time and Events; 1.6.2 States and Configurations; 1.7 Problems and Solutions (*); 1.8 Knowledge; 1.8.1 Levels of Knowledge; 1.8.2 Types of Knowledge; 1.9 Technical Considerations; 1.9.1 Messages; 1.9.2 Protocol; 1.9.3 Communication Mechanism 1.10 Summary of Definitions1.11 Bibliographical Notes; 1.12 Exercises, Problems, and Answers; 1.12.1 Exercises and Problems; 1.12.2 Answers to Exercises; 2 Basic Problems And Protocols; 2.1 Broadcast; 2.1.1 The Problem; 2.1.2 Cost of Broadcasting; 2.1.3 Broadcasting in Special Networks; 2.2 Wake-Up; 2.2.1 Generic Wake-Up; 2.2.2 Wake-Up in Special Networks; 2.3 Traversal; 2.3.1 Depth-First Traversal; 2.3.2 Hacking (*); 2.3.3 Traversal in Special Networks; 2.3.4 Considerations on Traversal; 2.4 Practical Implications: Use a Subnet; 2.5 Constructing a Spanning Tree 2.5.1 SPT Construction with a Single Initiator: Shout2.5.2 Other SPT

Constructions with Single Initiator; 2.5.3 Considerations on the Constructed Tree; 2.5.4 Application: Better Traversal; 2.5.5 Spanning-Tree Construction with Multiple Initiators; 2.5.6 Impossibility Result; 2.5.7 SPT with Initial Distinct Values; 2.6 Computations in Trees; 2.6.1 Saturation: A Basic Technique; 2.6.2 Minimum Finding; 2.6.3 Distributed Function Evaluation; 2.6.4 Finding Eccentricities; 2.6.5 Center Finding; 2.6.6 Other Computations; 2.6.7 Computing in Rooted Trees; 2.7 Summary; 2.7.1 Summary of Problems
2.7.2 Summary of Techniques2.8 Bibliographical Notes; 2.9 Exercises, Problems, and Answers; 2.9.1 Exercises; 2.9.2 Problems; 2.9.3 Answers to Exercises; 3 Election; 3.1 Introduction; 3.1.1 Impossibility Result; 3.1.2 Additional Restrictions; 3.1.3 Solution Strategies; 3.2 Election in Trees; 3.3 Election in Rings; 3.3.1 All the Way; 3.3.2 As Far As It Can; 3.3.3 Controlled Distance; 3.3.4 Electoral Stages; 3.3.5 Stages with Feedback; 3.3.6 Alternating Steps; 3.3.7 Unidirectional Protocols; 3.3.8 Limits to Improvements (*); 3.3.9 Summary and Lessons; 3.4 Election in Mesh Networks; 3.4.1 Meshes
3.4.2 Tori3.5 Election in Cube Networks; 3.5.1 Oriented Hypercubes; 3.5.2 Unoriented Hypercubes; 3.6 Election in Complete Networks; 3.6.1 Stages and Territory; 3.6.2 Surprising Limitation; 3.6.3 Harvesting the Communication Power; 3.7 Election in Chordal Rings (*); 3.7.1 Chordal Rings; 3.7.2 Lower Bounds; 3.8 Universal Election Protocols; 3.8.1 Mega-Merger; 3.8.2 Analysis of Mega-Merger; 3.8.3 YO-YO; 3.8.4 Lower Bounds and Equivalences; 3.9 Bibliographical Notes; 3.10 Exercises, Problems, and Answers; 3.10.1 Exercises; 3.10.2 Problems; 3.10.3 Answers to Exercises
4 Message Routing and Shortest Paths

Sommario/riassunto

This text is based on a simple and fully reactive computational model that allows for intuitive comprehension and logical designs. The principles and techniques presented can be applied to any distributed computing environment (e.g., distributed systems, communication networks, data networks, grid networks, internet, etc.). The text provides a wealth of unique material for learning how to design algorithms and protocols perform tasks efficiently in a distributed computing environment.

2. Record Nr. UNINA9910887888003321

Titolo	Advances in Geoscience and Remote Sensing Technology : Proceedings of the 1st International Conference of Geoscience and Remote Sensing Technology (October 28-29, 2023, Padang, Indonesia) / / edited by Josaphat Tetuko Sri Sumantyo, Pakhrur Razi
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	981-9757-46-0
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (396 pages)
Collana	Springer Proceedings in Earth and Environmental Sciences, , 2524-3438
Disciplina	550
Soggetti	Geology Natural disasters Geographic information systems Geophysics Natural Hazards Geographical Information System
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Bathymetry Changed Mapping In Pagai Island Using Remote Sensing -- Proximate Analysis, Sulfur, and Calorific Value in Determining Coal Quality -- Multivariate Analysis of Crusher Work Time to Minimize Loss Time in Granite Mining -- Deformation Mapping After Pasaman Earthquake Using Sentinel-1 Imagery -- A Microstrip Antenna with H-Slot for Rain Radar Application -- Migration of Tropospheric Precipitation over Sumatra as Revealed by The Global Precipitation Measurement Dual-Frequency Precipitation Radar Observation.
Sommario/riassunto	This book comprises works presented in the 1st International Conference of Geoscience, Remote Sensing, and Technology, which was held in Padang, Indonesia, in October 2023. It was hosted by the Center of Disaster Monitoring and Earth Observation, State University of Padang, Indonesia. Included are works related but not limited to geoscience, remote sensing, radar SAR, optic satellites, LiDAR, earthquakes, drones, geophysics, computer science, computer engineering, information technology, and mapping.