1. Record Nr. UNINA9910299573003321

Autore	Kanrar Sukhendu
Titolo	Concurrency Control in Distributed System Using Mutual Exclusion / / by Sukhendu Kanrar, Nabendu Chaki, Samiran Chattopadhyay
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2018
ISBN	981-10-5559-9
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (95 pages)
Collana	Studies in Systems, Decision and Control, , 2198-4182 ; ; 116
Disciplina	005.44
Soggetti	Electrical engineering Algorithms Automatic control Computer networks Communications Engineering, Networks Algorithm Analysis and Problem Complexity Control and Systems Theory Computer Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Preface -- Introduction -- State of the Art Review -- Tree Based Mutual Exclusion.-A Graph-based Mutual Exclusion Algorithms using Tokens -- Voting-based Mutual Exclusion Algorithms -- Conclusions -- References. .
Sommario/riassunto	The book presents various state-of-the-art approaches for process synchronization in a distributed environment. The range of algorithms discussed in the book starts from token based mutual exclusion algorithms that work on tree based topology. Then there are interesting solutions for more flexible logical topology like a directed graph, with or without cycle. In a completely different approach, one of the chapters presents two recent voting-based DME algorithms. All DME algorithms presented in the book aim to ensure fairness in terms of first come first serve (FCFS) order among equal priority processes. At the same time, the solutions consider the priority of the requesting processes and allocate resource for the earliest request when no such request from a higher priority process is pending.