

Distributed Operating Systems And Algorithms Chow Johnson Ppt

Thank you very much for reading **Distributed Operating Systems And Algorithms Chow Johnson Ppt** . Maybe you have knowledge that, people have look hundreds times for their favorite books like this Distributed Operating Systems And Algorithms Chow Johnson Ppt , but end up in harmful downloads.

Rather than reading a good book with a cup of tea in the afternoon, instead they are facing with some malicious virus inside their computer.

Distributed Operating Systems And Algorithms Chow Johnson Ppt is available in our digital library an online access to it is set as public so you can get it instantly.

Our book servers saves in multiple locations, allowing you to get the most less latency time to download any of our books like this one.

Merely said, the Distributed Operating Systems And Algorithms Chow Johnson Ppt is universally compatible with any devices to read

Concepts, Techniques, and Models of Computer Programming - Peter Van Roy 2004-02-20

Teaching the science and the technology of programming as a unified discipline that shows the deep relationships between programming paradigms. This innovative text presents computer programming as a unified discipline in a way that is both practical and scientifically sound. The book focuses on techniques of lasting value and explains them precisely in terms of a simple abstract machine. The book presents all major programming paradigms in a uniform framework that shows their deep relationships and how and where to use them together. After an introduction to programming concepts, the book presents both well-known and lesser-known computation models ("programming paradigms"). Each model has its own set of techniques and each is included on the basis of its usefulness in practice. The general models include declarative programming, declarative concurrency, message-passing concurrency,

explicit state, object-oriented programming, shared-state concurrency, and relational programming. Specialized models include graphical user interface programming, distributed programming, and constraint programming. Each model is based on its kernel language—a simple core language that consists of a small number of programmer-significant elements. The kernel languages are introduced progressively, adding concepts one by one, thus showing the deep relationships between different models. The kernel languages are defined precisely in terms of a simple abstract machine. Because a wide variety of languages and programming paradigms can be modeled by a small set of closely related kernel languages, this approach allows programmer and student to grasp the underlying unity of programming. The book has many program fragments and exercises, all of which can be run on the Mozart Programming System, an Open Source software package that features an interactive incremental

development environment.

Advanced Parallel Processing Technologies -

Yong Dou 2009-08-21

This volume contains the papers presented at the 8 International Conference on Advanced Parallel Processing Technologies, APPT 2009.

This series of conferences originated from collaborations between researchers from China and Germany and has evolved into an international conference for reporting advances in parallel processing technologies. APPT 2009 addressed the entire gamut of related topics, ranging from the architectural aspects of parallel computer hardware and system software to the applied technologies for novel applications. For this conference, we received over 76 full submissions from researchers all over the world. All the papers were peer reviewed in depth and qualitatively graded on their relevance, originality, significance, presentation, and the overall appropriateness for their acceptance. Any concerns raised were

discussed by the Program Committee. The Organizing Committee did an excellent job in selecting 36 papers for presentation. In short, the papers included here represent the forefront of research from China, Switzerland, Germany, and other countries.

Achieving Federated and Self-Manageable Cloud Infrastructures: Theory and Practice - Villari, Massimo 2012-05-31

Cloud computing presents a promising approach for implementing scalable information and communications technology systems for private and public, individual, community, and business use. Achieving Federated and Self-Manageable Cloud Infrastructures: Theory and Practice overviews current developments in cloud computing concepts, architectures, infrastructures and methods, focusing on the needs of small to medium enterprises. The topic of cloud computing is addressed on two levels: the fundamentals of cloud computing and its impact on the IT world; and an analysis of the

main issues regarding the cloud federation, autonomic resource management, and efficient market mechanisms, while supplying an overview of the existing solutions able to solve them. This publication is aimed at both enterprise business managers and research and academic audiences alike.

Proceedings - International Conference on Distributed Computing Systems 2000

Distributed System Design - Jie Wu
2017-12-14

Future requirements for computing speed, system reliability, and cost-effectiveness entail the development of alternative computers to replace the traditional von Neumann organization. As computing networks come into being, one of the latest dreams is now possible - distributed computing. Distributed computing brings transparent access to as much computer power and data as the user needs for accomplishing any given task - simultaneously

achieving high performance and reliability. The subject of distributed computing is diverse, and many researchers are investigating various issues concerning the structure of hardware and the design of distributed software. Distributed System Design defines a distributed system as one that looks to its users like an ordinary system, but runs on a set of autonomous processing elements (PEs) where each PE has a separate physical memory space and the message transmission delay is not negligible. With close cooperation among these PEs, the system supports an arbitrary number of processes and dynamic extensions. Distributed System Design outlines the main motivations for building a distributed system, including: inherently distributed applications performance/cost resource sharing flexibility and extendibility availability and fault tolerance scalability Presenting basic concepts, problems, and possible solutions, this reference serves graduate students in distributed system design

as well as computer professionals analyzing and designing distributed/open/parallel systems. Chapters discuss: the scope of distributed computing systems general distributed programming languages and a CSP-like distributed control description language (DCDL) expressing parallelism, interprocess communication and synchronization, and fault-tolerant design two approaches describing a distributed system: the time-space view and the interleaving view mutual exclusion and related issues, including election, bidding, and self-stabilization prevention and detection of deadlock reliability, safety, and security as well as various methods of handling node, communication, Byzantine, and software faults efficient interprocessor communication mechanisms as well as these mechanisms without specific constraints, such as adaptiveness, deadlock-freedom, and fault-tolerance virtual channels and virtual networks load distribution problems synchronization of

access to shared data while supporting a high degree of concurrency

Proceedings - 2003

Distributed Computing - Ajay D. Kshemkalyani
2011-03-03

Designing distributed computing systems is a complex process requiring a solid understanding of the design problems and the theoretical and practical aspects of their solutions. This comprehensive textbook covers the fundamental principles and models underlying the theory, algorithms and systems aspects of distributed computing. Broad and detailed coverage of the theory is balanced with practical systems-related issues such as mutual exclusion, deadlock detection, authentication, and failure recovery. Algorithms are carefully selected, lucidly presented, and described without complex proofs. Simple explanations and illustrations are used to elucidate the algorithms. Important emerging topics such as peer-to-peer networks

and network security are also considered. With vital algorithms, numerous illustrations, examples and homework problems, this textbook is suitable for advanced undergraduate and graduate students of electrical and computer engineering and computer science. Practitioners in data networking and sensor networks will also find this a valuable resource. Additional resources are available online at www.cambridge.org/9780521876346.
Proceedings of the 25th EUROMICRO Conference - 1999

Computational Science - ICCS 2007 - Yong Shi 2007-05-18

Annotation The four-volume set LNCS 4487-4490 constitutes the refereed proceedings of the 7th International Conference on Computational Science, ICCS 2007, held in Beijing, China in May 2007. More than 2400 submissions were made to the main conference and its 35 topical workshops. The 80 revised full

papers and 11 revised short papers of the main track were carefully reviewed and selected from 360 submissions and are presented together with 624 accepted workshop papers in four volumes. According to the ICCS 2007 theme "Advancing Science and Society through Computation" the papers cover a large volume of topics in computational science and related areas, from multiscale physics, to wireless networks, and from graph theory to tools for program development. The papers are arranged in topical sections on efficient data management, parallel monte carlo algorithms, simulation of multiphysics multiscale systems, dynamic data driven application systems, computer graphics and geometric modeling, computer algebra systems, computational chemistry, computational approaches and techniques in bioinformatics, computational finance and business intelligence, geocomputation, high-level parallel programming, networks theory and applications, collective intelligence for semantic

and knowledge grid, collaborative and cooperative environments, tools for program development and analysis in CS, intelligent agents in computing systems, CS in software engineering, computational linguistics in HCI, internet computing in science and engineering, workflow systems in e-science, graph theoretic algorithms and applications in cs, teaching CS, high performance data mining, mining text, semi-structured, Web, or multimedia data, computational methods in energy economics, risk analysis, advances in computational geomechanics and geophysics, meta-synthesis and complex systems, scientific computing in electronics engineering, wireless and mobile systems, high performance networked media and services, evolution toward next generation internet, real time systems and adaptive applications, evolutionary algorithms and evolvable systems.

SOFSEM'99: Theory and Practice of Informatics
- Czech Republic) Sofsem (1999 Milovy

1999-11-11

This book constitutes the refereed proceedings of the 26th Conference on Current Trends in Theory and Practice of Informatics, SOFSEM'99, held in Milovy, Czech Republic, in November/December 1999. The volume presents 19 invited survey articles by leading researchers together with 18 revised full research papers selected from 45 submissions. The areas covered include trends in theory, core technologies, software and information engineering, from data to knowledge, and advanced applications.

Advanced Industrial Control Technology -
Peng Zhang 2010-08-26

Control engineering seeks to understand physical systems, using mathematical modeling, in terms of inputs, outputs and various components with different behaviors. It has an essential role in a wide range of control systems, from household appliances to space flight. This book provides an in-depth view of the technologies that are implemented in most

varieties of modern industrial control engineering. A solid grounding is provided in traditional control techniques, followed by detailed examination of modern control techniques such as real-time, distributed, robotic, embedded, computer and wireless control technologies. For each technology, the book discusses its full profile, from the field layer and the control layer to the operator layer. It also includes all the interfaces in industrial control systems: between controllers and systems; between different layers; and between operators and systems. It not only describes the details of both real-time operating systems and distributed operating systems, but also provides coverage of the microprocessor boot code, which other books lack. In addition to working principles and operation mechanisms, this book emphasizes the practical issues of components, devices and hardware circuits, giving the specification parameters, install procedures, calibration and configuration methodologies

needed for engineers to put the theory into practice. Documents all the key technologies of a wide range of industrial control systems Emphasizes practical application and methods alongside theory and principles An ideal reference for practicing engineers needing to further their understanding of the latest industrial control concepts and techniques

Analysis and Design of Intelligent Systems Using Soft Computing Techniques - Patricia Melin 2007-06-05

This book comprises a selection of papers on new methods for analysis and design of hybrid intelligent systems using soft computing techniques from the IFSA 2007 World Congress, held in Cancun, Mexico, June 2007.

Distributed Computing - Hagit Attiya 2004-03-25

* Comprehensive introduction to the fundamental results in the mathematical foundations of distributed computing *

Accompanied by supporting material, such as lecture notes and solutions for selected

exercises * Each chapter ends with bibliographical notes and a set of exercises * Covers the fundamental models, issues and techniques, and features some of the more advanced topics

American Book Publishing Record - 1997

The ... International Conference on Distributed Computing Systems - 2000

Proceedings, 11th IEEE International Conference and Workshop on the Engineering of Computer-Based Systems - Vaclav Dvorak 2004

Recent Trends in Wireless and Mobile Networks - Abdulkadir Özcan 2010-06-17

The International Conference on Wireless and Mobile networks (WiMo) aims to bring together innovative ideas and new research trends in wireless and mobile networks. Wireless networks are the best inventions in history.

Wireless networking gives you a cheap and easy way to share one Internet connection between multiple computers, eliminating the need for more than one modem. You can even add new computers to your network simply by plugging in a wireless card and switching them on--they have an Internet connection straight away!

There aren't many wired networks that can say that. This conference is dedicated to addressing the challenges in the areas of wireless and mobile networks. It looks for significant contributions to wireless and mobile computing in theoretical and practical aspects. The wireless and mobile computing domain emerges from integrating personal computing, networks, communication technologies, cellular technology and Internet technology. Modern applications are emerging in the area of mobile ad hoc networks and sensor networks. WiMo 2010 intended to cover contributions in both design and analysis in the context of mobile, wireless, ad hoc, and sensor networks. The goal of the

conference was to bring together - searchers and practitioners from academia and industry to focus on advanced wireless and mobile computing concepts and establish new collaborations in these areas.

Parallel and Distributed Processing - José D. P. Rolim 1999-03-30

This book constitutes the refereed proceedings of 11 IPPS/SPDP '98 Workshops held in conjunction with the 13th International Parallel Processing Symposium and the 10th Symposium on Parallel and Distributed Processing in San Juan, Puerto Rico, USA in April 1999. The 126 revised papers presented were carefully selected from a wealth of papers submitted. The papers are organised in topical sections on biologically inspired solutions to parallel processing problems: High-Level Parallel Programming Models and Supportive Environments; Biologically Inspired Solutions to Parallel Processing; Parallel and Distributed Real-Time Systems; Run-Time Systems for Parallel

Programming; Reconfigurable Architectures; Java for Parallel and Distributed Computing; Optics and Computer Science; Solving Irregularly Structured Problems in Parallel; Personal Computer Based Workstation Networks; Formal Methods for Parallel Programming; Embedded HPC Systems and Applications.

Optical Networks - Hussein T. Mouftah 2012-12-06

Optical Networks - Architecture and Survivability, is a state-of-the-art work on survivable and cost-effective design of control and management for networks with IP directly over Wavelength Division Multiplexing (WDM) technology (or called Optical Internet). The authors address issues of signaling mechanisms, resource reservation, and survivable routing and wavelength assignment. Special emphasis has been given to the design of meshed, middle-sized, and wavelength-routed networks with dynamic traffic in the optical domain, such as

the next-generation Metropolitan Area Network. Research and development engineers, graduate students studying wavelength-routed WDM networks, and senior undergraduate students with a background in algorithms and networking will find this book interesting and useful. This work may also be used as supplemental readings for graduate courses on internetworking, routing, survivability, and network planning algorithms.

Parallel and Distributed Simulation Systems -
Richard M. Fujimoto 2000

A state-of-the-art guide for the implementation of distributed simulation technology. The rapid expansion of the Internet and commodity parallel computers has made parallel and distributed simulation (PADS) a hot technology indeed. Applications abound not only in the analysis of complex systems such as transportation or the next-generation Internet, but also in computer-generated virtual worlds for military and professional training, interactive

computer games, and the entertainment industry. In this book, PADS expert Richard M. Fujimoto provides software developers with cutting-edge techniques for speeding up the execution of simulations across multiple processors and dealing with data distribution over wide area networks, including the Internet. With an emphasis on parallel and distributed discrete event simulation technologies, Dr. Fujimoto compiles and consolidates research results in the field spanning the last twenty years, discussing the use of parallel and distributed computers in both the modeling and analysis of system behavior and the creation of distributed virtual environments. While other books on PADS concentrate on applications, *Parallel and Distributed Simulation Systems* clearly shows how to implement the technology. It explains in detail the synchronization algorithms needed to properly realize the simulations, including an in-depth discussion of time warp and advanced optimistic techniques.

Finally, the book is richly supplemented with references, tables and illustrations, and examples of contemporary systems such as the Department of Defense's High Level Architecture (HLA), which has become the standard architecture for defense programs in the United States.

Communicating Process Architectures 2004

- Ian East 2004

Communicating Process Architecture (CPA) describes an approach to system development that is process-oriented. It makes no great distinction between hardware and software. It has a major root in the theory of Communicating Sequential Processes (CSP). However, the underlying theory is not limited to CSP. The importance of mobility of both channel and process within a network sees integration with ideas from the δ -calculus. Other formalisms are also exploited, such as BSP and MPI. The focus is on sound methods for the engineering of significant concurrent systems, including those

that are distributed (across the Internet or within a single chip) and/or software-scheduled on a single execution unit. Traditionally, at CPA, the emphasis has been on theory and practice - developing and applying tools based upon CSP and related theories to build high-integrity systems of significant size. In particular, interest focuses on achieving scalability and security against error. The development of Java, C, and C++, libraries to facilitate secure concurrent programming using 'mainstream' languages has allowed CPA to continue and proliferate. This work continues in support of the engineering of distributed applications. Recently, there has been greater reference to theory and its more direct application to programming systems and languages. In this volume the formal CSP is very well presented. The papers provide a healthy mixture of the academic and commercial, software and hardware, application and infrastructure, which reflects the nature of the discipline.

Algorithms and Complexity - Giancarlo

Bongiovanni 2003-06-26

The papers in this volume were presented at the Fourth Italian Conference on Algorithms and Complexity (CIAC 2000). The conference took place on March 1-3, 2000, in Rome (Italy), at the conference center of the University of Rome \La Sapienza". This conference was born in 1990 as a national meeting to be held every three years for Italian researchers in algorithms, data structures, complexity, and parallel and distributed computing. Due to a significant participation of foreign researchers, starting from the second conference, CIAC evolved into an international conference. In response to the call for papers for CIAC 2000, there were 41 submissions, from which the program committee selected 21 papers for presentation at the conference. Each paper was evaluated by at least three program committee members. In addition to the selected papers, the organizing committee invited Giorgio Ausiello, Narsingh

Deo, Walter Ruzzo, and Shmuel Zaks to give plenary lectures at the conference. We wish to express our appreciation to all the authors of the submitted papers, to the program committee members and the referees, to the organizing committee, and to the plenary lecturers who accepted our invitation.

Embedded Systems - James K. Peckol

2019-04-01

Embedded Systems: A Contemporary Design Tool, Second Edition Embedded systems are one of the foundational elements of today's evolving and growing computer technology. From operating our cars, managing our smart phones, cleaning our homes, or cooking our meals, the special computers we call embedded systems are quietly and unobtrusively making our lives easier, safer, and more connected. While working in increasingly challenging environments, embedded systems give us the ability to put increasing amounts of capability into ever-smaller and more powerful devices.

Embedded Systems: A Contemporary Design Tool, Second Edition introduces you to the theoretical hardware and software foundations of these systems and expands into the areas of signal integrity, system security, low power, and hardware-software co-design. The text builds upon earlier material to show you how to apply reliable, robust solutions to a wide range of applications operating in today's often challenging environments. Taking the user's problem and needs as your starting point, you will explore each of the key theoretical and practical issues to consider when designing an application in today's world. Author James Peckol walks you through the formal hardware and software development process covering: Breaking the problem down into major functional blocks; Planning the digital and software architecture of the system; Utilizing the hardware and software co-design process; Designing the physical world interface to external analog and digital signals; Addressing

security issues as an integral part of the design process; Managing signal integrity problems and reducing power demands in contemporary systems; Debugging and testing throughout the design and development cycle; Improving performance. Stressing the importance of security, safety, and reliability in the design and development of embedded systems and providing a balanced treatment of both the hardware and the software aspects, Embedded Systems: A Contemporary Design Tool, Second Edition gives you the tools for creating embedded designs that solve contemporary real-world challenges.

Elements of Distributed Computing - Vijay K. Garg 2002-05-23

A lucid and up-to-date introduction to the fundamentals of distributed computing systems. As distributed systems become increasingly available, the need for a fundamental discussion of the subject has grown. Designed for first-year graduate students and advanced undergraduates

as well as practicing computer engineers seeking a solid grounding in the subject, this well-organized text covers the fundamental concepts in distributed computing systems such as time, state, simultaneity, order, knowledge, failure, and agreement in distributed systems. Departing from the focus on shared memory and synchronous systems commonly taken by other texts, this is the first useful reference based on an asynchronous model of distributed computing, the most widely used in academia and industry. The emphasis of the book is on developing general mechanisms that can be applied to a variety of problems. Its examples-clocks, locks, cameras, sensors, controllers, slicers, and synchronizers-have been carefully chosen so that they are fundamental and yet useful in practical contexts. The text's advantages include: Emphasizes general mechanisms that can be applied to a variety of problems Uses a simple induction-based technique to prove correctness of all algorithms

Includes a variety of exercises at the end of each chapter Contains material that has been extensively class tested Gives instructor flexibility in choosing appropriate balance between practice and theory of distributed computing

Creativity and Innovation - Prateek Goorha
2018-07-31

Ideas are ubiquitous. They are the fundamental building blocks for all aspects of life. Yet, efforts to use ideas as a basic unit of analysis in a shared framework are rare. We often find it difficult to look past the artificial boundaries that academic disciplines and specialist fields of knowledge construct. In this book, the authors address this substantial lacuna by proposing an intuitive theory of ideas that serves as a trans-disciplinary basis for studying innovation and creativity. The theory proposed shows how new ideas emerge from contexts that rely on mechanisms, which were originally built on older and more central ideas. It demonstrates how

these mechanisms help instantiate different perspectives on the same idea in variegated manners. By applying their theory to a variety of bat and ball sports, the authors illustrate the role that primitive ideas have on sports innovation, and explore further avenues for employing the theory in a number of different situations. This original book will be of interest to anyone who wishes to gain a deeper understanding of the processes of innovation and creativity, developed within a complex framework of ideas.

Algorithms and Complexity - 2000

Algorithms and Architectures for Parallel Processing - Arrens Hua 2009-07-31

This book constitutes the refereed proceedings of the 9th International Conference on Algorithms and Architectures for Parallel Processing, ICA3PP 2009, held in Taipei, Taiwan, in June 2009. The 80 revised full papers were carefully reviewed and selected from 243

submissions. The papers are organized in topical sections on bioinformatics in parallel computing; cluster, grid and fault-tolerant computing; cluster distributed parallel operating systems; dependability issues in computer networks and communications; dependability issues in distributed and parallel systems; distributed scheduling and load balancing, industrial applications; information security internet; multi-core programming software tools; multimedia in parallel computing; parallel distributed databases; parallel algorithms; parallel architectures; parallel IO systems and storage systems; performance of parallel distributed computing systems; scientific applications; self-healing, self-protecting and fault-tolerant systems; tools and environments for parallel and distributed software development; and Web service.

Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises - IEEE Computer Society 1998

This volume comprises papers arising from the 7th Enabling Technologies workshop - WET-ICE '98. Topics include: access to information; collaboration; mobile agents; coordination; mobile computing; and intelligent agents and multi-agent systems.

ACM Transactions on Programming Languages and Systems - Association for Computing Machinery 2004

The British National Bibliography - Arthur James Wells 1998

Proceedings of the International Conference on Multimedia Computing and Systems - 1999

Parallel and Distributed Computing - Alberto Ros 2010-01-01

The 14 chapters presented in this book cover a wide variety of representative works ranging from hardware design to application

development. Particularly, the topics that are addressed are programmable and reconfigurable devices and systems, dependability of GPUs (General Purpose Units), network topologies, cache coherence protocols, resource allocation, scheduling algorithms, peertopeer networks, largescale network simulation, and parallel routines and algorithms. In this way, the articles included in this book constitute an excellent reference for engineers and researchers who have particular interests in each of these topics in parallel and distributed computing.

Fourth International Workshop on Object-Oriented Real-Time Dependable Systems - 1999

Adaptive Cryptographic Access Control - Anne V. D. M. Kayem 2010-08-05

Cryptographic access control (CAC) is an approach to securing data by encrypting it with a key, so that only the users in possession of the correct key are able to decrypt the data and/or

perform further encryptions. Applications of cryptographic access control will benefit companies, governments and the military where structured access to information is essential. The purpose of this book is to highlight the need for adaptability in cryptographic access control schemes that are geared for dynamic environments, such as the Internet. Adaptive Cryptographic Access Control presents the challenges of designing hierarchical cryptographic key management algorithms to implement Adaptive Access Control in dynamic environments and suggest solutions that will overcome these challenges. Adaptive Cryptographic Access Control is a cutting-edge book focusing specifically on this topic in relation to security and cryptographic access control. Both the theoretical and practical aspects and approaches of cryptographic access control are introduced in this book. Case studies and examples are provided throughout this book.

PARALLEL AND DISTRIBUTED

COMPUTING : ARCHITECTURES AND ALGORITHMS - BASU, S. K. 2016-01-02

This concise text is designed to present the recent advances in parallel and distributed architectures and algorithms within an integrated framework. Beginning with an introduction to the basic concepts, the book goes on discussing the basic methods of parallelism exploitation in computation through vector processing, super scalar and VLIW processing, array processing, associative processing, systolic algorithms, and dataflow computation. After introducing interconnection networks, it discusses parallel algorithms for sorting, Fourier transform, matrix algebra, and graph theory. The second part focuses on basics and selected theoretical issues of distributed processing. Architectures and algorithms have been dealt in an integrated way throughout the book. The last chapter focuses on the different paradigms and issues of high performance computing making the reading more interesting. This book is meant

for the senior level undergraduate and postgraduate students of computer science and engineering, and information technology. The book is also useful for the postgraduate students of computer science and computer application.

Wireless Sensor and Actor Networks - Luis Orozco-Barbosa 2007-12-03

This book presents the proceedings of the first IFIP WG 6.8 conference on Wireless Sensor and Actor Networks held in Albacete, Spain. The papers selected to be included in this volume illustrate the state-of-the-art and current trends in the area of wireless sensor and actor networks. The comprehensive program was organized into eight topics: Actors; Applications; Security; Energy; Quality of Service; Localization; Middleware; Protocols.
Parallel and Distributed Processing - 1999

Distributed Operating Systems & Algorithms - Randy Chow 1997
Distributed Operating Systems and Algorithms

integrates into one text both the theory and implementation aspects of distributed operating systems for the first time. This innovative book provides the reader with knowledge of the important algorithms necessary for an in-depth understanding of distributed systems; at the same time it motivates the study of these algorithms by presenting a systems framework for their practical application. The first part of the book is intended for use in an advanced course on operating systems and concentrates on parallel systems, distributed systems, real-time systems, and computer networks. The second part of the text is written for a course on distributed algorithms with a focus on algorithms for asynchronous distributed systems. While each of the two parts is self-contained, extensive cross-referencing allows the reader to emphasize either theory or implementation or to cover both elements of selected topics. Features: Integrates and balances coverage of the advanced aspects of

operating systems with the distributed algorithms used by these systems. Includes extensive references to commercial and experimental systems to illustrate the concepts and implementation issues. Provides precise algorithm description and explanation of why these algorithms were developed. Structures the coverage of algorithms around the creation of a framework for implementing a replicated server-a prototype for implementing a fault-tolerant and highly available distributed system. Contains programming projects on such topics as sockets, RPC, threads, and implementation of distributed algorithms using these tools. Includes an extensive annotated bibliography for each chapter, pointing the reader to recent developments. Solutions to selected exercises, templates to programming problems, a simulator for algorithms for distributed synchronization, and teaching tips for selected topics are available to qualified instructors from Addison Wesley. 0201498383B04062001

Knowledge-Based Intelligent Information and Engineering Systems - Bruno Apolloni

2007-08-30

havefromthesevolumesanalmostexhaustiveoverviewofresearcher'sandpractitioner'scurrentworkinthe?eldofinformationextractionandintelligentsystems.

Concurrent and Distributed Computing in Java - Vijay K. Garg 2005-01-28

Concurrent and Distributed Computing in Java addresses fundamental concepts in concurrent computing with Java examples. The book consists of two parts. The first part deals with techniques for programming in shared-memory based systems. The book covers concepts in Java such as threads, synchronized methods, waits, and notify to expose students to basic concepts for multi-threaded programming. It also includes algorithms for mutual exclusion, consensus, atomic objects, and wait-free data structures. The second part of the book deals with programming in a message-passing system. This

part covers resource allocation problems, logical clocks, global property detection, leader election, message ordering, agreement algorithms, checkpointing, and message logging.

Primarily a textbook for upper-level undergraduates and graduate students, this thorough treatment will also be of interest to professional programmers.