

Kumar Saurabh Cloud Computing Wiley Pub

The third international conference on INformation Systems Design and Intelligent Applications (INDIA – 2016) held in Visakhapatnam, India during January 8-9, 2016. The book covers all aspects of information system design, computer science and technology, general sciences, and educational research. Upon a double blind review process, a number of high quality papers are selected and collected in the book, which is composed of three different volumes, and covers a variety of topics, including natural language processing, artificial intelligence, security and privacy, communications, wireless and sensor networks, microelectronics, circuit and systems, machine learning, soft computing, mobile computing and applications, cloud computing, software engineering, graphics and image processing, rural engineering, e-commerce, e-governance, business computing, molecular computing, nano-computing, chemical computing, intelligent computing for GIS and remote sensing, bio-informatics and bio-computing. These fields are not only limited to computer researchers but also include mathematics, chemistry, biology, bio-chemistry, engineering, statistics, and all others in which computer techniques may assist.

Cloud computing has experienced explosive growth and is expected to continue to rise in popularity as new services and applications become available. As with any new technology, security issues continue to be a concern, and developing effective methods to protect sensitive information and data on the cloud is imperative. *Cloud Security: Concepts, Methodologies, Tools, and Applications* explores the difficulties and challenges of securing user data and information on cloud platforms. It also examines the current approaches to cloud-based technologies and assesses the possibilities for future advancements in this field. Highlighting a range of topics such as cloud forensics, information privacy, and standardization and security in the cloud, this multi-volume book is ideally designed for IT specialists, web designers, computer engineers, software developers, academicians, researchers, and graduate-level students interested in cloud computing concepts and security.

Due to market forces and technological evolution, Big Data computing is developing at an increasing rate. A wide variety of novel approaches and tools have emerged to tackle the challenges of Big Data, creating both more opportunities and more challenges for students and professionals in the field of data computation and analysis. Presenting a mix of industry cases and theory, *Big Data Computing* discusses the technical and practical issues related to Big Data in intelligent information management.

Emphasizing the adoption and diffusion of Big Data tools and technologies in industry, the book introduces a broad range of Big Data concepts, tools, and techniques. It covers a wide range of research, and provides comparisons between state-of-the-art approaches. Comprised of five sections, the book focuses on: What Big Data is and why it is important Semantic technologies Tools and methods Business and economic perspectives Big Data applications across industries

DIGITAL CITIES ROADMAP This book details applications of technology to efficient digital city infrastructure and its planning, including smart buildings. Rapid urbanization, demographic changes, environmental changes, and new technologies are changing the views of urban leaders on sustainability, as well as creating and providing public services to tackle these new dynamics.

Sustainable development is an objective by which the processes of planning, implementing projects, and development is aimed at meeting the needs of modern communities without compromising the potential of future generations. The advent of Smart Cities is the answer to these problems. *Digital Cities Roadmap* provides an in-depth analysis of design technologies that lay a solid foundation for sustainable buildings. The book also highlights smart automation technologies that help save energy, as well as various performance indicators needed to make construction easier. The book aims to create a strong research community, to have a deep understanding and the latest knowledge in the field of energy and comfort, to offer solid ideas in the nearby future for sustainable and resilient buildings. These buildings will help the city grow as a smart city. The smart city has also a focus on low energy consumption, renewable energy, and a small carbon footprint. Audience The information provided in this book will be of value to researchers, academicians and industry professionals interested in IoT-based architecture and sustainable buildings, energy efficiency and various tools and methods used to develop green technologies for construction in smart cities.

This book provides the users with quick and easy data acquisition, processing, storage and product generation services. It describes the entire life cycle of remote sensing data and builds an entire high performance remote sensing data processing system framework. It also develops a series of remote sensing data management and processing standards. Features: Covers remote sensing cloud computing Covers remote sensing data integration across distributed data centers Covers cloud storage based remote sensing data share service Covers high performance remote sensing data processing Covers distributed remote sensing products analysis

Java is the preferred language for many of today's leading-edge technologies—everything from smartphones and game consoles to robots, massive enterprise systems, and supercomputers. If you're new to Java, the fourth edition of this bestselling guide provides an example-driven introduction to the latest language features and APIs in Java 6 and 7. Advanced Java developers will be able to take a deep dive into areas such as concurrency and JVM enhancements. You'll learn powerful new ways to manage resources and exceptions in your applications, and quickly get up to speed on Java's new concurrency utilities, and APIs for web services and XML. You'll also find an updated tutorial on how to get started with the Eclipse IDE, and a brand-new introduction to database access in Java.

CLOUD COMPUTING: INSIGHTS INTO NEW-ERA INFRASTRUCTURE

Distributed and Cloud Computing: From Parallel Processing to the Internet of Things offers complete coverage of modern distributed computing technology including clusters, the grid, service-oriented architecture, massively parallel processors, peer-to-peer networking, and cloud computing. It is the first modern, up-to-date distributed systems textbook; it explains how to create high-performance, scalable, reliable systems, exposing the design principles, architecture, and innovative applications of parallel, distributed, and cloud computing systems. Topics covered by this book include: facilitating management, debugging, migration, and disaster recovery through virtualization; clustered systems for research or ecommerce applications; designing systems as web services; and social networking systems using peer-to-peer computing. The principles of cloud computing are discussed using examples from open-source and commercial applications, along with case studies from the leading distributed computing vendors such as Amazon, Microsoft, and Google. Each chapter includes exercises and further reading, with lecture slides and more available online. This book will be ideal for students taking a distributed systems or distributed computing class, as well as for professional system designers and engineers looking for a reference to the latest distributed technologies including cloud, P2P and grid computing. Complete coverage of modern distributed computing technology including clusters, the grid, service-oriented architecture, massively parallel processors, peer-to-peer networking, and cloud computing Includes case studies from the leading

distributed computing vendors: Amazon, Microsoft, Google, and more Explains how to use virtualization to facilitate management, debugging, migration, and disaster recovery Designed for undergraduate or graduate students taking a distributed systems course—each chapter includes exercises and further reading, with lecture slides and more available online

This book covers both basic and high-level concepts relating to the intelligent computing paradigm and data sciences in the context of distributed computing, big data, data sciences, high-performance computing and Internet of Things. It is becoming increasingly important to develop adaptive, intelligent computing-centric, energy-aware, secure and privacy-aware systems in high-performance computing and IoT applications. In this context, the book serves as a useful guide for industry practitioners, and also offers beginners a comprehensive introduction to basic and advanced areas of intelligent computing. Further, it provides a platform for researchers, engineers, academics and industrial professionals around the globe to showcase their recent research concerning recent trends. Presenting novel ideas and stimulating interesting discussions, the book appeals to researchers and practitioners working in the field of information technology and computer science.

Well-known security experts decipher the most challenging aspect of cloud computing—security Cloud computing allows for both large and small organizations to have the opportunity to use Internet-based services so that they can reduce start-up costs, lower capital expenditures, use services on a pay-as-you-use basis, access applications only as needed, and quickly reduce or increase capacities. However, these benefits are accompanied by a myriad of security issues, and this valuable book tackles the most common security challenges that cloud computing faces. The authors offer you years of unparalleled expertise and knowledge as they discuss the extremely challenging topics of data ownership, privacy protections, data mobility, quality of service and service levels, bandwidth costs, data protection, and support. As the most current and complete guide to helping you find your way through a maze of security minefields, this book is mandatory reading if you are involved in any aspect of cloud computing.

Coverage Includes: Cloud Computing Fundamentals Cloud Computing Architecture Cloud Computing Software Security Fundamentals Cloud Computing Risks Issues Cloud Computing Security Challenges Cloud Computing Security Architecture Cloud Computing Life Cycle Issues Useful Next Steps and Approaches

Market_Desc: Primary MarketEngineering (BE/BTech)/ME/MTech students who are interested to develop conceptual level subject knowledge with examples of industrial strength applications.Secondary MarketMCA/MBA/Business users/business analysts

Special Features: · Foreword by Prof R Natarajan, Former Chairman, AICTE, Former Director, IIT Madras.· Excellent authorship.· Single source of introductory knowledge on business intelligence (BI).· Provides a good start for first-time learners typically from the engineering and management discipline.· Covers the complete life cycle of BI/Analytics Application development project.· Helps develop deeper understanding of the subject with an enterprise context, and discusses its application in businesses.·

Explains concepts with the help of illustrations, application to real-life scenarios and provides opportunities to test understanding.· States the pre-requisites for each chapter and different reference sources available.· In addition the book also has the following pedagogical features:· Industrial application case studies.· Crossword puzzles/do it yourself exercises/assignments to help with self-assessment. The solutions to these have also been provided. · Glossary of terms.· References/web links/bibliography -

generally at the end of every concept.CD Companion:To ensure that concepts can be practiced for deeper understanding at low cost, the book is accompanied with a CD containing:· Step-by-step Hands-On manual on:ü An open source tool, Pentaho Data Integrator (PDI) to explain the process of extraction of data from multiple varied sources.ü MS Excel to explain the concept of analysis.ü MS Access to generate reports on the analyzed data.· An integrated project that encompasses the complete life cycle of a BI project. About The Book: The book promises to be a single source of introductory knowledge on business intelligence which can be taught in one semester. It will provide a good start for first time learners typically from the engineering and management discipline. Business Intelligence subject cannot be studied in isolation. The book provides a holistic coverage beginning with an enterprise context, developing deeper understanding through the use of tools, touching a few domains where BI is embraced and discussing the problems that BI can help solve. It covers the complete life cycle of BI/Analytics project: Covering

operational/transactional data sources, data transformation, data mart/warehouse design-build, analytical reporting, and dashboards. To ensure that concepts can be practiced for deeper understanding at low cost, the book is accompanied with step-by-step hands-on manual in the CD.

The main objective of this book is to explore the concept of cybersecurity in parallel and distributed computing along with recent research developments in the field. It also includes various real-time/offline applications and case studies in the fields of engineering and computer science and the modern tools and technologies used. Information on cybersecurity technologies is organized in the fifteen chapters of this book. This important book cover subjects such as: Research and solutions for the problem of hidden image detection Security aspects of data mining and possible solution techniques A comparative analysis of various methods used in e-commerce security and how to perform secure payment transactions in an efficient manner Blockchain technology and how it is crucial to the security industry Security for the Internet of Things Security issues and challenges in distributed computing security such as heterogeneous computing, cloud computing, fog computing, etc. Demonstrates the administration task issue in unified cloud situations as a multi-target enhancement issue in light of security Explores the concepts of cybercrime and cybersecurity and presents the statistical impact it is having on organizations Highlights some strategies for maintaining the privacy, integrity, confidentiality and availability of cyber information and its real-world impacts such as mobile security software for secure email and online banking, cyber health check programs for business, cyber incident response management, cybersecurity risk management Security policies and mechanisms, various categories of attacks (e.g., denial-of-service), global security architecture, along with distribution of security mechanisms Security issues in the healthcare sector with existing solutions and emerging threats.

In this new book, an interdisciplinary and international team of experts provides an exploration of the emerging plasma science that is poised to make the plasma technology a reality in the manufacturing sector. The research presented here will stimulate new ideas, methods, and applications in the field of plasma science and nanotechnology. Plasma technology applications are being developed that could impact the global market for power, electronics, mineral, and other fuel commodities. Currently, plasma science is described as a revolutionary discipline in terms of its possible impact on industrial applications. It offers potential solutions to many problems using emerging techniques. In this book the authors provide a broad overview of recent trends in field plasma science and nanotechnology. Divided into several parts, Plasma and Fusion Science: From Fundamental Research to Technological Applications explores some basic plasma applications and research, space and atmospheric plasma, nuclear fusion, and laser plasma and industrial applications of plasma. A wide variety of cutting-edge topics are covered, including: • basic

plasma physics • computer modeling for plasma • exotic plasma (including dusty plasma) • industrial plasma applications • laser plasma • nuclear fusion technology • plasma diagnostics • plasma processing • pulsed power • space astrophysical plasma • plasma and nanotechnology Pointing to current and possible future developments in plasma science and technology, the diverse research presented here will be valuable for researchers, scientists, industry professionals, and others involved in the revolutionary field of plasma and fusion science.

Implement, maintain, and repair SQL Server 2012 databases As the most significant update since 2008, Microsoft SQL Server 2012 boasts updates and new features that are critical to understand. Whether you manage and administer SQL Server 2012 or are planning to get your MCSA: SQL Server 2012 certification, this book is the perfect supplement to your learning and preparation. From understanding SQL Server's roles to implementing business intelligence and reporting, this practical book explores tasks and scenarios that a working SQL Server DBA faces regularly and shows you step by step how to handle them. Includes practice exams and coverage of exam objectives for those seeking MCSA: SQL Server 2012 certification Explores the skills you'll need on the job as a SQL Server 2012 DBA Discusses designing and implementing database solutions Walks you through administering, maintaining, and securing SQL Server 2012 Addresses implementing high availability and data distribution Includes bonus videos where the author walks you through some of the more difficult tasks expected of a DBA Featuring hands-on exercises and real-world scenarios, this resource guides you through the essentials of implementing, maintaining, and repairing SQL Server 2012 databases.

A comprehensive guide to Fog and Edge applications, architectures, and technologies Recent years have seen the explosive growth of the Internet of Things (IoT): the internet-connected network of devices that includes everything from personal electronics and home appliances to automobiles and industrial machinery. Responding to the ever-increasing bandwidth demands of the IoT, Fog and Edge computing concepts have developed to collect, analyze, and process data more efficiently than traditional cloud architecture. Fog and Edge Computing: Principles and Paradigms provides a comprehensive overview of the state-of-the-art applications and architectures driving this dynamic field of computing while highlighting potential research directions and emerging technologies. Exploring topics such as developing scalable architectures, moving from closed systems to open systems, and ethical issues rising from data sensing, this timely book addresses both the challenges and opportunities that Fog and Edge computing presents. Contributions from leading IoT experts discuss federating Edge resources, middleware design issues, data management and predictive analysis, smart transportation and surveillance applications, and more. A coordinated and integrated presentation of topics helps readers gain thorough knowledge of the foundations, applications, and issues that are central to Fog and Edge computing. This valuable resource: Provides insights on transitioning from current Cloud-centric and 4G/5G wireless environments to Fog Computing Examines methods to optimize virtualized, pooled, and shared resources Identifies potential technical challenges and offers suggestions for possible solutions Discusses major components of Fog and Edge computing architectures such as middleware, interaction protocols, and autonomic management Includes access to a website portal for advanced online resources Fog and Edge Computing: Principles and Paradigms is an essential source of up-to-date information for systems architects, developers, researchers, and advanced undergraduate and graduate students in fields of computer science and engineering.

Developing with Google App Engine introduces development with Google App Engine, a platform that provides developers and users with infrastructure Google itself uses to develop and deploy massively scalable applications. Introduction to concepts Development with App Engine Deployment into App Engine

Internet usage has become a facet of everyday life, especially as more technological advances have made it easier to connect to the web from virtually anywhere in the developed world. However, with this increased usage comes heightened threats to security within digital environments. The Handbook of Research on Modern Cryptographic Solutions for Computer and Cyber Security identifies emergent research and techniques being utilized in the field of cryptology and cyber threat prevention. Featuring theoretical perspectives, best practices, and future research directions, this handbook of research is a vital resource for professionals, researchers, faculty members, scientists, graduate students, scholars, and software developers interested in threat identification and prevention.

Beginning with UNIX fundamentals, this book addresses all-important UNIX issues like Commands, Shell Scripts, Internals, Sockets, Device Drivers, Inter-Process Communication etc. The text offers a tutorial approach to understand the Unix Commands, Shell Scripts, Internals, and Inter Process Communication. It will also help in writing sophisticated UNIX programs with features such as File and Directory I/O, Process, Signals, Inter-Process Communication and Interaction with Hardware Devices. • First Drive • UNIX Commands • Shell Scripts • File and Directories Maintenance • Process • Signals • Memory and Data Management • Inter-process Communication • Sockets • Introduction to Device Drivers

Mastering Cloud Computing is designed for undergraduate students learning to develop cloud computing applications. Tomorrow's applications won't live on a single computer but will be deployed from and reside on a virtual server, accessible anywhere, any time. Tomorrow's application developers need to understand the requirements of building apps for these virtual systems, including concurrent programming, high-performance computing, and data-intensive systems. The book introduces the principles of distributed and parallel computing underlying cloud architectures and specifically focuses on virtualization, thread programming, task programming, and map-reduce programming. There are examples demonstrating all of these and more, with exercises and labs throughout. Explains how to make design choices and tradeoffs to consider when building applications to run in a virtual cloud environment Real-world case studies include scientific, business, and energy-efficiency considerations

In 1992 we initiated a research project on large scale distributed computing systems (LSDCS). It was a collaborative project involving research institutes and universities in Bologna, Grenoble, Lausanne, Lisbon, Rennes, Rocquencourt, Newcastle, and Twente. The World Wide Web had recently been developed at CERN, but its use was not yet as common place as it is today and graphical browsers had yet to be developed. It was clear to us (and to just about everyone else) that LSDCS comprising several thousands to millions of individual computer systems (nodes) would be coming into existence as a consequence both of technological advances and the demands placed by applications. We were excited about the problems of building large distributed systems, and felt that serious rethinking of many of the existing computational paradigms, algorithms, and structuring principles for distributed computing was called for. In our research proposal, we summarized the problem domain as follows: "We expect LSDCS to exhibit great diversity of node and communications capability. Nodes will range from (mobile) laptop computers, workstations to supercomputers. Whereas mobile computers may well have unreliable, low bandwidth communications to the rest

of the system, other parts of the system may well possess high bandwidth communications capability. To appreciate the problems posed by the sheer scale of a system comprising thousands of nodes, we observe that such systems will be rarely functioning in their entirety.

IOT: Security and Privacy Paradigm covers the evolution of security and privacy issues in the Internet of Things (IoT). It focuses on bringing all security and privacy related technologies into one source, so that students, researchers, and practitioners can refer to this book for easy understanding of IoT security and privacy issues. This edited book uses Security Engineering and Privacy-by-Design principles to design a secure IoT ecosystem and to implement cyber-security solutions. This book takes the readers on a journey that begins with understanding the security issues in IoT-enabled technologies and how it can be applied in various aspects. It walks readers through engaging with security challenges and builds a safe infrastructure for IoT devices. The book helps readers gain an understand of security architecture through IoT and describes the state of the art of IoT countermeasures. It also differentiates security threats in IoT-enabled infrastructure from traditional ad hoc or infrastructural networks, and provides a comprehensive discussion on the security challenges and solutions in RFID, WSNs, in IoT. This book aims to provide the concepts of related technologies and novel findings of the researchers through its chapter organization. The primary audience includes specialists, researchers, graduate students, designers, experts and engineers who are focused on research and security related issues. Souvik Pal, PhD, has worked as Assistant Professor in Nalanda Institute of Technology, Bhubaneswar, and JIS College of Engineering, Kolkata (NAAC "A" Accredited College). He is the organizing Chair and Plenary Speaker of RICE Conference in Vietnam; and organizing co-convenor of ICICIT, Tunisia. He has served in many conferences as chair, keynote speaker, and he also chaired international conference sessions and presented session talks internationally. His research area includes Cloud Computing, Big Data, Wireless Sensor Network (WSN), Internet of Things, and Data Analytics. Vicente García-Díaz, PhD, is an Associate Professor in the Department of Computer Science at the University of Oviedo (Languages and Computer Systems area). He is also the editor of several special issues in prestigious journals such as Scientific Programming and International Journal of Interactive Multimedia and Artificial Intelligence. His research interests include eLearning, machine learning and the use of domain specific languages in different areas. Duc-Nhuong Le, PhD, is Deputy-Head of Faculty of Information Technology, and Vice-Director of Information Technology Apply and Foreign Language Training Center, Haiphong University, Vietnam. His area of research includes: evaluation computing and approximate algorithms, network communication, security and vulnerability, network performance analysis and simulation, cloud computing, IoT and image processing in biomedical. Presently, he is serving on the editorial board of several international journals and has authored nine computer science books published by Springer, Wiley, CRC Press, Lambert Publication, and Scholar Press.

****Get the eBook version free when you purchase the paperback version**** The cloud can be regarded as services and software residing and operating on the Internet rather than on a local computer or on-premise network of servers. Cloud adoption is a strategy utilized by companies to enhance the scalability of Internet-based data base capabilities while minimizing risk and cost. To accomplish this, businesses implement cloud computing or utilize remote servers hosted on the internet to store, manage, and process data. Without a centralized strategy for cloud adoption, companies are subject to "cloud sprawl", leading to issues with security, compliance and increased costs. CIOs should focus on creating and executing a centralized cloud strategy and utilize it as the foundation for managing the use of cloud services across the business. A poorly implemented cloud strategy can increase cost and reduce agility, thus should involve IT operations and security team during the planning phase. **What You'll Learn** Leverage cloud computing practices to successfully build a cost-effective cloud environment. Select the most ideal cloud service model, and execute suitable cloud design strategies for your company. Manage changes in the cloud transition and digital transformation process. Implement cloud computing solutions efficiently and effectively. Use case patterns for cloud models and types. Best practices for adopting cloud computing.

"This book explores the latest advances in network forensics and analysis techniques. It explores topics such as network security: attacks and controls, analysis of attacks, defenses, and countermeasures, anonymity, privacy, id theft and ethics, dependability and security forensics, denial-of-service, and botnet analysis, detection, and mitigation"--

This book features a collection of high-quality research papers presented at the International Conference on Intelligent and Cloud Computing (ICICC 2019), held at Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, India, on December 20, 2019. Including contributions on system and network design that can support existing and future applications and services, it covers topics such as cloud computing system and network design, optimization for cloud computing, networking, and applications, green cloud system design, cloud storage design and networking, storage security, cloud system models, big data storage, intra-cloud computing, mobile cloud system design, real-time resource reporting and monitoring for cloud management, machine learning, data mining for cloud computing, data-driven methodology and architecture, and networking for machine learning systems. Cloud computing is an emerging face of technology. It's become popular due to its flexible and cost reduction model. It is based on simple PAYG(Pay As You Go) terminology with sharing services and resources remotely through some trusted communication channel, by default Internet. We found an immediate need for some documentation on the topic. The book is not exhaustive in its content but we tried to touch as many aspects of cloud computing as possible. A comprehensive research is made by us before adding anything in the book. The book, right now, contains five chapters. We are planning to add five more chapters in the future edition of the book explaining cloud storage, security, process executions, providers, implementations etc. Right now we are analyzing the information collected.

Unix Shell Programming is a tutorial aimed at helping Unix and Linux users get optimal performance out of their operating out of their operating system. It shows them how to take control of their systems and work efficiently by harnessing the power of the shell to solve common problems. The reader learns everything he or she needs to know to customize the way a Unix system responds. The vast majority of Unix users utilize the Korn shell or some variant of the Bourne shell, such as bash. Three are covered in the third edition of Unix Shell Programming. It begins with a generalized tutorial of Unix and tools and then moves into detailed coverage of shell programming. Topics covered include: regular expressions, the kernel and the utilities, command files, parameters, manipulating text filters, understanding and debugging shell scripts, creating and utilizing variables, tools, processes, and customizing the shell.

"Ultimately, this is a remarkable book, a practical testimonial, and a comprehensive bibliography rolled into one. It is a single, bright sword cut across the various murky green IT topics. And if my mistakes and lessons learned through the green IT journey are any indication, this book will be used every day by folks interested in greening IT." — Simon Y. Liu, Ph.D. & Ed.D., Editor-in-Chief, IT

Professional Magazine, IEEE Computer Society, Director, U.S. National Agricultural Library This book presents a holistic perspective on Green IT by discussing its various facets and showing how to strategically embrace it **Harnessing Green IT: Principles and Practices** examines various ways of making computing and information systems greener – environmentally sustainable –, as well as several means of using Information Technology (IT) as a tool and an enabler to improve the environmental sustainability. The book focuses on both greening of IT and greening by IT – complimentary approaches to attaining environmental sustainability. In a single volume, it comprehensively covers several key aspects of Green IT - green technologies, design, standards, maturity models, strategies and adoption -, and presents a clear approach to greening IT encompassing green use, green disposal, green design, and green manufacturing. It also illustrates how to strategically apply green IT in practice in several areas. **Key Features:** Presents a comprehensive coverage of key topics of importance and practical relevance - green technologies, design, standards, maturity models, strategies and adoption Highlights several useful approaches to embracing green IT in several areas Features chapters written by accomplished experts from industry and academia who have first-hand knowledge and expertise in specific areas of green IT Presents a set of review and discussion questions for each chapter that will help the readers to examine and explore the green IT domain further Includes a companion website providing resources for further information and presentation slides This book will be an invaluable resource for IT Professionals, academics, students, researchers, project leaders/managers, IT business executives, CIOs, CTOs and anyone interested in Green IT and harnessing it to enhance our environment.

The Pragmatic Guide to Driving Value and Disrupting Markets with Blockchain "Blockchain's potential to transform businesses has generated a tremendous amount of excitement across industries. However, it can be difficult for decision makers to develop a practical approach to blockchain for their specific business requirements. By identifying and clearly describing the value of blockchain for enterprises, as well as the processes required to harness blockchain to achieve business objectives, **Blockchain for Business** presents a startlingly concise yet comprehensive roadmap for business leaders. This book is an excellent resource for anyone looking to leverage blockchain to transform their business." — Dr. Won-Pyo Hong, President & CEO of Samsung SDS "Much has been written about blockchain in the past few years: what it is and what it is not (at various levels of detail), as well as the technology's long-term strategic value for companies, industries, and economies. However, what we've been missing is a practical, operational, 'how to' set of steps for creating, implementing, and operating a blockchain-based solution. This book aims to fill that gap. It's an invaluable tool for anyone ready to take the plunge and start taking advantage of this remarkable technology." —Irving Wladawsky-Berger, research affiliate, MIT; columnist, WSJ CIO Journal; VP Emeritus, IBM "I will never be able to adequately express how useful this book will be to my class. In addition the great chapters on cybersecurity, I loved the Integration Models, especially 'Coexistence with Systems of Record.' Legacy integration with Blockchain is a critical barrier, and you nailed it!" —Thomas Doty, JD, LL.M. - Adjunct Professor, University of New Hampshire Law Blockchain enables enterprises to reinvent processes and business models and to pursue radically disruptive applications. **Blockchain for Business** is a concise, accessible, and pragmatic guide to both the technology and the opportunities it creates. Authored by three experts from IBM's Enterprise Blockchain practice, it introduces industry-specific and cross-industry use cases, and reviews best-practice approaches to planning and delivering blockchain projects. With a relentless focus on real-world business outcomes, the authors reveal what blockchain can do, what it can't do yet, and where it's headed. Understand five elements that make blockchain so disruptive: transparency, immutability, security, consensus, and smart contracts Explore key use cases: cross-border payments, food and drug safety, provenance, trade finance, clinical trials, land registries, and more See how trusted blockchain networks are facilitating entirely new business models Compare blockchain types: permissioned, permissionless, private, public, federated, and hybrid Anticipate key technical, business, regulatory, and governance challenges Build blockchain financial models, investment rubrics, and risk frameworks Organize and manage teams to transform blockchain plans into reality Whether you're a senior decision maker, technical professional, customer, or investor, **Blockchain for Business** will help you cut through the hype and objectively assess blockchain's potential in your business. Register your product for convenient access to downloads, updates, and/or corrections as they become available.

Credit is essential in the modern world and creates wealth, provided it is used wisely. The Global Credit Crisis during 2008/2009 has shown that sound understanding of underlying credit risk is crucial. If credit freezes, almost every activity in the economy is affected. The best way to utilize credit and get results is to understand credit risk. **Advanced Credit Risk Analysis and Management** helps the reader to understand the various nuances of credit risk. It discusses various techniques to measure, analyze and manage credit risk for both lenders and borrowers. The book begins by defining what credit is and its advantages and disadvantages, the causes of credit risk, a brief historical overview of credit risk analysis and the strategic importance of credit risk in institutions that rely on claims or debtors. The book then details various techniques to study the entity level credit risks, including portfolio level credit risks. Authored by a credit expert with two decades of experience in corporate finance and corporate credit risk, the book discusses the macroeconomic, industry and financial analysis for the study of credit risk. It covers credit risk grading and explains concepts including PD, EAD and LGD. It also highlights the distinction with equity risks and touches on credit risk pricing and the importance of credit risk in Basel Accords I, II and III. The two most common credit risks, project finance credit risk and working capital credit risk, are covered in detail with illustrations. The role of diversification and credit derivatives in credit portfolio management is considered. It also reflects on how the credit crisis develops in an economy by referring to the bubble formation. The book links with the 2008/2009 credit crisis and carries out an interesting discussion on how the credit crisis may have been avoided by following the fundamentals or principles of credit risk analysis and management. The book is essential for both lenders and borrowers. Containing case studies adapted from real life examples and exercises, this important text is practical, topical and challenging. It is useful for a wide spectrum of academics and practitioners in credit risk and anyone interested in commercial and corporate credit and related products.

This two volume set LNCS 7016 and LNCS 7017 constitutes the refereed proceedings of the 11th International Conference on Algorithms and Architectures for Parallel Processing, ICA3PP 2011, held in Melbourne, Australia, in October 2011. The first volume presents 24 revised regular papers and 17 revised short papers together with the abstract of the keynote lecture - all carefully reviewed and selected from 85 initial submissions. The papers cover the many dimensions of parallel algorithms and architectures, encompassing fundamental theoretical approaches, practical experimental results, and commercial components and systems and focus on two broad areas of parallel and distributed computing, i.e., architectures, algorithms and networks, and systems and applications.

Special Features: · Details the core concepts of cloud computing, infrastructure and virtualization. · Showcases the facets of cloud computing in an easy to understand manner. · Provides a comprehensive overview of cloud computing from the business and technical perspective. · Uses concepts learnt in the classroom and elaborates how they are applied in an industry setting. · Elucidates specific solutions to the real-world challenges. · Contains detailed examples of many aspects of cloud computing. · Useful for both students and professionals who wish to understand and experiment with cloud computing. · Three very useful appendices: Cloud Performance Monitoring Commands; Understanding Sizing Lifecycle and Desktop Service: A VDI Perspective.

About The Book: This book fulfils an important and growing need to understand, cloud computing, dynamic infrastructure and virtualization, which have been deployed within every function in a broad range of business and markets nowadays. Cloud computing has brought about phenomenal changes in the way the world works, the way corporations function and the way human role in each has developed. The book reflects the core insights of cloud models, service offerings and other benefits. The book, in a very simple and lucid manner, tells us what we need to know to be a successful cloud computing architect, technical manager and infrastructure specialist. The book focuses on real-world goals for organizations, the cloud services provided to help realize these goals, and the constraints on cloud computing infrastructure that we may need to work around to meet our goals. It discusses the evolution of cloud computing over time and across computing arena, the specifications of cloud systems, the implementation of specifications, the processes and best-practices required to be put in place to make sure that the specifications and real-world goals have been met.

The Cloud Computing Bible is a complete reference to cloud computing that presents the technologies, protocols, platforms and infrastructure that make cloud computing possible and desirable. Many of the cloud computing books on the market today are small books of 300 pages or less and the larger books tend to be programming books or security titles. A longer format book such as Cloud Computing Bible allows a complete definition of the topic as well as in-depth introductions to essential technologies and platforms. Additionally it allows significant technologies to be presented in a form that provides enough detail for the reader to determine if it is something that they are interested in learning more about. It is important to stress platform and technologies as the main subject and intersperse that with products in order to provide an extended life span, but have current appeal. The book will be divided into five parts: The Value Proposition, Platforms, Infrastructure, Services and Applications, and The Mobile Cloud.

This book focuses on the latest trends and research results in Cooperative Networking This book discusses the issues involved in cooperative networking, namely, bottleneck resource management, resource utilization, servers and content, security, and so on. In addition, the authors address instances of cooperation in nature which actively encourage the development of cooperation in telecommunication networks. Following an introduction to the fundamentals and issues surrounding cooperative networking, the book addresses models of cooperation, inspirations of successful cooperation from nature and society, cooperation in networking (for e.g. Peer-to-Peer, wireless ad-hoc and sensor, client-server, and autonomous vehicular networks), cooperation and ambient networking, cooperative caching, cooperative networking for streaming media content, optimal node-task allocation, heterogeneity issues in cooperative networking, cooperative search in networks, and security and privacy issues with cooperative networking. It contains contributions from high profile researchers and is edited by leading experts in this field.

Key Features: Focuses on higher layer networking Addresses the latest trends and research results Covers fundamental concepts, models, advanced topics and performance issues in cooperative networking Contains contributions from leading experts in the field Provides an insight into the future direction of cooperative networking Includes an accompanying website containing PowerPoint slides and a glossary of terms (www.wiley.com/go/obaidat-cooperative) This book is an ideal reference for researchers and practitioners working in the field. It will also serve as an excellent textbook for graduate and senior undergraduate courses in computer science, computer engineering, electrical engineering, software engineering, and information engineering and science.

The book comprises selected papers presented at the International Conference on Advanced Computing, Networking and Informatics (ICANI 2018), organized by Medi-Caps University, India. It includes novel and original research work on advanced computing, networking and informatics, and discusses a wide variety of industrial, engineering and scientific applications of the emerging techniques in the field of computing and networking.

A comprehensive review of the fundamental molecular mechanisms in fermentation and explores the microbiology of fermentation technology and industrial applications Microbial Sensing in Fermentation presents the fundamental molecular mechanisms involved in the process of fermentation and explores the applied art of microbiology and fermentation technology. The text contains descriptions regarding the extraordinary sensing ability of microorganisms towards small physicochemical changes in their surroundings. The contributors — noted experts in the field — cover a wide range of topics such as microbial metabolism and production (fungi, bacteria, yeast etc); refined and non-refined carbon sources; bioprocessing; microbial synthesis, responses and performance; and biochemical, molecular and extra/intracellular controlling. This resource contains a compilation of literature on biochemical and cellular level mechanisms for microbial controlled production and includes the most significant recent advances in industrial fermentation. The text offers a balanced approach between theory and practical application, and helps readers gain a clear understanding of microbial physiological adaptation during fermentation and its cumulative effect on productivity.

This important book: Presents the fundamental molecular mechanisms involved in microbial sensing in relation to fermentation technology Includes information on the significant recent advances in industrial fermentation Contains contributions from a panel of highly-respected experts in their respective fields Offers a resource that will be essential reading for scientists, professionals and researchers from academia and industry with an interest in the biochemistry and microbiology of fermentation technology Written for researchers, graduate and undergraduate students from diverse backgrounds, such as biochemistry and applied microbiology, Microbial Sensing in Fermentation offers a review of the fundamental molecular mechanisms involved in the process of fermentation.

Mastering Blockchain, Third Edition is the blockchain bible to equip you with extensive knowledge of distributed ledgers, cryptocurrencies, smart contracts, consensus algorithms, cryptography and blockchain platforms such as Ethereum, Bitcoin, and many more.

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Full exploitation of the DSM-5 allows for more comprehensive care By demystifying the DSM-5, author Sophia Dziegielewski goes beyond the traditional diagnostic assessment and suggests both treatment plans and practice strategy. She covers the changes in criteria to the DSM-5 and what those changes mean for mental health professionals. This resource has been updated to include: New and updated treatment plans All treatment plans, interventions strategies, applications, and practice implications are evidence based Instructions on doing diagnostic assessments and differential diagnosis using the DSM-5 Changes to coding and billing using the DSM-5 and ICD-10 The book includes robust tools for students, instructors, and new graduates seeking licensure. DSM-5 in Action makes the DSM-5 accessible to all practitioners, allowing for more accurate, comprehensive care.

Cloud computing has created a shift from the use of physical hardware and locally managed software-enabled platforms to that of virtualized cloud-hosted services. Cloud assembles large networks of virtual services, including hardware (CPU, storage, and network) and software resources (databases, message queuing systems, monitoring systems, and load-balancers). As Cloud continues to revolutionize applications in academia, industry, government, and many other fields, the transition to this efficient and flexible platform presents serious challenges at both theoretical and practical levels—ones that will often require new approaches and practices in all areas. Comprehensive and timely, *Cloud Computing: Methodology, Systems, and Applications* summarizes progress in state-of-the-art research and offers step-by-step instruction on how to implement it. Summarizes Cloud Developments, Identifies Research Challenges, and Outlines Future Directions Ideal for a broad audience that includes researchers, engineers, IT professionals, and graduate students, this book is designed in three sections:

Fundamentals of Cloud Computing: Concept, Methodology, and Overview Cloud Computing Functionalities and Provisioning Case Studies, Applications, and Future Directions It addresses the obvious technical aspects of using Cloud but goes beyond, exploring the cultural/social and regulatory/legal challenges that are quickly coming to the forefront of discussion. Properly applied as part of an overall IT strategy, Cloud can help small and medium business enterprises (SMEs) and governments in optimizing expenditure on application-hosting infrastructure. This material outlines a strategy for using Cloud to exploit opportunities in areas including, but not limited to, government, research, business, high-performance computing, web hosting, social networking, and multimedia. With contributions from a host of internationally recognized researchers, this reference delves into everything from necessary changes in users' initial mindset to actual physical requirements for the successful integration of Cloud into existing in-house infrastructure. Using case studies throughout to reinforce concepts, this book also addresses recent advances and future directions in methodologies, taxonomies, IaaS/SaaS, data management and processing, programming models, and applications.

The book focuses on soft computing and its applications to solve real-world problems in different domains, ranging from medicine and health care, to supply chain management, image processing and cryptanalysis. It includes high-quality papers presented at the International Conference on Soft Computing: Theories and Applications (SoCTA 2018), organized by Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, India. Offering significant insights into soft computing for teachers and researchers alike, the book inspires more researchers to work in the field of soft computing.

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