Near Zero Downtime Maintenance For Sap Process Integration

This book constitutes the reviewed proceedings of the first International Conference on Cloud Computing, CloudCom 2009, held in Beijing, China, December 1-4, 2009. The 42 full papers presented together with four invited papers were carefully selected from 200 submissions. This book includes but are not limited to deal with topics like cloud /grid architecture, load balancing, optimal deploy configuration, consistency models, virtualization technologies, middleware frameworks, software as a Service (SaaS), hardware as a Service (HaaS), data grid & semantic web, web services, security and Risk, fault tolerance and reliability, auditing, monitoring and scheduling, utility computing, high-performance computing and peer to peer computing.
To be able to compete successfully both at national and international levels, production systems and equipment must perform at levels not even thinkable a decade ago. Requirements for increased product quality, reduced throughput time and enhanced operating effectiveness within a rapidly changing customer demand environment continue to demand a high maintenance performance. In some cases, maintenance is required to increase operational effectiveness and revenues and customer satisfaction while reducing capital, operating and support costs. This may be the largest challenge facing production enterprises these days. For this, maintenance strategy is required to be aligned with the production logistics and also to keep updated with the current best practices. Maintenance has become a multidisciplinary activity and one may come across situations in which maintenance is the responsibility of people whose training is not engineering. This handbook aims to assist at different

levels of understanding whether the manager is an engineer, a production manager, an experienced maintenance practitioner or a beginner. Topics selected to be included in this handbook cover a wide range of issues in the area of maintenance management and engineering to cater for all those interested in maintenance whether practitioners or researchers. This handbook is divided into 6 parts and contains 26 chapters covering a wide range of topics related to maintenance management and engineering.

Despite the buzz surrounding the cloud computing, only a small percentage of organizations have actually deployed this new style of IT—so far. If you're planning your long-term cloud strategy, this practical book provides insider knowledge and actionable real-world lessons regarding planning, design, operations, security, and application transformation. This book teaches business and technology managers how to transition their organization's traditional IT to cloud computing. Rather than yet another book trying to sell or convince readers on the benefits of clouds, this book provides guidance, lessons learned, and best practices on how to design, deploy, operate, and secure an enterprise cloud based on real-world experience. Author James Bond provides useful guidance and best-practice checklists based on his field experience with real customers and cloud providers. You'll view cloud services from the perspective of a consumer and as an owner/operator of an enterprise private or hybrid cloud, and learn valuable lessons from successful and less-than-successful organization use-case scenarios. This is the information every CIO needs in order to make the business and technical decisions to finally execute on their journey to cloud computing. Get updated trends and definitions in cloud computing, deployment models, and for building or buying cloud services Discover challenges in cloud operations and management not foreseen by early adopters Use real-world

lessons to plan and build an enterprise private or hybrid cloud Learn how to assess, port, and migrate legacy applications to the cloud Identify security threats and vulnerabilities unique to the cloud Employ a cloud management system for your enterprise (private or multi-provider hybrid) cloud ecosystem Understand the challenges for becoming an IT service broker leveraging the power of the cloud

SAP Landscape Management 3.0 and IBM Power Systems ServersIBM Redbooks

This proceeding is a compilation of selected papers from the 8th International Workshop of Advanced Manufacturing and Automation (IWAMA 2018), held in Changzhou, China on September 25 - 26, 2018. Most of the topics are focusing on novel techniques for manufacturing and automation in Industry 4.0 and smart factory. These contributions are vital for maintaining and improving economic development and quality of life. The proceeding will assist academic researchers and industrial engineers to implement the concepts and theories of Industry 4.0 in industrial practice, in order to effectively respond to the challenges posed by the 4th industrial revolution and smart factory.

This book introduces readers to essential strategies, practices, and benchmarking for asset maintenance in operations intensive industries. Drawing on a case study from the oil and gas sector, it offers a methodology and practical solutions to help maintenance practitioners select and formulate an asset maintenance strategy, and to establish best maintenance practices at an organizational level using the frameworks developed here. It is intended for industry practitioners, young maintenance professionals, and students of engineering management who aspire to a career in operations intensive industries.

Know how Smart TVs, Smart Cars, Smart Homes, and Smart Cities are changing the WorldKey features Learn to

successfully create, launch and manage the Internet of Things services Know the process of specifying, implementing, and deploying IoT services Learn the fundamentals of IoT services, building blocks and the key factors Learn the fast track approach to IoT Learn a dual perspective on the Internet of Things and ubiquitous computing Know detailed coverage of the underlying architecture, framework and state of the art methodologiesDescriptionThe Internet of Things (IoT) not only connect people but will connect 'smart' homes, appliances, cars, offices, factories, cities, basically the world. This book discusses how smart cities strive to deploy and interconnect infrastructures and services to guarantee that the authorities and citizens have access to reliable and global customized services. The book describes a wide range of topics present in the design, development, and running of smart cities, ranging from big data management, Internet of Things, and sustainable urban planning. The technical aspects of smart cities enabled primarily by the Internet of Things, the socio-economic motivations and impact of smart city development are covered in this book. What will you learnThe purpose of this book is to help you to work with cities and learn to develop them into smart cities. You will learn to develop a plan and learn what an smart city is, how to plan the smart city infrastructure and from where do you start while developing the smart city. You will learn what kind of planning is involved and about permitting, rent, acquisition, construction planning, with whom should you work? You can learn all this and more from case studies and deployment planning described in the book. Who this book is forStudents studying IoT in universities and who want to know the fundamentals of the IoT business. For business executives and IoT start-ups. Table of contents1. Introduction 2. RFID and WSN: The Beginning 3. Interoperability of IoT Devices

and Sensor (Semantic) Web 4. Cloud's Internet of Things (IoT)5. IoT and Edge Computing6. IoT - Big Data Convergence with IoT Data7. Introduction to (Big Data) Internet of Things Analytics and Streams8. Operability Among IoT Clouds and Semantics9. Edge and Analytics10. To Conclude11. Abbreviation12. Bibliography About the authorRashmi Nanda has done her B.Tech in Electronics and Instrumentation from Purushottam Institute of Engineering and Technology (PIET), Rourkela, Odisha. She has more than five years of experience in freelance content writing, Her LinkedIn Profile: https://www.linkedin.com/in/rashmi-nanda-7bb0b995/

Conquer SQL Server 2017 administration—from the inside out Dive into SQL Server 2017 administration—and really put your SQL Server DBA expertise to work. This supremely organized reference packs hundreds of timesaving solutions, tips, and workarounds—all you need to plan, implement, manage, and secure SQL Server 2017 in any production environment: on-premises, cloud, or hybrid. Four SQL Server experts offer a complete tour of DBA capabilities available in SQL Server 2017 Database Engine, SQL Server Data Tools, SQL Server Management Studio, and via PowerShell. Discover how experts tackle today's essential tasks—and challenge yourself to new levels of mastery. • Install, customize, and use SQL Server 2017's key administration and development tools • Manage memory, storage, clustering, virtualization, and other components • Architect and implement database infrastructure, including IaaS, Azure SQL, and hybrid cloud configurations • Provision SQL Server and Azure SQL databases • Secure SQL Server via encryption, row-level security, and data masking • Safeguard Azure SQL databases using platform threat protection, firewalling, and auditing • Establish SQL Server IaaS network security groups and user-defined routes • Administer SQL Server user

security and permissions • Efficiently design tables using keys, data types, columns, partitioning, and views • Utilize BLOBs and external, temporal, and memory-optimized tables • Master powerful optimization techniques involving concurrency, indexing, parallelism, and execution plans • Plan, deploy, and perform disaster recovery in traditional, cloud, and hybrid environments For Experienced SQL Server Administrators and Other Database Professionals • Your role: Intermediate-to-advanced level SQL Server database administrator, architect, developer, or performance tuning expert • Prerequisites: Basic understanding of database administration procedures

Combined cycle power plants are one of the most promising ways of improving fossil-fuel and biomass energy production. The combination of a gas and steam turbine working in tandem to produce power makes this type of plant highly efficient and allows for CO_2 capture and sequestration before combustion. This book provides a comprehensive review of the design, engineering and operational issues of a range of advanced combined cycle plants. After introductory chapters on basic combined cycle power plant and advanced gas turbine design, the book reviews the main types of combined cycle system. Chapters discuss the technology, efficiency and emissions performance of natural gas-fired combined cycle (NGCC) and integrated gasification combined cycle (IGCC) as well as novel humid air cycle, oxy-combustion turbine cycle systems. The book also reviews pressurised fluidized bed combustion (PFBC), externally fired combined cycle (EFCC), hybrid fuel cell turbine (FC/GT), combined cycle and integrated solar combined cycle (ISCC) systems. The final chapter reviews techno-economic analysis of combined cycle systems. With its distinguished editor and international team of contributors, Combined cycle systems for near-zero emission power generation is a standard reference for both

industry practitioners and academic researchers seeking to improve the efficiency and environmental impact of power plants. Provides a comprehensive review of the design, engineering and operational issues of a range of advanced combined cycle plants Introduces basic combined cycle power plant and advanced gas turbine design and reviews the main types of combined cycle systems Discusses the technology, efficiency and emissions performance of natural gas-fired combined cycle (NGCC) systems and integrated gasification combined cycle (IGCC) systems, as well as novel humid air cycle systems and oxy-combustion turbine cycle systems

This IBM® RedpaperTM publication is a comprehensive guide covering the IBM Power 750 and Power 755 servers supporting AIX®, IBM i, and Linux® operating systems. The goal of this paper is to introduce the major innovative Power 750 and 755 offerings and their prominent functions, including: The POWER7TM processor available at frequencies of 3.0 GHz, 3.3 GHz, and 3.55 GHz The specialized POWER7 Level 3 cache that provides greater bandwidth, capacity, and reliability The 1 Gb or 10 Gb Integrated Virtual Ethernet adapter, included with each server configuration, and providing native hardware virtualization PowerVMTM virtualization including PowerVM Live Partition Mobility and PowerVM Active MemoryTM Sharing. Active Memory Expansion that provides more usable memory than what is physically installed on the system EnergyScaleTM technology that provides features such as power trending, power-saving, capping of power, and thermal measurement. Professionals who want to acquire a better understanding of IBM Power SystemsTM products should read this Redpaper. This Redpaper expands the current set of IBM Power Systems documentation by providing a desktop reference that offers a detailed technical description of the 750 and 755

systems. This paper does not replace the latest marketing materials and configuration tools. It is intended as an additional source of information that, together with existing sources, may be used to enhance your knowledge of IBM server solutions.

It is with great pleasure that we welcome you to the inaugural World Congress on Engineering Asset Management (WCEAM) being held at the Conrad Jupiters Hotel on the Gold Coast from July 11 to 14, 2006. More than 170 authors from 28 countries have contributed over 160 papers to be presented over the first three days of the conference. Day four will be host to a series of workshops devoted to the practice of various aspects of Engineering Asset Management. WCEAM is a new annual global forum on the various multidisciplinary aspects of Engineering Asset Management. It deals with the presentation and publication of outputs of research and development activities as well as the application of knowledge in the practical aspects of: strategic asset management risk management in asset management design and life-cycle integrity of physical assets asset performance and level of service models financial analysis methods for physical assets reliability modelling and prognostics information systems and knowledge management asset data management, warehousing and mining condition monitoring and intelligent maintenance intelligent sensors and devices regulations and standards in asset management human dimensions in integrated asset management education and training in asset management and performance management in asset management. We have attracted academics, practitioners and scientists from around the world to share their knowledge in this important emerging transdiscipline that impacts on almost every aspect of daily life.

This utterly comprehensive work is thought to be the first to

integrate the literature on the physics of the failure of complex systems such as hospitals, banks and transport networks. It has chapters on particular aspects of maintenance written by internationally-renowned researchers and practitioners. This book will interest maintenance engineers and managers in industry as well as researchers and graduate students in maintenance, industrial engineering and applied mathematics.

The Industrial Information Technology Handbook focuses on existing and emerging industrial applications of IT, and on evolving trends that are driven by the needs of companies and by industry-led consortia and organizations. Emphasizing fast growing areas that have major impacts on industrial automation and enterprise integration, the Handbook covers topics such as industrial communication technology, sensors, and embedded systems. The book is organized into two parts. Part 1 presents material covering new and quickly evolving aspects of IT. Part 2 introduces cutting-edge areas of industrial IT. The Handbook presents material in the form of tutorials, surveys, and technology overviews, combining fundamentals and advanced issues, with articles grouped into sections for a cohesive and comprehensive presentation. The text contains 112 contributed reports by industry experts from government, companies at the forefront of development, and some of the most renowned academic and research institutions worldwide. Several of the reports on recent developments, actual deployments, and trends cover subject matter presented to the public for the first time.

"The Maintenance Management Framework" describes and reviews the concept, process and framework of modern maintenance management of complex systems; concentrating specifically on modern modelling tools (deterministic and empirical) for maintenance planning and scheduling. It will be bought by engineers and professionals

involved in maintenance management, maintenance engineering, operations management, quality, etc. as well as graduate students and researchers in this field.

This IBM® RedpaperTM publication is a comprehensive guide covering the IBM Power 720 and Power 740 servers supporting AIX®, IBM i, and Linux operating systems. The goal of this paper is to introduce the innovative Power 720 and Power 740 offerings and their major functions, including these: The POWER7TM processor available at frequencies of 3.0 GHz, 3.55 GHz, and 3.7 GHz. The specialized POWER7 Level 3 cache that provides greater bandwidth, capacity, and reliability. The 2-port 10/100/1000 Base-TX Ethernet PCI Express adapter included in the base configuration and installed in a PCIe Gen2 x4 slot. The integrated SAS/SATA controller for HDD, SSD, tape, and DVD. This controller supports built-in hardware RAID 0, 1, and 10. The latest PowerVMTM virtualization including PowerVM Live Partition Mobility and PowerVM Active MemoryTM Sharing. Active Memory Expansion that provides more usable memory than what is physically installed on the system. EnergyScaleTM technology that provides features such as power trending, power-saving, capping of power, and thermal measurement. Professionals who want to acquire a better understanding of IBM Power Systems products can benefit from reading this paper. This paper expands the current set of IBM Power Systems documentation by providing a desktop reference that offers a detailed technical description of the Power 720 and Power 740 systems. This paper does not replace the latest marketing materials and configuration tools. It is intended as an additional source of information that, together with existing sources, can be used to enhance your knowledge of IBM server solutions.

Open Source Data Warehousing and Business Intelligence is an all-in-one reference for developing open source based

data warehousing (DW) and business intelligence (BI) solutions that are business-centric, cross-customer viable, cross-functional, cross-technology based, and enterprise-wide. Considering the entire lifecycle of an open source DW & BI implementation, its comprehensive coverage spans from basic concepts all the way through to customization. Highlighting the key differences between open source and vendor DW and BI technologies, the book identifies end-to-end solutions that are scalable, high performance, and stable. It illustrates the practical aspects of implementing and using open source DW and BI technologies to supply you with valuable on-the-project experience that can help you improve implementation and productivity. Emphasizing analysis, design, and programming, the text explains best-fit solutions as well as how to maximize ROI. Coverage includes data warehouse design, real-time processing, data integration, presentation services, and real-time reporting. With a focus on real-world applications, the author devotes an entire section to powerful implementation best practices that can help you build customer confidence while saving valuable time, effort, and resources.

The objective of the 2nd International Conference on Green Communications and Networks 2012 (GCN 2012) is to facilitate an exchange of information on best practices for the latest research advances in the area of communications, networks and intelligence applications. These mainly involve computer science and engineering, informatics, communications and control, electrical engineering, information computing, and business intelligence and management. Proceedings of the 2nd International Conference on Green Communications and Networks 2012 (GCN 2012) will focus on green information technology and applications, which will provide in-depth insights for engineers and scientists in academia, industry, and government. The

book addresses the most innovative research developments including technical challenges, social and economic issues, and presents and discusses the authors' ideas, experiences, findings, and current projects on all aspects of advanced green information technology and applications. Yuhang Yang is a professor at the Department of Electronic Engineering, Shanghai Jiao Tong University. Maode Ma is an associate professor at the School of Electrical & Electronic Engineering, Nanyang Technological University.

Industries and particularly the manufacturing sector have been facing difficult challenges in a context of socio-economic turbulence characterized by complexity as well as the speed of change in causal interconnections in the socio-economic environment. In order to respond to these challenges companies are forced to seek new technological and organizational solutions. In this context two main characteristics emerge as key properties of a modern automation system – agility and distribution. Agility because systems need not only to be flexible in order to adjust to a number of a-priori defined scenarios, but rather must cope with unpredictability. Distribution in the sense that automation and business processes are becoming distributed and supported by collaborative networks. Emerging Solutions for Future Manufacturing Systems includes the papers selected for the BASYS'04 conference, which was held in Vienna, Austria in September 2004 and sponsored by the International Federation for Information Processing (IFIP). This book introduces condition-based maintenance (CBM)/data-driven prognostics and health management (PHM) in detail, first explaining the PHM design approach from a systems engineering perspective, then summarizing and elaborating on the data-driven methodology for feature construction,

as well as feature-based fault diagnosis and prognosis. The book includes a wealth of illustrations and tables to help explain the algorithms, as well as practical examples showing how to use this tool to solve situations for which analytic solutions are poorly suited. It equips readers to apply the concepts discussed in order to analyze and solve a variety of problems in PHM system design, feature construction, fault diagnosis and prognosis.
This IBM® Redguide® publication explores the business challenges that CIOs in the banking industry face today. It focuses on three core concerns: Ways to reduce the business risk that is involved with operating IT systems and improving infrastructure resilience, enabling business growth by quickly meeting increasing demands from customers, and meeting rapidly changing regulatory compliance requirements. This guide explains how the technology of the IBM zEnterprise® System running SAP for Banking solution solves these major challenges in a cost-effective manner. It provides insight for banking CIOs, executives, managers, and other decision-makers, including IT architects, consultants, and systems professionals.
This proceedings book covers the theory, design and applications of computer networks, distributed computing and information systems. Today's networks are evolving rapidly, and there are several developing areas and applications. These include

heterogeneous networking supported by recent technological advances in power wireless communications, along with silicon integration of various functionalities such as sensing, communications, intelligence and actuations, which is emerging as a critically important disruptive computer class based on a new platform, networking structure and interface that enables novel, low-cost and high-volume applications. However, implemeting these applications has sometimes been difficult due to interconnection problems. As such, different networks need to collaborate, and wired and next-generation wireless systems need to be integrated in order to develop high-performance computing solutions to address the problems arising from these networks' complexities. This ebook presents the latest research findings, as well as theoretical and practical perspectives on the innovative methods and development techniques related to the emerging areas of information networking and applications Conquer SQL Server 2019 administration–from the inside out Dive into SQL Server 2019 administration–and really put your SQL Server DBA expertise to work. This supremely organized reference packs hundreds of timesaving solutions, tips, and workarounds–all you need to plan, implement, manage, and secure SQL Server 2019 in any production environment: on-premises, cloud, or hybrid. Six experts thoroughly tour DBA capabilities

available in SQL Server 2019 Database Engine, SQL Server Data Tools, SQL Server Management Studio, PowerShell, and Azure Portal. You'll find extensive new coverage of Azure SQL, big data clusters, PolyBase, data protection, automation, and more. Discover how experts tackle today's essential tasks–and challenge yourself to new levels of mastery. Explore SQL Server 2019's toolset, including the improved SQL Server Management Studio, Azure Data Studio, and Configuration Manager Design, implement, manage, and govern on-premises, hybrid, or Azure database infrastructures Install and configure SQL Server on Windows and Linux Master modern maintenance and monitoring with extended events, Resource Governor, and the SQL Assessment API Automate tasks with maintenance plans, PowerShell, Policy-Based Management, and more Plan and manage data recovery, including hybrid backup/restore, Azure SQL Database recovery, and geo-replication Use availability groups for high availability and disaster recovery Protect data with Transparent Data Encryption, Always Encrypted, new Certificate Management capabilities, and other advances Optimize databases with SQL Server 2019's advanced performance and indexing features Provision and operate Azure SQL Database and its managed instances Move SQL Server workloads to Azure: planning, testing, migration, and post-

migration
- This is the latest practice test to pass the Microsoft AZ-120 Planning and Administering Microsoft Azure for SAP Workloads Exam. - It contains 82 Questions and Answers. - All the questions are 100% valid and stable. - You can reply on this practice test to pass the exam with a good mark and in the first attempt. Intelligent Fault Diagnosis and Remaining Useful Life Prediction of Rotating Machinery provides a comprehensive introduction of intelligent fault diagnosis and RUL prediction based on the current achievements of the author's research group. The main contents include multi-domain signal processing and feature extraction, intelligent diagnosis models, clustering algorithms, hybrid intelligent diagnosis strategies, and RUL prediction approaches, etc. This book presents fundamental theories and advanced methods of identifying the occurrence, locations, and degrees of faults, and also includes information on how to predict the RUL of rotating machinery. Besides experimental demonstrations, many application cases are presented and illustrated to test the methods mentioned in the book. This valuable reference provides an essential guide on machinery fault diagnosis that helps readers understand basic concepts and fundamental theories. Academic researchers with mechanical engineering or computer science backgrounds, and engineers or

practitioners who are in charge of machine safety, operation, and maintenance will find this book very useful. Provides a detailed background and roadmap of intelligent diagnosis and RUL prediction of rotating machinery, involving fault mechanisms, vibration characteristics, health indicators, and diagnosis and prognostics Presents basic theories, advanced methods, and the latest contributions in the field of intelligent fault diagnosis and RUL prediction Includes numerous application cases, and the methods, algorithms, and models introduced in the book are demonstrated by industrial experiences This IBM® RedpaperTM publication is a comprehensive guide that covers the IBM Power 795 server that supports IBM AIX®, IBM i, and Linux operating systems. The goal of this paper is to introduce the innovative Power 795 offering and its major functions: IBM POWER7® processor, available at frequencies of 3.7 GHz and 4.0 GHz with TurboCore options of 4.25 GHz and 4.31 GHz Specialized POWER7 Level 3 cache that provides greater bandwidth, capacity, and reliability IBM PowerVM® virtualization, including PowerVM Live Partition Mobility and PowerVM IBM Active MemoryTM Sharing TurboCore mode that delivers the highest performance per core Enhanced reliability, accessibility, and serviceability (RAS) features that are designed for maximum availability Active Memory Expansion that provides more usable

memory than what is physically installed on the system IBM EnergyScaleTM technology that provides features such as power trending, power-saving, capping of power, and thermal measurement Professionals who want to acquire a better understanding of IBM Power SystemsTM products can benefit from reading this paper. This paper complements the available set of IBM Power Systems documentation by providing a desktop reference that offers a detailed technical description of the Power 795 system. This paper does not replace the latest marketing materials and configuration tools. It is intended as an additional source of information that, together with existing sources, can be used to enhance your knowledge of IBM server solutions.

Cyber-physical systems (CPS) can be defined as systems in which physical objects are represented in the digital world and integrated with computation, storage, and communication capabilities and are connected to each other in a network. The goal in the use of the CPS is integrating the dynamics of the physical processes with those of the software and networking, providing abstractions and modelling, design, and analysis techniques for the integrated whole. The notion of CPS is linked to concepts of robotics and sensor networks with intelligent systems proper of computational intelligence leading the pathway. Recent advances in science and

engineering improve the link between computational and physical elements by means of intelligent systems, increasing the adaptability, autonomy, efficiency, functionality, reliability, safety, and usability of cyber-physical systems. The potential of cyber-physical systems will spread to several directions, including but not limited to intervention, precision manufacturing, operations in dangerous or inaccessible environments, coordination, efficiency, Maintenance 4.0, and augmentation of human capabilities. Design, Applications, and Maintenance of Cyber-Physical Systems gives insights about CPS as tools for integrating the dynamics of the physical processes with those of software and networking, providing abstractions and modelling, design, and analysis techniques for their smart manufacturing interoperation. The book will have an impact upon the research on robotics, mechatronics, integrated intelligent multibody systems, Industry 4.0, production systems management and maintenance, decision support systems, and Maintenance 4.0. The chapters discuss not only the technologies involved in CPS but also insights into how they are used in various industries. This book is ideal for engineers, practitioners, researchers, academicians, and students who are interested in a deeper understanding of cyber-physical systems (CPS), their design, application, and maintenance, with a special focus on modern technologies in Industry 4.0

and Maintenance 4.0.

The 2016 International Conference on Computer Science, Technology and Application (CSTA2016) were held in Changsha, China on March 18–20, 2016. The main objective of the joint conference is to provide a platform for researchers, academics and industrial professionals to present their research findings in the fields of computer science and technology. The CSTA2016 received more than 150 submissions, but only 67 articles were selected to be included in this proceedings, which are organized into 6 chapters; covering Image and Signal Processing, Computer Network, Algorithm and Simulation, Data Mining and Cloud Computing, Computer Systems and Application, Mathematics and Management. Contents:Image and Signal ProcessingComputer Network and Information SecurityAlgorithm and SimulationData Mining and Cloud ComputingComputer System and ApplicationMathematics and Management Readership: Researchers and professionals in computer networks & signal processing.

Authors have attempted to create coherent chapters and sections on how the fundamentals of maintenance cost should be organized, to present them in a logical and sequential order. Necessarily, the text starts with importance of maintenance function in the organization and moves to life cycle cost (LCC) considerations followed by the budgeting constraints. In the process, they have intentionally postponed the discussion about intangible costs and downtime costs

later on in the book mainly due to the controversial part of it when arguing with managers. The book will be concluding with a short description of a number of sectors where maintenance cost is of critical importance. The goal is to train the readers for a deeper study and understanding of these elements for decision making in maintenance, more specifically in the context of asset management. This book is intended for managers, engineers, researchers, and practitioners, directly or indirectly involved in the area of maintenance. The book is focused to contribute towards better understanding of maintenance cost and use of this knowledge to improve the maintenance process. Key Features: • Emphasis on maintenance cost and life cycle cost especially under uncertainty. • Systematic approach of how cost models can be applied and used in the maintenance field. • Compiles and reviews existing maintenance cost models. • Consequential and direct costs considered. • Comparison of maintenance costs in different sectors, infrastructure, manufacturing, transport.

This IBM® RedpaperTM publication is a comprehensive guide covering the IBM Power 720 and Power 740 servers that support IBM AIX®, IBM i, and Linux operating systems. The goal of this paper is to introduce the innovative Power 720 and Power 740 offerings and their major functions: The IBM POWER7+TM processor is available at frequencies of 3.6 GHz, and 4.2 GHz. The larger IBM POWER7+ Level 3 cache provides greater bandwidth, capacity, and reliability. The 4-port 10/100/1000 Base-TX Ethernet PCI Express adapter is included in base configuration and installed in a PCIe Gen2 x4 slot. The integrated SAS/SATA controller for HDD, SSD, tape, and DVD supports built-in hardware RAID 0, 1, and 10. New IBM PowerVM® V2.2.2 features, such as 20 LPARs per core. The improved IBM Active MemoryTM Expansion technology provides more usable memory than is

physically installed in the system. High-performance SSD drawer. Professionals who want to acquire a better understanding of IBM Power SystemsTM products can benefit from reading this paper. This paper expands the current set of IBM Power Systems documentation by providing a desktop reference that offers a detailed technical description of the Power 720 and Power 740 systems. This paper does not replace the latest marketing materials and configuration tools. It is intended as an additional source of information that, together with existing sources, can be used to enhance your knowledge of IBM server solutions. Enterprise servers play a mission-critical role in modern computing environments, especially from a business continuity perspective. Several models of IT capability have been introduced over the last two decades. Enhancing Business Continuity and IT Capability: System Administration and Server Operating Platforms proposes a new model of IT capability. It presents a framework that establishes the relationship between downtime on one side and business continuity and IT capability on the other side, as well as how system administration and modern server operating platforms can help in improving business continuity and IT capability. This book begins by defining business continuity and IT capability and their importance in modern business, as well as by giving an overview of business continuity, disaster recovery planning, contingency planning, and business continuity maturity models. It then explores modern server environments and the role of system administration in ensuring higher levels of system availability, system scalability, and business continuity. Techniques for enhancing availability and business continuity also include Business impact analysis Assessing the downtime impact Designing an optimal business continuity solution IT auditing as a process of gathering data and evidence to evaluate whether the

company's information systems infrastructure is efficient and effective and whether it meets business goals The book concludes with frameworks and guidelines on how to measure and assess IT capability and how IT capability affects a firm's performances. Cases and white papers describe real-world scenarios illustrating the concepts and techniques presented in the book.

Collaborative design has attracted much attention in the research community in recent years. With increasingly decentralized manufacturing systems and processes, more collaborative approaches and systems are needed to support distributed manufacturing operations. "Collaborative Design and Planning for Digital Manufacturing" presents a focused collection of quality chapters on the state-of-the-art research efforts in the area of collaborative design and planning, as well as their practical applications towards digital manufacturing. "Collaborative Design and Planning for Digital Manufacturing" provides both a broad-based review of the key areas of research in digital manufacturing, and an in-depth treatment of particular methodologies and systems, from collaborative design to distributed planning, monitoring and control. Recent development and innovations in this area provide a pool of focused research efforts, relevant to a wide readership from academic researchers to practicing engineers.

E-based systems and computer networks are becoming standard practice across all sectors, including health, engineering, business, education, security, and citizen interaction with local and national government. With contributions from researchers and practitioners from around the world, this two-volume book discusses and reports on new and important developments in the field of e-systems, covering a wide range of current issues in the design, engineering, and adoption of e-systems.

This IBM® Redpaper publication is part of a series of technical documentation to help the enablement of SAP on Linux for IBM Power Systems servers and IBM System StorageTM servers. This book describes how by using SAP Landscape Management (SAP LaMa) 3.0 software that clients gain full visibility and control over their SAP and non-SAP systems, including the underlying physical, virtual, and cloud infrastructures. With SAP LaMa, you can automate repetitive tasks to manage critical applications across complex, hybrid IT landscapes. This publication helps you to better control IT costs and increase business agility, for example, by freeing staff to focus on more strategic work rather than manual, error-prone tasks. The target audiences of this book are architects, IT specialists, and systems administrators deploying SAP LaMa 3.0 whom often spend much time and effort managing and provisioning SAP software systems and landscapes.

This book discusses how the excess value, of the products using braid, is captured in prosthetic limbs, aircraft and automotive components, commercial furniture, and trenchless sewer repair structures. It outlines the braided pultrusion process and also discusses impregnation states.

This book provides science and technology ethos to a literate person. It starts with a rather detailed treatment of basic concepts in human values, educational status and domains of education, development of science and technology and their contributions to the welfare of society. It describes ways and means of scientific progresses and technological advancements with their historical perspectives including scientific viewpoints of contributing scientists and technologists. The technical, social, and cultural dimensions are surveyed in relation to acquisition and application of science, and advantages and hindrances of technological developments. Science and Technology is currently taught as

a college course in many universities with the intention to introduce topics from a global historical perspective so that the reader shall stretch his/her vision by mapping the past to the future. The book can also serve as a primary reference for such courses.

Researchers in the evolving fields of artificial intelligence and information systems are constantly presented with new challenges. Artificial Intelligence and Integrated Intelligent Information Systems: Emerging Technologies and Applications provides both researchers and professionals with the latest knowledge applied to customized logic systems, agent-based approaches to modeling, and human-based models. Artificial Intelligence and Integrated Intelligent Information Systems: Emerging Technologies and Applications presents the recent advances in multi-mobile agent systems, the product development process, fuzzy logic systems, neural networks, and ambient intelligent environments among many other innovations in this exciting field.

If there exists a single term that summarizes the key to success in modern industrial automation, the obvious choice would be integration. Integration is critical to aligning all levels of an industrial enterprise and to optimizing each stratum in the hierarchy. While many books focus on the technological components of enterprise information systems, Integration Technologies for Industrial Automated Systems is the first book to present a comprehensive picture of the technologies, methodologies, and knowledge used to integrate seamlessly the various technologies underlying modern industrial

automation and information systems. In chapters drawn from two of Zurawski's popular works, The Industrial Communication Technology Handbook and The Industrial Information Technology Handbook, this practical guide offers tutorials, surveys, and technology overviews contributed by experts from leading industrial and research institutions from around the world. The book is organized into sections for cohesive and comprehensive treatment. It examines e-technologies, software and IT technologies, communication network-based technologies, agent-based technologies, and security in detail as well as their role in the integration of industrial automated systems. For each of these areas, the contributors discuss emerging trends, novel solutions, and relevant standards. Charting the course toward more responsive and agile enterprise, Integration Technologies for Industrial Automated Systems gives you the tools to make better decisions and develop more integrated systems. E-maintenance is the synthesis of two major trends in today's society: the growing importance of maintenance as a key technology and the rapid development of information and communication technology. E-maintenance gives the reader an overview of the possibilities offered by new and advanced information and communication technology to achieve efficient maintenance

solutions in industry, energy production and transportation, thereby supporting sustainable development in society. Sixteen chapters cover a range of different technologies, such as: new micro sensors, on-line lubrication sensors, smart tags for condition monitoring, wireless communication and smart personal digital assistants. E-maintenance also discusses semantic data-structuring solutions; ontology structured communications; implementation of diagnostics and prognostics; and maintenance decision support by economic optimisation. It includes four industrial cases that are both described and analysed in detail, with an outline of a global application solution. E-maintenance is a useful tool for engineers and technicians who wish to develop e-maintenance in industrial sites. It is also a source of new and stimulating ideas for researchers looking to make the next step towards sustainable development.

This Proceedings volume contains articles presented at the CIRP-Sponsored Inter- tional Conference on Digital Enterprise Technology (DET2009) that takes place December 14–16, 2009 in Hong Kong. This is the 6th DET conference in the series and the first to be held in Asia. Professor Paul Maropoulos initiated, hosted and chaired the 1st International DET Conference held in 2002 at the University of D- ham. Since this inaugural first DET conference, DET conference series has been s- cessfully held in 2004

at Seattle, Washington USA, in 2006 at Setubal Portugal, in 2007 at Bath England, and in 2008 at Nantes France. The DET2009 conference continues to bring together International expertise from the academic and industrial fields, pushing forward the boundaries of research kno- edge and best practice in digital enterprise technology for design and manufacturing, and logistics and supply chain management. Over 120 papers from over 10 countries have been accepted for presentation at DET2009 and inclusion in this Proceedings volume after stringent refereeing process. On behalf of the organizing and program committees, the Editors are grateful to the many people who have made DET2009 possible: to the authors and presenters, es- cially the keynote speakers, to those who have diligently reviewed submissions, to members of International Scientific Committee, Organizing Committee and Advisory Committes, and to colleagues for their hard work in sorting out all the arrangements. We would also like to extend our gratitude to DET2009 sponsors, co-organizers, and supporting organizations.

This book includes the latest research presented at the International Conference on Artificial Intelligence in Renewable Energetic Systems held in Tipaza, Algeria on October 22–24, 2017. The development of renewable energy at low cost must necessarily involve the intelligent optimization of energy flows

and the intelligent balancing of production, consumption and energy storage. Intelligence is distributed at all levels and allows information to be processed to optimize energy flows according to constraints. This thematic is shaping the outlines of future economies of and offers the possibility of transforming society. Taking advantage of the growing power of the microprocessor makes the complexity of renewable energy systems accessible, especially since the algorithms of artificial intelligence make it possible to take relevant decisions or even reveal unsuspected trends in the management and optimization of renewable energy flows. The book enables those working on energy systems and those dealing with models of artificial intelligence to combine their knowledge and their intellectual potential for the benefit of the scientific community and humanity.

This IBM® RedpaperTM publication is a comprehensive guide covering the IBM Power 770 and Power 780 servers supporting IBM AIX®, IBM i, and Linux® operating systems. The goal of this paper is to introduce the major innovative Power 770 and 780 offerings and their prominent functions, including: Unique modular server packaging The specialized IBM POWER7TM Level 3 cache that provides greater bandwidth, capacity, and reliability The 1 Gb or 10 Gb Integrated Virtual Ethernet adapter that brings native hardware virtualization up

to 64 logical ports on this server IBM PowerVMTM virtualization including PowerVM Live Partition Mobility and PowerVM Active MemoryTM Sharing Active Memory Expansion that provides more usable memory than what is physically installed on the system IBM EnergyScaleTM technology that provides features such as power trending, power-saving, capping of power, and thermal measurement Enterprise-ready reliability, serviceability, and availability Professionals who want to acquire a better understanding of IBM Power SystemsTM products should read this paper. This paper expands the current set of IBM Power Systems documentation by providing a desktop reference that offers a detailed technical description of the 770 and 780 systems. This paper does not replace the latest marketing materials and configuration tools. It is intended as an additional source of information that, together with existing sources, may be used to enhance your knowledge of IBM server solutions.
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