Level 3 Networking Principles 7540 031 City And Guilds

CERT® Resilience Management Model (CERT-RMM) is an innovative and transformative way to manage operational resilience in complex, risk-evolving environments. CERT-RMM distills years of research into best practices for managing the security and survivability of people, information, technology, and facilities. It integrates these best practices into a unified, capability-focused maturity model that encompasses security, business continuity, and IT operations. By using CERT-RMM, organizations can escape silo-driven approaches to managing operational risk and align to achieve strategic resilience management goals. This book both introduces CERT-RMM and presents the model in its entirety. It begins with essential background for all professionals, whether they have previously used process improvement models or not. Next, it explains CERT-RMM's Generic Goals and Practices and discusses various approaches for using the model. Short essays by a number of contributors illustrate how CERT-RMM can be applied for different purposes or can be used to improve an existing program. Finally, the book provides a complete baseline understanding of all 26 process areas included in CERT-RMM. Part One summarizes the value of a process improvement approach to managing resilience, explains CERT-RMM's conventions and core principles, describes the model architecturally, and shows how itsupports relationships tightly linked to your objectives. Part Two focuses on using CERT-RMM to establish a foundation for sustaining operational resilience management processes in complex environments where risks rapidly emerge and change. Part Three details all 26 CERT-RMM process areas, from asset definition through vulnerability resolution. For each, complete descriptions of goals and practices are presented, with realistic examples. Part Four contains appendices, including Targeted Improvement Roadmaps, a glossary, and other reference materials. This book will be valuable to anyone seeking to improve the mission assurance of high-value services, including leaders of large enterprise or organizational units, security or business continuity specialists, managers of large IT operations, and those using methodologies such as ISO 27000, COBIT, ITIL, or CMMI.

This book covers a broad range of materials science that has been brought to bear on providing solutions to the challenges of developing self-healing and protective coatings for a range of metals. The book has a strong emphasis on characterisation techniques, particularly new techniques that are beginning to be used in the coatings area. It features many contributions written by experts from various industrial sectors which examine the needs of the sectors and the state of the art. The development of self-healing and protective coatings has been an expanding field in recent years and applies a lot of new knowledge gained from other fields as well as other areas of materials science to the development of coatings. It has borrowed from fields such as the food and pharmaceutical industries who have used, polymer techniques, sol-gel science and colloidosome technology for a range encapsulation techniques. It has also borrowed from fields like hydrogen storage such as from the development of hierarchical and other materials based on organic templating as "nanocontainers" for the delivery of inhibitors. In materials science, recent developments in high throughput and other characterisation techniques, such as those available from synchrotrons, are being increasing used for novel characterisation – one only needs to look at the application of these techniques in self healing polymers to gauge wealth of new information that has been gained from these techniques. This work is largely driven by the need to replace environmental pollutants and hazardous chemicals that represent risk to humans such as chromate inhibitors which are still used in some applications.

Life outside the mobile phone is unbearable.' Lily, 19, factory worker. Described as the biggest migration in human history, an estimated 250 million Chinese people have left their villages in recent decades to live and work in urban areas. Xinyuan Wang spent 15 months living among a community of these migrants in a small factory town in southeast China to track their use of social media. It was here she witnessed a second migration taking place: a movement from offline to online. As Wang argues, this is not simply a convenient analogy but represents the convergence of two phenomena as profound and consequential as each other, where the online world now provides a home for the migrant workers who feel otherwise 'homeless'. Wang's fascinating study explores the full range of preconceptions commonly held about Chinese people – their relationship with education, with family, with politics, with 'home' – and argues why, for this vast population, it is time to reassess what we think we know about contemporary China and the evolving role of social media.

The sudden outbreak of the COVID-19 pandemic has curbed human lifestyle by imposing restrictions on regular daily movements that had been taken for granted. Due to the pandemic, the welfare segment has received more attention, and every possible effort is being made to prioritize the services at the top. This can be made possible while using the latest tools, technologies, and resources that impact the human culture and welfare of well-being. Novel methods and devices that make the welfare services more efficient, adaptive, transparent, and cost-effective need to be explored. The Handbook of Research on Lifestyle Sustainability and Management Solutions Using AI, Big Data Analytics, and Visualization offers extensive research on lifestyle management and services that contribute towards indication, detection, conduction, protection, and technological enhancement including machine learning, deep learning, artificial intelligence, big data analytics, and visualization. It also provides mechanisms that can improve lifestyle monitoring and help in increasing the immunity of the human body. Covering topics such as big data, robot therapy, and wearable technology, it is ideal for students, researchers, technologists, IT specialists, computer engineers, systems engineers, data scientists, doctors, hospital administrators, engineers, academicians, and technology providers.

Artificial Intelligence, China, Russia, and the Global Order

Deep Neural Networks for Multimodal Imaging and Biomedical Applications

CERT Resilience Management Model (CERT-RMM)

Social Media in Industrial China

Sustainable Logistics and Supply Chain Management (Revised Edition)

Assessing the Challengesâ¬"Finding Solutions: Workshop Summary

This book constitutes the refereed proceedings of the 21st International Conference on Principles and Practice of Multi-Agent Systems, PRIMA 2018, held in Tokyo, Japan, in October/November 2018. The 27 full papers presented and 31 short papers were carefully reviewed and selected from 103 submissions. PRIMA presents subjects in many application domains, particularly in e-commerce, and also in planning, logistics, manufacturing, robotics, decision support, transportation, entertainment, emergency relief and disaster management, and data mining and analytics.

Sustainable Logistics and Supply Chain Management is the essential guide to the principles and practices of sustainable logistics operations and the responsible management of the entire supply chain. Based on extensive research by experts in the field, this comprehensive book covers the whole scope of sustainable logistics. The book provides carefully reviewed research-led applications and case studies that have been especially developed for this revised edition with particular attention for use in a teaching context. The mini case studies are highly topical, relating the theoretical concepts to practice and what is actually happening 'on the ground'. Examining the subject in an integrated manner, this book examines all the key areas in sustainable logistics and supply chain management, including: sustainable product design and packaging; sustainable purchasing and procurement; cleaner production; environmental impact of freight transport; sustainable warehousing and storage; sustainable supply management; reverse logistics and recycling; supply chain management strategy, and much more. The book provides an excellent insight into the topic that will help managers, students, and scholars grasp the fundamentals of green supply and logistics management. This revised edition of Sustainable Logistics and Supply Chain Management includes valuable supporting online materials, including PPT presentations, chapter summaries, learning objectives, tips for teaching and in class activities.

The book focuses on original approaches intended to support the development of biologically inspired cognitive architectures. It bridges together different disciplines, from classical artificial intelligence to linguistics, from neuro- and social sciences to design and creativity, among others. The chapters, based on contributions presented at the Tenth Annual Meeting of the BICA Society, held in on August 15-18, 2019, in Seattle, WA, USA, discuss emerging methods, theories and ideas towards the realization of general-purpose humanlike artificial intelligence or fostering a better understanding of the ways the human mind works. All in all, the book provides engineers, mathematicians, psychologists, computer scientists and other experts with a timely snapshot of recent research and a source of inspiration for future developments in the broadly intended areas of artificial intelligence and biological inspiration.

The three volume set LNAI 11051 – 11053 constitutes the refereed proceedings of the European Conference on Machine Learning and Knowledge Discovery in Databases, ECML PKDD 2018, held in Dublin, Ireland, in September 2018. The total of 131 regular papers presented in part I and part II was carefully reviewed and selected from 535 submissions; there are 52 papers in the applied data science, nectar and demo track. The contributions were organized in topical sections named as follows: Part I: adversarial learning; anomaly and outlier detection; applications; classification; clustering and unsupervised learning; deep learningensemble methods; and evaluation. Part II: graphs; kernel methods; learning paradigms; matrix and tensor analysis; online and active learning; pattern and sequence mining; probabilistic models and statistical methods; recommender systems; and transfer learning. Part III: ADS data science applications; ADS e-commerce; ADS engineering and design; ADS financial and security; ADS health; ADS sensing and positioning; nectar track; and demo track.

Proceedings of the Tenth Annual Meeting of the BICA Society

Study Companion

Fog/Edge Computing For Security, Privacy, and Applications

2000-

Learning Neo4j

Instrument Abstracts

Theses on any subject submitted by the academic libraries in the UK and Ireland.

This book constitutes the refereed proceedings of the 23rd International Conference on Principles and Practice of Multi-Agent Systems, PRIMA 2020, held in Nagoya, Japan, in November 2020. The 19 full papers presented and 13 short papers were carefully reviewed and selected from 50 submissions. Due to COVID-19, the conference was held online. The conference covers a wide range of ranging from foundations of agent theory and engineering aspects of agent systems, to emerging interdisciplinary areas of agent-based research.

Early detection is essential to the control of emerging, reemerging, and novel infectious diseases, whether naturally occurring or intentionally introduced. Containing the spread of such diseases in a profoundly interconnected world requires active vigilance for signs of an outbreak, rapid recognition of its presence, and diagnosis of its microbial cause, in addition to strategies and resources for an appropriate and efficient response. Although these actions are often viewed in terms of human public health, they also challenge the plant and animal health communities. Surveillance, defined as "the continual scrutiny of all aspects of occurrence and spread of a disease that are pertinent to effective control", involves the "systematic collection, analysis, interpretation, and dissemination of health data." Disease detection and diagnosis is the act of discovering a novel, emerging, or reemerging disease or disease event and identifying its cause. Diagnosis is "the cornerstone of effective disease control and prevention efforts, including surveillance." Disease surveillance and detection relies heavily on the astute individual: the clinician, veterinarian, plant pathologist, farmer, livestock manager, or agricultural extension agent who notices something unusual, atypical, or suspicious and brings this discovery in a timely way to the attention of an appropriate representative of human public health, veterinary medicine, or agriculture. Most developed countries have the ability to detect and diagnose human, animal, and plant diseases. Global Infectious Disease Surveillance and Detection: Assessing the Challenges -- Finding Solutions, Workshop Summary is part of a 10 book series and summarizes the recommendations and presentations of the workshop.

The open access two-volume set LNCS 12224 and 12225 constitutes the refereed proceedings of the 32st International Conference on Computer Aided Verification, CAV 2020, held in Los Angeles, CA, USA, in July 2020.* The 43 full papers presented together with 18 tool papers and 4 case studies, were carefully reviewed and selected from 240 submissions. The papers were organized in the following topical sections: Part I: AI verification; blockchain and Security; Concurrency; hardware verification and decision procedures; and hybrid and dynamic systems. Part II: model checking; software verification; stochastic systems; and synthesis. *The conference was held virtually due to the COVID-19 pandemic.

Foundations of Trusted Autonomy

Principles and Practice of Constraint Programming

21st International Conference, Tokyo, Japan, October 29-November 2, 2018, Proceedings

The Code of Federal Regulations of the United States of America

Universal Artificial Intelligence

Science Abstracts

This book establishes the foundations needed to realize the ultimate goals for artificial intelligence, such as autonomy and trustworthiness. Aimed at scientists, researchers, technologists, practitioners, and students, it brings together contributions offering the basics, the challenges and the state-of-the-art on trusted autonomous systems in a single volume. The book is structured in three parts, with chapters written by eminent researchers and outstanding practitioners and users in the field. The first part covers foundational artificial intelligence technologies, while the second part covers philosophical, practical and technological perspectives on trust. Lastly, the third part presents advanced topics necessary to create future trusted autonomous systems. The book augments theory with real-world applications including cyber security, defence and space.

Given the wide-ranging implications for global competition, domestic political systems and daily life, US policymakers must prepare for the impacts of new artificial intelligence (AI)-related technologies. Anticipating AI's impacts on the global order requires US policy makers' awareness of certain key aspects of the AI-related technologies--and how those technologies will interact with the rapidly changing global system of human societies. One area that has received little in-depth examination to date is how AI-related technologies could affect countries' domestic political systems--whether authoritarian, liberal democratic, or a hybrid of the two--and how they might impact global competition between different regimes. This work highlights several key areas where AI-related technologies have clear implications for globally integrated strategic planning and requirements.

This book constitutes the proceedings of the 26th International Conference on Principles and Practice of Constraint Programming, CP 2020, held in Louvain-la-Neuve, Belgium, in September 2020. The conference was held virtually due to the COVID-19 pandemic. The 55 full papers presented in this volume were carefully reviewed and selected from 122 submissions. They deal with all aspects of computing with constraints including theory, algorithms, environments, languages, models, systems, and applications such as decision making, resource allocation, scheduling, configuration, and planning. The papers were organized according to the following topics/tracks: technical track; application track; and CP and data science and machine learning.

Special edition of the Federal Register, containing a codification of documents of general applicability and future effect ... with ancillaries.

Books in Print

Handbook of Research on Lifestyle Sustainability and Management Solutions Using AI, Big Data Analytics, and Visualization

An Introduction to Neural Information Retrieval

PRIMA 2020: Principles and Practice of Multi-Agent Systems

Computer Aided Verification

Introduction to the New Mainframe: z/VM Basics

Some issues, Aug. 1948-1954 are called: Radio-electronic engineering edition, and include a separately numbered and paged section: Radio-electronic engineering (issued separately Aug. 1954-May 1955).

Directory of "2805 database in 2509 entries." Science, technology, medicine, business, law, humanities, and social sciences are covered. Entries give such detailed information as data elements, subject matter, and user aids. Name, subject, producer and processor indexes.

Efficient Query Processing for Scalable Web Search will be a valuable reference for researchers and developers working on This tutorial provides an accessible, yet comprehensive, overview of the state-of-the-art of Neural Information Retrieval.

The 29th European Symposium on Computer Aided Process Engineering, contains the papers presented at the 29th European Symposium of Computer Aided Process Engineering (ESCAPE) event held in Eindhoven, The Netherlands, from June 16-19, 2019. It is a valuable resource for chemical engineers, chemical process engineers, researchers in industry and academia, students, and consultants for chemical industries. Presents findings and discussions from the 29th European Symposium of Computer Aided Process Engineering (ESCAPE) event

Sequential Decisions Based on Algorithmic Probability

Code of Federal Regulations

European Conference, ECML PKDD 2018, Dublin, Ireland, September 10–14, 2018, Proceedings, Part II

Computerworld

Computer Networking

26th International Conference, CP 2020, Louvain-la-Neuve, Belgium, September 7–11, 2020, Proceedings

This book is for developers who want an alternative way to store and process data within their applications. No previous graph database experience is required; however, some basic database knowledge will help you understand the concepts more easily.

The book gathers the chapters of Cognitive InfoCommunication research relevant to a variety of application areas, including data visualization, emotion expression, brain-computer interfaces or speech technologies. It provides an overview of the kind of cognitive capabilities that are being analyzed and developed. Based on this common ground, it may become possible to see new opportunities for synergy among disciplines that were heretofore viewed as being separate. Cognitive InfoCommunication begins by modeling human cognitive states and aptitudes in order to better

understand what the user of a system is capable of comprehending and doing. The patterns of exploration and the specific tools that are described can certainly be of interest and of great relevance for all researchers who focus on modeling human states and aptitudes. This innovative research area provides answers to the latest challenges in influence of cognitive states and aptitudes in order to facilitate learning or generally improve performance in certain cognitive tasks such as decision making. Some capabilities are purely human, while others are purely artificial, but in general this distinction is rarely clear-cut. Therefore, when discussing new human cognitive capabilities, the technological background which makes them possible cannot be neglected, and indeed often plays a central role. This book highlights the synergy between various fields that are perfectly fit under the umbrella of CogInfoCom and contribute to understanding and developing new, human-artificial intelligence hybrid capabilities. These, merged capabilities are currently appearing, and the importance of the role they play in everyday life are unique to the cognitive entity generation that is currently growing up.

Over the past decades, rapid developments in digital and sensing technologies, such as the Cloud, Web and Internet of Things, have dramatically changed the way we live and work. The digital transformation is revolutionizing our ability to monitor our planet and transforming the way we access, process and exploit Earth Observation data from satellites.This book reviews these megatrends and their implications for the Earth Observation community as well as the wider data economy. It provides insight into new paradigms of Open Science and Innovation applied to space data, which are characterized by openness, access to large volume of complex data, wide availability of new community tools, new techniques for big data analytics such as Artificial Intelligence, unprecedented level of computing power, and new types of collaboration among researchers, innovators, entrepreneurs and citizen scientists. In addition, this book aims to provide readers with some reflections on the future of Earth Observation, highlighting through a series of use cases not just the new opportunities created by the New Space revolution, but also the new challenges that must be addressed in order to make the most of the large volume of complex and diverse data delivered by the new generation of satellites. This work was published by Saint Philip Street Press pursuant to a Creative Commons license permitting commercial use. All rights not granted by the work's license are retained by the author or authors.

"This text presents an organized approach to planning, developing, and implementing public health surveillance systems. It has a broad scope, discussing legal and ethical issues as well as technical problems"--Jacket cover.

Index to Theses with Abstracts Accepted for Higher Degrees by the Universities of Great Britain and Ireland and the Council for National Academic Awards

A Maturity Model for Managing Operational Resilience

New-Generation Coatings for Metals

Global Infectious Disease Surveillance and Detection

Active Protective Coatings

Catalogue

Separation Process Principles with Applications Using Process Simulator, 4th Edition is the most comprehensive and up-to-date treatment of the major separation operations in the chemical industry. The 4th edition focuses on using process simulators to design separation processes and prepares readers for professional practice. Completely rewritten to enhance clarity, this fourth edition provides engineers with a strong understanding of the field. With the help of an additional co-author, the text presents new information on bioseparations throughout the chapters. A new chapter on mechanical separations covers settling, filtration and centrifugation including mechanical separations in biotechnology and cell lysis. Boxes help highlight fundamental equations. Numerous new examples and exercises are integrated throughout as well.

This textbook provides students with the background knowledge and skills necessary to begin using the basic functions and features of z/VM Version 5, Release 3. It is part of a series of textbooks designed to introduce students to mainframe concepts and help prepare them for a career in large systems computing. For optimal learning, students are assumed to be literate in personal computing and have some computer science or information systems background. Others who will benefit from this textbook include z/OS professionals who would like to expand their knowledge of other aspects of the mainframe computing environment. This course can be used as a prerequisite to understanding Linux on System z. After reading this textbook and working through the exercises, the student will have received a basic understanding of the following topics: The Series z Hardware concept and the history of the mainframe Virtualization technology in general and how it is exploited by z/VM Operating systems that can run as guest systems under z/VM z/VM components The z/VM control program and commands The interactive environment under z/VM, CMS and its commands z/VM planning and administration Implementing the networking capabilities of z/VM Tools to monitor the performance of z/VM systems and guest operating systems The REXX programming language and CMS pipelines Security issues when running z/VM

The Code of Federal Regulations is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government.

For more than 40 years, Computerworld has been the leading source of technology news and information for IT influencers worldwide. Computerworld's award-winning Web site (Computerworld.com), twice-monthly publication, focused conference series and custom research form the hub of the world's largest global IT media network.

PRIMA 2018: Principles and Practice of Multi-Agent Systems

Understanding Information Age Warfare

Forthcoming Books

23rd International Conference, Nagoya, Japan, November 18–20, 2020, Proceedings

Biologically Inspired Cognitive Architectures 2019

Separation Process Principles with Applications Using Process Simulators, 4th Edition

Appropriate for a first course on computer networking, this textbook describes the architecture and function of the application, transport, network, and link layers of the internet protocol stack, then examines audio and video networking applications, the underpinnings of encryption and network security, and the key issues of network management. Th

This book provides the state-of-the-art development on security and privacy for fog/edge computing, together with their system architectural support and applications. This book is organized into five parts with a total of 15 chapters. Each area corresponds to an important snapshot. The first part of this book presents an overview of fog/edge computing, focusing on its relationship with cloud technology and the future with the use of 5G communication. Several applications of edge computing are discussed. The second part of this book considers several security issues in fog/edge computing, including the secure storage and search services, collaborative intrusion detection method on IoT-fog computing, and the feasibility of deploying Byzantine agreement protocols in untrusted environments. The third part of this book studies the privacy issues in fog/edge computing. It first investigates the unique privacy challenges in fog/edge computing, and then discusses a privacy-preserving framework for the edge-based video analysis, a popular machine learning application on fog/edge. This book also covers the security architectural design of fog/edge computing, including a comprehensive overview of vulnerabilities in fog/edge computing within multiple architectural levels, the security and intelligent management, the implementation of network-function-virtualization-enabled multicasting in part four. It explains how to use the blockchain to realize security services. The last part of this book surveys applications of fog/edge computing, including the fog/edge computing in Industrial IoT, edge-based augmented reality, data streaming in fog/edge computing, and the blockchain-based application for edge-IoT. This book is designed for academics, researchers and government officials, working in the field of fog/edge computing and cloud computing. Practitioners, and business organizations (e.g., executives, system designers, and marketing professionals), who conduct teaching, research, decision making, and designing fog/edge technology will also benefit from this book The content of this book will be particularly useful for advanced-level students studying computer science, computer technology, and information systems, but also applies to students in business, education, and economics, who would benefit from the information, models, and case studies therein. Personal motivation. The dream of creating artificial devices that reach or outperform human inteUigence is an old one. It is also one of the dreams of my youth, which have never left me. What makes this challenge so interesting? A solution would have enormous implications on our society, and there are reasons to believe that the AI problem can be solved in my expected lifetime. So, it's worth sticking to it for a lifetime, even if it takes 30 years or so to reap the benefits. The AI problem. The science of artificial intelligence (AI) may be defined as the construction of intelligent systems and their analysis. A natural definition of a system is anything that has an input and an output stream. Intelligence is more complicated. It can have many faces like creativity, solving prob lems, pattern recognition, classification, learning, induction, deduction, build ing analogies, optimization, surviving in an environment, language processing, and knowledge. A formal definition incorporating every aspect of intelligence, however, seems difficult. Most, if not all known facets of intelligence can be formulated as goal driven or, more precisely, as maximizing some utility func tion. It is, therefore, sufficient to study goal-driven AI; e. g. the (biological) goal of animals and humans is to survive and spread. The goal of AI systems should be to be useful to humans.

The field of healthcare is seeing a rapid expansion of technological advancement within current medical practices. The implementation of technologies including neural networks, multi-model imaging, genetic algorithms, and soft computing are assisting in predicting and identifying diseases, diagnosing cancer, and the examination of cells. Implementing these biomedical technologies remains a challenge for hospitals worldwide, creating a need for research on the specific applications of these computational techniques. Deep Neural Networks for Multimodal Imaging and Biomedical Applications provides research exploring the theoretical and practical aspects of emerging data computing methods and imaging techniques within healthcare and biomedicine. The publication provides a complete set of information in a single module starting from developing deep neural networks to predicting disease by employing multi-modal imaging. Featuring coverage on a broad range of topics such as prediction models, edge computing, and quantitative measurements, this book is ideally designed for researchers, academicians, physicians, IT consultants, medical software developers, practitioners, policymakers, scholars, and students seeking current research on biomedical advancements and developing computational methods in healthcare.

32nd International Conference, CAV 2020, Los Angeles, CA, USA, July 21-24, 2020, Proceedings, Part I

Principles and Practice of Public Health Surveillance

Radio & Television News

Rural Development Abstracts

Computer-readable Data Bases

Electrical engineering abstracts