Frameworks Methodologies And Tools For Developing Rich Internet Applications Advances In Web Technologies And Engineering Awte

Most people who write software have at least some experience with unit testing-even if they don't call it that. If you have ever written a few lines of throwaway code just to try something out, you've built a unit test. On the other end of the software spectrum, many large-scale applications have huge batteries of test cases that are repeatedly run and added to throughout the development process. What are unit test frameworks and how are they used? Simply stated, they are software tools to support writing and running unit tests, including a foundation on which to build tests and the functionality to execute the tests and report their results. They are not solely tools for testing; they can also be used as development tools on a par with preprocessors and debuggers. Unit test frameworks can contribute to almost every stage of software development and are key tools for doing Agile Development and building big-free code. Unit Test Frameworks covers the usage, philosophy, and architecture of unit test frameworks. Tutorials and example code are platform-independent and compatible with Windows, Mac OS X, Unix, and Linux. The companion CD includes complete versions of JUnit, CppUnit, NUnit, and XMLUnit, as well as the complete set of code examples. Collaborative Networks is a fast developing area, as shown by the already large number of diverse real-world implemented cases and the dynamism of its related involved research

community. Being recognized as the most focused scientific and technical conference on Collaborative Networks, PRO-VE continues to offer the opportunity for presentation and discussion of both the latest research developments as well as the practical application case studies.

This is a single-volume guide to all the main analytical frameworks for gender-sensitive research and planning. It draws on the experience of trainers and practitioners, and includes step-by-step instructions for using the frameworks.

As modern technologies continue to develop and evolve, the ability of users to interface with new systems becomes a paramount concern. Research into new ways for humans to make use of advanced computers and other such technologies is necessary to fully realize the potential of 21st century tools. Human-Computer Interaction: Concepts, Methodologies, Tools, and Applications gathers research on user interfaces for advanced technologies and how these interfaces can facilitate new developments in the fields of robotics, assistive technologies, and computational intelligence. This four-volume reference contains cutting-edge research for computer scientists; faculty and students of robotics, digital science, and networked communications; and clinicians invested in assistive technologies. This seminal reference work includes chapters on topics pertaining to system usability, interactive design, mobile interfaces, virtual worlds, and more.

Agent Technology, or Agent-Based Approaches, is a new paradigm for developing software applications. It has been hailed as 'the next significant breakthrough in software development', and 'the new revolution in software' after object technology or object-oriented programming. In this context, an agent is a computer system which is capable of act

"This book presents current research and analysis on the use of JavaScript and software development to establish new programs intended for the Web, offering an in-depth look at computer and Web programming"--

These proceedings present the results of the Eleventh International Conference on Dependability and Complex Systems DepCoS-RELCOMEX which took place in a picturesque Brunów Palace in Poland from 27th June to 1st July, 2016. DepCoS-RELCOMEX is a series of international conferences organized annually by Department of Computer Engineering of Wroc?aw University of Science and Technology since 2006. The roots of the series go as far back as to the seventies of the previous century – the first RELCOMEX conference took place in 1977 – and now its main aim is to promote a multi-disciplinary approach to dependability problems in theory and engineering practice of complex systems. Complex systems, nowadays most often computer-based and distributed, are built upon a variety of technical, information, software and human resources. The challenges in their design, analysis and maintenance not only originate from the involved technical and organizational structures but also from the complexity of the information processes that must be efficiently executed in a diverse, often hostile operational environment. Traditional methods of reliability evaluation focused only on technical resources are usually insufficient in this context and more innovative, multidisciplinary methods of dependability analysis must be applied. The diversity of the topics which need to be considered is well illustrated by the selection of the submissions in these proceedings with their subjects ranging from mathematical models and design methodologies through software engineering and data security issues up to practical problems in technical, e.g. transportation, systems.

Health literacy can be defined as the capacity of individuals families and communities to access understand appraise and apply health information in order to make judgements and take decisions in everyday life concerning health care disease prevention and health promotion in order to maintain or improve their quality of life. It is considered to be a social determinant of health and one of the key pillars in health promotion. Low health literacy is associated with poorer health more illness and health inequalities and it may make health systems less cost-effective. Evidence from the 2011 health literacy survey indicated that almost half of the adult population in eight Member States of the European Union had suboptimal general health literacy. Responses have included initiation of health literacy networks policies programmes and interventions at the regional national and organizational levels. These initiatives require monitoring using frameworks and indicator sets that produce consistent and comparable population data and evaluation to determine the effectiveness of the policies and interventions. Written by leading researchers from around the world, these papers from the fourth in the series of international conferences critically explore and analyze library and information science as a discipline and field of research from historical, philosophical, theoretical, and methodological perspectives. This compilation presents the latest in both conceptual and practical developments and approaches in library and information science, in particular in the areas of information interaction, infometric approaches, and information retrieval. ARIS (Architecture of Integrated Information Systems) is a unique and

internationally renowned method for optimizing business processes and implementing application systems. This book enhances the proven ARIS concept by describing product flows and explaining how to classify modern software concepts. The importance of the link between business process organization and strategic management is stressed. Bridging the gap between the different approaches in business theory and information technology, the ARIS concept provides a full-circle approach-from the organizational design of business processes to IT implementation. With an emphasis on SAP R/3, real-world examples of standard software solutions illustrate these business process frameworks.

This volume is the fourth part of a four-volume set (CCIS 190, CCIS 191, CCIS 192, CCIS 193), which constitutes the refereed proceedings of the First International Conference on on Computing and Communications, ACC 2011, held in Kochi, India, in July 2011. The 62 revised full papers presented in this volume were carefully reviewed and selected from a large number of submissions. The papers are the papers of the Workshop on Cloud Computing: Architecture, Algorithms and Applications (CloudComp2011), of the Workshop on Multimedia Streaming (MultiStreams2011), and of the Workshop on Trust Management in P2P Systems (IWTMP2PS2011).

As the world rapidly moves online, sectors from management, industry, government, and education have broadly begun to virtualize the way people interact and learn. Virtual Learning Environments: Concepts, Methodologies, Tools and Applications is a three-volume compendium of the latest research, case studies, theories, and methodologies within the field of virtual learning environments. As networks get faster, cheaper, safer, and more reliable, their applications grow at a rate that makes it difficult for the typical practitioner to keep abreast. With a wide range of subjects, spanning from authors across the globe and with applications at different levels of education and higher learning, this reference guide serves academics and practitioners alike, indexed and categorized easily for study and application.

"This multi-volume book delves into the many applications of information technology ranging from digitizing patient records to high-performance computing, to medical imaging and diagnostic technologies, and much more"-- Frameworks, Methodologies, and Tools for Developing Rich Internet ApplicationsIGI Global

This book addresses the question of how to achieve social coordination in Socio-Cognitive Technical Systems (SCTS). SCTS are a class of Socio-Technical Systems that are complex, open, systems where several humans and digital

entities interact in order to achieve some collective endeavour. The book approaches the question from the conceptual background of regulated open multiagent systems, with the question being motivated by their design and construction requirements. The book captures the collective effort of eight groups from leading research centres and universities, each of which has developed a conceptual framework for the design of regulated multiagent systems and most have also developed technological artefacts that support the processes from specification to implementation of that type of systems. The first, introductory part of the book describes the challenge of developing frameworks for SCTS and articulates the premises and the main concepts involved in those frameworks. The second part discusses the eight frameworks and contrasts their main components. The final part maps the new field by discussing the types of activities in which SCTS are likely to be used, the features that such uses will exhibit, and the challenges that will drive the evolution of this field.

In recent years, the science of managing and analyzing large datasets has emerged as a critical area of research. In the race to answer vital questions and make knowledgeable decisions, impressive amounts of data are now being generated at a rapid pace, increasing the opportunities and challenges associated with the ability to effectively analyze this data.

The censorship and surveillance of individuals, societies, and countries have been a long-debated ethical and moral issue. In consequence, it is vital to explore this controversial topic from all angles. Censorship, Surveillance, and Privacy: Concepts, Methodologies, Tools, and Applications is a vital reference source on the social, moral, religious, and political aspects of censorship and surveillance. It also explores the techniques of technologically supported censorship and surveillance. Highlighting a range of topics such as political censorship, propaganda, and information privacy, this multi-volume book is geared towards government officials, leaders, professionals, policymakers, media specialists, academicians, and researchers interested in the various facets of censorship and surveillance.

The delivery of quality education to students relies heavily on the actions of an institution's administrative staff. Effective leadership strategies allow for the continued progress of modern educational initiatives. Educational Leadership and Administration: Concepts, Methodologies, Tools, and Applications provides comprehensive research perspectives on the multi-faceted issues of leadership and administration considerations within the education sector. Emphasizing theoretical frameworks, emerging strategic initiatives, and future outlooks, this publication is an ideal reference source for educators, professionals, school administrators, researchers, and practitioners in the field of education.

Constructing the Infrastructure for the Knowledge Economy: Methods and Tools,

Theory and Practice is the proceedings of the 12th International Conference on Information Systems Development, held in Melbourne, Australia, August 29-31, 2003. The purpose of these proceedings is to provide a forum for research and practice addressing current issues associated with Information Systems Development (ISD). ISD is undergoing dramatic transformation; every day, new technologies, applications, and methods raise the standards for the quality of systems expected by organizations as well as end users. All are becoming more dependent on the systems reliability, scalability, and performance. Thus, it is crucial to exchange ideas and experiences, and to stimulate exploration of new solutions. This proceedings provides a forum for just that, addressing both technical and organizational issues.

Educators play a significant role in the intellectual and social development of children and young adults. Next-generation teachers can only be as strong as their own educational foundation which serves to cultivate their knowledge of the learning process, uncover best practices in the field of education, and employ leadership abilities that will inspire students of all ages. Teacher Education: Concepts, Methodologies, Tools, and Applications explores the current state of pre-service teacher programs as well as continuing education initiatives for in-service educators. Emphasizing the growing role of technology in teacher skill development and training as well as key teaching methods and pedagogical developments, this multi-volume work compiles research essential to higher education professionals and administrators,

educational software developers, and researchers studying pre-service and in-service teacher training.

This Pocket Guide is a concise summary of the Frameworks for IT Management. A quick, portable reference tool to the standards used within the Service Management community. English version available: September 2007, Dutch, French, Japanese, Spanish, German available February 2008.

The first Enterprise Architecture book that compares the 14 most popular Enterprise Architecture Frameworks in the world. A unique book for CIO's, Enterprise Architects and all others interested in EA.

?This book constitutes the refereed proceedings of the 51st International Conference on Software Technology: Methods and Tools, TOOLS 2019, held in Innopolis, Russia, in October 2019.The 19 revised full papers and 13 short papers presented in this book were carefully reviewed and selected from 62 submissions. The papers discuss all aspects of software engineering and programming languages; machine learning; internet of things; security computer architectures and robotics; and projects.

This book gathers together a critical body of knowledge on what enterprise architecture (EA) is and how it can be used to better organize the functions of systems across an enterprise for an effective business-IT alignment. The chapters provide a solid foundation for a cross-disciplinary professional practice.

Industrial engineering affects all levels of society, with innovations in manufacturing and

other forms of engineering oftentimes spawning cultural or educational shifts along with new technologies. Industrial Engineering: Concepts, Methodologies, Tools, and Applications serves as a vital compendium of research, detailing the latest research, theories, and case studies on industrial engineering. Bringing together contributions from authors around the world, this three-volume collection represents the most sophisticated research and developments from the field of industrial engineering and will prove a valuable resource for researchers, academics, and practitioners alike. Technological advances in the field of IT lead to the creation of new programs intended to merge the advantages of desktop-based programs with the advantages of Web-based programs in order to increase user accessibility and provide effective computer performance. Frameworks, Methodologies, and Tools for Developing Rich Internet Applications presents current research and analysis on the use of JavaScript and software development to establish new programs intended for the Web. With an in-depth look at computer and Web programming, this publication emphasizes the benefits and dynamic qualities of these emerging technologies. This book is an essential reference source for academicians, researchers, students, practitioners, and professionals interested in understanding and applying the advances in the combined fields of Web engineering and desktop programming in order to increase computer users' visual experience and interactivity.

Governance Frameworks for Public Project Development and Estimation includes a

thorough investigation into theoretical perspectives and theories, mainly from economy and social sciences. Thirty-two aspects of theory are assessed, and it is indicated whether each framework design seems to have put weak or strong emphasis on each of these aspects. The purpose of the report is to seek better understanding of how the governance framework and the projects interact and how the framework influences the project. Governance frameworks help to improve the initial and fundamental design of projects as well as avoid some of the common problems related to the implementation of projects. Implementation of governance frameworks represents a potential for considerable savings and added value by making cost estimation and time planning more effective.

In recent years, bioeconomy strategies have been implemented and adapted internationally. In the bioeconomy, materials are to a certain extent circular by nature. However, biomaterials may also be used in a rather linear way. Lately, a transition towards a circular economy, a more restorative and regenerative economic model, is being promoted worldwide. A circular economy offers an alternative model aiming at "doing more and better with less". It is based on the idea that circulating matter and energy will diminish the need for new input. Its concept lies in maintaining the value of products, materials, and resources for as long as possible and at the same time minimizing or even eliminating the amount of waste produced. Focused on "closing the loops", a circular economy is a practical solution for promoting entrepreneurial

sustainability, economic growth, environmental resilience, and a better quality of life for all. The most efficient way to close resource loops is to find value in the waste. Different modes of resource circulation may be applied, e.g., raw materials, by-products, human resources, logistics, services, waste, energy, or water. To that end, this Special Issue seeks to contribute to the circular bioeconomy agenda through enhanced scientific and multidisciplinary knowledge to boost the performance efficiency of circular business models and support decision-making within the specific field. The Special Issue includes innovative technical developments, reviews, and case studies, all of which are relevant to green, closed-loop, circular bioeconomy.

The research textbook surveys the field for young HCI researchers who are making their way in the world of research.

Human resources management is essential for any workplace environment and is deemed most effective when a strategic focus is in place to ensure that people can facilitate that achievement of organizational goals. But, effective human resource management also contains an element of risk management for an organization which, as a minimum, ensures legislative compliance. Human Resources Management: Concepts, Methodologies, Tools, and Applications compiles the most sought after case studies, architectures, frameworks, methodologies, and research related to human resources management. Including over 100 chapters from professional, this three-volume collection presents an in-depth analysis on the fundamental aspects, tools and

technologies, methods and design, applications, managerial impact, social/behavioral perspectives, critical issues, and emerging trends in the field, touching on effective and ineffective management practices when it comes to human resources. This multi-volume work is vital and highly accessible across the hybrid domain of business and management, essential for any library collection.

Unit test frameworks are a key element of popular development methodologies such as eXtreme Programming (XP) and Agile Development. But unit testing has moved far beyond eXtreme Programming; it is now common in many different types of application development. Unit tests help ensure low-level code correctness, reduce software development cycle time, improve developer productivity, and produce more robust software.Until now, there was little documentation available on unit testing, and most sources addressed specific frameworks and specific languages, rather than explaining the use of unit testing as a language-independent, standalone development methodology. This invaluable new book covers the theory and background of unit test frameworks, offers step-by-step instruction in basic unit test development, provides useful code examples in both Java and C++, and includes details on some of the most commonly used frameworks today from the XUnit family, including JUnit for Java, CppUnit for C++, and NUnit for .NET.Unit Test Frameworks includes clear, concise, and detailed descriptions of: The theory and design of unit test frameworks Examples of unit tests and frameworks Different types of unit tests Popular unit test frameworks And

more It also includes the complete source code for CppUnit for C++, and NUnit for .NET.

Revealing Architectural Design examines the architectural design process from the point of view of knowledge domains, domain syntax, coherence, framing, thinking styles, decision-making and testing. Using straightforward language, the book connects general design thinking to underlying frameworks that are used in the architectural design process. The book provides historical grounding as well as clear examples of real design outcomes. It includes diagrams and explanations to make that content accessible. The frameworks and their methods are described by what they can accomplish, what biases they introduce and the use of their final outcomes. Revealing Architectural Design is an advanced primer useful to anyone interested in increasing the quality of their architectural design proposals through understanding the conceptual tools used to achieve that process. While it is intended for undergraduate and graduate students of architectural design, it will also be useful for experienced architectural practitioners. For the non-architect, this book opens a window into the priorities of a discipline seldom presented with such transparency.

The emergence of e-government allows for effective governance, increased transparency, better management, and efficient services through the use of the internet and information and communication technologies. Therefore, world governments are mobilizing large amounts of resources in order to implement and promote the use of e-government. Developing E-

Government Projects: Frameworks and Methodologies presents frameworks and methodologies for strategies towards the design, implementation, and adoption of e-government projects. By providing best practices in the successful adoption of e-government, this book is essential for policy makers, practitioners, researchers, and students interested in the approaches utilized for the successful implementation of e-government projects.

This practical manual of freshwater ecology and conservation provides a state-of-the-art review of the approaches and techniques used to measure, monitor, and conserve freshwater ecosystems. It offers a single, comprehensive, and accessible synthesis of the vast amount of literature for freshwater ecology and conservation that is currently dispersed in manuals, toolkits, journals, handbooks, 'grey' literature, and websites. Successful conservation outcomes are ultimately built on a sound ecological framework in which every species must be assessed and understood at the individual, community, catchment and landscape level of interaction. For example, freshwater ecologists need to understand hydrochemical storages and fluxes, the physical systems influencing freshwaters at the catchment and landscape scale, and the spatial and temporal processes that maintain species assemblages and their dynamics. A thorough understanding of all these varied processes, and the techniques for studying them, is essential for the effective conservation and management of freshwater ecosystems.

Decision-making, creativity and evaluation need to be supported by formal, structured methods. This edited work will explore the process and then present a range of frameworks, hard and soft methods, and models capable of supporting the process.

As advances in technology continue to generate the collective knowledge of an organization and its operations, strategic models for information systems are developed in order to arrange

business processes and business data. Frameworks for Developing Efficient Information Systems: Models, Theory, and Practice presents research and practices on the advancements in systems analysis and design. These theoretical frameworks and practical solutions are useful for researchers, practitioners, and academicians as this book aims to bridge the communication gap between business managers and system designers.

This book provides insights into the research in the fields of artificial intelligence in combination with Internet of Things (IoT) technologies. Today, the integration of artificial intelligence and IoT technologies is attracting considerable interest from both researchers and developers from academic fields and industries around the globe. It is foreseeable that the next generation of IoT research will focus on artificial intelligence/beyond artificial intelligence approaches. The rapidly growing numbers of artificial intelligence algorithms and big data solutions have significantly increased the number of potential applications for IoT technologies, but they have also created new challenges for the artificial intelligence community. This book shares the latest scientific advances in this area.

This volume publishes new trends and findings in hot topics related to ubiquitous computing/networking. It is the outcome of UNet - ainternational scientific event that took place on September 08-10, 2015, in the fascinating city of Casablanca, Morocco. UNet'15 is technically sponsored by IEEE Morocco Section and IEEE COMSOC Morocco Chapter.

The changes the earth is currently undertaking has been at the forefront of scientific discourse in recent years. Humans as a species have needed to react to these changes and shift their behavior accordingly. Innovative Strategies and Frameworks in Climate Change Adaptation: Emerging Research and Opportunities is a critical scholarly resource that examines the

relationship between humans and the changing earth as well as the ways in which humans react to these shifts. Featuring coverage on a wide range of topics such as neo-behaviorism, adaptation narrative, and taxonomy, this book is geared toward researchers, students, and academicians seeking current research on the human response to shifting conditions on the earth.

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