

Le Computing Talukdar

The fields of computer vision and image processing are constantly evolving as new research and applications in these areas emerge. Staying abreast of the most up-to-date developments in this field is necessary in order to promote further research and apply these developments in real-world settings. Computer Vision: Concepts, Methodologies, Tools, and Applications is an innovative reference source for the latest academic material on development of computers for gaining understanding about videos and digital images. Highlighting a range of topics, such as computational models, machine learning, and image processing, this multi-volume book is ideally designed for academicians, technology professionals, students, and researchers interested in uncovering the latest innovations in the field.

Provides information about admission, financial aid, programs and institutions, and research specialties within the fields of engineering and applied sciences, including civil engineering, information technology, and bioengineering.

This book explores a new rapidly developing area of robotics. It describes the state of the art in intelligence control, applied machine intelligence, and research and initial stages of manufacturing autonomous mobile robots. A complete account of the theoretical and experimental results obtained during the last two decades together with some generalizations on Autonomous Mobile Systems are included in this book. Contents: Intelligent Motion Control: An Introduction Evolution of Autonomous Mobile Robots Elementary Concepts of Autonomous Mobility: Problems and Technical Requirements Basic Theory of Cognitive Control Structure of Cognitive Controller for an Autonomous Mobile Robot Nested Hierarchical Controller for Cognitive AMR Planner Navigator Pilot Cartographer Actuation Control System Simulation and Testing Readership: Manufacturers and users of robots, researchers in unmanned operations. Review: "Although the AMR area is quite complex and of an interdisciplinary nature the author provides a systematic, complete and clear treatment, which is expected to be very useful to R&D engineers in their design, manufacturing, and testing work of AMRs, as well as to graduate students and academic workers. From an educational point of view, the book can be used to several advanced courses in robotics, and as a supplement to introductory courses in intelligent control. University, departmental and other institutional or industrial libraries should get a copy of this excellent book." Spyros Tzafestas Journal of Intelligent and Robotic Systems

Class-tested and coherent, this textbook teaches classical and web information retrieval, including web search and the related areas of text classification and text clustering from basic concepts. It gives an up-to-date treatment of all aspects of the design and implementation of systems for gathering, indexing, and searching documents; methods for evaluating systems; and an introduction to the use of machine learning methods on text collections. All the important ideas are explained using examples and figures, making it perfect for introductory courses in information retrieval for advanced undergraduates and graduate students in computer science. Based on feedback from extensive classroom experience, the book has been carefully structured in order to make teaching more natural and effective. Slides and additional exercises (with solutions for lecturers) are also available through the book's supporting website to help course instructors prepare their lectures.

Scripting with Python makes you productive and increases the reliability of your scientific work. Here, the author teaches you how to develop tailored, flexible, and efficient working environments built from small programs (scripts) written in Python. The focus is on examples and applications of relevance to computational science: gluing existing applications and tools, e.g. for automating simulation, data analysis, and visualization; steering simulations and computational experiments; equipping programs with graphical user interfaces; making computational Web services; creating interactive interfaces with a Maple/Matlab-like syntax to numerical applications in C/C++ or Fortran; and building flexible object-oriented programming interfaces to existing C/C++ or Fortran libraries.

The field of agent and multi-agent systems is concerned with the development and evaluation of sophisticated, AI-based, problem solving and control architectures for both single and multi-agent systems. This book presents the proceedings of the 7th KES Conference on Agent and Multi-agent Systems – Technologies and Applications (KES-AMSTA 2013), held in Hue City, Vietnam, in May 2013. The KES-AMSTA 2013 conference provides an internationally respected forum for scientific research in the technologies and applications of agent and multi-agent systems. In all, 44 papers were selected for oral presentation and publication in this volume. Special attention is paid to the feature topics of intelligent technologies and applications in the area of e-health, social networking, self-organizing systems, economics and trust management. Other topics covered include: agent oriented software engineering; beliefs engineering; desires and intentions representation; agent cooperation, coordination, negotiation, organization and communication; distributed problem-solving; specification of agent communication languages; formalization of ontologies; and conversational agents. The book highlights new trends and challenges in agent and multi-agent research, and will be of interest to the research community working in the fields of artificial intelligence, collective computational intelligence, robotics, dialogue systems and, in particular, agent and multi-agent systems, technologies and applications.

This book presents the proceedings of the 7th International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2018), held at Duy Tan University, Da Nang, Vietnam. The event brought together researchers, scientists, engineers, and practitioners to exchange new ideas and experiences in the domain of intelligent computing theories with prospective applications in various engineering disciplines. These proceedings are divided into two volumes. Covering broad areas of information and decision sciences, with papers exploring both the theoretical and practical aspects of data-intensive computing, data mining, evolutionary computation, knowledge management and networks, sensor networks, signal processing, wireless networks, protocols and architectures, this volume is a valuable resource for postgraduate students in various engineering disciplines.

Mobile Computing technology addresses challenges that enable the realization of the global village concept where people can seamlessly access any information from anywhere through any device, while stationary or even at a state of mobility. This book covers all the communication technologies starting from First Generation to Third Generation cellular technology, wireless LAN (WiFi), and wireless broadband (WiMax). It covers intelligent networks (IN) and emerging technologies like mobile IP, IPv6, and VoIP (Voice over IP).

Written by a professional who has worked on several technologies, the book is replete with illustrations, examples, programs, interesting asides and much more! A storehouse of the most recent developments in the world of wireless, the book aims to fulfill the growing information and knowledge needs of a vast segment of interested audience: students, professionals, teachers and even non-technical people. Since it provides the big picture of all the technologies from CTI (computer technology interface) to 3G (third generation) including Bluetooth, IN, WiFi and WiMax, as well as the service creation aspects, the book will be an indispensable repository of contemporary developments in the ever-expanding field of wireless services and mobile computing.

This book constitutes the refereed proceedings of the 6th International Workshop on Distributed Computing, IWDC 2004, held in Kolkata, India in December 2004. The 27 revised full papers and 27 revised short papers presented together with 3 invited contributions and abstracts of 11 reviewed workshop papers were carefully reviewed and selected from 157 submissions. The papers are organized in topical sections on distributed algorithms, high-performance computing, distributed systems, wireless networks, information security, network protocols, reliability and testing, network topology and routing, mobile computing, ad-hoc networks, and sensor networks.

Human Language Technology Challenges for Computer Science and Linguistics 5th Language and Technology Conference, LTC 2011, Poznań, Poland, November 25--27, 2011, Revised Selected Papers Springer

Tabu search background. TS foundations: short term memory. TS foundations: additional aspects of short term memory. TS foundations: longer term memory. Tabu search principles. Tabu search in integer programming. Special tabu search topics. Tabu search applications. Connections, hybrid approaches and learning. Neglected tabu search strategies.

Vols. 7-42 include the Proceedings of the annual meeting of the American Institute of Nutrition, 1st-9th, 11th-14th, 1934-1942, 1947-1950 (1st-8th, 1934-1941, issued as supplements to the journal).

A collection of papers concerning Smarandache type functions, numbers, sequences, integer algorithms, paradoxes, experimental geometries, algebraic structures, neutrosophic probability, set, and logic, etc.

The mathematics employed by genetic algorithms (GAs) are among the most exciting discoveries of the last few decades. But what exactly is a genetic algorithm? A genetic algorithm is a problem-solving method that uses genetics as its model of problem solving. It applies the rules of reproduction, gene crossover, and mutation to pseudo-organisms. Language managers in their different forms (language planners, terminologists, professional neologists ...) have long tried to intervene in the lexical usage of speakers, with various degrees of success: Some of their lexical items (partly) penetrate language use, others do not. Based on electronic networks of practice of the Esperanto speech community, Mélanie Maradan establishes the foundation for a new method to extract speakers' opinions on lexical items from text corpora. The method is intended as a tool for language managers to detect and explore in context the reasons why speakers might accept or reject lexical items.

Very Good, No Highlights or Markup, all pages are intact.

Computer Aided Design (CAD) technology plays a key role in today's advanced manufacturing environment. To reduce the time to market, achieve zero defect quality the first time, and use available production and logistics resources effectively, product and design process knowledge covering the whole product life-cycle must be used throughout product design. Once generated, this intensive design knowledge should be made available to later life-cycle activities. Due to the increasing concern about global environmental issues and rapidly changing economical situation worldwide, design must exhibit high performance not only in quality and productivity, but also in life-cycle issues, including extended producer's liability. These goals require designers and engineers to use various kinds of design knowledge intensively during product design and to generate design information for use in later stages of the product life-cycle such as production, distribution, operation, maintenance, reclamation, and recycling. Therefore, future CAD systems must incorporate product and design process knowledge, which are not explicitly dealt with in the current systems, in their design tools and design object models.

It is quite an onerous task to edit the proceedings of a two week long institute with learned contributors from many parts of the world. All the same, the editorial team has found the process of refereeing and reviewing the contributions worthwhile and completing the volume has proven to be a satisfying task. In setting up the institute we had considered models and methods taken from a number of different disciplines. As a result the whole institute - preparing for it, attending it and editing the proceedings - proved to be an intense learning experience for us. Here I speak on behalf of the committee and the editorial team. By the time the institute took place, the papers were delivered and the delegates exchanged their views, the structure of the topics covered and their relative positioning appeared in a different light. In editing the volume I felt compelled to introduce a new structure in grouping the papers. The contents of this volume are organised in eight main sections set out below: 1. Abstracts. 2. Review Paper. 3. Models with Multiple Criteria and Single or Multiple Decision Makers. 4. Use of Optimisation Models as Decision Support Tools. 5. Role of Information Systems in Decision Making: Database and Model Management Issues. 6. Methods of Artificial Intelligence in Decision Making: Intelligent Knowledge Based Systems. 7. Representation of Uncertainty in Mathematical Models and Knowledge Based Systems. 8. Mathematical Basis for Constructing Models and Model Validation.

This volume composes the proceedings of the Second International Conference on Computational Collective Intelligence—Technologies and Applications (ICCCI 2010), which was hosted by National Kaohsiung University of Applied Sciences and Wroclaw University of Technology, and was held in Kaohsiung City on November 10-12, 2010. ICCCI 2010 was technically co-sponsored by Shenzhen Graduate School of Harbin Institute of Technology, the Tainan Chapter of the IEEE Signal Processing Society, the Taiwan Association for Web Intelligence Consortium and the Taiwanese Association for Consumer Electronics. It aimed to bring together researchers, engineers and policymakers to discuss the related techniques, to exchange research ideas, and to make friends. ICCCI 2010 focused on the following themes: • Agent Theory and Application • Cognitive Modeling of Agent Systems • Computational Collective Intelligence • Computer Vision • Computational Intelligence • Hybrid Systems • Intelligent Image Processing • Information Hiding • Machine Learning • Social Networks • Web Intelligence and Interaction

Each day, new applications and methods are developed for utilizing technology in the field of medical sciences, both as diagnostic tools and as methods for patients to access their medical information through their personal gadgets. However, the maximum potential for the application of new technologies within the medical field has not yet been realized. *Mobile Devices and Smart Gadgets in Medical Sciences* is a pivotal reference source that explores different mobile applications, tools, software, and smart gadgets and their applications within the field of healthcare. Covering a wide range of topics such as artificial intelligence, telemedicine, and oncology, this book is ideally designed for medical practitioners, mobile application developers, technology developers, software experts, computer engineers, programmers, ICT innovators, policymakers, researchers, academicians, and students.

The user in a mobile computing environment is able to access data from any device in a network while on the move, spread across wired and wireless media. The technology to deliver on this promise now exists, and is one of the key drivers for growth across the telecommunications industry. This book provides a detailed survey of the technologies delivering true mobile computing – on both the service creation and device fronts. This book guides communications professionals and students through the complex web of acronyms, standards that wireless data runs on. It also details hot button security issues and new emerging technologies.

This book constitutes the refereed proceedings of the 5th Language and Technology Conference: Challenges for Computer Science and Linguistics, LTC 2011, held in Poznan, Poland, in November 2011. The 44 revised and in many cases substantially extended papers presented in this volume were carefully reviewed and selected from 111 submissions. The focus of the papers is on the following topics: speech, parsing, computational semantics, text analysis, text annotation, language resources: general issues, language resources: ontologies and Wordnets and machine translation.

In our abundant computing infrastructure, performance improvements across most all application spaces are now severely limited by the energy dissipation involved in processing, storing, and moving data. The exponential increase in the volume of data to be handled by our computational infrastructure is driven in large part by unstructured data from countless sources. This book explores revolutionary device concepts, associated circuits, and architectures that will greatly extend the practical engineering limits of energy-efficient computation from device to circuit to system level. With chapters written by international experts in their corresponding field, the text investigates new approaches to lower energy requirements in computing. Features • Has a comprehensive coverage of various technologies • Written by international experts in their corresponding field • Covers revolutionary concepts at the device, circuit, and system levels Most artificial intelligence research investigates intelligent behavior for a single agent--solving problems heuristically, understanding natural language, and so on. Distributed Artificial Intelligence (DAI) is concerned with coordinated intelligent behavior: intelligent agents coordinating their knowledge, skills, and plans to act or solve problems, working toward a single goal, or toward separate, individual goals that interact. DAI provides intellectual insights about organization, interaction, and problem solving among intelligent agents. This comprehensive collection of articles shows the breadth and depth of DAI research. The selected information is relevant to emerging DAI technologies as well as to practical problems in artificial intelligence, distributed computing systems, and human-computer interaction. "Readings in Distributed Artificial Intelligence" proposes a framework for understanding the problems and possibilities of DAI. It divides the study into three realms: the natural systems approach (emulating strategies and representations people use to coordinate their activities), the engineering/science perspective (building automated, coordinated problem solvers for specific applications), and a third, hybrid approach that is useful in analyzing and developing mixed collections of machines and human agents working together. The editors introduce the volume with an important survey of the motivations, research, and results of work in DAI. This historical and conceptual overview combines with chapter introductions to guide the reader through this fascinating field. A unique and extensive bibliography is also provided.

This two-volume set of LNAI 12340 and LNAI 12341 constitutes the refereed proceedings of the 9th CCF Conference on Natural Language Processing and Chinese Computing, NLPCC 2020, held in Zhengzhou, China, in October 2020. The 70 full papers, 30 poster papers and 14 workshop papers presented were carefully reviewed and selected from 320 submissions. They are organized in the following areas: Conversational Bot/QA; Fundamentals of NLP; Knowledge Base, Graphs and Semantic Web; Machine Learning for NLP; Machine Translation and Multilinguality; NLP Applications; Social Media and Network; Text Mining; and Trending Topics.

The 8th issue of the Transactions on Computational Science has been divided into two parts. Part I, prepared by Guest Editors Nadia Nedjah, Abdelhamid Bouchachia, and Luiza de Macedo Mourelle, consists of 5 detailed papers, presenting state-of-the-art research results on adaptive models for evolutionary computation and their application in various dynamic environments. The 6 papers in Part II take an in-depth look at selected computational science research in the areas of geometric computing, Euclidean distance transform, distributed systems, segmentation, visualization of monotone data, and data interpolation.

The third edition of this handbook is designed to provide a broad coverage of the concepts, implementations, and applications in metaheuristics. The book's chapters serve as stand-alone presentations giving both the necessary underpinnings as well as practical guides for implementation. The nature of metaheuristics invites an analyst to modify basic methods in response to problem characteristics, past experiences, and personal preferences, and the chapters in this handbook are designed to facilitate this process as well. This new edition has been fully revised and features new chapters on swarm intelligence and automated design of metaheuristics from flexible algorithm frameworks. The authors who have contributed to this volume represent leading figures from the metaheuristic community and are responsible for pioneering contributions to the fields they write about. Their collective work has significantly enriched the field of optimization in general and combinatorial optimization in particular. Metaheuristics are solution methods that orchestrate an interaction between local improvement procedures and higher level strategies to create a process capable of escaping from local optima and performing a robust search of a solution space. In addition, many new and exciting developments and extensions have been observed in the last few years. Hybrids of metaheuristics with other optimization techniques, like branch-and-bound, mathematical programming or constraint programming are also increasingly popular. On the front of applications, metaheuristics are now used to find high-quality solutions to an ever-growing number of complex, ill-defined real-world problems, in particular combinatorial ones. This handbook should continue to be a

great reference for researchers, graduate students, as well as practitioners interested in metaheuristics.

This book presents selected papers from the 3rd International Conference on Micro-Electronics and Telecommunication Engineering, held at SRM Institute of Science and Technology, Ghaziabad, India, on 30-31 August 2019. It covers a wide variety of topics in micro-electronics and telecommunication engineering, including micro-electronic engineering, computational remote sensing, computer science and intelligent systems, signal and image processing, and information and communication technology.

Synthesizes the best current thinking on the problem of electricity regulation

NTMS'2007 was the first IFIP International Conference on New Technologies, Mobility and Security that was held from May 2 to May 4, 2007 in Paris, France. It was aimed at fostering advances in the areas such as New Technologies, Wireless Networks, Mobile Computing, Ad hoc and Ambient Networks, QoS, Network Security and E-commerce. It provided a dynamic forum for researchers, students and professionals to present their research and development in these areas.

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