

Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Itelligence And Smart Environments

PAAMS, the International Conference on Practical Applications of Agents and Multi-Agent Systems is an evolution of the International Workshop on Practical Applications of Agents and Multi-Agent Systems. PAAMS is an international yearly tribune to present, to discuss, and to disseminate the latest developments and the most important outcomes related to real-world applications. It provides a unique opportunity to bring multi-disciplinary experts, academics and practitioners together to exchange their experience in the development of Agents and Multi-Agent Systems. This volume presents the papers that have been accepted for the 2009 edition. These articles capture the most innovative results and this year's trends: Assisted Cognition, E-Commerce, Grid Computing, Human Modelling, Information Systems, Knowledge Management, Agent-Based Simulation, Software Development, Transports, Trust and Security. Each paper has been reviewed by three different reviewers, from an

international committee composed of 64 members from 20 different countries. From the 92 submissions received, 35 were selected for full presentation at the conference, and 26 were accepted as posters.

ISAmI is the International Symposium on Ambient Intelligence, and aims to bring together researchers from various disciplines that are interested in all aspects of Ambient Intelligence. The symposium provides a forum to present and discuss the latest results, innovative projects, new ideas and research directions, and to review current trends in this area.

This volume presents the papers that have been accepted for the 2011 edition, both for the main event and workshop. The ISAmI workshop WoRIE promises to be a very interesting event that complements the regular program with an emerging topic on reliability of intelligent environments

This book constitutes the refereed proceedings of the 10th International Work-Conference on Artificial Neural Networks, IWANN 2009, held in Salamanca, Spain in June 2009. The 167 revised full papers presented together with 3 invited lectures were carefully reviewed and selected from over 230 submissions. The papers are organized in thematic sections on theoretical foundations and models; learning and adaptation; self-organizing networks, methods and applications; fuzzy systems; evolutionary computation and genetic algorithms; pattern recognition; formal languages in linguistics;

agents and multi-agent on intelligent systems; brain-computer interfaces (bci); multiobjective optimization; robotics; bioinformatics; biomedical applications; ambient assisted living (aal) and ambient intelligence (ai); other applications.

The term Intelligent Environments (IEs) refers to the physical spaces in which IT and other pervasive computing technologies are integrated and used to achieve specific goals for the user, the environment or both. The ultimate objectives of IEs are enriching user experience, enabling better management and increasing user awareness of that environment. This book presents the proceedings of the 13th International Conference on Intelligent Environments, held in Seoul, Korea, in August 2017. The conference provides a multidisciplinary collaborative forum for researchers and practitioners from computer science, electronic engineering, building architecture, art and design, sociology, government and education to present theoretical and practical results related to the development and applications of Intelligent Environments. IE'17 focuses on the development of advanced Intelligent Environments, as well as other newly emerging and rapidly evolving topics. The book also includes the proceedings of the following associated workshops, held during the first 2 days of the conference, which emphasize the multi-disciplinary and transversal aspects of IEs: the 6th International Workshop on

the Reliability of Intelligent Environments (WoRIE'17); the 1st International Workshop on Intelligent Systems for Agricultural Production and Environmental Protection (ISAPEP'17); the 1st Workshop on Citizen Centric Smart Cities Solutions (CCSCS'17); and the 1st International Workshop on Advanced Multiple Access in Mobile Telecommunications (AMAMT'17). Providing a state-of-the-art overview of the discipline, this book will be of interest to professionals from a diversity of fields whose work involves the development or application of Intelligent Environments.

Ambient Intelligence refers to smart electronic environments that are sensitive and responsive to the presence of people. This book originates from the Workshop on Ambient Intelligence in Everyday Life held in San Sebastian, Spain, July 2005. Coverage is devoted to the cognitive aspects of ambient intelligence. The 15 carefully reviewed and revised articles presented are organized in topical sections on human-centric computing, ambient interfaces, and architectures for ambient intelligence. This book is about power and freedoms in our technological world and has two main objectives. The first is to demonstrate that a theoretical exploration of the algorithmic governmentality hypothesis combined with the capability approach is useful for a better understanding of power and freedoms in Ambient Intelligence, a world where

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

information and communication technologies are invisible, interconnected, context aware, personalized, adaptive to humans and act autonomously. The second is to argue that these theories are useful for a better comprehension of privacy and data protection concepts and the evolution of their regulation. Having these objectives in mind, the book outlines a number of theses based on two threads: first, the elimination of the social effects of uncertainty and the risks to freedoms and, second, the vindication of rights. Inspired by and building on the outcomes of different philosophical and legal approaches, this book embodies an effort to better understand the challenges posed by Ambient Intelligence technologies, opening paths for more effective realization of rights and rooting legal norms in the preservation of the potentiality of human capabilities.

Ambient Intelligence (Aml) is a recent paradigm emerging from Artificial Intelligence (AI), where computers are used as proactive tools assisting people with their day-to-day activities, making everyone's life more comfortable. Another main concern of Aml originates from the human computer interaction domain and focuses on offering ways to interact with systems in a more natural way by means user friendly interfaces. This field is evolving quickly as can be witnessed by the emerging natural language and gesture based types of interaction.

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

The inclusion of computational power and communication technologies in everyday objects is growing and their embedding into our environments should be as invisible as possible. In order for Aml to be successful, human interaction with computing power and embedded systems in the surroundings should be smooth and happen without people actually noticing it. The only awareness people should have arises from Aml: more safety, comfort and wellbeing, emerging in a natural and inherent way. ISAmI is the International Symposium on Ambient Intelligence and aiming to bring together researchers from various disciplines that constitute the scientific field of Ambient Intelligence to present and discuss the latest results, new ideas, projects and lessons learned, namely in terms of software and applications, and aims to bring together researchers from various disciplines that are interested in all aspects of this area.

The ageing population of Europe is a well-documented phenomenon and there is general agreement that it has serious implications for all European citizens as well as for policymakers and politicians. The current paradigm of caring for elderly citizens in residential homes is becoming untenable and it is also unpopular with many elderly people themselves. New ways of caring which engage and empower older adults more actively, and are also more cost-effective, must be found. The four-year

DREAMING eIDeRly-friEndly Alarm handling and Monitoring project carried out randomized controlled trials across six pilot sites to assess the impact

The book offers an integrated vision on Cloud and HPC, Big Data, Analytics and virtualization in computing-oriented manufacturing, combining information and communication technologies, service-oriented control of holonic architectures as well as enterprise integration solutions based on SOA principles. It is structured in eight parts, each one grouping research and trends in digital manufacturing and service oriented manufacturing control: Cloud and Cyber-Physical Systems for Smart Manufacturing, Reconfigurable and Self-organized Multi-Agent Systems for Industry and Service, Sustainability Issues in Intelligent Manufacturing Systems, Holonic and Multi-agent System Design for Industry and Service, Should Intelligent Manufacturing Systems be Dependable and Safe?, Service-oriented Management and Control of Manufacturing Systems, Engineering and Human Integration in Flexible and Reconfigurable Industrial Systems, Virtualization and Simulation in Computing-oriented Industry and Service. p>

Advances in the engineering of sensing and acting capabilities, distributed in a wide range of specialized devices nowadays, provide an opportunity for the fundamental advances in computer science made in the past few decades to impact our daily lives.

Sensors/actuators deployed in a physical space – a house, an office, a classroom, a car, a street – facilitate a link between an automated decision-making system and

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

a technologically-enriched space. The Intelligent Environment, a digital environment that supports people in their daily lives, is a very active area of research which is attracting an increasing number of professionals (both in academia and industry) worldwide. The prestigious 10th International Conference on Intelligent Environments (IE'14) is focused on the development of advanced Intelligent Environments and stimulates the discussion on several specific topics that are crucial to the future of the area. This volume is the combined proceedings of the workshops co-located with IE'14: 9th Workshop on Artificial Intelligence Techniques for Ambient Intelligence (AITAmI'14); 2nd International Workshop on Applications of Affective Computing in Intelligent Environments (ACIE'14); 3rd edition of the Workshop on Future Intelligent Educational Environments (WOFIEE'14); 2nd Workshop on Cloud-of-Things 2014 (CoT'14); 3rd International Workshop on the Reliability of Intelligent Environments (WoRIE 2014); 4th Workshop on Creative Science 2014 (CS'14); and 1st Workshop on Hyperrealistic Intelligent Environments 2014 (HyperRealIE'14). This book offers an overview of the latest developments in key areas of the development of Intelligent Environments.

Agents and Ambient Intelligence Achievements and Challenges in the Intersection of Agent Technology and Ambient Intelligence IOS Press

Discusses the main issues, challenges, opportunities, and trends related to this explosive range of new developments and applications, in constant evolution, and impacting every organization and society as a

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

whole. This two volume handbook supports post-graduate students, teachers, and researchers, as well as IT professionals and managers.

"This book provides perspectives on the convergence of ubiquitous computing, intelligent systems research, and context awareness with the aim of encouraging the further development of ambient intelligence frameworks and research"--

The Scandinavian Conference on Artificial Intelligence continues a tradition of being one of the most important regional AI conferences in Europe for ten years now. The topics of this year's contributions have a broad range, from machine learning, knowledge representation, robotics, planning and scheduling, natural language, computer vision, search algorithms, industrial applications, to philosophical foundations. These contributions exemplify the diversity of research in artificial intelligence today and confirm the achievement and magnitude of 25 years AI research in Scandinavia. In this tenth edition there will be an overview of the past, present and future of artificial intelligence. Furthermore, attention will be paid to the industrial aspects of artificial intelligence and the impressions from Swedish AI through the years. Other topics discussed are biosurveillance and an elaboration on probabilistic modelling and learning in a relational world.

This book constitutes the refereed proceedings of the third International Joint Conference on Ambient Intelligence, Aml 2012, held in Pisa, Italy, in November 2012. The 18 revised full papers and 5 short papers presented were carefully reviewed and selected from 47

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

(full papers) respectively 14 (short papers) submissions. From a scientific point of view, the papers make a multidisciplinary approach covering fields like computer science, human computer interaction, electrical engineering, industrial design, behavioral sciences, aimed at enriching physical environments with a network of distributed devices, such as sensors, actuators, and computational resources, in order to support users in their everyday activities. From a technological perspective the volume represents the convergence of recent achievements in ubiquitous and communication technologies, pervasive computing, intelligent user interfaces and artificial intelligence.

Service orientation is emerging nowadays at multiple organizational levels in enterprise business, and it leverages technology in response to the growing need for greater business integration, flexibility and agility of manufacturing enterprises. The Service Oriented Architecture (SOA) analysed throughout the book represents a technical architecture, a business modelling concept, a type of infrastructure, an integration source and a new way of viewing units of automation within the enterprise. The primary goal of SOA is to align the business world with the world of information technology in a way that makes both more effective. The service value creation model at enterprise level consists of using a Service Component Architecture for business process applications, based on entities which handle services. In this view a service is a piece of software encapsulating the business/control logic or resource functionality of an enterprise entity that exhibits an individual competence

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

and responds to a specific request to fulfil a local (operation) or global objective (batch production). The value creation model is based on a 2-stage approach:

- Agentification: complex manufacturing processes are split in services provided by informational agents which are discovered, accessed and executed. This leads to a modular, reusable, agile and easy integrate integration.
- Holonification: holons link the material flow and physical entities of the manufacturing processes with the informational part (IT services realized by distributed intelligence) facilitating thus traceability the developing of flexible control systems.

This book gathers contributions from scientists, researchers and industrialists on concepts, methods, frameworks and implementing issues addressing trends in the service orientation of control technology and management applied to manufacturing enterprise. This book gathers contributions from scientists, researchers and industrialists on concepts, methods, frameworks and implementing issues addressing trends in the service orientation of control technology and management applied to manufacturing enterprise.

This book covers key topics in the field of intelligent ambient adaptive systems. It focuses on the results worked out within the framework of the ATRACO (Adaptive and TRusted Ambient eCOlogies) project. The theoretical background, the developed prototypes, and the evaluated results form a fertile ground useful for the broad intelligent environments scientific community as well as for industrial interest

groups. The new edition provides: Chapter authors comment on their work on ATRACO with final remarks as viewed in retrospective Each chapter has been updated with follow-up work emerging from ATRACO An extensive introduction to state-of-the-art statistical dialog management for intelligent environments Approaches are introduced on how Trust is reflected during the dialog with the system Recent advances in the field of ambient assistive living have addressed the integration of assistive technologies, e-health and personalized healthcare with the aim of enabling improved social experience as well as achieving better health outcomes. This book focuses on ambient assisted living systems and services for healthcare, a multi-disciplinary field encompassing areas such as electrical engineering, computer science, user-centered design and medicine. The book is divided into three parts: personalized healthcare monitoring technologies; ICT for ambient assistive living; and healing environments. The topics covered include sensor systems, wearable technologies, patient monitoring, home monitoring, personalized healthcare, user-centered design, ethical challenges and clinical evaluation. Providing an overview of new developments in e-health and personalized healthcare, the book will be of interest to engineers, designers and others working in the healthcare industry, and to medical practitioners.

The two volume set LNAI 6703 and LNAI 6704 constitutes the thoroughly refereed conference proceedings of the 24th International Conference on Industrial Engineering and Other Applications of Applied Intelligent Systems, IEA/AIE 2011, held in Syracuse, NY, USA, in June/July 2011. The total of 92 papers selected for the proceedings were carefully reviewed and selected from 206 submissions. The papers cover a wide number of topics including feature extraction, discretization, clustering, classification, diagnosis, data refinement, neural networks, genetic algorithms, learning classifier systems, Bayesian and probabilistic methods, image processing, robotics, navigation, optimization, scheduling, routing, game theory and agents, cognition, emotion, and beliefs.

Ambient intelligence (Aml) is an element of pervasive computing that brings smartness to living and business environments to make them more sensitive, adaptive, autonomous and personalized to human needs. It refers to intelligent interfaces that recognise human presence and preferences, and adjust smart environments to suit their immediate needs and requirements. The key factor is the presence of intelligence and decision-making capabilities in IoT environments. The underlying technologies include pervasive computing, ubiquitous communication, seamless connectivity of smart devices, sensor networks, artificial intelligence

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments.

(AI), machine learning (ML) and context-aware human-computer interaction (HCI). Aml applications and scenarios include smart homes, autonomous self-driving vehicles, healthcare systems, smart roads, the industry sector, smart facilities management, the education sector, emergency services, and many more. The advantages of Aml in the IoT environment are extensive. However, as for any new technological paradigm, there are also many open issues and limitations. This book discusses the Aml element of the IoT and the relevant principles, frameworks, and technologies in particular, as well as the benefits and inherent limitations. It reviews the state of the art of current developments relating to smart spaces and Aml-based IoT environments. Written by leading international researchers and practitioners, the majority of the contributions focus on device connectivity, pervasive computing and context modelling (including communication, security, interoperability, scalability, and adaptability). The book presents cutting-edge research, current trends, and case studies, as well as suggestions to further our understanding and the development and enhancement of the Aml-IoT vision.

This book celebrates the 25th anniversary of GULP—the Italian Association for Logic Programming. Authored by Italian researchers at the leading edge of their fields, it presents an up-to-

date survey of a broad collection of topics in logic programming, making it a useful reference for both researchers and students. During its 25-year existence, GULP has organised a wide range of national and international activities, including both conferences and summer schools. It has been especially active in supporting and encouraging young researchers, by providing scholarships for GULP events and awarding distinguished dissertations. We in the international logic programming community look upon GULP with a combination of envy, admiration and gratitude. We are pleased to attend its conferences and summer schools, where we can learn about scientific advances, catch up with old friends and meet young students. It is an honour for me to acknowledge our appreciation to GULP for its outstanding contributions to our field and to express our best wishes for its continuing prosperity in the future.

March 2010 Robert Kowalski Imperial College London

Preface On June 18, 1985, a group of pioneering researchers, including representatives from industry, national research labs, and academia, attended the constituent assembly of the Group of researchers and Users of Logic Programming (GULP) association. That was the starting point of a long adventure in science, that 1 we are still experiencing 25 years later. This volume celebrates this important event.

Intelligent Environments (IE) play an increasingly

important role in many areas of our lives, including education, healthcare and the domestic environment. The term refers to physical spaces incorporating pervasive computing technology used to achieve specific goals for the user, the environment or both. This book presents the proceedings of the workshops of the 9th International Conference on Intelligent Environments (IE '13), held in Athens, Greece, in July 2013. The workshops which were presented in the context of this conference range from regular lectures to practical sessions. They provide a forum for scientists, researchers and engineers from both industry and academia to engage in discussions on newly emerging or rapidly evolving topics in the field. Topics covered in the workshops include artificial intelligence techniques for ambient intelligence; applications of affective computing in intelligent environments; smart offices and other workplaces; intelligent environment technology in education for creative learning; museums as intelligent environments; the application of intelligent environment technologies in the urban context for creating more sociable, intelligent cities and for constructing urban intelligence. IE can enrich user experience, better manage the environment's resources, and increase user awareness of that environment. This book will be of interest to all those whose work involves the application of intelligent

Read PDF Agents And Ambient Intelligence
Achievements And Challenges In The Intersection
Of Agent Technology And Ambient Intelligence
environments.

Ambient Intelligence And Smart Environments
Modern devices, from phones and cars to houses and the appliances within them, are being designed with formidable computational power and expanded functionality. To be truly effective, these smart devices must effectively process data from their environment and experiences and make decisions based on that information. Recent Advances in Ambient Intelligence and Context-Aware Computing investigates the functionality of ubiquitous computational systems and how they may adapt to their environment to improve the quality of interaction for the end-user. This reference book will be of value to under- and post-graduate students, professionals, and researchers in networking, computer science, communications, and other information technology disciplines.

Advances in Building Energy Research (ABER) offers state-of-the-art information on the environmental science and performance of buildings, linking new technologies and methodologies with the latest research on systems, simulations and standards. As stringently reviewed as a journal but with the breadth of a book, this annual volume brings together invited contributions from the foremost international experts on energy efficiency and environmental quality of buildings. Spanning a broad range of technical subjects, this is a 'must have' reference on global developments in the field,

suitable for architects and building engineers, environmental engineers, industry professionals, students, teachers and researchers in building science, technical libraries and laboratories.

International interest in the use of assistive and ambient information and communication technologies to support people with a range of cognitive impairments is growing rapidly. Autism spectrum disorders ASDs, which affect social skills, communicative abilities and behavior, are of particular interest. The number of diagnosed cases has continued to grow in recent decades, and the impairments associated with ASDs mean individuals affected are at risk of social isolation and marginalization. Although helping people with autism to overcome their difficulties has always required the joint expertise of various fields, the widely shared

The three-volume set LNAI 7196, LNAI 7197 and LNAI 7198 constitutes the refereed proceedings of the 4th Asian Conference on Intelligent Information and Database Systems, ACIIDS 2012, held in Kaohsiung, Taiwan in March 2012. The 161 revised papers presented were carefully reviewed and selected from more than 472 submissions. The papers included cover the following topics: intelligent database systems, data warehouses and data mining, natural language processing and computational linguistics, semantic Web, social networks and recommendation systems, collaborative systems and applications, e-bussiness and e-commerce systems, e-learning systems, information modeling and requirements engineering, information retrieval systems, intelligent agents and multi-agent systems, intelligent information systems, intelligent internet systems, intelligent optimization techniques, object-relational DBMS, ontologies and knowledge sharing, semi-structured and XML database systems, unified modeling language and unified processes,

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

Web services and semantic Web, computer networks and communication systems.

With emerging trends such as the Internet of Things, sensors and actuators are now deployed and connected everywhere to gather information and solve problems, and such systems are expected to be trustworthy, dependable and reliable under all circumstances. But developing intelligent environments which have a degree of common sense is proving to be exceedingly complicated, and we are probably still more than a decade away from sophisticated networked systems which exhibit human-like thought and intelligent behavior. This book presents the proceedings of four workshops and symposia: the 4th International Workshop on Smart Offices and Other Workplaces (SOOW'15); the 4th International Workshop on the Reliability of Intelligent Environments (WoRIE'15); the Symposium on Future Intelligent Educational Environments and Learning 2015 (SOFIEE'15); and the 1st immersive Learning Research Network Conference (iLRN'15). These formed part of the 11th International Conference on Intelligent Environments, held in Prague, Czech Republic, in July 2015, which focused on the development of advanced, reliable intelligent environments, as well as newly emerging and rapidly evolving topics. This overview of and insight into the latest developments of active researchers in the field will be of interest to all those who follow developments in the world of intelligent environments.

This book presents the combined proceedings of the 12th KIPS International Conference on Ubiquitous Information Technologies and Applications (CUTE 2017) and the 9th International Conference on Computer Science and its Applications (CSA2017), both held in Taichung, Taiwan, December 18 - 20, 2017. The aim of these two meetings was to promote discussion and interaction among academics,

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

researchers and professionals in the field of ubiquitous computing technologies. These proceedings reflect the state of the art in the development of computational methods, involving theory, algorithms, numerical simulation, error and uncertainty analysis and novel applications of new processing techniques in engineering, science, and other disciplines related to ubiquitous computing. James J. (Jong Hyuk) Park received Ph.D. degrees in Graduate School of Information Security from Korea University, Korea and Graduate School of Human Sciences from Waseda University, Japan. From December, 2002 to July, 2007, Dr. Park had been a research scientist of R&D Institute, Hanwha S&C Co., Ltd., Korea. From September, 2007 to August, 2009, He had been a professor at the Department of Computer Science and Engineering, Kyungnam University, Korea. He is now a professor at the Department of Computer Science and Engineering and Department of Interdisciplinary Bio IT Materials, Seoul National University of Science and Technology (SeoulTech), Korea. Dr. Park has published about 200 research papers in international journals and conferences. He has been serving as chair, program committee, or organizing committee chair for many international conferences and workshops. He is a steering chair of international conferences – MUE, FutureTech, CSA, CUTE, UCAWSN, World IT Congress-Jeju. He is editor-in-chief of Human-centric Computing and Information Sciences (HCIS) by Springer, The Journal of Information Processing Systems (JIPS) by KIPS, and Journal of Convergence (JoC) by KIPS CSWRG. He is Associate Editor / Editor of 14 international journals including JoS, JNCA, SCN, CJ, and so on. In addition, he has been serving as a Guest Editor for international journals by some publishers: Springer, Elsevier, John Wiley, Oxford Univ. press, Emerald, Inderscience, MDPI. He got the best paper awards from ISA-08 and

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence

ITCS-11 conferences and the outstanding leadership awards from IEEE HPCC-09, ICA3PP-10, IEE ISPA-11, PDCAT-11, IEEE AINA-15. Furthermore, he got the outstanding research awards from the SeoulTech, 2014. His research interests include IoT, Human-centric Ubiquitous Computing, Information Security, Digital Forensics, Vehicular Cloud Computing, Multimedia Computing, etc. He is a member of the IEEE, IEEE Computer Society, KIPS, and KMMS.

Vincenzo Loia (BS '85, MS '87, PhD '89) is Full Professor of Computer Science. His research interests include Intelligent Agents, Ambient intelligence, Computational Intelligence. Currently he is Founder & Editor-in-chief of "Ambient Intelligence and Humanized Computing", and Co-Editor-in-Chief of "Softcomputing", Springer-Verlag. He is Chair of the Task Forces "Intelligent Agents" and "Ambient Intelligence" IEEE CIS ETTC. He has been Chair the Emergent Technical Committee "Emergent Technology", IEEE CIS Society and Vice-Chair of Intelligent Systems Applications Technical Committee. He has been author of more than 200 scientific works, Editor/co-editor of 4 Books, 64 journal papers, 25 book chapters, and 100 conference papers. He is Senior member of the IEEE, Associate Editor of IEEE Transactions on Industrial Informatics, and Associate Editor of IEEE Transactions on Systems, Man, and Cybernetics: Systems. Many times reviewers for national and international projects, Dr. Loia is active in the research domain of agents, ambient intelligence, computational intelligence, smartgrids, distributed platform for enrich added value. Gangman Yi in Computer Sciences at Texas A&M University, USA in 2007, and doctorate in Computer Sciences at Texas A&M University, USA in 2011. In May 2011, he joined System S/W group in Samsung Electronics, Suwon, Korea. He joined the Department of Computer Science & Engineering, Gangneung-Wonju National University, Korea, since March 2012. Dr. Yi

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

has been researched in an interdisciplinary field of researches. His research focuses especially on the development of computational methods to improve understanding of biological systems and its big data. Dr. Yi actively serves as a managing editor and reviewer for international journals, and chair of international conferences and workshops. Yunsick Sung received his B.S. degree in division of electrical and computer engineering from Pusan National University, Busan, Korea, in 2004, his M.S. degree in computer engineering from Dongguk University, Seoul, Korea, in 2006, and his Ph.D. degree in game engineering from Dongguk University, Seoul, Korea, in 2012. He was employed as a member of the researcher at Samsung Electronics between 2006 and 2009. He was the plural professor at Shinheung College in 2009 and at Dongguk University in 2010. His main research interests are many topics in brain-computer Interface, programming by demonstration, ubiquitous computing and reinforcement learning. His Journal Service Experiences is Associate Editor at Human-centric Computing and Information Sciences, Springer (2015- Current).

The concept of an intelligent agent – a computational system capable of performing certain tasks autonomously – derived from the growing potential of digital computers in the mid 20th century and had been widely adopted by the early 1990s. Partly in parallel with this concept, the perspective of ambient intelligence (Aml) emerged in the late 1990s. Agent technology and Aml have many similarities, and the main purpose of this book is to provide an overview of the state-of-the-art of the scientific area that integrates these two. The book addresses a wide variety of topics related to agents and Aml, including theoretical, practical, design, implementation, ethical and philosophical issues. The 12 chapters are arranged in four sections. The first consists of three chapters

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

discussing ethical and philosophical issues; the second part explores various approaches that can be used to develop agent-based Aml Systems; the third part contains three chapters that share the goal to endow Aml systems with useful properties like intelligence and adaptivity and the last section presents concrete applications of agent-based Aml systems. This book provides an insight into recent achievements and future challenges at the intersection of agent technology and ambient intelligence and will assist the development of more intelligent, flexible, effective and user-friendly systems as well as posing critical questions about the future of the role of agents within the Aml perspective. Ambient Intelligence lies at the confluence of several trends: the continued decrease in cost and size of computing technology; the increasing availability of networking and communication infrastructure; the growing public familiarity/comfort with computing artifacts; and practical advances in artificial intelligence. These developments make it possible to contemplate the ubiquitous deployment of intelligent systems - prototypically in smart homes, but more broadly in public spaces, private automobiles and on individual appliances and hand-held devices - in applications ranging from entertainment through eldercare, to safety critical device control. Ambient Intelligence is a young field. As a result, it has been natural to wonder what the technology can do to improve the way we live. At the same time, it is becoming increasingly important to ask: "What do we want?" since the intent is to embed technology in new and pervasive ways. The contributions in this volume provide a window into the visions and trends currently dominating the area of Ambient Intelligence. This publication is divided into three sections. The first describes visions for the future of Ambient Intelligence, the second addresses core technology of the field and the third provides an analysis of elements of the

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

area which will demand special consideration during the future development of the area.

Intelligent environments (IE) play an increasingly important role in many areas of our lives, including education, healthcare and the domestic environment. The term refers to physical spaces incorporating pervasive computing technology used to achieve specific goals for the user, the environment or both. This book presents the proceedings of the workshops of the 8th International Conference on Intelligent Environments (IE '12), held in Guanajuato, Mexico, in June 2012. The workshops which make up the conference range from regular lectures to practical sessions. They provide a forum for scientists, researchers and engineers from both industry and academia to engage in discussions on newly emerging or rapidly evolving topics in the field. Topics covered in the workshops include intelligent environments supporting healthcare and well-being; artificial intelligence techniques for ambient intelligence; large-scale intelligent environments; intelligent domestic robots; intelligent environment technology in education; multimodal interfaces applied in skills transfer, healthcare and rehabilitation; the reliability of intelligent environments and improving industrial automation using intelligent environments. IE can enrich user experience, better manage the environment's resources, and increase user awareness of that environment. This book will be of interest to all those whose work involves the application of intelligent environments.

The concept of an intelligent agent - a computational system capable of performing certain tasks autonomously - derived from the growing potential of digital computers in the mid 20th century and had been widely adopted by the early 1990s. Partly in parallel with this concept, the perspective of ambient intelligence (Aml) emerged in the late 1990s. Agent technology and Aml have many similarities, and the main

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

purpose of this book is to provide an overview of the state-of-the-art of the scientific area that integrates these two. The book addresses a wide variety of topics related to agents and Aml, including theoretical, practical, design, implementation, ethical and philosophical issues. The 12 chapters are arranged in four sections. The first consists of three chapters discussing ethical and philosophical issues; the second part explores various approaches that can be used to develop agent-based Aml Systems; the third part contains three chapters that share the goal to endow Aml systems with useful properties like intelligence and adaptivity and the last section presents concrete applications of agent-based Aml systems. This book provides an insight into recent achievements and future challenges at the intersection of agent technology and ambient intelligence and will assist the development of more intelligent, flexible, effective and user-friendly systems as well as posing critical questions about the future of the role of agents within the Aml perspective.

This book constitutes the proceedings of the 14th International Conference on Principles and Practice in Multi-Agent Systems, PRIMA 2011, held in Wollongong, Australia, in November 2011. The 39 papers presented together with 3 invited talks were carefully reviewed and selected from numerous submissions. They focus on practical aspects of multiagent systems and are organised in topical sections on coalitions and teamwork, learning, mechanisms and voting, modeling and simulation, negotiation and coalitions, optimization, sustainability, agent societies and frameworks, argumentation, and applications.

Products of modern artificial intelligence (AI) have mostly been formed by the views, opinions and goals of the “insiders”, i.e. people usually with engineering background who are driven by the force that can be metaphorically described as the pursuit of the craft of Hephaestus. However,

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

since the present-day technology allows for tighter and tighter mergence of the “natural” everyday human life with machines of immense complexity, the responsible reaction of the scientific community should be based on cautious reflection of what really lies beyond AI, i.e. on the frontiers where the tumultuous ever-growing and ever-changing cloud of AI touches the rest of the world. The chapters of this book are based on the selected subset of the presentations that were delivered by their respective authors at the conference “Beyond AI: Interdisciplinary Aspects of Artificial Intelligence” held in Pilsen in December 2011. From its very definition, the reflection of the phenomena that lie beyond AI must be inherently interdisciplinary. And so is this book: all the authors took part in a mutual transdisciplinary dialogue after explaining their views on AI not only to a narrow selection of their usual close peers with the same specialisation, but to a much broader audience of various experts from AI engineering, natural sciences, humanities and philosophy. The chapters of this book thus reflect results of such a dialogue.

The book consists of research contributions dealing with the crucial notion of situational awareness within assistive smart systems emerging as an overarching concept. An applied computer science character has been retained, whilst bringing to the fore research projects where formal knowledge representation and reasoning techniques have been demonstrated to be applicable to areas within the broader field of ambient intelligence and smart environments. pIOS Press is an international science, technical and medical publisher of high-quality books for academics, scientists, and professionals in all fields. pSome of the areas we publish This book provides an introduction to nineteen popular multiple intelligences. Part One discusses general intelligence, psychological testing, naturalistic intelligence,

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

social intelligence, emotional intelligence, interpersonal intelligence, and cultural intelligence. Part Two tackles machine intelligence, the development of artificial intelligence, computational intelligence, and digital intelligence, or the ability for humans to adapt to a digital environment. Finally, Part Three discusses the role of intelligence in business development, using technology to augment intelligence, abstract thinking, swarm and animal intelligence, military intelligence, and musical intelligence. A Primer on Multiple Intelligences is a must-read for graduate students or scholars considering researching cognition, perception, motivation, and artificial intelligence. It will also be of use to those in social psychology, computer science, and pedagogy. It is as a valuable resource for anyone interested in learning more about the multifaceted study of intelligence.

A new approach to distributed large-scale data mining, service-oriented knowledge discovery extracts useful knowledge from today's often unmanageable volumes of data by exploiting data mining and machine learning distributed models and techniques in service-oriented infrastructures. Service-Oriented Distributed Knowledge Discovery presents techniques, algorithms, and systems based on the service-oriented paradigm. Through detailed descriptions of real software systems, it shows how the techniques, models, and architectures can be implemented. The book covers key areas in data mining and service-oriented computing. It presents the concepts and principles of distributed knowledge discovery and service-oriented data mining. The authors illustrate how to design services for data analytics, describe real systems for implementing distributed knowledge discovery applications, and explore mobile data mining models. They also discuss the future role of service-oriented knowledge discovery in ubiquitous discovery processes and large-scale data analytics. Highlighting the

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

latest achievements in the field, the book gives many examples of the state of the art in service-oriented knowledge discovery. Both novices and more seasoned researchers will learn useful concepts related to distributed data mining and service-oriented data analysis. Developers will also gain insight on how to successfully use service-oriented knowledge discovery in databases (KDD) frameworks.

What is the Role of Intelligent Technologies in the Next Generation of Robots ? This monograph gives answers to this question and presents emergent trends of Intelligent Systems and Robotics. After an introductory chapter celebrating 70 year of publishing the McCulloch Pitts model the book consists of the 2 parts „Robotics“ and „Intelligent Systems“.

The aim of the book is to contribute to shift conventional robotics in which the robots perform repetitive, pre-programmed tasks to its intelligent form, where robots possess new cognitive skills with ability to learn and adapt to changing environment. A main focus is on Intelligent Systems, which show notable achievements in solving various problems in intelligent robotics. The book presents current trends and future directions bringing together Robotics and Computational Intelligence. The contributions include widespread experimental and theoretical results on intelligent robotics such as e.g. autonomous robotics, new robotic platforms, or talking robots.

Artificial intelligence (AI) is a field within computer science that is attempting to build enhanced intelligence into computer systems. This book traces the history of the subject, from the early dreams of eighteenth-century (and earlier) pioneers to the more successful work of today's AI engineers. AI is becoming more and more a part of everyone's life. The technology is already embedded in face-recognizing cameras, speech-recognition software, Internet search engines, and health-care robots, among other applications.

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

The book's many diagrams and easy-to-understand descriptions of AI programs will help the casual reader gain an understanding of how these and other AI systems actually work. Its thorough (but unobtrusive) end-of-chapter notes containing citations to important source materials will be of great use to AI scholars and researchers. This book promises to be the definitive history of a field that has captivated the imaginations of scientists, philosophers, and writers for centuries.

The term Intelligent Environments (IEs) refers to physical spaces in which IT and other pervasive computing technologies are combined and used to achieve specific goals for the user, the environment, or both. The ultimate objective of IEs is to enrich user experience, improve management of the environment in question and increase user awareness. This book presents the proceedings of the following workshops, which formed part of the 12th International Conference on Intelligent Environments (IE16), held in London, UK, in September 2016: the 5th International Workshop on Smart Offices and Other Workplaces (SOOW'16); the 5th International Workshop on the Reliability of Intelligent Environments (WoRIE'16); the 1st International Workshop on Legal Issues in Intelligent Environments (LIIE'2016); the 2nd International Symposium on Future Intelligent Educational Environments and Learning (SOFIEE'16); the 2nd International Workshop on Future Internet and Smart Networks (FI&SN'2016); the International Workshop on Intelligent Environments Supporting Healthcare and Well-being (WISHWell'2016); the International Workshop on Computation Sustainability, Technologies and Applications (CoSTA'2016); the Creative Science 2016 (CS'16) and Cloud-of-Things 2016 (CoT'16); the Workshop on Wireless Body Area Networks for Personal Monitoring in Intelligent Environments (WBAN-PMIE); and the Physical

Read PDF Agents And Ambient Intelligence Achievements And Challenges In The Intersection Of Agent Technology And Ambient Intelligence Ambient Intelligence And Smart Environments

Computing Workshop. The workshops focused on the development of advanced intelligent environments, as well as newly emerging and rapidly evolving topics, emphasizing the multi-disciplinary and transversal aspects of IEs, as well as cutting-edge topics. The book will be of interest to all those whose work involves them in the use of intelligent environments.

[Copyright: 0381dbe9dbb6dbdfa47ee6d1e5cce033](https://www.researchgate.net/publication/321111111)