Foreword

KES International (KES) is a worldwide organisation that provides a professional community and association for researchers, originally in the discipline of Knowledge Based and Intelligent Engineering Systems, but now extending into other related areas. Through this, KES provides its members with opportunities for publication and beneficial interaction.

The focus of KES is research and technology transfer in the area of Intelligent Systems, i.e. computer-based software systems that operate in a manner analogous to the human brain, in order to perform advanced tasks. Recently KES has started to extend its area of interest to encompass the contribution that intelligent systems can make to sustainability and renewable energy, and also the knowledge transfer, innovation and enterprise agenda.

Involving several thousand researchers, managers and engineers drawn from universities and companies world-wide, KES is in an excellent position to facilitate international research co-operation and generate synergy in the area of artificial intelligence applied to real-world ‘Smart’ systems and the underlying related theory.

The KES annual conference covers a broad spectrum of intelligent systems topics and attracts several hundred delegates from a range of countries round the world. KES also organises symposia on specific technical topics, for example, Agent and Multi Agent Systems, Intelligent Decision Technologies, Intelligent Interactive Multimedia Systems and Services, Sustainability in Energy and Buildings and Innovations through Knowledge Transfer. KES is responsible for two peer-reviewed journals, the International Journal of Knowledge based and Intelligent Engineering Systems, and Intelligent Decision Technologies: an International Journal.

KES supports a number of book series in partnership with major scientific publishers.

Published by Springer, ‘Smart Innovative Systems and Technologies’ is the KES flagship book series. The aim of the series is to make available a platform for the publication of books (in both hard copy and electronic form) on all aspects of single and multi-disciplinary research involving smart innovative systems and technologies, in order to make the latest results available in a readily-accessible form.

The series covers systems that employ knowledge and intelligence in a broad sense. Its focus is systems having embedded knowledge and intelligence, which may be applied to the solution of world industrial, economic and environmental problems and the knowledge-transfer methodologies employed to make this happen effectively. The combination of intelligent systems tools and a broad range of applications introduces a need for a synergy of scientific and technological disciplines.
Examples of applicable areas to be covered by the series include intelligent decision support, smart robotics and mechatronics, knowledge engineering, intelligent multi-media, intelligent product design, intelligent medical systems, smart industrial products, smart alternative energy systems, and underpinning areas such as smart systems theory and practice, knowledge transfer, innovation and enterprise.

The series includes conference proceedings, edited collections, monographs, handbooks, reference books, and other relevant types of book in areas of science and technology where smart systems and technologies can offer innovative solutions.

High quality is an essential feature for all book proposals accepted for the series. It is expected that editors of all accepted volumes take responsibility for ensuring that contributions are subjected to an appropriate level of reviewing process and adhere to KES quality principles.

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This volume contains the Proceedings of the 3\textsuperscript{rd} International Symposium on Intelligent Interactive Multimedia Systems and Services (KES-IIMSS 2010). This third edition of the KES-IIMSS Symposium was jointly organized by the Department of Informatics of the University of Piraeus, Greece and the Department of Information Technologies of the University of Milan, Italy in conjunction KES International.

KES-IIMSS is a new series of international scientific symposia aimed at presenting novel research in the fields of intelligent multimedia systems relevant to the development of a new generation of interactive, user-centric services. The major theme underlying this year’s symposium is the rapid integration of multimedia processing techniques within a new wave of user-centric services and processes. Indeed, pervasive computing has blurred the traditional distinction between conventional information technologies and multimedia processing, making multimedia an integral part of a new generation of IT-based interactive systems.

KES-IIMSS symposia, following the general structure of KES events, aim at providing an internationally respected forum for presenting and publishing high-quality results of scientific research while allowing for timely dissemination of research breakthroughs and novel ideas via a number of autonomous special sessions and workshops on emerging issues and topics identified each year.

KES-IIMSS-2010 co-located events include: (1) the International Workshop Human-Computer Interaction in Knowledge-based Environments, (2) the International Workshop on Interactive Multimodal Environment and (3) two invited sessions respectively on Intelligent Healthcare Information Management, Pervasive Systems for Healthcare. KES-IIMSS-2010 is also co-located with the 2\textsuperscript{nd} International Symposium on Intelligent Decision Technologies (KES-IDT-2010).
We are very satisfied of the quality of the program and would like to thank the authors for choosing KES-IIMSS as the forum for presentation of their work. Also, we gratefully acknowledge the hard work of KES-IIMSS international program committee members and of the additional reviewers for selecting the accepted conference papers.

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