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Visual Informatics: Sustaining Research and Innovations





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Visual Informatics: Sustaining Research and Innovations

Second International Visual Informatics Conference, IVIC 2011 Selangor, Malaysia, November 9-11, 2011 Proceedings, Part II



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Preface

Visual informatics is currently a multidisciplinary field that is well accepted among researchers and industry in computer science, information technology and engineering. The basic areas of research, such as virtual real image processing and engineering; computer vision and simulation; visual computing and visualization and social computing, have been applied in various domains such as education, medical and health, finance, agriculture and security. We currently also see various Centres of Excellence (CoE) in the field of visual informatics being established in various institutions of higher learning (IHLs) around the world (Europe, USA and UK). Malaysia has just established a similar CoE called the Institute of Visual Informatics (IVI) at Universiti Kebangsaan Malaysia (UKM) or The National University of Malaysia. It is therefore important that researchers from these various CoEs, research institutes, technology centers and industry form networks and share and disseminate new knowledge in this field for the benefit of society.

It is for this reason that the Institute of Visual Informatics (IVI) at UKM decided to host the Second International Visual Informatics Conference (IVIC 2011), to bring together experts in this very important research area so that more concerted efforts can be undertaken not just locally but globally. The first IVIC held in 2009 brought together experts from Asia, the UK, Oceania and the USA. This time we also managed to bring in an expert from Sweden. Like the first IVIC, this time too the conference was conducted collaboratively by the visual informatics community from various public and private universities and industry. The second conference was co-sponsored by the Malaysian Information Technology Society (MITS), Multimedia Development Corporation (MDeC), and the Malaysian Research Education Network (MyREN). The conference was co-chaired by seven professors from four different countries (UK, Sweden, Taiwan and Malaysia).

The theme of the conference, 'Visual Informatics: Sustainable Innovations for Wealth Creation,' reflects the importance of bringing research from 'laboratories to the market.' It also portrayed the shared belief of the organizers (both locally and globally) of the importance of creating a seamless value-chain R&D ecosystem: from fundamental, applied research to 'proof of concept' and commercialization. With the slow economic trend experienced around the world today, research and innovation are more important than ever before in creating high-income jobs in order to accelerate economic growth. Thus, the relevance of the theme of the conference was apt and timely.

The conference focused on four tracks related to the basic areas of visual informatics over two days (November 9 and 10, 2011) and ended with a one-day workshop (November 11, 2011). There were four keynote speakers and 75 paper presentations based on topics covered by the four main tracks mentioned ear-

VI Preface

lier. The reviewing of the papers was conducted by experts who represented a 150-member Program Committee from Asia, Europe, Oceania and North America. Each paper was reviewed by three reviewers and the rejection rate was 60%. The reviewing process was managed using an electronic conference management system (CoMSTM) created by the Institute of Visual Informatics, UKM.

On behalf of the Organizing and Program Committees of IVIC 2011, we thank all authors for their submissions and camera-ready copies of papers, and all participants for their thought-provoking ideas and active participation in the conference. We also thank the Vice-Chancellor of UKM (host University), and Vice-Chancellors and Deans of all IT faculties of the IHLs for their support in organizing this conference. We also acknowledge the sponsors, members of the Organizing Committees, Program Committee members, support committees and individuals who gave their continuous help and support in making the conference a success. We fervently believe that IVIC will grow from strength to strength and we also hope that one day it will be held in different host countries in Asia, Europe, Oceania or North America. We also hope that IVIC will continue to provide a stimulating and enriching platform for research and innovations that will transcend religions, cultures, race and beliefs to contribute to better general human well-being.

November 2011

Halimah Badioze Zaman
Peter Robinson
Maria Petrou
Patrick Olivier
Timothy Shih
Sergio Velastin
Ingela Nyström

Organization

The Second International Visual Informatics Conference (IVIC 2011) was organized by the Institute of Visual Informatics and Faculty of Information Science and Technology, Universiti Kebangsaan Malaysia, in collaboration with 13 local public and private universities in Malaysia, the Malaysian Information Technology Society (MITS), Multimedia Development Corporation (MDeC), Malaysian Institute of Microelectronic Systems (MIMOS) and Malaysian Research Educational Network (MYREN).

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