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Visual Informatics: Bridging Research and Practice

First International Visual Informatics Conference, IVIC 2009
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Proceedings

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Preface

Visual informatics is a field of interest not just among the information technology and computer science community, but also other related fields such as engineering, medical and health informatics and education starting in the early 1990s. Recently, the field is gaining more attention from researchers and industry. It has become a multi-disciplinary and trans-disciplinary field related to research areas such as computer vision, visualization, information visualization, real-time image processing, medical image processing, image information retrieval, virtual reality, augmented reality, expressive visual mathematics, 3D graphics, multimedia-fusion, visual data mining, visual ontology, as well as services and visual culture. Various efforts have been invested in different research, but operationally, many of these systems are not prominent in the mass market and thus knowledge and research on these phenomena within the mentioned areas need to be shared and disseminated.

It is for this reason that the Visual Informatics Research Group from Universiti Kebangsaan Malaysia (UKM) decided to spearhead this initiative to bring together experts in this very diversified but important research area so that more concerted efforts can be undertaken not just within the visual informatics community in Malaysia but from other parts of the world, namely, Asia, Europe, Oceania, and USA. This first International Visual Informatics Conference (IVIC 2009) was conducted collaboratively, by the visual informatics research community from the various public and private institutions of higher learning in Malaysia, and hosted by UKM. This conference is expected to be undertaken annually. This time the conference was co-sponsored by the Malaysia Information Technology Society (MITS), Malaysia Development Corporation (MDeC), and the Malaysian Research Educational Network (MyREN). The conference was co-chaired by six professors from four different countries (one from the host country, Malaysia; three from the UK; one from Australia and one from Taiwan).

The theme of the symposium, “Visual Informatics Synergies : Bridging Research and Practice,” reflects the importance of integrating the epistemology and the ontology of the fields involved, in order that all the research undertaken will be applicable for societies all over the world. It also portrayed the shared belief of the organizers that visual informatics is fast becoming an important research area in domains such as computer science, information technology, engineering, medical informatics and education. The visual culture is already taking over a lot of the activities in society and it is expected that very soon even serious reports will be in graphics and visualization especially large datasets in industries. The symposium focused on four key tracks: Visual Technologies and Systems, Virtual Environment, Visualization and Engineering Systems and Visual Culture, Services and Society.

The conference commenced for two days (11 and 12 November 2009) and ended with a one-day workshop (13 November 2009). There were five invited keynote papers and 80 research paper presentations. Presentations were based on topics covered by the four main tracks mentioned earlier. The reviewing of the papers was

carried out by reviewers (who were represented by a 70-member Program Committee) composed of experts and researchers from Asia, Europe, USA and Oceania within the four key areas. The rejection rate of the papers was 62%. The reviewing process was managed using an electronic conference management system, OCMS, sponsored by Universiti Utara Malaysia (UUM).

On behalf of the Organizing and Program Committees of IVIC 2009, 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 and the Dean of IT from UKM (the host university), and Vice Chancellors and Deans from 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 will one day travel to different host countries in Asia, Europe, USA and Oceania. It will continue to provide a stimulating and enriching platform for innovative ideas, to enable the visual informatics community to design and develop systems and services that will transcend cultures, races, beliefs, and religions to create world citizens who are knowledgeable, tolerant, and understanding, in order to create 'one world' that is colorful, harmonious and peaceful for many generations to come.

November 2009

Halimah Badioze Zaman
Peter Robinson
Maria Petrou
Patrick Olivier
Heiko Schröder
Timothy K. Shih

Organization

The first International Visual Informatics Conference (IVIC 2009) was organized by the Visual Informatics Research Group, Universiti Kebangsaan Malaysia, in collaboration with ten local public and private universities in Malaysia, the Malaysian Information Technology Society (MITS), the Multimedia Development Corporation (MDeC), the Malaysian Institute of Microelectronic Systems (MIMOS) and the Malaysian Research Educational Network (MYREN).

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