Journal of Multimedia Processing and Technologies Volume 2 Number 4 December 2011

Contents

Editorial

This special issue is devoted to the best papers dealing with multimedia data processing that have been presented at the track *Internet-Based Computing and Systems* (IBCS) of the International Conference Signal Image Technology & Internet Based Systems (SITIS 2011), held in Dijon (France). A brief overview of the selected three articles is given below:

• The first article, entitled *3D Audio Conference System with Backward Compatible Conference Server using HRTF Synthesis*, describes a system that is able to localize and separate sounds, as well as recognize speakers in teleconferencing scenarios, for the purpose of channel assignment. The main feature of this system is that, although requiring no specific and expensive equipment, it allows users identify active speakers in an audio conference and concentrate on one specific participant, even if several participants are simultaneously speaking.

• The second article, entitled *Lecture Video Indexing and Analysis Using Video OCR Technology* (where *OCR* stands for Optical Character Recognition) deals with retrieving lecture video data that combine two streams: one recording the lecturer and one recording the slides presented during the lecture. To this end, the authors present a novel video segmenter for structure analysis of slide video, and show how each key frame of slide videos can be linked to a video recording segment. In this way, indexing two-part lecture videos is performed by indexing the slide videos only. Moreover, using the extracted structure of the lecture, both segmented key frames and extracted lecture outlines are used for the further video indexing.

• The third article, entitled *Distributed multimedia indexing and optimal resources utilization: an implementation based on metadata, context and usage* addresses two of the most important issues in multimedia management systems, that is, enabling reduced resources consumption and handling format heterogeneity. To do so, the proposed implementation provides: (*a*) a multimedia metadata generic approach for integrating metadata and indexing algorithm descriptions; (*b*) a dynamic indexation process; and (*c*) a technique for improving the dynamic indexing process by introducing new criteria for the selection of indexing algorithms.

I would like to thank the authors for their valuable contributions and their work in significantly extending and improving their papers published in the SITIS proceedings. I am also grateful to Richard Chbeir, Vincent Courboulay, Naoki Fukuta, William I. Grosky, Rajkumar Kannan, and Maria Angeles Moraga, whose reviews have highly contributed in the quality of the selected articles.

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