FOREWORD

Special Section on Recent Advances in Multimedia Signal Processing Techniques and Applications

Multimedia signal processing is concerned with the analysis and modeling of signals, classification and recognition of signals, extraction and retrieval of information from signals, synthesis and transformation of signals. In the past decade, we have witnessed an intensive progress of multimedia signal processing technology spurred on by community initiatives in Asia Pacific. The recent advances have enabled many innovative products and services that have improved the quality of people's life. This special section accepted 17 articles, out of a total of 34 submissions, which provide a detailed coverage on the unique research problems with their solutions in the areas of audio processing, spoken language processing, image processing, video processing and computer graphics. Like all other technologies, multimedia signal processing becomes useful only when it meet operational goals in real-world applications. This special section also provides an account of implementation issues that are critical to system deployment. A highlight of this special section is the invited paper by Professor Sadaoki Furui of Tokyo Institute of Technology, which gives invaluable insights into the research questions of large vocabulary continuous speech recognition for Thai, Indonesian and Chinese languages.

The editorial committee had its first meeting in December 2010 during the 2nd Annual Summit and Conference of Asia-Pacific Signal and Information Processing Association (APSIPA ASC 2010) in Singapore to find that it was timely for the community to collectively document the recent advances in multimedia signal processing techniques and applications, and it is the most appropriate to publish as a special section in the Institute of Electronics, Information and Communication Engineers (IEICE) Transactions on Information and Systems. This special section is therefore organized to commemorate the success of APSIPA ASC 2010, the Annual Summit and Conference of the community.

I hope that the readers will find the articles interesting and inspiring for further research in the field. It has not been an easy task calling for papers and handling the reviews in such a short time. I would like to express my sincere gratitude to all contributors who made this special issue possible, and the group of reviewers who have offered their precious time and invaluable comments to improve the quality of articles. Special thanks are extended to the organizing committee of APSIPA ASC 2010 who facilitated the call for papers of this special section. I am also very grateful for the guidance and support from the editorial board of IEICE Transactions on Information and Systems. Finally, I would like to express my appreciation to the editorial committee for their dedication and great effort, in particular, to Dr. Norihide Kitaoka who has assisted me in many ways from the inception to the final production of this special section.

Guest Editors: Norihide Kitaoka (Nagoya Univ., Japan), Chng Eng Siong (Nanyang Technological Univ., Singapore), David Cho (The Univ. of Nottingham Ningbo, China), Hisashi Kawai (NiCT, Japan)
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Haizhou Li, Guest Editor-in-Chief

Haizhou Li (Member) received his B.Sc., M.Sc. and Ph.D. degrees in Electrical Engineering from South China University of Technology in 1984, 1987, and 1990 respectively. He is currently the Principal Scientist of the Human Language Technology at the Institute for Infocomm Research, Singapore. He is also a conjoint Professor at the University of New South Wales, Australia. Dr. Li's research interests include automatic speech recognition and natural language processing. He now serves as an Associate Editor of IEEE Transactions on Audio, Speech and Language Processing, and ACM Transactions on Speech and Language Processing. He is an elected Board Member of International Speech Communication Association (2009–2013). He was appointed as the General Chair of ACL 2012 and INTERSPEECH 2014. He was the recipient of National Infocomm Award of Singapore in 2001. He was named one of the two Nokia Professors 2009 by Nokia Foundation in recognition of his contribution to speaker and language recognition technologies.