Editorial

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Welcome to the second and concluding part of the special issue containing a selection of papers originally presented at WIAMIS 2001, in Tampere, Finland. That workshop on image analysis for multimedia interactive services was the third such workshop organised by the COST 211quat Action of the European Union. A prime goal of these workshops has been the cross fertilisation of ideas and that goal has been greatly furthered by the opportunity, provided here by the EURASIP Journal on Applied Signal Processing, for some of the contributions to reach a wider audience.

The first part comprised a tutorial on MPEG-7, three papers in the topic area of indexing and retrieval, three papers on video segmentation, and two on watermarking.

In this second part, we first return to video segmentation with two more papers. The first addresses spatial segmentation while the second looks at temporal segmentation. The three papers in the next group concern detection and tracking, the first being for facial features and the other two for general objects. We then have a paper on motion estimation and conclude with a post processing algorithm for the removal of blocking artefacts.

We thank all the authors for their efforts in producing these updated and extended versions of their original WIAMIS 2001 papers and hope that the readers will find them both interesting and stimulating in their own research activities.

We are again indebted to the Editor-in-Chief, Ray Liu, and the staff of EURASIP JASP for their support and patience in bringing this special issue to publication.

Finally, we take the liberty of advertising the next Workshop on Image Analysis for Multimedia Interactive Services which will be held in London during the second quarter of 2003. Details will be posted at http://www.iva.cs.tut.fi/ COST211/. The workshop will be open to all and we cordially invite your participation there.

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Moncef Gabbouj received his B.S. degree in electrical engineering in 1985 from Oklahoma State University, Stillwater, and his M.S. and Ph.D. degrees in electrical engineering from Purdue University, West Lafayette, Indiana, in 1986 and 1989, respectively. Dr. Gabbouj is currently a Professor and Head of the Institute of Signal Processing of Tampere University of Technology, Tampere, Finland. From 1995 to 1998 he was a Professor with the Department of Information Technology of Pori School of Technology and Economics, Pori, and during 1997 and 1998 he was on sabbatical leave with the Academy of Finland. From 1994 to 1995 he was an Associate Professor with the Signal Processing Laboratory of Tampere University of Technology, Tampere, Finland. From 1990 to 1993 he was a Senior Research Scientist with the Research Institute for Information Technology, Tampere, Finland.

His research interests include nonlinear signal and image processing and analysis, content-based analysis and retrieval, and mathematical morphology. Dr. Gabbouj is the Vice-Chairman of the IEEE-EURASIP NSIP (Nonlinear Signal and Image Processing) Board. He is currently the Technical Committee Chairman of the EC COST 211quat. He served as Associate Editor of the IEEE Transactions on Image Processing, and was Guest Editor of the European Journal, Signal Processing, Special Issue on Nonlinear Digital Signal Processing (August 1994). He is the Chairman of the IEEE Finland Section and past Chair of the IEEE Circuits and Systems Society, Technical Committee on Digital Signal Processing, and the IEEE SP/CAS Finland Chapter. He was also the TPC Chair of EU-SIPCO 2000 and the DSP Track Chair of the 1996 IEEE ISCAS and the Program Chair of NORSIG '96. He is also member of EURASIP AdCom. Dr. Gabbouj is the Director of the International University Program in Information Technology and member of the Council of the Department of Information Technology at Tampere University of Technology. He is also the Secretary of the International Advisory Board of Tampere International Center of Signal Processing, TICSP. He is a member of Eta Kappa Nu, Phi Kappa Phi, IEEE SP and CAS societies. Dr. Gabbouj was co-recipient of the Myril B. Reed Best Paper Award from the 32nd Midwest Symposium on Circuits and Systems and co-recipient of the NORSIG 94 Best Paper Award from the 1994 Nordic Signal Processing Symposium.

Faouzi Alaya Cheikh received his B.S. degree in electrical engineering in 1992 from École Nationale d'Ingénieurs de Tunis, Tunisia. He received his M.S. degree in electrical engineering (Major in Signal Processing) from Tampere University of Technology, Finland, in 1996. Mr. Alaya Cheikh is currently a Ph.D. candidate and works as a Researcher at the Institute of Signal Processing, Tampere University of Technology, Tampere, Finland. From 1994 to 1996, he was a Research Assistant at the Institute of Signal Processing, and from 1997 he has been a Researcher with the same institute. His research interests include nonlinear signal and image processing and analysis, pattern recognition and content-based analysis and retrieval. He has been an active member in many Finnish and European research projects among them Nobless, Esprit, COST 211 quat, and MUVI. He served as Associate Editor of the EURASIP Journal on Applied Signal Processing, Special Issue on Image Analysis for Multimedia Interactive Services. He serves as a reviewer to several conferences and journals. He co-authored over 30 publications.

Bogdan Cramariuc received his M.S. degree in electrical engineering in 1993 from Polytechnica University of Bucharest, Faculty of Electronics and Telecommunications, Bucharest, Romania. Mr. Cramariuc is currently a Ph.D. candidate and works as Researcher for the Institute of Signal Processing at Tampere University of Technology, Tampere, Finland. From 1993 to 1994 he worked as Teaching Assistant at the Faculty of Electronics and Telecommunications at the Polytechnica University of Bucharest. During this period he has also been involved as Researcher with Electrostatica S.A., a national research institute in Bucharest, Romania. Since 1995 he has been with the Institute of Signal Processing at Tampere University of Technology, Tampere, Finland. His research interests include signal and image analysis, image segmentation, texture analysis, content-based indexing and retrieval in multimedia databases, mathematical morphology, computer vision, parallel processing, data mining, and artificial intelligence. Mr. Cramariuc has been an active member in several Finnish and European projects, such as Nobless, Esprit and MUVI. He served as Associate Editor of the EURASIP Journal on Applied Signal Processing, Special Issue on Image Analysis for Multimedia Interactive Services.

Geoff Morrison graduated from the University of Cambridge, UK and joined the British Post Office Research Department. He worked on analogue video transmission systems, processing, and switching, mainly for videoconferencing and videotelephony services. Subsequently his research activities centered on digital video. After a six month secondment to NTT Laboratories in Japan, he was an active contributor to the CCITT group which developed Recommendation H.261. Simultaneously, he led a group at BT Labs which constructed the first European real-time hardware implementation of it. His theoretical and practical knowledge of video compression contributed to MPEG-1 and MPEG-2 where he chaired the Implementation Studies Group for several years. He also participated in many European collaborative projects including COST 211bis through to the current COST 211quat which he chairs. Geoff gained his doctorate in 1997 from the University of Waseda in Tokyo following a secondment there. He is an Honorary Fellow of the University of Essex. Currently he is Senior Research Advisor in the Content and Coding Laboratory of BTexact Technologies.