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Visual Communications and Image Processing '90

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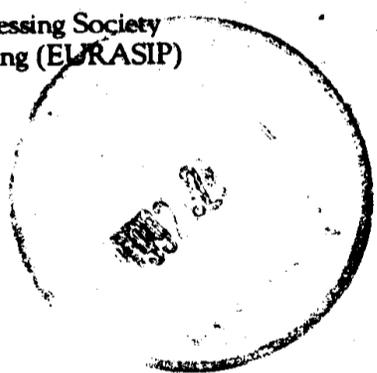
Murat Kunt
Chair/Editor

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T. George Campbell, Swiss Federal Institute of Technology (Switzerland)

INTRODUCTION

Because sounds and images are vital to communication, scientific and technical activities aimed at improving this communication grow at an astonishing rate. Support for visual communication alone has grown over the last half decade, with many different workshops growing into large conferences, including the well-established Picture Coding Symposium. SPIE's Visual Communications and Image Processing conference is one of this group and includes workshops on HDTV, 64-kbits video coding, and packet-video, to mention a few. Although each workshop is important enough to require a separate forum, the workshops remain closely related to each other and sometimes overlap unavoidably. With travel money for academics being finite, it is not reasonable to attend all the conferences and try to produce interesting and useful research results. In addition, the temptation to attend them all leads to a "write only" scientific community in which reading time is sacrificed. This led two years ago to the idea of bringing these meetings together into a large Visual Communications week (VISICOM) during which each workshop could have been one of the 4 or 5 parallel sessions with a much more coherent scientific program that would reduce overlap. Since a large number of these disparate workshops were held in Europe, the first VISICOM week could be held in the old continent.

The 1990 conference on Visual Communications and Image Processing attracted about 230 papers. We rejected 50 and the remaining 180 are separated into four parallel sessions to fit within the three-day program. A number of distinguished colleagues accepted my invitation to present double-length tutorials placed at the beginning of the corresponding session. Among them I am pleased to mention those by Professor R. M. Lea on a novel massively parallel architecture and its technology, Professor Y. Neuvo on median-based algorithms for image sequence processing, Dr. M. I. Sezan on image restoration, and Dr. F. Huck on information theoretical assessment of image gathering. I am most grateful to them for accepting my invitation. Image sequence processing and coding is the most popular area if judged by the number of papers contained in the four sessions on this topic. The other sessions focus on human visual system and neural networks, nonlinear image processing, mathematical morphology and fractals (honored by the chairmanship of Professor J. Serra), VLSI implementation and system architecture, hierarchical image and video coding, image processing in medicine, parallel processing, edge detection, neuromorphology of biological vision, HDTV, segmentation and classification, texture, JPEG/MPEG algorithms, and pattern recognition.

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Special thanks are due to the members of the program committee and the session chairs, as well as to the talented members of my fantastic team. I would like to mention specially Drs. T. Reed, J. M. H. du Buf, J. Bigün, M. Kocher, T. George Campbell, T. Ebrahimi, A. Geurtz, C. Horne, F. Marquès, Ph. Salembier, J. M. Vesin, and J. Vidal. Without their invaluable help I could never have organized this conference.

Murat Kunt

Swiss Federal Institute of Technology (Switzerland)

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