

# VOLUME II

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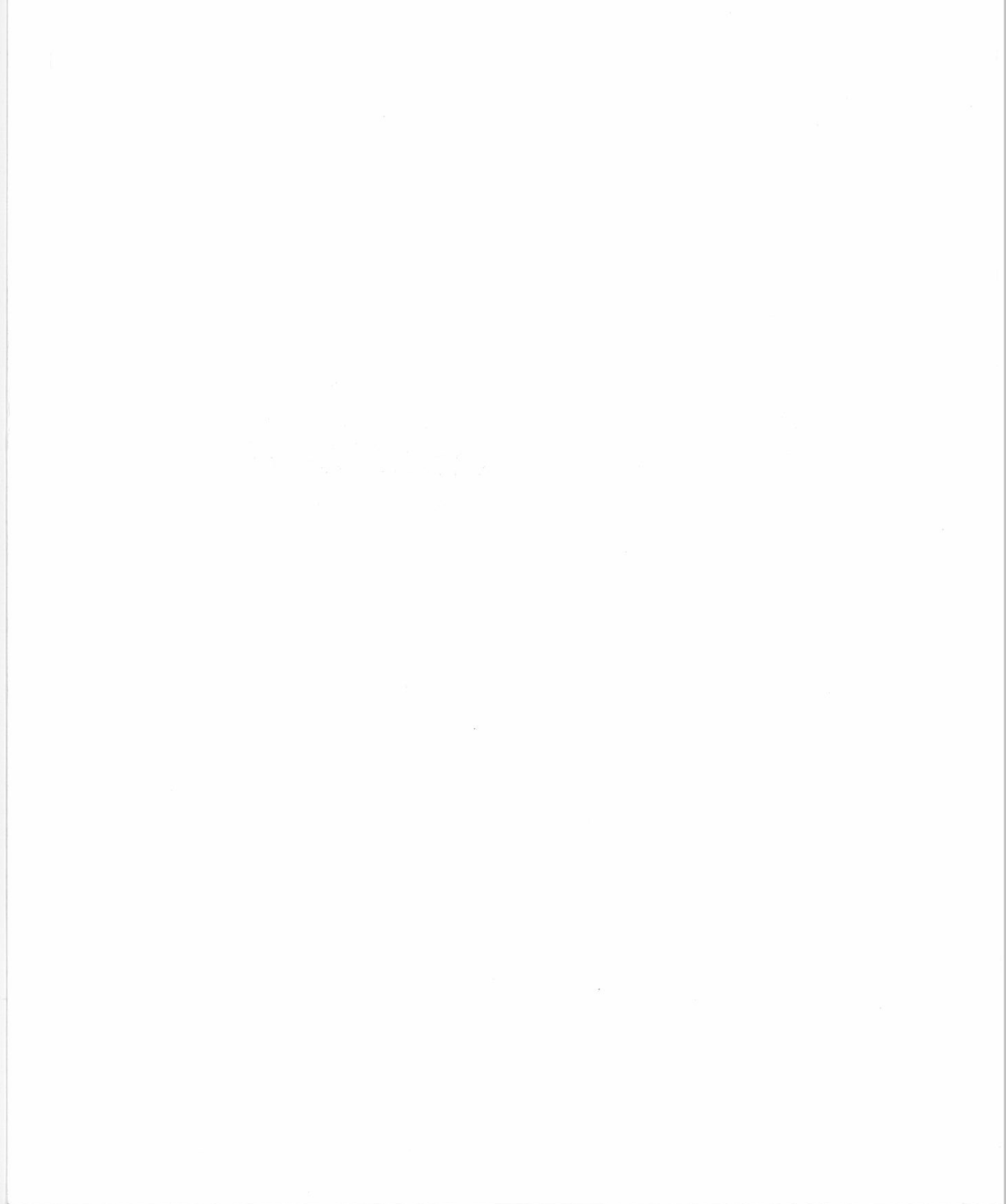


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# SIGNAL PROCESSING VII THEORIES AND APPLICATIONS

Proceedings of EUSIPCO-94  
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VOLUME II



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## EURASIP PRESIDENT'S MESSAGE

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EUSIPCO conferences are organised in Europe every alternate year by EURASIP, the EUROpean Association for SIGNAL Processing. The previous one was held in Brussels (1992) and the next one will take place in Trieste, Italy, in September 1996.

EURASIP membership is open to all individuals and institutions active or interested in signal processing. Basically, it is a scientific community, with members all over the world, which has the objective of disseminating research results and new technologies, and also of developing communication and friendly relations between its members as well as with other societies. This is achieved through meetings, conferences and workshops, but also perhaps more efficiently through the following set of regular publications:

The *NEWSLETTER* is the main communication link between members, providing information about the situation of the society and its activities.

*SIGNAL PROCESSING* is the journal dedicated to the general aspects of the field; theory, implementation and applications.

*SPEECH COMMUNICATION* is edited jointly with ESCA, the European Speech Communication Association, and covers the theoretical and experimental aspects of speech communication processes.

*IMAGE COMMUNICATION* is the journal dedicated to the theory and practice of image processing in the communication area.

As a well-established community, EURASIP has an impact on its environment which goes beyond its directly visible output.

The scientific life in Europe is dominated by two different sets of actions: the European research and education programmes and the standardisation activities. Although EURASIP, so far, has been unable to interact officially with either of these, it is, in fact, involved through its members, who belong to expert teams and who work in international consortia, and indeed it helps and facilitates participation.

On one specific issue EURASIP can have a significant contribution: developing relationships with eastern European countries for education and research.

The success of EUSIPCO-94 is just another illustration of the strength and vitality of the signal processing technical area. Considering the evolution of relations between countries within this continent and in the whole world, as well as the sustained pace of technical progress, it seems increasingly important to have strong associations in Europe like EURASIP, to accompany the technical and social evolution in the best possible harmony.

Therefore, I encourage all of you to join our society, not only to benefit from the material advantages it offers, such as reduced subscription rates for journals and reduced fees for conferences and workshops, but also to take an active part in improving our scientific environment and, at the same time, improving our human society as a whole.

M. Bellanger

*President of EURASIP*

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## CHAIRMAN'S MESSAGE

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It is our pleasure to welcome you to EUSIPCO-94 in Edinburgh. In addition to being the capital city of Scotland, Edinburgh is a major centre for banking, investment and the legal profession, as well as accommodating a thriving electronics industry in its environs. GEC-Marconi Avionics, formerly Ferranti, is a major employer within Edinburgh itself, with Hewlett Packard who came to Scotland in the 1960s, and Digital Equipment Corporation (DEC) in the 1980s, located at South Queensferry. Many other microelectronics companies such as Motorola, NEC and SUN Microsystems, are located close-by in the central belt.

EUSIPCO-94 will be located in the Appleton Tower complex of the University of Edinburgh, close to the High Street and Edinburgh Old Town. There, we will see and hear the 490 paper presentations which have been selected from the 760 submitted summaries offered to us. Selecting this sub-set of papers for presentation was a difficult and time-consuming task, and we are very grateful to our panel of more than 120 international experts who willingly gave their time to advise us in this.

On behalf of the Organising Committee, we wish you a warm welcome to Edinburgh, a successful EUSIPCO-94, and an enjoyable and valuable time reading the many papers compiled in this three volume Proceedings.

C.F.N. Cowan  
*General Chairman*

P.M. Grant  
*Co-Chairman (Edinburgh)*



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