

## PREFACE

Pattern Recognition, Image Analysis and Automatic Speech Recognition have been research areas of interest for a long time in Spain. Until 1982, the Spanish research groups which worked in these areas were spread in several scientific associations and their works seemed not to be sufficiently well known by the scientific community.

In order to join together and share the works related to Pattern Recognition, in 1982, a group of researchers from the universities and scientific institutions decided to create a national association. As a first step, it was originated as a Technical Group inside the CEA-IFAC (Spanish Committee for Automation — International Federation of Automatic Control), under the name “Grupo Técnico de Reconocimiento de Formas -GTRF- (Working Group for Pattern Recognition)”. In the same year the incipient association became a member of the International Association for Pattern Recognition -IAPR-.

From 1982 to 1991 the GTRF has organized four national symposiums and has collaborated to coordinate research efforts in the Spanish scientific community. Now, in 1991, the growing interest in so many Pattern Recognition-related fields has made it convenient for the GTRF to be an independent association. The GTRF has thus become an association that enlists people mainly interested in Pattern Recognition, Image Analysis and Automatic Speech Recognition, as well as from other diverse fields such as engineering, computer science, medicine, biology, astronomy, optics, geology, etc.

The new association is denominated “Asociación Española de Reconocimiento de Formas y Análisis de Imágenes -AERFAI- (Spanish Association for Pattern Recognition and Image Analysis)”.

The AERFAI has assumed new aims, one of them being the dissemination of scientific work that is developed by Spanish research groups. As the last national symposium generated a number of interesting works, we decided to publish a selection of the corresponding papers, with a double purpose: to show the topics which the Spanish research groups are interested in and to make known who is working in each topic.

This book thus contains a selection of eighteen works presented at the IV National Symposium in Pattern Recognition and Image Analysis, held in September 1990 in Granada. The book is structured into four different subareas which more or less reflect the different research works:

1. *Pattern Recognition*
2. *Image Analysis and Computer Vision*
3. *Speech Recognition*
4. *Applications in Image Analysis and Computer Vision*

We hope that this selection of papers will be of interest to the scientific community and that it will help open new contacts between international research groups.

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N. Pérez de la Blanca  
Universidad de Granada, Granada

A. Sanfeliu  
Universidad Politécnica de Cataluña, Barcelona

E. Vidal  
Universidad Politécnica de Valencia, Valencia