Foreword

In the last decade, the theory of multiple classifier systems and related methods for combining classifiers has been developed within many diverse research communities including Machine Learning, Neural Networks, Pattern Recognition, and Statistics. This multiple genesis was useful since the same problems have been addressed from different perspectives and using different cultural backgrounds. On the other hand, the absence of common forums made difficult the exchange of results and cross-fertilization of the research carried out in the diverse communities. Researchers in one community often seem to be unaware of relevant results achieved in the other communities, and a unifying framework is clearly beyond the state of the art.

This international workshop on Multiple Classifier Systems was a first step towards the creation of a common international forum for researchers of the diverse communities working in the field of multiple classifier systems. The overwhelming response to the call for papers was a good starting point in establishing the forum. In addition, five world experts accepted to survey the state of the art, recent results, and directions of future research from the viewpoints of the machine learning, neural networks, and pattern recognition communities. We hope that this workshop will become the first in a series that will form a platform for future interactions between the respective research communities.

The present volume contains the proceedings of the First International Workshop on Multiple Classifier Systems (MCS 2000), held in Santa Margherita di Pula, Sardinia, Italy, June 21-23, 2000. The 33 papers selected by the scientific committee have been organized in sessions dealing with theoretical issues, methods for classifier fusion, design of multiple classifier systems, and applications. The significant number of papers dealing with real pattern recognition applications are proof of the practical utility of multiple classifier systems. The workshop program and this volume are enriched with five invited talks given by T.G. Dietterich (Oregon State University, USA), R.P.W. Duin (Delft Univ. of Technology, The Netherlands), A.J.C. Sharkey (University of Sheffield, UK), S.N. Srihari (CEDAR, State Univ. of New York, Buffalo, USA), and C.Y. Suen (CENPARMI, Concordia Univ., Montreal, Canada).

We wish to express our appreciation to all those who helped to organize MCS 2000. First of all, we would like to thank all the members of the scientific committee whose professionalism was instrumental in creating a very interesting technical program. A particular mention is due to G. Vernazza for his invaluable contribution to the scientific organization of MCS 2000. We also wish to thank J.A. Benediktsson and T.K. Ho who organized two special sessions. It would have been impossible to organize the workshop without the financial and technical support of the University of Cagliari and the Department of Electrical and Electronic Engineering and both forms of support are gratefully acknowledged. We also thank the International Association for Pattern Recognition for sponsor-

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