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# Artificial Neural Networks in Pattern Recognition

5th INNS IAPR TC 3 GIRPR Workshop, ANNPR 2012  
Trento, Italy, September 17-19, 2012  
Proceedings

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# Preface

This 5th INNS IAPR TC3 GIRPR Workshop on Artificial Neural Networks for Pattern Recognition (ANNPR 2012), whose proceedings are presented in this volume, endeavored to bring together recent novel research in this area and to provide a forum for further discussion. The workshop was held at the Fondazione Bruno Kessler (FBK) in Trento, Italy, during September 17–19, 2012.

ANNPR 2012 was supported by the International Neural Network Society (INNS), by the International Association for Pattern Recognition (IAPR), by the IAPR Technical Committee on Neural Networks and Computational Intelligence (TC3), and by the Gruppo Italiano Ricercatori in Pattern Recognition (GIRPR). IAPR-TC3 is one of the 20 Technical Committees of IAPR, focusing on the application of computational intelligence to pattern recognition.

The workshop featured regular oral presentations and a poster session, plus three precious IAPR invited speeches, namely:

- “Developmental Vision Agents” given by Marco Gori of the Università di Siena, Dip. di Ingegneria dell’Informazione
- “NeuCube EvoSpike Architecture for Spatio-Temporal Modelling and Pattern Recognition of Brain Signals” given by Nikola (Nik) Kasabov of the AUT - Auckland University of Technology
- “Classifier Fusion with Belief Functions” given by Günther Palm of the University of Ulm, Institute of Neural Information Processing

It is our firm conviction that all the papers, included in the present book, are of high quality and significance to the areas of neural network-based and machine learning-based pattern recognition. We sincerely hope that readers of this volume may, in turn, enjoy it and get inspired from its different contributions.

We would like to acknowledge the fact that the organization of the workshop moved its first steps within the framework of the Vigoni Project for international exchanges between the universities of Siena (Italy) and Ulm (Germany). Also, we wish to acknowledge the generosity of the ANNPR 2012 sponsors: INNS, IAPR, IAPR-TC3, GIRPR, the University of Ulm, the Dipartimento di Ingegneria dell’Informazione (DII) of the University of Siena, and the Fondazione Bruno Kessler which hosted the event.

We are grateful to all the authors who submitted a paper to the workshop. Special thanks to the local chairs and organization staff, in particular to Oswald Lanz, Stefano Messelodi and Moira Osti. The contribution from the members of the Program Committee in promoting the event and reviewing the papers is gratefully acknowledged. Finally, we wish to express our gratitude toward Springer for publishing these proceedings within their LNCS/LNAI series, and for their constant support.

July 2012

Nadia Mana  
Friedhelm Schwenker  
Edmondo Trentin

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