

Dynamics of Continuous, Discrete & Impulsive Systems

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Special Issue on

Advances in Neural Networks--Theory and Applications

Contents of Volume 1

Contents of Volume 2

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Preface

During the past several decades, neural networks and their related fields such as evolutionary algorithms, fuzzy logic and expert systems have seen a considerable development both in theories and applications. Recently, the research on the basis of neural networks has been further enhanced especially in the continuous and discrete algorithms and their computational complexity analysis. The combination among those soft computing techniques has led to many hybrid and intelligent systems such as neuro-fuzzy systems and genetic neural systems. Moreover, many experimental products based on neural network techniques have been successfully moved from laboratories to real applications. This special issue aims to report some recent advances in the theory and applications of neural networks.

Papers submitted to this special issue can be roughly classified into three groups, i.e., neural network theory, neural network models and algorithms, and neural network applications and hardware. All submitted papers have been refereed strictly by experts in the related fields based on the criteria of originality, significance, quality and clarity. This special issue contains 139 well-selected papers from a large volume of submissions, which cover the major topics of the fields and represent the current trend and research interests.

Taking this opportunity, the guest editors of this special issue would like to deliver their sincere thanks to the reviewers for their careful and valuable comments on the submitted manuscripts and for their detailed and helpful suggestions which have improved the quality of the manuscripts. As well, we would like to thank the chief editor of this journal for his encouragement, support and guidance during the preparation of this special issue.

Guest editors: Yi Zhang, Bo Zhang and Shiji Song