

Foreword

Soft computing is a new paradigm in computing, initiated by Lofti A. Zadeh. Soft computing is a collection of methodologies which aim to exploit tolerance for imprecision, uncertainty, and partial truth to achieve tractability, robustness, and low solution cost. The principal constituents of soft computing are fuzzy logic, neurocomputing, genetic algorithms and probability theory. These methodologies are complementary and it is becoming evident that the best results can be achieved through the use of their combinations.

The 3rd International Conference on Fuzzy Logic, Neural Nets and Soft Computing (IIZUKA'94) was held on August 1-7, 1994, in Iizuka, Japan. The conference was organized with the sponsorship of the International Fuzzy Systems Association (IFSA), the International Neural Network Society (INNS), the Japan Society for Fuzzy Theory and Systems (SOFT), the Japanese Neural Network Society (JNNS), the Kyushu Institute of Technology (KIT) and the Fuzzy Logic Systems Institute. This series of IIZUKA conferences was opened by Prof. Takeshi Yakamawa of KIT and has expanded conference by conference. The third conference was held with the aim of achieving profound understanding of the state of the art in soft computing. More than 240 papers were presented at the conference, and lively and thorough discussion were held.

As the guest editor for the Special Section on Modeling and Control with Soft Computing, I selected eight excellent papers which were best suited for the theme of this special issue. All the papers were revised, extended, and rigorously reviewed by three reviewers each.

The first three papers are related to fuzzy modeling. The fourth one proposes an interesting belief logic. The fifth and sixth papers talk about fuzzy logic control. New and challenging approaches to finding control knowledge using genetic algorithms are described in the last two papers. I am now proud to have these papers published in *Control and Cybernetics*.

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Guest Editor

