SPECIAL ISSUE ON SOFT COMPUTING AND SENSOR APPLICATIONS

PREFACE

This special issue (SI) is on "Soft Computing and Sensor Applications" for *Sensors and Materials* (S&M). It focuses on state-of-the-art soft computing (SC) and sensors for creating the chance for potential improvement of consumer electronics services. In recent years, developments have led to the widespread use of SC in industry. SC is a field of computer science that resembles the processes of the human brain and takes an integrated view of computing to solve real-life problems. It is a collection of methodologies for investigating, simulating, and analyzing very complex issues and phenomena. On the other hand, during the past few years, a great number of systems, algorithms, mechanisms, and methodologies have been proposed for sensor information fusion. However, sensor networks and information fusion are still in need of more technology such as SC and learning-based fusion techniques, system architecture, data analysis, and message control algorithm. The goal of this SI is to highlight state-of-the-art works that deal with the use of SC for industrial applications. This SI also covers multimedia systems and their applications that bring together researchers, engineers, and practitioners of information systems and applications in the context of SC. This SI presents seven excellent papers that are related to SC and sensors for industrial applications and have been selected from the open call for papers. The first work is entitled *An Expert Smart Scalp Inspection System Using Deep Learning*. The second paper is entitled *Prediction of Short-term Load of Microgrid Based on Multivariable and Multistep Long Short-term Memory*. The third paper is entitled *Ejection Fraction Measurement and Regional Wall Motion Abnormality Assessment Using Deep-learning Neural Networks in Left Ventriculography*. The fourth paper is entitled *Low-power Mesh Network Based on Message Queue Telemetry Transport Broker for Industrial IoT with Long Short-term Memory Forecasting*. The next work is *Applying Cloud Computing and Internet of Things Technologies to Develop a Hydrological and Subsidence Monitoring Platform*. The sixth paper is *Influence of North Pacific Storm Track on Winter Temperature in China*. In the last paper, *Understanding the Mechanism of Deep Learning Frameworks in Lesion Detection for Pathological Images with Breast Cancer* was presented. We call for the presentation of technological advances and research results in the fields of digital application in industries. This SI provides high-quality research results in all areas relevant to S&M readers.

I express many thanks to the authors for their contributions and all the reviewers for their constructive comments. I am also grateful to the editorial assistant, Ms. Misako Sakano, and the Editor-in-Chief, Professor Makoto Ishida, for their generous support in the publication of this SI for S&M.

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