SPECIAL ISSUE ON ADVANCED MATERIALS ON ELECTRONIC AND MECHANICAL DEVICES AND THEIR APPLICATION ON SENSORS: PART 5

PREFACE

In recent years, applications of advanced materials for electronic and mechanical devices, and optical sensors have been fast developing fields. Due to their flexibility and light weight for daily use, they have the potential to be deployable. The scope of this special issue "Advanced Materials on Electronic and Mechanical Devices and Their Application on Sensors" covers fundamental materials of electronic, mechanical, and optical engineering, including their synthesis, integration with many elements, designs of electronic or optical devices, evaluation of various performances, and broad applications in industry, environmental control, materials analyses, and so forth. Part 5 of this special issue selects 13 excellent papers in four categories of sensors and materials fields:

(1) Bio/Chemical Sensors: "Automatic Electrocardiogram Sensing Classifier Based on Improved Backpropagation Neural Network" by Mao *et al.*

(2) Related Technologies: "Design of Bidirectional Security System for Intravenous Drip Infusion with Hybrid Communication" by Chen *et al.*, "Energy-saving Manufacturing Technology for Heating of Injection Stretching Blow Molding Machine" by Hsieh *et al.*, "Hijacking Unmanned Aerial Vehicle by Exploiting Civil GPS Vulnerabilities Using Software-defined Radio" by Zheng *et al.*, "Convolutional-neural-network-based Multilabel Text Classification for Automatic Discrimination of Legal Documents" by Qiu *et al.*, "Hybrid Method for Automatic Anomaly Detection in Heterogeneous Wireless Sensor Networks" by Yu *et al.*, "Application of Tsallis Cross-entropy in Image Thresholding Segmentation" by Lin *et al.*, "Combination of Self-organizing Map and k-means Methods of Clustering for Online Games Marketing" by Yu *et al.*, "Classification of Hepatocellular Carcinoma and Liver Abscess by Applying Neural Network to Ultrasound Images" by Xu *et al.*, and "Isolated Single-ended Primary-inductive Converter with a Soft-switching Cell for Implementing Features of Zero-voltage Switching and Zero-current Switching" by Tsai *et al.*

(3) Sensor Applications: "Smart Internet of Isolated Capacitor Trip Device for High-voltage Protective Relay of Backup Power" by Huang *et al.*, "Suppressing Interference from Noise in Sound Source Localization with Distributed Multisensor Array" by Zheng *et al.*, and "Optimized Routing Model of Sensor Nodes in Internet of Things Network" by Zhang *et al.*

The guest editors would like to thank the authors for their contributions to this special issue and all the reviewers for their constructive reviews. We are also grateful to Ms. Misako Sakano for her time and efforts on the publication of this special issue for *Sensors and Materials*.

Dr. Teen-Hang Meen
Distinguished Professor, Department of Electronic Engineering,
National Formosa University, Taiwan

Dr. Wenbing Zhao
Professor, Department of Electrical Engineering and Computer Science,
Cleveland State University, USA

Dr. Cheng-Fu Yang
Professor, Department of Chemical and Materials Engineering,
National University of Kaohsiung, Taiwan