Special Issue on Advanced Materials on Electronic and Mechanical Devices and Their Application on Sensors: Part 3

Preface

In recent years, applications of advanced materials for electronic and mechanical devices and optical sensors have been fast-developing fields. Owing to their flexibility and light weight, they have the potential to be deployed for daily use. The scope of this special issue, "Advanced Materials on Electronic and Mechanical Devices and their Application on Sensors", covers fundamental materials used in electronic, mechanical, and optical engineering, including their synthesis and integration with many elements; designs of electronic or optical devices; evaluation of various performances, and exploring their broad applications to industry, environmental control, and materials analysis. Part 3 of this special issue contains 13 excellent papers on five fields of sensors and materials:

(1) Physical/Mechanical Sensors: "Novel Method of Forecasting Performance of Full Vehicle Suspension by Decoupling Analysis and Vibration Sensing Experiments" presented by Wu *et al*., "Optimal System Parameters and Hybrid Ratio for Fuel Cell Hybrid Electric Vehicles" presented by Feng *et al*., and "Improvement of Thermal Performance of Electric Vehicle Battery Pack with Phase-Change Material" presented by Angani *et al*.

(2) Bio/Chemical Sensors: "Development of Evaluation System Using Photoplethysmography Sensors for Intradialytic Hypotension Monitoring" presented by Wu *et al*.

(3) Related Technologies: "Optimal Structure of Computer Numerical Control Grinding Machine Based on Finite Element Method Simulation and Sensor Technology" presented by Wang *et al*., "Hierarchical Modeling Control for Five-degree-of-freedom Vehicle Model with Four-wheel-independent-controllable Suspension" presented by Wu *et al*., "Sensor-based Optimal Attitude Reorientation Control Scheme Based on Computational Programming Approach" presented by Gao *et al*., and "Enhancement of Island Microgrid Operation by Frequency-sensor-based Controller of Battery Storage System" presented by Hsu *et al*.

(4) Sensor Applications: "Constructing Home Monitoring System with Node-RED" presented by Lu *et al*., "Sensing Analysis of Feature Extraction Types for Handwritten Character Recognition" presented by Gao *et al*., "Managing Smart Warehouse Using Fingerprint Recognition Technology" presented by Cheng *et al*., and "Construction of 3D Model of Tunnel Based on 3D Laser and Tilt Photography" presented by He *et al*.

(5) Materials: “Bending Mattress and Antibacterial Effect of TiO_2/nAg/Chitosan-nanoparticle-applied Intelligent Patient Bed” presented by Cheng *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 effort in enabling the publication of this special issue of *Sensors and Materials*.

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