Special Issue on Novel Sensors and Related Technologies on IoT Applications: Part 1-2

Preface

In recent years, applications of novel sensors and related technologies in electronic and mechanical devices have become rapidly developing fields. Manufacturing is the economic lifeline of a country and has been regarded as a labor-intensive industry. Therefore, to cut production costs, devices for the internet of things (IoT) have been widely developed. IoT is composed of most integrated end devices and facilities, such as intelligent sensors for internal control, industrial systems, mobile terminal systems, floor control systems, and home intelligent facilities. Smart devices and external control information are utilized with the hope of attracting companies that manufacture high-value-added products in the fields of aerospace, automotive, IT molds, textiles, optoelectronics, watches, medical devices, automation, energy, and semiconductor-related parts and components to drive the country's economy. Therefore, the key to maintaining a competitive advantage in domestic manufacturing in the future is still to rely on the development of novel manufacturing and precision machinery-related technologies. The scope of this Special Issue, "Novel Sensors and Related Technologies on IoT Applications" covers fundamental sensors and materials used in electronic, mechanical, and electrical engineering including their synthesis and integration with many elements, the design of electronic and optical devices, sensing technologies, evaluation of various performance characteristics, and exploration of their broad applications to industry, environmental control, materials analyses, and so forth. Part 1-2 of this special issue selects 7 excellent papers about three categories of sensors and materials fields:

(1) Physical Mechanical Sensors: "Impact of Improved Wire Tension Stability on Wire Electrical Discharge Machining Precision" presented by Wang and Liu.

(2) Materials: "Antibacterial Ability of Alloy Materials Used in Surface Coating Techniques with Ag Films" presented by Ye *et al*., "Utilization of Waste Platinum Catalyst to Form Ethylene and Propylene by Microwave Energy" presented by Lee *et al*., and "Analysis of Stator Material for Eliminating Cogging Torque" presented by Huang and Lin.

(3) Related Technologies: "Elimination of Motion Artifacts in Signal of Photoplethysmography Sensor" presented by Wang *et al*. and "Monitoring Panic Situations in Students and Alerting Using Artificial Intelligence" presented by Gowda *et al*.

(4) Sensor Applications: "An Energy-saving Fuzzy Control Fan Array with Bluetooth Received Signal Strength Indicator Sensing" presented by Chen *et al*.

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