

SPECIAL ISSUE ON ADVANCED MATERIALS AND SENSING TECHNOLOGIES ON IOT APPLICATIONS: PART 4-3

PREFACE



In recent years, applications of advanced materials and sensing 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, defense, 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 advanced manufacturing and precision machinery-related technologies. The scope of this Special Issue, "Advanced Materials and Sensing Technologies on IoT Applications", covers fundamental 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 4-3 of this

special issue selects eight excellent papers about three categories of sensors and materials fields: (1) Materials: "Actuator Membrane Comprising Natural Rubber Filled with Activated Carbon" presented by Jaaoh.

(2) Related Technologies: "IC Package Warpage Reduction Based on Fuzzy Adaptive Particle Swarm Optimization Algorithm and Neural Network" presented by Su *et al.*, "Design of Feeding System of Automatic Rod Packing Machine" presented by Lu *et al.*, "Design and Evaluation of Noncontact Elevator Control Mode and User Interface" presented by Liu *et al.*, "SF₆ Arc Extinction Sensor Design for Substation Mechanical Equipment in Smart Grid" presented by Huang *et al.*, "Reversible Information Hiding in Images based on Histogram Shift Method" presented by Wu *et al.*, and "Cyberattack Defense with Appropriate Address-changing Frequency in Industrial Control Systems" presented by Liu *et al.*

(3) Sensor Applications: “Development of Intelligent Drone Remote Control System Based on Internet of Things” presented by Chen *et al.*

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

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

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