SPECIAL ISSUE ON SENSING TECHNOLOGIES AND THEIR APPLICATIONS PART (II)

PREFACE

It is known that a sensor can be a device, a module, or a subsystem whose purpose is to detect an event or a change in its environment and send the information to other electronic components. Basically, different sensors have their own unique functions. Sensors can basically be divided into different types on the basis of their working principles, technologies, and applications. Different types of sensors have different sensing objectives, such as industrial signal sensing, communication signal sensing, and biomedical signal sensing. In recent years, sensors have been widely used in the fields of industry and biomedicine. Particularly in the application of Internet of Things (IoT), sensors have becoming necessary components. In a human's intelligent life, sensors will certainly become increasingly important and play an indispensable role.

This special issue entitled "Sensing Technologies and Their Applications Part (II)" contains three papers from South Korean and Japanese researchers. All papers are related to sensor design technologies and applications.

As the guest editor of this issue, I would like to express my sincere thanks to these authors and the reviewers for their great contributions. At the same time, I am also particularly looking forward to having more research papers that will be submitted to Part II of this special issue in the future.

Of course, I also would like to give my special thanks to the Editor-in-Chief Makoto Ishida and Ms. Misako Sakano for their kind help so that this issue can be published smoothly.

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Special Issue on High-sensitivity Sensors and Sensors for Difficult-to-measure Objects

Preface

High-sensitivity sensors are required in the fields of environment sensing for safety and biosensing for pathological diagnosis. In these fields, it is necessary to not only increase sensitivity but also improve the S/N ratio. Additionally, stability and durability are important to monitor low-opportunity and low-frequency events in the long term. Recently, various new materials, structures, MEMS, and sensor systems have been developed to enhance sensor devices.

This special issue focuses on methods for realizing high-sensitivity sensors and sensing difficult-to-measure objects with advanced technologies and novel ideas. Three papers are published in this special issue. The first paper describes a novel sensing method that determines the polyphenol content in teas using near-infrared spectroscopy. The second paper reports an imaginative sensor structure for monitoring soil water content to prognose slope failure. The third paper introduces a micro-current acquisition device that employs an amplifier circuit with a high SN ratio. I believe these papers will attract interest from readers.

Finally, I would like to thank all authors, reviewers, and editorial staff for their effort in producing this special issue despite the COVID-19 crisis.

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