# Special Issue on Software, Algorithms, and Applications Using Sensors and Networks (2)

## Preface

Recent advancements in computer and networking technologies have enabled the enhancement of the interpretation and utilization of sensor data in the trend towards greater proliferation of cyber physical systems (CPSs), machine-to-machine (M2M) systems, and the Internet of Things (IoT). Researchers in sensing technologies provide technological means to capture environmental, technical, physiological and other data. They provide the raw material from which applications and services will be built. Sensor data are the basis of the smart world and have opened a new field in computing.

Of all the emerging areas in computer and networking technologies, we witness the most significant development in machine learning techniques including deep neural networks. Machine learning further extends the possibility of utilizing the real-world data obtained by various kinds of sensors.

This special issue is a continuation of Vol. 32, No.1(1), 2020 and includes the research results of sensor-based computing and networking. However, this batch includes more papers on approaches based on human biological information.

Both the first and the second papers present image-based sensing methods for human navigation, but the first paper focuses on outdoor environments whereas the second paper concerns indoor localization. The third paper is also about indoor localization, but with the use of lighting devices instead of images. In the fourth paper, the use of IMU in skill enhancement is explored. The other papers deal with the use of human physiological information in several application areas. Overall, all the papers give insight into the sophisticated usage of sensors.

I hope this second batch helps the readers to discover new research directions in sensing technologies.

Yoshito Tobe
Professor, Aoyama Gakuin University
Japan