Special Issue on Sensor Technologies for IoT to Increase Well-being: Part 2

Preface

The world's social environment is changing greatly with globalization. It is time to consider a new concept focusing on the global environment in which a wide variety of people can live happily. The term well-being has become popular recently and it must be discussed from both sociological and technological viewpoints. It is necessary to obtain a broad and unified understanding of the concept behind this term. The concept of well-being is that humans can lead happy lives, recognizing and acknowledging human diversity including disability and gender. One of the essential tasks is to come up with a way of thinking that takes into consideration the reformation of human consciousness and to utilize the advantages of technology such as digital transformation (DX) and sensor technologies for IoT fields. The term well-being was first used in the World Health Organization (WHO) Charter (adopted in 1946, enforced in 1948).

Recently, it has often been used as a term that refers to a state of multifaceted and sustained happiness, and it must be approached on the basis of not only social sciences but also natural sciences. The study on happiness focuses on improving the prosperity of individuals, organizations, communities, and nations. It is essential to utilize the advantages of technology such as intelligent sensors utilized for DX and IoT systems. A sensor initially was a point of contact between people, but sensor functions are continually being advanced. Sensors and their systems are now providing ways to bring us closer to fulfilling the dream of all humans living happily.

It can be said that a major technological innovation will be the building of an environment consistent with well-being, where all people can live humanely by using information from multiple sensors and systems; for example, damaged human functions can be restored using sensory systems. A big technological step forward will be achieved when a clue towards attaining well-being can be obtained. In the field of artificial intelligence (AI), generative AI is also being used in a wide range of fields, although there are many restrictions. Scientists are expected to pursue their research activities with broader perspectives. In this issue, papers from diverse fields have been published, focusing not only on various sensors and materials that can be used for realizing well-being, but also on humans. The editors of this issue hope that readers will find clues to the development of technologies that will enable each person to lead a happy life based on their own judgment values.

The sixteen papers were published in this special issue, including seven papers of Volume 35 Number 7(1) 2023 (Part 1). The content of the issue ranges widely from papers on sensor elements to content that directly contributes to human society using AI. It is hoped that Parts 1 and 2 will further contribute to the building of a better society.

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