
FOREWORD

Special Section on Information and Communication Technology for Medical, Healthcare and Welfare Applications in Conjunction with Main Topics of ISMICT 2020

With the evolution of technologies and platforms such as sensing, mobile computing, and cloud servers, the Internet of Things (IoT) is recognized as a very important technology worldwide. In addition, the commercial service of the 5th generation mobile communication system (5G) is scheduled to start in Japan in 2020. The medical, healthcare and welfare fields are receiving great attention as a target for these applications. There is great expectation for innovation of medical, health and welfare care services such as telemedicine or telesurgery using 5G, and health monitoring using biomedical sensors equipped with wireless communication functions. To promptly bring those technologies to practical use, it is desirable to develop basic research such as biosensors, AI/data analysis, communication systems, security, infrastructure and so on as soon as possible. In response to those circumstances, the Technical Committee on Healthcare and Medical ICT (MICT) held the 14th International Symposium on Medical Information and Communication Technology (ISMIC 2020) in Nara in May 2020. For the 100-year life, ISMICT 2020 established a forum to present new research and development results, exchange ideas, discuss practices, and share experiences, among technology and medical sides.

In this Special Section, the editorial committee invited submissions of original articles related MICT and its role for safe and security society. We are proud to publish two invited papers out of two regular and two invited submissions through the full review process.

As the guest editor-in-chief, I would like to express my sincere appreciation to the authors for their contributions, and to the excellent reviewers and editorial committee members for their voluntary activities. We hope that this Special Section will be of great value to our readers who are interested in ICT for healthcare and medicine.

Special Section Editorial Committee Members

Guest Editor-in-chief: Hirokazu Tanaka (Hiroshima City Univ.)

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Hirokazu Tanaka, Guest Editor-in-Chief

Hirokazu Tanaka (*Fellow*) received his B.E. and ph.D. degrees in communications engineering from Osaka University, Suita and his second ph.D. degree in information sciences from Hokkaido University, Sapporo in 1989, 2001 and 2015, respectively. He joined Toshiba Corporation as a researcher in 1989. Since 2015, he has been a professor of Hiroshima City University. From 2007 to 2009, he was a visiting researcher of Hokkaido University and served as a visiting associate professor at Hokkaido University from 2007 to 2008. From 2013 to 2015, he was a visiting associate professor of Yokohama National University. Since 1997, Dr. Tanaka has been involved with international standardization activities in the field of mobile multimedia systems in ITU-T, 3GPP, 3GPP2 and Bluetooth. He actively contributed to defining technical specifications of video telephony systems, multimedia streaming systems, multimedia messaging systems, etc. for 3rd-generation wireless communication systems. Since 2013, he has been serving as the vice chair of TC Smart BAN in European Telecommunications Standards Institute (ETSI). Since 2015, Dr. Tanaka serves as the convener of WG 1 (User Focus) for International Electrotechnical Commission (IEC) Systems Committee Active Assisted Living (SyC. AAL) and the Technical Area Manager (TAM) of Technical Area 18 (Multimedia home systems and applications for end-user networks) for IEC TC100 (Audio, video and multimedia systems and equipment). He received the ITU-AJ Award from the ITU Association of Japan in 1999. His research interests include theory and applications of modulation, error control coding, access control and audio/video coding, with emphasis on applications to mobile multimedia communications, broadcasting and dependable wireless communications and body area network for IoT systems. Dr. Tanaka is a senior member of IEEE.

