FOREWORD

Special Section on Information and Communication Technology for Medical and Healthcare Applications in Conjunction with Main Topics of ISMICT2013

Recently information communication technologies for medical and healthcare applications have been recognized as an emerging area in an ageing society. In February 2012, the IEEE 802.15 task group (TG) 6 for body area networks (BAN) finalized a standard for various short range wireless applications in the vicinity of humans. The BAN commercial products are being developed and currently coming out to the market.

As an annual series of international conference, the 2013 International Symposium on Medical Information and Communication Technology (ISMICT2013) was successfully held in Tokyo, Japan during March 6-8, 2013, which aimed at providing an international forum for exchanging information on recent progress of research and development in information and communication technology in medical and healthcare applications. In conjunction with main topics of ISMICT2013, this special section was planned to publish papers on the related fields.

In response to the call for papers, 18 papers have been submitted. By unbiased peer-review process initiated by one of the guest associate editors, 7 papers are finally accepted for publication in this special section. One relates to the physical (PHY) layer technology of implant devices, 3 papers discuss media access control (MAC) protocol for BAN and sensor networks and 3 papers deal with medical and healthcare applications. Moreover, two invited papers are included, one describes a topic of interval training with ICT to support healthcare for elderly people, this paper is written by the keynote speaker of the ISMICT2013, and the other relates to the remote medicine in North Europe.

We are convinced that all the articles stimulate you to join the prospective research of the broad fields of Medical ICT. Finally, as editor-in-chief, I would like to thank all the contributing authors for their submissions and all the editorial committee members and reviewers for their tireless efforts to make this fruitful special section success.

Special Section Editorial Committee Members

Guest Editor: Minseok Kim (Tokyo Inst. Tech.)

Guest Associate Editors: Shinsuke Hara (Osaka City Univ.), Jianqing Wang (Nagoya Inst. Tech.), Hiroshi Kondo (Tottori Univ.), Keiki Takadama (Univ. Electro-Commun.), Masaharu Takahashi (Chiba Univ.), Ichirou Ida (Fujitsu), Koichi Ogawa (Univ. Toyama), Ilanko Balasingham (Norwegian Univ. Sci. Tech.), Matti Hamalainen (Univ. Oulu), Yongmei Sun (BUPT), Kamya Yekeh Yazdandoost (NICT), Tadashi Minowa (NICT)

Tetsushi Ikegami, Guest Editor-in-Chief

Tetsushi Ikegami (*Senior Member*) received B.E., M.E. and Dr. E. degrees all in electrical engineering from Meiji University, Kawasaki, Japan in 1980, 1982, 1995, respectively. From 1985 to 1997, he was with the Communications Research Laboratory, Ministry of Posts and Telecommunications. From 1991 to 1992 he was a visiting scholar at the University of Illinois at Urbana-Champaign. Since 1997 he has been with the School of Science and Technology, Meiji University, where he is now a Professor at Department of Electronics and Bioinformatics. From 2008 to 2009 he was a Visiting Professor at Stanford University. He was an associate editor of IEICE Transactions on Communications and was the chair of Spread Spectrum Technology (2001–2002) and Wideband Systems (2002–2003) Technical Groups, and is the chair of Medical ICT (2012–2013) Technical Group of IEICE. He also served as the Technical Program Chair of the IEEE Joint UWBST & IWUWBS 2004, ISITA/ISSSTA2010, ISCIT2010 conferences, and the General Co-Chair of ISMICT2013.