FOREWORD

Special Section on Medical Information Communication Technology for Disaster Recovery and Human Health Care Support

Information and communication technology (ICT) plays vital roles in our daily life, including mission critical systems controlling various infrastructures such as traffic, electricity, water, plants, banks, logistics, etc. We are now adding another mission critical system, i.e., medical system to these ICT-supported systems. Such changes are inevitable and we have to accept these by maximizing the advantage and minimizing the disadvantage.

One of the challenges to these ICT-supported systems is a system failure. Once, the system fails the whole society may be largely affected. Examples include the total cessation of air traffics. Another challenge may be a disaster. In this situation, part of the system may fail, the linked system may fail, and the communication between systems may fail. We have to be aware of the possible various disasters, the possible effects of each of the disasters, and the countermeasures against these. In addition, we have to prepare for the measures to rapidly recover from these.

In this Special Section, we gathered original articles related to disaster recovery and/or human health care support. Most of the submitted manuscripts were related to both. We had a total of 15 submissions, 11 for full papers, 4 for letters. These include 7 submissions from abroad. By the meticulous and unbiased peer-reviews initiated by one of the Guest Editors, we finally accepted 7 articles (5 full papers, 2 letters) to be published. This figure includes 2 invited papers. These invited papers also went through the full review process. These invited papers happen to deal with the similar but independent medical practices, fully supported by ICT for its functionalities, started after the Great East Japan Earthquake. These articles strongly claim the necessity of appropriate preparations for the recovery from disasters.

Even though the answer may not be readily obtained, we hope this Special Section would give readers a starting point to think about the ICT system preparing for the disasters.

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Masaru Sugimachi (Member)   received his M.D. and Ph.D. (biomedical engineering) from Kyushu University in 1984, 1992, respectively. From 1992, he moved to the Department of Cardiovascular Dynamics, National Cardiovascular Center, Osaka. Since 2004, he has chaired the Department. He was Vice Chairman of IEICE Technical Group on Medical ICT (2010–2011).