These multiple volumes (LNCS volumes 6016, 6017, 6018 and 6019) consist of the peer-reviewed papers from the 2010 International Conference on Computational Science and Its Applications (ICCSA2010) held in Fukuoka, Japan during March 23–26, 2010. ICCSA 2010 was a successful event in the International Conferences on Computational Science and Its Applications (ICCSA) conference series, previously held in Suwon, South Korea (2009), Perugia, Italy (2008), Kuala Lumpur, Malaysia (2007), Glasgow, UK (2006), Singapore (2005), Assisi, Italy (2004), Montreal, Canada (2003), and (as ICCS) Amsterdam, The Netherlands (2002) and San Francisco, USA (2001).

Computational science is a main pillar of most of the present research, industrial and commercial activities and plays a unique role in exploiting ICT innovative technologies. The ICCSA conference series has been providing a venue to researchers and industry practitioners to discuss new ideas, to share complex problems and their solutions, and to shape new trends in computational science.

ICCSA 2010 was celebrated at the host university, Kyushu Sangyo University, Fukuoka, Japan, as part of the university’s 50th anniversary. We would like to thank Kyushu Sangyo University for hosting ICCSA this year, and for including this international event in their celebrations. Also for the first time this year, ICCSA organized poster sessions that present on-going projects on various aspects of computational sciences.

Apart from the general track, ICCSA 2010 also included 30 special sessions and workshops in various areas of computational sciences, ranging from computational science technologies, to specific areas of computational sciences, such as computer graphics and virtual reality. We would like to show our appreciation to the workshops and special sessions Chairs and Co-chairs.

The success of the ICCSA conference series, in general, and ICCSA 2010, in particular, was due to the support of many people: authors, presenters, participants, keynote speakers, session Chairs, Organizing Committee members, student volunteers, Program Committee members, Steering Committee members, and people in other various roles. We would like to thank them all. We would also like to thank Springer for their continuous support in publishing ICCSA conference proceedings.

March 2010

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