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> *IFIP is the global non-profit federation of societies of ICT professionals that aims at achieving a worldwide professional and socially responsible development and application of information and communication technologies.*

IFIP is a non-profit-making organization, run almost solely by 2500 volunteers. It operates through a number of technical committees and working groups, which organize events and publications. IFIP's events range from large international open conferences to working conferences and local seminars.

The flagship event is the IFIP World Computer Congress, at which both invited and contributed papers are presented. Contributed papers are rigorously refereed and the rejection rate is high.

As with the Congress, participation in the open conferences is open to all and papers may be invited or submitted. Again, submitted papers are stringently refereed.

The working conferences are structured differently. They are usually run by a working group and attendance is generally smaller and occasionally by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is also rigorous and papers are subjected to extensive group discussion.

Publications arising from IFIP events vary. The papers presented at the IFIP World Computer Congress and at open conferences are published as conference proceedings, while the results of the working conferences are often published as collections of selected and edited papers.

IFIP distinguishes three types of institutional membership: Country Representative Members, Members at Large, and Associate Members. The type of organization that can apply for membership is a wide variety and includes national or international societies of individual computer scientists/ICT professionals, associations or federations of such societies, government institutions/government related organizations, national or international research institutes or consortia, universities, academies of sciences, companies, national or international associations or federations of companies.

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Preface

The 10th International Conference on Computer and Computing Technologies in Agriculture (CCTA 2016) was held in Dongying, China, during October 19–21, 2016.

The conference was hosted by the China Agricultural University (CAU), Information Technology Branch of China Animal Husbandry and Veterinary Association. It was sponsored by the Chinese Society of Agricultural Engineering (CSAE), the Kenli District Government, Da Bei Nong Group, Beijing Nong Xintong Technology Co. Ltd.

In order to promote the exchange and cooperation among scientists and professionals from different fields and to strengthen international academic exchange, the Information and Modern Agriculture Joint Conference includes the IFIP International Conference on Computer and Computing Technologies in Agriculture (10th CCTA) and the Academic Symposium of Information Technology Branch of China Animal Husbandry and Veterinary Association. These events provide a platform, for experts and scholars from all over the world to exchange techniques, ideas, and views on intelligent agricultural innovation. These experts and scholars from all over the world exchange the new theories, views, technologies, and products and share practical experiences in research and applications in intelligent agriculture innovation. Nine international CCTA have been held since 2007.

The topics of CCTA 2016 covered the theory and applications of all kinds of technology in agriculture, including intelligent sensing, cloud computing, key technologies of Internet of Things, precision agriculture, etc.; animal husbandry information technology, including Internet and modern animal husbandry, livestock big data platform and cloud computing applications, intelligent breeding equipment, precision production models, etc.; water product networking and big data, including fishery IoT, aquaculture intelligent facilities, big data applications, etc.

We selected the 54 best papers among the 128 papers submitted to CCTA 2016 for these proceedings. All papers underwent two reviews by experts from the Special Interest Group on Advanced Information Processing in Agriculture (AIPA), IFIP. In these proceedings, creative thoughts and inspirations can be discovered, discussed, and disseminated. It is always exciting to have experts, professionals, and scholars with creative contributions getting together to share inspiring ideas and to accomplish great developments in the field.

I would like to express my sincere thanks to all authors who submitted research papers to the conference. Finally, I would also like to express my gratitude to all speakers, session chairs, and attendees, both national and international, for their active participation and support of this conference.

October 2016 Daoliang Li

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