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IFIP – The International Federation for Information Processing

IFIP was founded in 1960 under the auspices of UNESCO, following the First World Computer Congress held in Paris the previous year. An umbrella organization for societies working in information processing, IFIP's aim is two-fold: to support information processing within its member countries and to encourage technology transfer to developing nations. As its mission statement clearly states,

> *IFIP's mission is to be the leading, truly international, apolitical organization which encourages and assists in the development, exploitation and application of information technology for the benefit of all people.*

IFIP is a non-profitmaking organization, run almost solely by 2500 volunteers. It operates through a number of technical committees, which organize events and publications. IFIP's events range from an international congress to local seminars, but the most important are:

- The IFIP World Computer Congress, held every second year;
- Open conferences;
- Working conferences.

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 small and by invitation only. Their purpose is to create an atmosphere conducive to innovation and development. Refereeing is less 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.

Any national society whose primary activity is in information may apply to become a full member of IFIP, although full membership is restricted to one society per country. Full members are entitled to vote at the annual General Assembly, National societies preferring a less committed involvement may apply for associate or corresponding membership. Associate members enjoy the same benefits as full members, but without voting rights. Corresponding members are not represented in IFIP bodies. Affiliated membership is open to non-national societies, and individual and honorary membership schemes are also offered.

Daoliang Li Yande Liu Yingyi Chen (Eds.)

Computer and Computing Technologies in Agriculture IV

4th IFIP TC 12 Conference, CCTA 2010
Nanchang, China, October 22-25, 2010
Selected Papers, Part III

Springer

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ISSN 1868-4238 e-ISSN 1868-422X
ISBN 978-3-642-18353-9 e-ISBN 978-3-642-18354-6
DOI 10.1007/978-3-642-18354-6
Springer Heidelberg Dordrecht London New York

Library of Congress Control Number: 2010942867

CR Subject Classification (1998): I.2.11, H.4, C.3, C.2, D.2, K.4.4

Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

Preface

I want to express my sincere thanks to all authors who submitted research papers to the 4th IFIP International Conference on Computer and Computing Technologies in Agriculture and the 4th Symposium on Development of Rural Information (CCTA 2010) that were held in Nanchang, China, 22–25 October 2010.

This conference was hosted by CICTA (EU-China Centre for Information & Communication Technologies, China Agricultural University); China Agricultural University; China Society of Agricultural Engineering, China; International Federation for Information Processing (TC12); Beijing Society for Information Technology in Agriculture, China. It was organized by East China Jiaotong University.

CICTA focuses on research and development of advanced and practical technologies applied in agriculture and aims at promoting international communication and cooperation.

Sustainable agriculture is currently the focus of the whole world, and the application of information technology in agriculture has become more and more important. 'Informatized agriculture' has been the goal of many countries recently in order to scientifically manage agriculture to achieve low costs and high income.

The topics of CCTA 2010 covered a wide range of interesting theories and applications of information technology in agriculture, including simulation models and decision-support systems for agricultural production, agricultural product quality testing, traceability and e-commerce technology, the application of information and communication technology in agriculture, and universal information service technology and service systems development in rural areas. We selected 352 best papers among those submitted to CCTA 2010 for these proceedings. It is always exciting to have experts, professionals and scholars getting together with creative contributions and sharing inspiring ideas which will hopefully lead to great developments in these technologies.

Finally, I would like also to express my sincere thanks to all the authors, speakers, session chairs and attendees for their active participation and support of this conference.

October 2010 Daoliang Li

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