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Introduction

Information technologies such as image processing, photonics, GIS, and so on are becoming more and more important for rural development. All commercial crop and animal production systems are potential users for intelligent Information technology products. Many intelligent information technology systems have been developed to help farmers, extension workers, and administrators. Intelligent information technology will provide powerful means for the transformation of agriculture. Many countries have established associations or research centers for information technology in agriculture. It is necessary for experts from developed and developing countries to exchange ideas.

Welcome to the PIAGENG 2009 conference, held 11–12 July 2009, in Zhangjiajie, China. The 2009 International Conference on Photonics and Image in Agriculture Engineering is cosponsored by the Intelligent Information Technology Application Research Association (IITA Association), IEEE SMC TC on Education Technology and Training (USA), the Wuhan Institute of Technology (China), and Asia Pacific Human-Computer Interaction Research Center of Hong Kong. PIAGENG 2009 has seven sessions: Image Processing in Agricultural Engineering; Photonics in Agricultural Engineering; GIS, GPS, RS in Agricultural Engineering; Wireless and Optical Communications in Agricultural Engineering; Agricultural Decision Support and Simulation Systems; Intelligent Monitoring and Control/ICT Applications in Rural Areas; Sensor Technology in Agricultural Engineering; and Other related information technology in Agricultural Engineering.

The purpose of PIAGENG 2009 is to bring together researchers and practitioners from academia, industry, and government to exchange their research ideas and results, and to discuss the state of the art in the areas of the conference.

We thank the SPIE staff for their enthusiastic support our conference, and for their editorial work on these proceedings. We would also like to thank the program chairs, organization staff, and the members of the program committees for their hard work.

We hope that PIAGENG 2009 will be successful and enjoyable to all participants. We look forward to seeing all of you next year at the PIAGENG 2010.

Honghua Tan