Editorial

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Biographical notes: Dr. Han-Chieh Chao is currently a Full Professor of the Department of Electrical Engineering, National Dong Hwa University, Hualien, Taiwan, ROC. He has also been temporarily transferred to the Department of Electronic Engineering, National Ilan University starting from 1st August 2005 for two years. His research interests include high speed networks, wireless networks and IPv6 based networks. He received his PhD degree in Electrical Engineering from Purdue University in 1993. Dr. Chao is also serving as the Deputy Director of the R&D division, NICI (National Information and Communication Initiative, a ministry level government agency which aims to integrate domestic IT and Telecom projects of Taiwan), the Executive Editor of the *Journal of Internet Technology* and the Editor-in-Chief for *International Journal of Internet Protocol Technology* and *International Journal of Ad Hoc and Ubiquitous Computing*. Dr. Chao is an IEEE Senior Member.

Dr. Yuh-Shyan Chen is an Associate Professor of Department of Computer Science and Information Engineering, National Chung Cheng University, Chiayi, Taiwan, ROC. He received his PhD degree in Computer Science and Information Engineering from the National Central University, Taiwan, ROC, in 1996. His research interests include wireless communication and mobile computing, mobile ad-hoc network, wireless sensor network, and mobile learning system. Dr. Chen served as Co-Editors-in-Chief of *International Journal of Ad Hoc and Ubiquitous Computing* and Associate Editor of *Telecommunication System Journal*. His paper receipts the Best Paper Award of *IEEE 15th International Conference on Information Networking* (ICOIN-15), Japan, 2001, and published papers in many major wireless communication and mobile computing conferences and journals. Dr. Chen was a recipient of the 2005 Young Scholar Research Award given by National Chung Cheng University, 2005.

The word 'ubiquitous' means 'God exists everywhere simultaneously' in Latin, and lately it has been used to describe the near-future society. Due to the rapid advancements made in information and communication technologies (ICT), the world is moving towards a ubiquitous society where people can access and operate their hand-held devices anywhere, anytime, and always be online. Most likely there will be several stages of the ubiquitous society's growth and deployment, as the pioneering work is taking place in the areas of wireless technology. A ubiquitous networking environment where information technology (IT) and the computer network are well integrated, using all kinds of ICT, is essential for moving towards a ubiquitous society. The key devices involved in building a ubiquitous networking environment are mobile phone, PDA, broadband, digital appliances, automobiles, etc. To pave the way for ubiquitous adoption, all kinds of researches have been dedicated to fulfill the ultimate goal – harmonisation with mobile and fixed and/or wireless broadband services so that multimedia over wired or wireless architecture can be accessed everywhere. These can be classified into devices (low power and novel devices), user interfaces (embedded), context (fusion, perception), systems (operating systems, middleware), communication (ad-hoc, wireless), protocol (routing, network mobility), privacy, security and trust. We expect that networks will penetrate deeply into society and people's lives. Making use of ICT will expand far beyond merely accessing Web and e-mail. As virtually everything in our social infrastructures and most electrical appliances become connected to the internet, a 'ubiquitous network industry' will provide services and products based upon our understanding of the latest technical trends such as IPv6, wireless and other ubiquitous-related technologies. Therefore booming business potentials in the forthcoming ubiquitous society are eagerly anticipated.

The mission of the *International Journal of Ad Hoc and Ubiquitous Computing* (*IJAHUC*) is to provide a forum for information technology educators, researchers, and practitioners to advance the practice and understanding of technologies, regarding either mobile ad hoc network, wireless sensor network, pervasive and ubiquitous

computing. It focuses on the innovative theories, empirical and theoretical research concerned with all aspects of ubiquitous technology. The JOURNAL aims to publish original, and review full-length, research manuscripts, technical reports, conference reports, book reviews, insightful research and practice notes, and news related to ubiquitous issues as well as emerging topics of interest to professionals and academicians. Special issues devoted to new and important topics in ad-hoc and ubiquitous technology are occasionally published. Best and excellent papers from international conferences are also published in this journal.

Finally, but not least, we would like to express our gratitude to Inderscience's staff for their high-quality professional assistance during the pre-publication process and to our editorial team and board members for their continuous support during the journal's planning phase. Our most sincere thanks go to all the authors who share their knowledge and research outcomes with the readers of this inaugural issue. Without them, this journal would not be available in time. Moreover, to our readers around the world, we wish that you can use this journal as your source of information and find it helpful in your research endeavours.