
Preface

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Biographical notes: Wai-Chi Fang is currently the TSMC Distinguished Chair Professor of National Chiao Tung University, Taiwan. He is also a senior engineer and manager of NASA's Jet Propulsion Laboratory (JPL), California Institute of Technology. He has been pursuing extensive research and technology work in areas that include VLSI/SoC circuits and systems, and multimedia signal processing & communication systems. He serves as an officer of IEEE Systems Council as the Vice President with an additional duty as the Chairman of Transnational and Liaison Committee.

Tai-Hoon Kim received his MSc and PhD in Electrics, Electronics & Computer Engineering from the Sungkyunkwan University, Korea. He got his second PhD in Computer Science from Bristol University, UK. He is currently a Professor at Hannam University. Currently he is a vice-chair of Science and Engineering Research Support soCiety (SERSC). His current research interest includes biometric authentication, pattern recognition, security and medical imaging. He has been a General Chair or Programme Committee chair for 20 plus international conferences.

Carlos Ramos graduated from the University of Porto, Portugal, in 1986 and obtained his PhD from the same university in 1993. He is Coordinator Professor of the Department of Informatics at the Institute of Engineering, Polytechnic of Porto. His main interests are artificial intelligence and decision support systems, recently with more emphasis on ambient intelligence. Currently he is a vice-president of ISEP/IPP in Portugal. He has about 50 publications in scientific journals and magazines and more than 200 publications in scientific conferences.

Sabah Mohammed is a full Professor of Computer Science at Lakehead University. He is interested in intelligent systems that have to operate in large, non-deterministic, cooperative, survivable, adaptive or partially known domains. During the last nine years, his research has been focused on developing ubiquitous healthcare systems that enable the secure sharing of knowledge and data, in particular sharing Electronic Health Record (EHRs) over the web. He has published more than 90 refereed articles, chapters in books and three textbooks.

Oswaldo Gervasi's research interests are focused on computational science, grid computing, cloud computing, virtual reality and web programming. He has published over 70 papers in international journals and books and edited more than 30 books. He has delivered more than 50 presentations to international conferences/workshops. He participated to two UE COST Actions, leading for each a Working Group. He is IEEE Senior member and ACM Senior Member. He is member of Web3D Consortium and Internet Society (ISOC).

Adrian Stoica is a Senior Research Scientist and Manager of Advanced Robotic Controls at NASA Jet Propulsion Laboratory (JPL), California Institute of Technology. He has 24 years of R&D experience and project leadership. He has been Principal Investigator in many multi-million dollar technology development and demonstration efforts funded by NASA, DARPA, USAF, OSD, etc. He has held Adjunct Professorship positions in Australia and UK, and has been a member of numerous review and advisory boards for US, UK, EU, etc.

We are very happy to publish this special issue of the *International Journal of Wireless and Mobile Computing*. It contains eight articles from various countries, including Tunisia, India, Malaysia, Japan and Canada. Achieving such a high quality of papers would have been impossible without the huge work that was undertaken by the Editorial Board members and External Reviewers. We take this opportunity to thank them for their great support and cooperation.

In the paper, 'Seamless handover for multicast mobile IPv6 traffic', the authors propose a new multicast scheme that provides a seamless multicast service during a handover in a Mobile IPv6 network. The proposed scheme achieved its goal by adding a new node, denoted the multicast buffering agent, whose role is to buffer the packets when the mobile node is performing the handover.

The authors of 'Source and destination mobility effects on a bridge environment: results from a MANET testbed' have analysed the performance of the Better Approach to Mobile Adhoc Networks (BATMAN) routing protocol in a bridge environment regarding throughput, delay, jitter and packet loss metrics. They have considered mobility and vertical communication and implement three scenarios of node movement.

In the paper 'How to select dynamically a QoS-driven composite web service by a multi-agent system using CBR method', the authors propose a new scalable approach taking into account the case bases' update, and also improving the CPU time compared with all the proposed frameworks. This time improvement was due to the agents' memorisation of the web service availability and QoS.

The paper 'Mobile telemedicine system application for teliagnosis using multimedia messaging service technology' proposes the design and implementation of mobile telemedicine system applications for teliagnosis using Multimedia Message Service (MMS) technology. The development process consisted of two components, namely client-side and server-side applications. The proposed techniques on the client and server sides ensured that the quality of data is preserved, which is critical for accomplishing the diagnosis process.

In 'Anti-collusive self-healing key distributions for wireless networks', the authors introduce three efficient anti-collusive self-healing key distribution schemes with t-revocation capability. The authors obtained reduced storage, communication and computation costs over the previous approaches, which made their designs scalable to very large groups in highly mobile, volatile and hostile wireless networks. These schemes were properly analysed in an appropriate security model and are proven to be computationally secure and achieve both forward and backward secrecy.

A mobile phone based solution to fulfil the HIPAA (Health Insurance Portability and Accountability Act) regulations is proposed in the paper 'Design of an efficient mobile health system for achieving HIPAA privacy-security regulations' for providing health services to patients residing in remote areas over mobile phones. The proposed mobile based e-health system can be constructed using various relevant security standards, tools and products which are easily available.

In the paper ‘Agent-based energy constrained channel allocation in mobile computing using GA’, an energy-efficient resources management algorithm to profile power consumption is proposed. Power consumption of the system is described with respect to certain workload. The proposed power management solution used mobile agent technology for energy-efficient channel allocation in cellular networks. To handle this, a meta-heuristics technique, genetic algorithm, was used as the problem was combinatorially complex.

In ‘Security requirements engineering for specifying security requirements of an e-voting system as a legitimate solution to e-governance’, the authors consider the security requirements as functional requirements and security requirements engineering process in the early phases of e-voting system development as a legitimate solution for e-governance. As the result of adopting a model-oriented security requirements engineering framework, the security requirements specification was complete and correct.