
Editorial

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Biographical notes: Per Hilletoft (PhD) is a Professor of Operations and Supply Chain Management at Jönköping University in Sweden. He holds a PhD in Technology Management and Economics (with specialisation in Logistics and Transportation Management) from Chalmers University of Technology (Sweden). His research focuses on operations and supply chain management with an emphasis on strategy, sourcing, demand and supply planning, information systems, and sustainability. He has published papers in various international journals including *Industrial Management and Data Systems*, *Expert Systems with Applications*, *International Journal of Shipping and Transport Management*, and *European Business Review*. He is currently in the Editorial Board for *Industrial Management and Data Systems*, *World Review of Intermodal Transportation Research*, *International Journal of Logistics Economics and Globalization*, and *International Journal of Management in Education*.

Vittorio Rampa is a Senior Researcher at the Institute of Electronics, Computer and Telecommunication Engineering (IEIIT) of the National Research Council of Italy (CNR). He graduated in Electronic Engineering (with honours) at the Politecnico di Milano, Italy, in 1984. From 1999 to 2015 he has been Adjunct Professor at the Politecnico di Milano where he taught courses on software radio and radio localisation systems. His main research interests are focused on signal processing algorithms and architectures for wireless communications, virtual instrumentation techniques for test and verification of wireless systems, radio vision algorithms and architectures for wireless sensor networks. He has published more than 60 peer-reviewed papers and books. He is a Member of IEEE.

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Nowadays, mobile computing has been broadly deployed around the world to support mobile services and applications. However, emerging technologies such as advanced communication systems and networks, energy efficiency, fault tolerance, schedule, and load balancing are still open issues for pervasive adoption of the mobile computing paradigm. In addition, agent based systems, human computer interaction, multimedia communications, and mobile cloud computing are important research areas able to play a key role for efficient design and testing of mobile computing applications. This special issue aims at receiving significant contributions about innovative ideas, emerging technologies, methods and solutions for mobile computing systems and applications.

In this special issue, six papers had been accepted with about 14% acceptance rate. These papers focus on several important and interesting topics, i.e., geographical routing protocol to mitigate malicious nodes, cleaning RFID data streams, efficient energy routing, CDMA-MAC based cross-layering technique, and cost-effective proxy-LMA mobility management issues. Geographical routing protocol to mitigate malicious nodes is a challenging issue because of mobile ad hoc network (MANET) consists of assorted mobile devices in a network without centralised administration. They are highly susceptible to attacks both internally and externally, because of the cooperative nature of the network. Sudhakar and Chenthur Pandian presented a method to address the performance degradation of geographical routing protocol (GRP) that is caused by the malicious nodes. Three stages were included proposed method, including

- creates clusters
- malicious nodes are identified using modified hello message
- secure keys are used to mitigate the effect of the maliciousness.

They observed the results that the delay for the proposed clustered GRP was less than the GRP. Cluster heads

distribute public keys whose size is determined using fuzzy logic in the final stage.

The radio frequency identification (RFID) technology has been widely used in many types of applications, but false negative and false positive reads leading to the location uncertainty of RFID tags. So a method of cleaning RFID data streams based on Naive Bayes classifier is proposed by Lin et al. The method included three phases, which are preparation phase, training classifier phase and application phase, to obtain lower percentage of false negative reads and the higher percentage of false positive reads with the increase of the size of sliding window.

Cross-layered technique is getting more popularity, and static centralised code assignment for CDMA networks appears lesser efficient over dynamic and/or distributed ones. Malwe and Biswas had proposed a cross-layered design for establishing source-destination routing along with route-based code assignment for CDMA MAC simultaneously. Since routing in wireless networks is dynamic and route based code assignment is proposed, it resulted in a distributed dynamic code assignment for efficient deployment of the said cross-layer implementation. The pairwise code assignment (PCA) scheme for the assignment of codes is followed, where three different approaches such as route-based, source-based and source-destination based PCA are proposed. However, an assumption of periodic mobility of nodes, topology formation, routing, and code assignment (including data transmission through a cycle as a new wireless communication model) is considered for its efficient implementation. They had found that better performance in terms of code-requirement and -confliction is achieved.

Distributed message exchange had been studied for many years. The mobile social network can be addressed by Gossip algorithms to spread information among devices. Yang et al. had analysed two typical application scenarios to illustrate that the mobility has significant effect on the spread time. They enhanced the precise bound based on a serial of simulations.

A leakage resilient cryptograph occurs due to the side channel attacks. A mobile device has supported near field communication (NFC) for payments, but it might be attacked by someone who places a small coil of wire near the NFC reader. Wang had addressed the problem via designing ID-based encryption scheme and chosen-ciphertext attacks (CCA). The main idea of the proposed method is to increase the size of secret key to flexibly tolerate leakage bounds.

The last accepted paper considered that few studies on guaranteeing global mobility to solve interlocking with a heterogeneous network caused by mobile users (MUs) who navigate on next-generation (NG) wireless networks want

to be provided with uninterrupted network services. Hence, Cho et al. proposed a proxy-local mobility anchor (Proxy-LMA) system to expand the boundary of mobility with respect to the existing mobility management protocols (PMIPv6 and MIPv6) within a heterogeneous network environment.

Finally, we would like to express our sincere appreciation to all the authors and reviewers for their effort and time to ensure high-quality papers. We would also like to thank the Editor-in-Chief Dr. Yuh-Shyan Chen and Online Submissions Manager Denise Rose. Without their help, this special issue would not be possible.