Foreword by Guest Editors for the Selected Papers from 2014 ICUFN (International Conference on Ubiquitous and Future Networks)

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Welcome to the special issue of Wireless Personal Communications. This special issue constitutes a selection of best papers from 2014 ICUFN (International Conference on Ubiquitous and Future Networks). All the papers have been remarkably extended by the authors and formally reviewed by at least three independent reviewers. ICUFN is an annual international conference which is co-sponsored by the IEEE Communications Society and organized by the KICS (Korean Institute of Communications and Information Sciences).

The first paper entitled “ID-Based Communication Framework in Future Networks” presents a generalized ID-based communication framework and then show how the recently proposed ID/locator split based networking and information-centric networking architectures fit into the framework. The second paper entitled “Continuous Reference Broadcast Synchronization with Packet Loss Tolerance” proposes a packet loss tolerance

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and continuous synchronization mechanism for RBS. The third paper entitled “Dynamic Inter-RAT Handover Decision for Offloading Heavy Traffic in Heterogeneous Networks” aims to minimize access failure and handover signaling, while prioritizing UEs with high QoS level for differentiated cell selection.

The fourth paper entitled “Resolving Web Services Mismatch in Mashup” propose a structure-based data mediation approach to improve accuracy of Web Service Mismatch. The fifth paper entitled “On the Necessity of VM Migration: Simulation on Datacenter Network Resources” carries out a series of simulations to show that VMM of some cases may not be necessary with enhanced network capacity. The sixth paper entitled “Neural Network-Based Indoor Positioning Using Virtual Projective Invariants” proposes a neural network-based novel positioning technique, exploiting the projective invariant properties of a line that is virtually constructed with the help of ISC.

The seventh paper entitled “BTSDN: BP-based Transition for the Existing Networks to SDN” takes the instance OpenFlow for example and proposes a simple and practical BP (Border Gateway Protocol) based transition solution. The eighth paper entitled “An Energy Efficient Vehicle to Pedestrian Communication Method for Safety Applications” proposes energy efficient methods to enable the V2P communication based on Wi-Fi Direct technique. The ninth paper entitled “Channel Estimation and Data Detection for Multicell Massive MIMO Systems in Correlated Channels” considers multi-cell multi-user MIMO systems with very large number of antennas at base station.

The tenth paper entitled “Design and Implementation of Path Failure Detection and Recovery Mechanism for Multihomed HIMALIS Network” natively supports session transfer from one link to another without dependency of the network protocols. The eleventh paper entitled “Hybrid Passive-Active Optical Wireless Transmission for Health Monitoring System” attains the required SNR for personal health monitoring system by adopting a hybrid optical wireless transmission scheme. The twelfth eleventh paper entitled “Traffic-aware Cooperative Binary Exponential Backoff Algorithm for Low power and Lossy Networks” focuses on the BEB issues for LLNs and targets on RPL, which is one of the most popular cooperative routing protocols in LLNs.

The thirteenth paper entitled “Dynamic sleep control using location based clustering scheme in mobile sensor networks” proposes a new sleep control using location based clustering scheme in mobile sensor networks. The fourteenth paper entitled “On Demand Priority Packet Forwarding for TCP Performance Enhancement in Cognitive Mobile IP Networks” proposed a mechanism to reduce the packet drops due to spectrum mobility, node mobility and network congestion. The final one entitled “An efficient TDMA MAC protocol for multi-hop WiFi-based long distance networks” enhances network performance by utilizing the available bandwidth through maximization of TDMA slots overlapping.

We would like to thank the Editor-in-chief (Professor Ramjee Prasad) and Springer’s senior editorial assistant (Gabriella Anderson) for their support and help in realizing this special issue. We also would like to say special thanks to all the authors for promptly revising their papers according to the requirements of the viewers. Special thanks are extended to the organizers of the ICUFN conference, especially to the Organizing Co-Chair (Professor Yeong Min Jang) and TPC Co-Chair (Professor Ki-Hyung Kim) for gathering high quality papers for this special issue. I hope you will enjoy reading this special issue.

Seung Hyong Rhee received the B.S. and M.S. degrees from Yonsei University, Seoul, Korea, in 1988 and 1990, respectively, and the Ph.D. degree from the Electrical & Computer Engineering Department of the University of Texas at Austin, Texas, USA, in 1999. From 1990 to 1995, he was with Agency for Defense Development, Korea, working on defense communication networks. In 2000 he joined the Department of Electronics Convergence Engineering at Kwangwoon University, Seoul, Korea. His research interests include optimal and decentralized flow control in high-performance networks, security architecture and protocols, and QoS/Cos support and traffic control in the wired and wireless Internet. Dr. Rhee has contributed to standardization in organizations such as IEEE and IETF. He is Vice President of Open Standards and Internet Association and Executive Director of Korea Information and Communications Society. Also he has consulted for many companies including ETRI and Samsung Electronics, and served as Technical Program Committee Chair of

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