
Editorial

V. Suma*

Research and Industry Incubation Center,
Department of Information Science and Engineering,
Dayananda Sagar College of Engineering,
Shavige Malleshwara Hills,
Kumaraswamy Layout,
Bangalore, 5600078, India
Email: vsumadsce@gmail.com
*Corresponding author

Zubair Baig

School of Science,
Edith Cowan University,
270 Joondalup Drive,
Joondalup WA 6027, Australia
Email: z.baig@ecu.edu.au

Biographical notes: V. Suma has obtained her BE in Information Science and Technology, MS in Software Systems and PhD in Computer Science and Engineering. She has a vast experience of more than 17 years of teaching. She has published more than 183 international publications which include her research articles published in world class international journals such as ACM, ASQ, Crosstalk, IET Software, international journals from Inderscience Publishers, from journals released in MIT, Darmout, USA, etc. Her research results are published in NASA, UNI Trier, Microsoft, CERN, IEEE, ACM portals, Springer and so on.

Zubair Baig is within the School of Science and member of the ECU Security Research Institute. He completed his Doctor of Philosophy from the Monash University, 2008. He received many research grants which includes Academic Centre of Cyber Security Excellence, Department of Education and Training, Academic Centres of Cyber Security Excellence, 2017–2021, Investigation of Social Media for Radicalisation and Terrorism in the Maldives, Edith Cowan University, School of Science Collaborative Research Grant Scheme, Authentication and Authorisation for Entrusted Unions (AU2EU) and European Commission, Grant – Seventh Framework Program (FP7).

A good network architecture to have visualisation, automation, analytics and cloud service management that is well designed to help businesses innovate more quickly, reduce cost and complexity and lower risk. Future telecommunication networks need a radical restructuring and a sustainable approach to accommodate a wide range of operating and business models. To cope up the ever growing amount of future mobile data traffic, decentralisation of the network architecture would be a sustainable approach, to achieve higher performance and improves the latency and cost of data packet delivery.

The main focus of this issue examine the possible sustainable network architectural solutions that offer potential economic viability, substantial reductions in resource usage, and the ability to adapt new technologies without affecting physical layer infrastructure.

This special issue aims to address the various scopes on sustainable network architectures and the papers contributed high quality theoretical and practical works. In the paper 'Incorporating privacy and security in military application based on opportunistic sensor network' proposes secure route selection and three different encryption algorithms and shows improvements in security, energy consumption, throughput, packet overhead and network reliability. The paper 'Efficient storage management framework for software defined cloud' presents a framework to develop data management interface using redundancy technique replication and erasure coding concepts which aims to reduce cost and increase efficiency for storage management in the cloud. In the paper 'A conceptual comparison of NSGA-II, OMOPSO and AbYss algorithms' a comparative study made to determine the performance of multi-objective metaheuristic and analysed with three performance metrics namely hypervolume, GD and IGD. The paper titled 'MDI-SS: matched filter detection with inverse covariance matrix-based spectrum sensing in cognitive radio' made an attempt to improve probability of detection (PD) by matrix-based spectrum sensing (MDI-SS) and compare with the existing matched filter detection (MFD) algorithm and the results are observed by implementing on MATLAB software. 'Prevention of a SYNflood attack using ExtremeXOS modular operating system' presents a scheme for preventing SYNflood based on statistical parameters of incoming traffic using the hard threshold method which is implemented by using ExtremeXOS software. The paper 'Research on naïve Bayesian and hidden Markov model on Hadoop in cluster computing applications' utilises the model on naïve Bayesian along with Hadoop data processing methodology in cluster computing environment to improve efficiency and reduced computation time.

The guest editors would like to express their deep gratitude to all the authors who have submitted their valuable contributions, and to the numerous and highly qualified anonymous reviewers. We think that the selected contributions, which represent the current state of the art in the field, will be of great interest to the sustainable network architectures. In addition, we would like to thank the publication staff members for their continuous support and dedication. We particularly appreciate the relentless support and encouragement granted to us by Dr. Jong-Hyouk Lee, the Editor-in-Chief of *International Journal of Internet Technology and Secured Transactions*.