
Editorial

Mehrnaz Moudi*

Department of Computer Engineering,
University of Torbat Heydarieh,
Razavi Khorasan Province, Iran
Email: mehrnazmoudi@gmail.com

*Corresponding author

Nasim Ferdosian

School of Electronic Engineering,
Dublin City University (DCU),
Glasnevin, Dublin 9, Ireland
Email: nasim.ferdosian@dcu.ie

Biographical notes: Mehrnaz Moudi is currently an Assistant Professor at the Department of Computer Engineering, University of Torbat Heydarieh, Iran. She graduated in Computer Engineering in Iran in 2009. In 2017, she completed her PhD research in Computer Networks at the Department of Communication Technology and Network, University Putra Malaysia. She has published her research works in high impact factor scientific journals and conferences. Her research interests include embedded systems to high performance supercomputing, parallel and distributed systems, interconnection networks, and architectural characteristics.

Nasim Ferdosian received her PhD in Computer Science from the University Putra Malaysia in 2017. She is currently a Postdoctoral Researcher with the School of Electronic Engineering, Dublin City University, and Associate Researcher with NEWTON EU H2020 Project. She is an IEEE member and has authored a number of articles in high impact factor scientific journals and conferences. Her current research interests are mainly focused on the wireless networks optimisation, radio resource management, machine-type communications and UAV communication networks.

1 Introduction

A view of internet of things (IoT) is a network of items embedded with sensors that are connected to the internet. It is a networked connection of objects including computers, smartphones, sensors, humans, etc. The applications areas of the IoT for sharing and communicating information on the internet are including but not limited to smart technologies, industrial automation, mobile communication networks (3G/4G/LTE/5G), high performance computing (HPC), cloud computing, green communication and applications, wearable healthcare systems and environmental monitoring and control.

In particular, the special issue aims at providing high-quality and unpublished research papers in all the facets and challenges of IoT services and HPC technologies. We deeply thank Professor Jong-Hyouk Lee, the Editor-in-Chief, for providing the opportunity to publish this special issue. We thank all the international reviewers for their professional services as well.

2 Articles

Our final selection of papers for this special issue focuses on the technical papers covered by the review, giving the reader an opportunity to capture the state of current studies. They provide the existing research in what is undoubtedly an extremely latest finding.

This issue begins with an article proposing a cost-effective approach in multistage interconnection networks to improve the reliability. The next three articles provide prediction-based strategy for target tracking, energy-efficient adaptive distributed data collection method and fuzzy-based dynamic packet priority determination and queue management method in different sensor networks. We continue discussing based on IoT system in our next two articles, which proposed an improved WSN routing protocol for data gathering and voice over IP on Windows. The issue continues with introducing a distributed algorithm to fight the state explosion problem. Finally, this issue concludes with a review article on testing cloud security.