

Guest Editorial

Special Issue on Selected papers from IoTaas 2017

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The era of smart homes and cities through the Internet of Things (IoT) has arrived, but it has been challenging to make the IoT with intelligence to achieve various IoT applications. A key question is how we make the most of IoT for all stakeholders, including platform providers, IoT application developers, end-users, large and small organizations (such as city councils, enterprises) that wish to provide better services, and manufacturers of smart devices. Hence, there is a strong demand to reflect the advanced technologies in different areas in IoT and significant research challenges in the realization of the IoT.

The goal of this special issue is to publish both state-of-the-art and predictive papers on recent advances in “IoT as a Service” selected from the 3rd EAI International Conference on IoT as a Service (IoTaas 2017), which was held in Taichung (Taiwan) during September 20-22, 2017. After the event an open call was published to encourage the contributions presented at IoTaas 2017 to be extended and submitted to this special issue. After a rigorous review process, five high quality papers were selected for publication, which are briefly reviewed in the following.

In the paper entitled “Lightweight, Low-Rate Denial-of-Service Attack Prevention and Control Program for IoT Devices” authored by Chi-Che Wu et al. examines the feasibility of using a lightweight, low-rate DoS attack prevention and control program in IoT devices with low computing power to enable these devices to prevent and control DoS attacks. The treatise “An Improved Single Packet Traceback Scheme for IoT Devices” by Jia-Ning Luo et al. proposes a single packet traceback method that allows the source of an attack to be accurately determined with zero router storage load. The contribution entitled as “Group based Multi-beams Subchannel Assignment for mmWave Internet of Things Networks”, authored by Zhongjiang Yan et al. studies the resource allocation problem for a multi-beams communication system and proposes a group based multi-beams subchannel assignment algorithm based on orthogonal frequency division multiple access (OFDMA). The contribution entitled as “Development of Path Planning Approach Using Improved A-star Algorithm in AGV System”, authored by Yan Zhang et al. proposes an improved A-star algorithm to optimize the motion path including the reduction of path length, number of AGV

turns and path planning time, for Automated guided vehicles (AGV). Finally, the special issue concludes with an article entitled “A Fuel-Efficient Route Plan Method Based on Game Theory”, authored by Chi-Lun Lo et al. In this article, the authors propose fuel-efficient route plan application to improved fuel-saving for logistics industries.

Acknowledgement

As the Guest Editors of this special issue, we would like to thank all authors who have submitted papers to the special issue and in particular those whose papers have been accepted for this special issue after a rigorous peer-review. Assistance from the editorial staff of “Journal of Internet Technology” is also much appreciated. Furthermore, the Guest Editors wish to acknowledge the kind assistance of all those valued Colleagues, who have generously dedicated their time to the review of papers submitted for potential inclusion in this special issue. Finally, our special thanks go to Prof. Han-Chieh Chao (editor-in-chief) for his valuable support throughout the preparation of this special issue.

Guest Editors



Der-Jiunn Deng (M’10) received the Ph.D. degree in electrical engineering from the National Taiwan University in 2005. He joined the National Changhua University of Education as an Assistant Professor in the Department of Computer Science and Information Engineering in August 2005 and then became a Distinguished Professor in August 2016. In July 2018, he was seconded to Overseas Chinese University as the Dean of research and development for a period of two years. Dr. Deng has received a number of research awards, such as the Research Excellency Award of National Changhua University of Education, the Outstanding Faculty Research Award of National Changhua University of Education, the ICS 2014 Best Paper award, the NCS 2017 Best Paper Award, and the Chinacom 2017 Best Paper Award. Dr. Deng is the Co-Editor-in-Chief of EAI Endorsed

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