

## Guest Editorial: Special Issue on “Intelligent Methods for Internet of Things”

Hsin-Te Wu, Hsin-Hung Cho, Chun-Wei Tsai\*, Ming-Chao Chiang

Several successful applications have witnessed the unlimited possibilities of artificial intelligence (AI) in recent years. Although most companies are still at the development stage of applying AI technologies to their products, most people know that no one can resist the tendency toward AI technologies. Another promising research topic is the internet of things (IoT). Since the basic idea of IoT is to connect all the things to internet so that all the electronic equipments and appliances can then be controlled by a smart information system. It is also not hard to imagine that modern information systems make it possible for all the equipments and appliances to provide us all the services we need. AI and IoT play the role of providing us applications that we need and are useful today. These two technologies are also referred to as the artificial intelligence of things (AIoT) where AI and IoT can be regarded as the software and hardware parts of such new information systems. This explains why the integration of these two technologies should be discussed, analyzed, and modeled to provide better services to us. As we know, several smart and/or intelligent methods, analytical systems, as well as security and privacy technologies have attracted the attention of researchers from a variety of disciplines. How to develop an efficient or effective method or hardware has become a promising research direction in recent years. The focus of this special issue is on all the latest technologies related to AI, IoT, and relevant technologies for the systems of IoT or AIoT. With the great support from JIT, we finally accepted 5 articles out of 16 submissions. The research focus of the articles in this Special Section can be divided into three categories: (1) image processing, (2) wireless communication, and (3) network security that echo the development of AI today and explain that how to apply AI technologies to real-world applications is a promising research topic -today. Finally, we would like to thank Professor Han-Chieh Chao, the Editor-in-Chief of Journal of Internet Technology, and Assistant, Ms. Sharon Chang, for their great support. We would also like to thank the anonymous reviewers for their valuable comments and all the authors for submitting their valuable articles to make this special issue possible and successful.

### Guest Editors



#### Hsin-Te Wu (Lead Guest Editor)

Department of Computer Science and Information Engineering, National Ilan University, Taiwan  
E-mail: hsinte@niu.edu.tw

Dr. Hsin-Te Wu received the PhD Degree in Department of Computer Science and Engineering from National Sun Yat-Sen University, Taiwan, in 2013. Hsin-Te Wu is an Assistant Professor of Department of Computer Science and Information Engineering from National Ilan University, Taiwan. He has served as Associate Editor for International Journal of Big Data and Analytics in Healthcare. He has served as Special Issue Guest Editor of Journal of Supercomputing and IET Networks. His research interests include computer networks, wireless network, speech compression, network security, blockchain and Internet of things.



#### Hsin-Hung Cho

Department of Computer Science and Information Engineering, National Ilan University, Taiwan  
E-mail: hhcho@niu.edu.tw

Dr. Hsin-Hung Cho received the B.S. degree from the Department of Applied Mathematics at Hsuan Chuang University, Taiwan, R.O.C. in 2010, the M.S. degree from the Institute of Computer Science and Information Engineering at National I-Lan University in 2011, and the Ph.D. degree from the Department of Computer Science and Information Engineering at National Central University. Dr. Cho joined the Department of Computer Science and Information Engineering at National I-Lan University as an Associate Professor since 2021. He has authored or co-authored 1 book and has published about 50 refereed professional research papers in IEEE Network, IEEE Wireless Communications, IEEE Internet of Things Journal, IEEE Sensors Journal, IEEE Systems Journal, IEEE Access, IEEE Consumer Electronics Magazine, and so on. He has been awarded the IET Premium Awards in 2016. He is serving as Associate Editors for the Journal of Internet Technology (JIT), Human-centric Computing and Information Sciences (HCIS), IET Networks (IET Net), Wireless Communications and Mobile Computing (WCMC) Journal of Computers (JoC) and Managing Editor of Communications of the CCISA (CCCISA).

\*Corresponding Author: Chun-Wei Tsai; E-mail: cwtsai@mail.cse.nsysu.edu.tw



**Chun-Wei Tsai**

Department of Computer Science and Engineering, National Sun Yat-sen University, Taiwan  
E-mail: cwtsai@mail.cse.nsysu.edu.tw

Dr. Chun-Wei Tsai received the Ph.D. degree in Computer Science and Engineering from National Sun Yat Sen University, Kaohsiung, Taiwan, in 2009. He was a postdoctoral fellow with the Department of Electrical Engineering, National Cheng Kung University, Tainan, Taiwan before joining the faculty of the Applied Geoinformatics and the Information Technology, Chia Nan University of Pharmacy & Science, Tainan, Taiwan in 2010 and 2012, respectively. He joined the faculty of the Department of Computer Science and Information Engineering, National Ilan University, Yilan, Taiwan, in 2014, the Department of Computer Science and Engineering, National Chung-Hsing University, Taichung, Taiwan, in 2017, and then the Department of Computer Science and Engineering, National Sun Yatsen University, Kaohsiung, Taiwan, in 2019, where he is currently an Assistant Professor.



**Ming-Chao Chiang**

Department of Computer Science and Engineering, National Sun Yat-sen University, Taiwan  
E-mail: mcchiang@mail.cse.nsysu.edu.tw

Dr. Ming-Chao Chiang received the B.S. degree in Management Science from National Chiao Tung University, Hsinchu, Taiwan, R.O.C. in 1978 and the M.S., M.Phil., and Ph.D. degrees in Computer Science from Columbia University, New York, NY, USA in 1991, 1998, and 1998, respectively. He has over 12 years of experience in the software industry encompassing a wide variety of roles and responsibilities in both large and start-up companies in Taiwan and USA before joining the faculty of the Department of Computer Science and Engineering, National Sun Yat-sen University, Kaohsiung, Taiwan, R.O.C. in 2003, where he is currently a Professor. His research interests include image processing, evolutionary computation, and system software.