Guest Editorial
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International Computer Symposium (ICS) is biennial symposium for computer science and engineering in Taiwan. It is also one of the prestigious national Information and Communication Technology (ICT) symposiums held in Taiwan providing a great opportunity to share research experiences and to discuss potential new trends in the ICT industry. The purpose of ICS is to provide a forum for researchers, educators, and professionals to exchange their discoveries and practices, and to explore future trends and applications in computer technologies. We invite some outstanding accepted papers in their extended versions and open for other submissions to this special issue. Each paper submitted to this special issue was rigorously reviewed by at least two reviewers in the corresponding research areas. Finally, we have five papers for this special issue. A summary of these papers is outlined below.

In the paper entitled "*An Improved ICP with Heuristic Initial Pose for Point Cloud Alignment*" by Chien-Chou Lin, Chia-Chen Lin, and Chuan-Yu Chang, they presented a novel approach to find an initial transformation for Iterative Closest Point (ICP) algorithm to improve its performance. The proposed method uses 2D features of bearing angle images to find the corresponding point pairs which speeds up the registration significantly. The result not only greatly decreases the Root Mean Square Error of initial poses but also reduces 75% of the iteration times of ICP to a stable state.

In the paper entitled "*On Phalanx Graph Search Number*" by Ondřej Navrátil, Sanpawat Kantabutra, and Sheng-Lung Peng, they introduced a new graph searching problem, called Phalanx Graph Searching Problem. They proved the NP-hardness of this new problem on general graphs and proposed a linear-time algorithm for the class of trees. An extension to the Minimum Phalanx Graph Search Spanning Tree Problem is also introduced.

In the paper entitled "*Exact and Heuristic Algorithms for Some Spatial-aware Interest Group Query Problems*" by Chih-Yang Huang, Po-Chuan Chien, and Yen Hung Chen, the authors studied the spatial-aware interest group query problem (SIGQP) and minimum user spatial-aware interest group query problem (MUSIGQP). Both problems are in finding a group of users such that the keywords that they are interested can cover the whole keyword set in different criteria. This paper designs a branch & bound method and a measure & conquer method algorithms to solve SIGQP and MUSIGQP respectively.

In the paper entitled "*A Combined Time Series Model for the Prediction of Social Network Popularity and Content Evolution*" by Zhiyuan Zhang and Zemin Bao, they attempted to establish a combined predicting model that integrates the predicting capabilities of multiple traditional time series models. The evaluation results of real social network datasets show that the performance of the proposed model is better than that of the existing single models.

The paper entitled "*People Movement Linkage Based on Path Revision Across Multiple Cameras*" by I-Cheng Chang, Chieh-Yu Liu, Chung-Lin Huang, and Kunal Kabi, they presented a novel object-based video recording system, which can track and record the behavior of each moving object under multiple distributed cameras with non-overlapping views. Experimental results show the efficiency of the proposed method.

As the Guest Editors of this special issue, we would like to thank all reviewers and authors for their efforts in making helpful comments and significant contributions to this special. Finally, we thank Dr. Han-Chieh Chao, the Editor-in-Chief of JIT journal, for his encouragement and support to publish this special issue and to Ms. Sharon Chang, the Assistant Editor, for her professional help during the preparation of this special issue.

Guest Editors

Chia-Hung Yeh (M'03–SM'12) received the B.S. and Ph.D. degrees from the Department of Electrical Engineering, National Chung Cheng University, Chiayi, Taiwan, in 1997 and 2002, respectively. He was an Assistant Professor from 2007 to 2010, an Associate Professor from 2010 to 2013, and a Professor from 2013 to 2017 with the Department of Electrical Engineering, National Sun Yat-sen University, Kaohsiung, Taiwan. He is currently a Distinguished Professor at National Taiwan Normal University, Taipei, Taiwan. He has coauthored more than 250

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technical international conferences and journal papers and held 47 patents in the USA, Taiwan, and China. His research interests include multimedia, video communication, three-dimensional reconstruction, video coding, image/video processing, and big data. Dr. Yeh is the Associate Editor for the Journal of Visual Communication and Image Representation, EURASIP Journal on Advances in Signal Processing, and APSIPA Transactions on Signal and Information Processing. He has been on the best paper award committee of JVCI and APSIPA. He was the recipient of the 2007 Young Researcher Award of NSYSU, the 2011 Distinguished Young Engineer Award from the Chinese Institute of Electrical Engineering, the 2013 Distinguished Young Researcher Award of NSYSU, the 2013 IEEE MMSP Top 10% Paper Award, the 2014 IEEE GCCE Outstanding Poster Award, the 2015 APSIPA Distinguished Lecture, the 2016 NARLabs Technical Achievement Award: Superior Achievement Award, the 2017 IEEE SPS Tainan Section Chair, the 2017 Distinguished Professor Award of NTNU, and the IEEE Outstanding Technical Achievement Award (IEEE Tainan Section).

Ruay-Shiung Chang received his B.S.E.E. degree from National Taiwan University in 1980 and his Ph.D. degree in Institute of Decision and Computer Science from National Tsing Hua University in 1988. After graduation, he had worked for Chung Shan Institute of Science and Technology, National Taiwan University of Science and Technology and National Dong Hwa University. Right now, he is the President of National Taipei University of Business. His research interests include Internet, wireless networks, and cloud computing. NTUB is a traditional and the oldest business university in Taiwan. Dr. Chang hopes to bring modern Information and Communication Technology into the teaching and research of NTUB. Dr. Chang received the Outstanding Information Technology Elite Award from the Taiwan's Information Month Committee in 2009. In 2017, Dr. Chang received the Exemplary Teacher's Award from the Venerable Master Hsing Yun Public Education Trust Fund for his longtime dedication to higher education.

Jianjun Li received the Ph.D. degree in Electrical and Computer Engineering from Windsor University, Canada. He is now serving as a chair professor of School of Computer Science and Technology in Hangzhou Dianzi University. He is also the director of Institute of Graphic and Image. Before this, Dr. Li worked in National Audiology Center (NCA) of Canada from 2003 to 2005, Mitsubishi Electronics Research Laboratory (MERL) of U.S.A from 2005 to 2006, École polytechnique fédérale de Lausanne (EPFL) of Switzerland from 2006 to 2007 as a visiting scholar. He worked in Ambroda Ltd. for video coding stream processing of U.S.A from 2007 to 2010 as a senior engineer. From 2010 to 2012, Dr. Li worked as an assistant professor in Bilkent University and Ankara University, Turkey. In the meantime, he worked for FP-7 (now Horizon 2020) 3D project as a research fellow.

Professor Li has worked in many different topics in computer vision, multimedia image processing, video coding and deep learning and published more than 100 papers in international conferences and journals and 2 books. He also has 3 contributions adopted by ISO/IEC Movie Picture Experts Group (MPEG) as a part of Reconfigurable Video Coding (RVC) standard. Dr. Li worked with International Institutes and Enterprises for more than 10 projects during his stay in abroad for more than 10 years. He now works on the National Science Foundation (NSFC) of China, National institutes and other Enterprises on more than 20 projects and holds more than 20 patents. Professor Li is also the recipient of several awards, including the "Qianjiang" scholar and the chief scientist of the innovation team of Zhejiang province in "3D industry and technology application". He is also a reviewer of many international journals and holds keynote speaker and committee member of many international conferences.