Guest Editorial
Special Issue for SICBS 2017

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The purpose of 2017 International Conference on Security with Intelligent Computing and Big-data Services with joined workshops, Workshop on Information and Communication Security Science and Engineering and Workshop on Security in Forensics, Medical, and Computing Services and Applications, is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Security related areas. It also aims at strengthening the international academic cooperation and communications, and exchanging research ideas. 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 its corresponding research area. Finally, after conscientious selection, we accept 6 papers for this special issue.

The first paper in the collection, entitled “A New Aesthetic QR Code Algorithm Based on Salient Region Detection and SPBVM” is by Li Li, Bing Wang, Jianfeng Lu, Shanqing Zhang and Chin-Chen Chang. This paper proposed a new aesthetic QR code algorithm, based on salient region detection and selectable positive basis vector matrix. It can display the whole salient region completely and is more flexible for the selection of background image. The results show that the proposed algorithm can produce more accurate salient area and achieve a better visual effect.

The second paper, entitled “A Study on Blockchain-Based Circular Economy Credit Rating System” and authored by Hsin-Te Wu, Yi-Jen Su and Wu-Chih Hu, presented a credit rating system using the concept of decentralization to reduce third-party broker fees, which provides effective credit rating of public economic entities. The proposed system can create a better transaction environment for the sharing economy and enable the buyer and seller to choose better business counterparts through transparent credit ratings.

The third paper, entitled “Storage-Saving Bi-Dimensional Privacy-Preserving Data Aggregation in Smart Grids” and authored by Chun-I Fan, Yi-Fan Tseng, Yi-Hui Lin, and Fangguo Zhang, proposed the first privacy-preserving bi-dimensional data aggregation scheme, where the bi-dimensional data contains both user-based and time-based data. For this proposed scheme, the storage cost only linearly increases with the number of time units and is independent of the number of users.

The fourth paper, entitled “An Efficient and Secure RFID Authentication Scheme for C1G2 Standard” and authored by Chen-Yang Cheng, Cheng-Ta Huang, Iuon-Chang Lin, and Hung-Huei Hsu, proposed an improved lightweight authentication scheme which compliant to C1G2 standard. By comparing with a previous scheme, this proposed scheme can achieve high security level and efficient performance.

The fifth paper, entitled “Integration of Information Hiding and Compression for Biomedical Signals” and authored by Yan-Hong Hu, Yu-Hai Li, and Ming Zhao, proposed a method to reduce the carrying amount of Electrocardiogram (ECG) network transmission while preserving the original characteristics of ECG and protecting personal privacy. The integration method not only protect the security of the ECG transmission but also reduce the amount of ECG transmission.

The sixth paper, entitled “Characteristics of Basil in Aspects of Digital Information Retrieval and Data Mining” and authored by Varin Chouvatut and Ekkarat Boonchien, presented a novel process for classifying two types of basil, which have different species but share common genus, based on main characteristics of their leaves. From the measured results, the proposed methods for digital information retrieval from the two basil-species sharing a common genus have been proved that the applied techniques in feature extraction and the selected basil’s dominant features provide almost perfect success in categorizing the two basil-species.

Finally, we would like to express our sincere appreciation to all reviewers for their expertise and efforts in making helpful comments and suggestions. We also would like to express our thanks to 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. Thanks also go to all authors for their significant contributions. Without their hard work, this special issue would not be possible.

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Guest Editors

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Sheng-Lung Peng is a Professor of the Department of Computer Science and Information Engineering at National Dong Hwa University, Hualien, Taiwan. He received the BS degree in Mathematics from National Tsing Hua University, and the MS and PhD degrees in Computer Science from the National Chung Cheng University and National Tsing Hua University, Taiwan, respectively. He is now the dean of the office of Library and Information Services of NDHU and an honorary Professor of Beijing Information Science and Technology University of China. He is a secretary general of Institute of Information and Computing Machinery (IICM) in Taiwan. He is now the Dean of the Library and Information Services Office of NDHU, an honorary Professor of Beijing Information Science and Technology University of China, and a visiting Professor of Ningxia Institute of Science and Technology of China. He serves the regional director of the ACM-ICPC Contest Council for Taiwan, a director of Institute of Information and Computing Machinery, of Information Service Association of Chinese Colleges and of Taiwan Association of Cloud Computing. He is also a supervisor of Chinese Information Literacy Association, of Association of Algorithms and Computation Theory, and of Interlibrary Cooperation Association in Taiwan. His research interests are in designing and analyzing algorithms for Bioinformatics, Combinatorics, Data Mining, and Networks. Dr. Peng has edited several special issues at journals, such as Soft Computing, Journal of Internet Technology, Journal of Computers, MDPI Algorithms, and so on. He published over 100 international conferences and journal papers.

Shiu-Jeng Wang was a visiting scholar of Computer Science Dept. at Florida State University, USA in 2002 and 2004. He also was a visiting scholar of Dept. of Computer and Information Science and Engineering at University of Florida in 2004, 2005, 2010 and 2011. He served the editor-in-chief of the journal of Communications of the CCISA in Taiwan from 2000-2006, and the directors in Chinese Cryptology and Information Security Association (CCISA) from 2000-2015. He was, then, with the Vice-President of CCISA in 2012-2015. Dr. WANG academically toured the CyLab with School of Computer Science in Carnegie Mellon University, USA, in 2007 for international project collaboration inspection.