Special Session of ICACI 2018 Call for Papers:

Intelligent Big Data Computing for Future Internet of Things
(BigIOT/ ICACI, March 29 – 31, 2018)

As the global infrastructure for the on-going information society, the Internet of Things (IoT) enables advanced services by interconnecting (physical and virtual) things based on existing and evolving interoperable information and communication technologies. A huge amount of connected objects will be deployed everywhere in a few years which can generate large amounts of data in a variety of formats and using different protocols. At the same time, the use of Big Data has been growing tremendously since the past few years, while businesses are quickly catching on to what they stand to gain. In fact, these two technologies are influencing and shaping each other. Although they arise from different application scenarios, Big Data can be jointly used with machine learning, AI, statistical and other advanced techniques, models and methods to explore or find the deep value behind the huge data originated from IOT. In fact, the computing intelligence, including evolutionary computation, neural networks and the fuzzy theory, is expected to play an important role for these issues. It is still one of the hottest and most challenging fields to develop novel computing intelligence for the practical scenarios concerning with the Big Data and IoT.

In this special session, we aim at introducing new solutions for the huge gap between the Big Data and IoT by providing network architecture, intelligent computing and other methods for the practical problems arising in both the Big Data and IoT. These issues vary from the heterogeneous networks, distributed data storage, indexing and extracting, computation theory, intelligence theory, which might change in different application scenarios, such as the smart grids, virtual power plants, smart homes, intelligent transportation and smart cities. These solutions require innovations that covers many pioneering fields including intelligent theory, IoT and Big Data, such as evolutionary computation, neural networks, the fuzzy theory, the efficient and effective wireless spectrum utilization, full interoperability of "smarts" devices, their adaptation and autonomous behavior, as well as data storage, analysis, data fusion and redundancy.

Authors are invited to submit papers presenting novel technical studies as well as broader position and visionary papers in the area computation intelligence for Big Data and IoT. This BigIOT session solicits original contributions in, but not limited to, the following topical areas:

- Evolutionary computation, neural networks, and fuzzy theory for the Big Data
- Evolutionary computation, neural networks, and fuzzy theory for the IoT
- Data mining in wireless sensor networks
- Big Data analytics applied to smart cities
- Role of Big Data issues in vehicle ad hoc networks
- Intelligent data analysis for IoT
- Data storage techniques for IoT generated data
- Big Data analytics, machine learning algorithms and scalable/parallel/distributed algorithms, and computing for the IoT
- Big Data as a Service (BDaaS) and Analytics as a Service (AaaS) for the IoT
- Cloud computing, Fog computing, and Edge clouds for the IoT
- Big Data Streams for the IoT
- IoT system architecture and Enabling technologies

- Communication and networking protocols for IoT
- IoT services and applications optimizing the use of big data
- Methods of processing health care data over IoT-Cloud

Prospective authors are invited to submit original technical papers for presentation and publication. Accepted and presented technical papers will be published in the IEEE ICACI 2018 Conference Proceedings and submitted to IEEE Xplore.

Important Dates:
- Paper submission deadline……………………………………………….…...…Nov.15, 2017
- Notification of acceptance……………………………………………….….......Dec. 15, 2017
- Camera-ready copy and author registration………………………………………Jan. 15, 2018

Keywords:
- Intelligent computing, Big Data, Internet of Things.

Session Chair:
- Prof. Hongju Cheng, Fuzhou University, China, email: cscheng@fzu.edu.cn;

Prof. Hongju Cheng received the B.E. and M.E. degrees in EE from Wuhan University of Hydraulic and Electric Engineering, in 1997 and 2000, respectively, and the PhD in Computer Science from Wuhan University in 2007. Since 2007, he has been with the College of Mathematics and Computer Science, Fuzhou University, Fuzhou, China, and now he services as a full professor and a supervisor for the PhD candidates. He is serving as editors / guest editors of several international journals. His interests include internet of things, wireless sensor networks, and wireless mesh networks. Prof. Cheng has published almost 60 papers in international journals and conferences.

- Dr. Min Jiang, Xiamen University, China, email: minjiang@xmu.edu.cn;

Min Jiang received the bachelor's and Ph.D. degrees in computer science from Wuhan University, Wuhan, China, in 2001 and 2007, respectively. He was a Post-Doctoral Researcher with the Department of Mathematics, Xiamen University, Xiamen, China. He is currently an Associate Professor in the Department of Cognitive Science and Technology, Xiamen University. His current research interests include machine learning, computational intelligence, neural-symbolic integration, software development, and the basic theories of robotics. Dr. Jiang is the Chair of the IEEE Computational Intelligence Society Xiamen Chapter (the Outstanding Chapter of IEEE Computational Intelligence Society - 2016) and he is currently serving as an associate editor for the IEEE Transactions on Cognitive and Developmental Systems. In 2016, Dr. Jiang received the outstanding reviewer award from the IEEE Transactions on Cybernetics. Dr. Jiang is an IEEE senior member.

- Prof. Neal Naixue Xiong, Southwestern Oklahoma State University, USA, email: xiongnaixue@gmail.com;

Neal N. Xiong is current a Professor at the Department of Computer Science, Southwestern Oklahoma State University, USA. He received his both PhD degrees in Wuhan University (about software engineering), and Japan Advanced Institute of Science and Technology (about dependable networks), respectively. Before he attends Colorado Technical University, he worked in Wentworth Technology Institution, Georgia State University for many years. His research interests include Cloud Computing, Security and Dependability, Parallel and Distributed Computing, Networks, and Optimization Theory. Dr./Prof. Xiong published over 100 international journal papers and over 100 international conference papers. He has been a General Chair, Program Chair, Publicity Chair, PC member and OC member of

over 100 international conferences. He is serving as an Editor-in-Chief, Associate editor or Editor member for over 10 international journals. Dr./Prof. Xiong is the Chair of "Trusted Cloud Computing" Task Force, IEEE Computational Intelligence Society (CIS, http://www.cs.gsu.edu/~cscnxx/index-TF.html), and the Industry System Applications Technical Committee (http://ieee-cis.org/technical/isatc/). He is a Senior member of IEEE Computer Society.

- Dr. Jaime Lloret Mauri, Polytechnic University of Valencia Camino de Vera 46022, Valencia – Spain, email: jlloret@dcom.upv.es;

Jaime Lloret received his M.Sc. in Physics in 1997 at University of Valencia and he finished a postgraduate Master in Corporative networks and Systems Integration from the Department of Communications in 1999. Later, he received his M.Sc. in Electronic Engineering in 2003 at University of Valencia and his Ph.D. in telecommunication engineering (Dr. Ing.) at the Polytechnic University of Valencia in 2006. Before concluding his PhD. Thesis he obtained the first place given by the Spanish Agency for Quality Assessment and Accreditation for the Campus of Excellence in the New Technologies and Applied Sciences Area. He was awarded the prize of the best doctoral Student in the Telecommunications area in 2006 according to the Social Council of the Polytechnic University of Valencia. He is a Cisco Certified Network Professional Instructor of the regional academy "Universidad Politécnica de Valencia" in the Cisco Networking Academy Program (CNAP) and he is the Legal Main Contact of UPV-ADIF (local academy of the CNAP). He teaches Local Area Networks and Systems Integration in the "Escuela Politecnica Superior de Gandia" from the Polytechnic University of Valencia. He has been working as a network designer and administrator in several companies. His academic interests and research are P2P networks, Wireless Local Area Networks, Sensor Networks and Routing Protocols. He also researches on educational approaches and strategies.