Workshops

Workshop I--Big Data Collection and Processing in Smart Life

Introduction

Based on Big data collection and processing technology, cloud computing platform will facilitate people's life and make it smart. People are able to commute from one place to another safely and quickly by pilotless automobiles in a smart traffic system supported by mobile sensing technology. Personal healthcare data can be collected automatically by smart items and analyzed by high-speed networking applications for medical image processing and medical data mining technologies.

Some outstanding researchers, experts and scientists will be invited to this workshop to share their experiments and the latest frontier researches on smart traffic system, big healthcare data collection and processing with attendances, researchers, experts, professionals or staffs in both academic institutes and relative organizations all over the world.

Speakers

Prof. Jonathan Li, PhD, Workshop Chair, Ph. D
Xiamen University, China/ University of Waterloo, Canada

Speaker Biography

Jonathan Li is currently a Full Professor and Head of the Mobile Sensing and Geodata Science Lab, https://uwat erloo.ca/mobile-sensing/, at the Department of Geography and Environmental Management, Founding Member of the Interdisciplinary Centre on Climate Change (IC3), Member of the Water Institute, University of Waterloo, Canada.

His research interests lie mainly in the areas of mobile laser scanning of urban environments and SAR remote sensing of coastal and marine environments. As a NSERC (Natural Sciences and Engineering Research Council of Canada) rated researcher, he has successfully supervised over 40 Masters and PhD students to completion and has over 300 research publications, about 150 of which were published internationally in refereed journals, in particular, top-tier remote sensing journals such as RSE, IEEE-TGRS, ISPRS-JPRS, IEEE-JSTARS, IEEE-TITTS, IEEE-GRSL, IJRS, PERS, and RSL. In the Google Scholar Citations (updated on 2 May 2016), his work in recent five years has received a total of 1796 citations, among which hi-index is 24 and i10-index is 52. He has been involved in organization and program committees of numerous international conferences, over a dozen of which were ISPRS-related events, in particular, biannual symposia of Mobile Mapping Technology (MMT) series (since 2003), Geoinformation for Disaster Management (Gi4DM) series (since 2005), Earth Observation of Global Change (EOGC) series (since 2009), Computer Vision in Remote Sensing (CVRS) series (since 2011).

He has been Chair of ISPRS Inter-commission Working Group V/Ia on Mobile Scanning and Imaging Systems (2012-2016), Chair of ICA Commission on Sensor-driven Mapping (2015-2019) and Chair of FIG WG 4.2 on Maritime and Marine Information Management (2015-2019). He is a regular reviewer for more than two dozens of prestigious international journals and serves on the review panel of the National Sciences and Engineering Research Council of Canada (NSERC), Canada Foundation for Innovation (CFI), Canadian International Development Agency (CIDA) and International Scientific and Technological Partnerships (ISTP) Canada as well as the funding agencies of Belgium, China, Finland, Germany, Georgia, Hong Kong and USA.

The topic of presentation from Prof. Li is “Point cloud big data for supporting autonomous driving”.
Assoc. Prof. Xin (Shane) LI, Ph. D  
School of Electrical Engineering & Computer Science,  
Center for Computation & Technology,  
Louisiana State University, USA.  

**Speaker Biography**  
Xin Li is the Oskar R. Menton associate professor in School of Electrical Engineering and Computer Science at Louisiana State University (LSU). He received his B.Eng. in Computer Science from University of Science and Technology of China in 2003, and Ph.D. in Computer Science from State University of New York at Stony Brook in 2008. After graduation, he joined LSU as an assistant professor, and was promoted to a tenured associate professor in 2014. He led the Geometric and Visual Computing lab at LSU. His research interests include geometric and visual computing, geometric data modeling and processing, and their applications in graphics, vision, robotics, forensics, and scientific computing. He has published over 70 papers in peer-reviewed journals and conference proceedings. He got IBM Faculty Award in 2011, and received LSU Flagship Faculty award in 2010, LSU C. W. Armstrong Jr. Professorship of Engineering in 2012, and Oskar R. Menton Professorship in 2013. He is currently an IEEE senior member. More detail of his research can be found at http://www.ece.lsu.edu/xinli  

Presentation from Assoc. Prof. Li will be focused on Reliable Mapping of Spatially or Temporally Correlated Visual Data and its Applications in Smart Life.  
The mapping of visual data is to solve the correspondence of spatially or temporally correlated images, geometries, or other visual data. Effective computation of data mapping is a fundamentally important data processing tool, directly related to various fusion, integration, registration, and comparison tasks of these acquired raw data. He will introduce his recent work on solving the parameterization and correlation of various visual data, and demonstrate their applications towards smarter life through multiple practical tasks such as robotics, scientific computing, computational medicine, and computational forensics.

Assoc. Prof. Ying WANG, Ph. D  
Automation Department,  
Xiamen University, China.  

**Speaker Biography**  
Ying Wang is association professor in Dept. of Automation at Xiamen University. Her research interest is computational biology, especially using techniques and methods from statistics, machine learning and data mining to analyze DNA high throughput sequencing data. She obtained a PhD degree in Control Science and engineering from Xiamen University in 2007, and Bachelor and Master degrees in Automation from University of Science and Technology of China in 1999 and 2002. She published papers in well-known journals, such as, Bioinformatics, BMC Genomics, Scientific reports and BMC bioinformatics, etc., as first author or corresponding author. She is the PI of 2012 and 2017 NSFC, 2016 NSF of Fujian.  

Assoc. Prof. Wang will introduce how to Mining the big sequencing data of Human microbiome.  
Did you know that humans have two genomes? Indeed, most people appreciate that humans inherit a genome, but fail to realize that the human body is colonized by a vast number of microbes, collectively referred to as the human microbiota, constituting a second genome. Current emerging studies verified significant relationships between human microbiome and some human diseases, such as inflammatory bowel disease, Type II diabetes, liver cirrhosis, autism, depressive disorder and Alzheimer.  
The high throughput sequencing technology makes it possible to obtain DNA sequencing short reads of microbial communities, called metagenomics sequencing data. The size of one sequencing data is about ~1GB and composed of >106 75bp-150bp length short reads. When exploring the metagenomes between control and patient groups, the size of dataset would reach ~1TB, which is the typical analysis of big data.  
In this talk, she will introduce the current developments of the relationship between human disease and human microbiome on metagenomics data and our corresponding progresses in this topic.
Workshop II --How to publish a high-quality paper in journals?

Introduction

Typically, the Publication Committee of ICCSE selects potentially journal-quality papers and invites their authors to improve and enhance their papers to journal quality, with substantial original content. These improved papers are then submitted to the International Journal, Control and Intelligent Systems (CIS), whose Editor-in-Chief is Prof. Clarence de Silva, for possible publication.

In this workshop, Dr. de Silva will provide some helpful ideas and advice on writing a good journal-quality paper. As usual, we will select 10-15 papers from this year’s proceeding to be recommended for publication in CIS in this manner. These papers typically include the best student paper, invited papers, and other high-quality papers. The authors are strongly invited to attend this workshop in order to receive proper guidance for improving their papers to journal quality.

Members of the Publication Committee, some Associate Editors and reviewers of CIS also will attend this workshop, particularly to provide a strong link to CIS.

Speakers

Prof. Clarence W. de Silva, Ph.D
Editor-in-Chief of CIS
Mechanical Engineering, University of British Columbia, Canada

Speaker Biography

Clarence W. de Silva, P.Eng., Fellow ASME, Fellow IEEE, and Fellow Canadian Academy of Engineering, Fellow Royal Society of Canada

Assoc. Prof. Qing WANG, PhD
School of Electronic Information Engineering
Tianjin University, China

Speaker Biography

Qing WANG received the B.Eng., M.Eng. and Ph.D. degrees in electronic engineering from Tianjin University, Tianjin, China, in 2004, 2007 and 2010, respectively, where she is currently an Associate Professor. She was a visiting student with Nanyang Technological University, Singapore. Her research interests include wireless communication, passive radar and software defined network.