

The 2nd IET International Conference on Biomedical Image and Signal Processing



第二届 IET 生物医学图像与信号处理国际会议

2017 年 5 月 13-14 日 华中科技大学国际学术交流中心 8 号楼 2 楼多功能厅

Programme 会议日程

Saturday, 13 May 2017 星期六, 2017 年 5 月 13 日 Multi-functional hall, 1st floor, Building No.8, 华中科技大学国际学术交流中心 8 号楼 2 楼多功能厅	
08:30—09:30	Registration 注册
09:30—09:45	Chair's welcome and introduction 大会主席致欢迎词 Professor Qingming Luo, Vice-president of Huazhong University of Science and Technology 骆清铭教授, 华中科技大学副校长
09:45—10:00	Welcome speech by Mr. Mark Watchorn, Deputy Consul-General of British Consulate General Wuhan 英国驻武汉领事馆副总领事程迈先生致辞
10:00—10:15	IET representative welcome speech IET Joseph Du, IET China country manager 杜伟, 英国工程技术学会中国区总经理致辞
10:15—10:30	VIP Group Photo 集体照
10:30—11:00	Poster Session and Refreshments 海报展示及茶歇
11:00—11:20	Keynote speech from Dr Dimitrios Makris Associate Professor & Acting Director of Post Graduate Research Studies, Faculty of Science, Engineering and Computing, Kingston University, London Dimitrios Makris 博士主旨演讲, 英国伦敦金斯顿大学 <i>Speech title: Compact Representation of Multivariate Sequences using Structural Laplacian Eigenmaps</i>
11:20—11:40	Keynote speech from Professor Guozhen Liu ARC Centre of Excellence in Nanoscale Biophotonics (CNBP), Macquarie University, Australia 刘国珍教授主旨演讲, 澳大利亚麦克里大学纳米生物光子学卓越中心 <i>Speech: An optical fibre based ex-vivo device for detection of cytokines</i>
11:40—12:00	Keynote speech from Professor Tianzi Jiang. National Laboratory of Pattern Recognition, Institute of Automation Chinese Academy of Sciences. 蒋田仔教授主旨演讲, 中国科学院自动化研究所模式识别国家重点实验室 <i>Speech: The Brainnetome Atlas and its Applications in Cognition and Brain Diseases</i>
12:00—12:20	Keynote speech from Professor Qingguo Xie, Huazhong University of Science and Technology, China 谢庆国教授主旨演讲, 华中科技大学 <i>Speech: All-digital PET everywhere</i>
12:20—13:30 Poster Session and Lunch 海报展示及午餐	

13:30 – 13:45 Session Chair’s introduction	
13:45--14:00	OR001 (0008) Understanding and Assessing Low-Light Cameras for Super-Resolution Localization Microscopy Y J Wang, Z N Zhang, M T Li, L C Li, T W Quan, Z L Huang
About the Presenter Zhen-li Huang joined Huazhong University of Science and Technology in 2003 and now is a Professor in Biomedical Engineering and Optical Engineering. He received his BSc degree in Chemistry from Nankai University and PhD in Optics from Zhongshan University. He obtained his postdoctoral training at the University of Central Florida, and recently worked as a visiting professor at the University of Colorado, Boulder. He is focusing on the development and applications of super-resolution localization microscopy.	
14:00--14:15	OR002 (0017) Hessian matrix-based structure tensor analysis for fiber enhancement and direction encoding Shangbin Chen, Xiangning Li, Anan Li, Jie Peng, Hui Gong, Qingming Luo
About the Presenter Dr. Chen is working in Prof. Luo's group as an associate professor. His research interests are in brain function (optical imaging, optogenetics), brain connectome (diffusion MRI and microscopy), cortical spreading depression and focal cerebral ischemia, image processing and data analysis. Now, his current work is focused on brain connectivity.	
14:15--14:30	OR003 (0044) A New Statistical-Based Algorithm for Medical Image Feature Extraction Kuo-Kun Tseng, Jiaqian Li, Lantian Wang
About the Presenter Kuo-Kun Tseng was born in 1974. He received the M.S. degree and the Ph.D. degree from the Department of Computer Science and Information Engineering from National Chiao Tung University. Currently, he is an Associate Professor at the Department of Computer Science and Technology, Harbin Institute of Technology Shenzhen Graduate School. His research interests include Medical Image, intelligent and pattern matching algorithms, cloud and parallel computing, smart vehicular and home system, and biometric identification.	
14:30--14:45	OR004 (0048) An acceleration based heuristics algorithm for gait phases detection Yingying Wang, Hui Zhou, Yuanyuan Wang, Hongli Guan, Zhen Huang, Guanglin Li
About the Presenter Hui Zhou received his B.S. degree in control science and engineering in 2005, M.S. degree in instrumentation and automation in 2008, and Ph.D. degree in control theory and engineering in 2012 from Huazhong University of Science and Technology, Wuhan, China. He is an Associate Professor in the Research Centre for Neural Engineering, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, China. His research interests include electrical stimulation for rehabilitation, rehabilitation methods for drop foot, and micro /nano sensors for healthcare.	

14:45--15:00	OR005 (0053) Robust Medical Image Authentication using 2-D Stationary Wavelet Transform and Edge Detection Ramanand Singh, Paresh Rawat, Piyush Shukla
About the Presenter Dr. Paresh Rawat have received Ph.D degree from NIT bhopal in 2014 and is having 15 years of experience is a member IEEE, and having area of interests as Image Processing, signal Processing and video processing. he have published around 60 research papers in various conferences and Journals and have received best faculty award by Truba group for year 2013 in electronics and is awarded as teachers facilitation award by Bhaskar group 2016	
15:00--15:15	OR006 (0064) Reinforced source camera identification using non-decimated wavelet transform A R Soobhany, A Sheikh Akbari, Z C Schreuders
About the Presenter Dr. A. Ryad Soobhany is currently a postdoctoral research fellow at Leeds Beckett University, Leeds, UK. The project is collaboration between Leeds Beckett University and West Yorkshire Police (WYP) to investigate and improve WYP response to cybercrime and use of digital evidence. His research interests include digital forensics, multimedia security, bioinformatics, cybersecurity, cybercrime, information security, image processing, machine learning, computer vision, data analysis, pattern recognition.	
15:15--15:45 Poster Session and Refreshments	
15:45--16:00	OR007 (0083) An improved method of calculating MTF from PSF based on CT phantom images Libin Liang, Pu Zhang, Hui Ding, Guangzhi Wang
About the Presenter Liang Libin is a PhD student from Tsinghua University. His major is Biomedical engineering. He is now very interested in medical image processing.	
16:00--16:15	OR008 (0087) Colour Constancy For Non-Uniform Illuminant using Image Textures Md Hussain, Akbar Akbari, Bruhanth Mallik
About the Presenter Md Akmol Hussain is a PhD student of Leeds Beckett University, UK. He has developed a colour constancy algorithm for outdoor images with single illuminant. Here, he is presenting an algorithm that can achieve colour constancy for images under multiple illuminant	
16:15--16:30	OR009 (0088) Patents Analysis on Magnetic Resonance Imaging and Data Processing Technology QP Ding, RY Luo, QQ Tong, HJ He, JH Zhong

<p>About the Presenter QP Ding is a MRI Technician in the Centre of Brain Imaging Science and Technology, Zhejiang University. Patent analysis is another interest of mine. It is the Innography patent analysis platform that provides an opportunity for me to analyse MRI patents deeply.</p>	
16:30--16:45	<p>OR010 (0089) Part-wise pedestrian gender recognition via deep convolutional neural networks Mudassar Raza, Zonghai Chen, Saeed Ur Rehman, Zhenhua Ge, Jikai Wang, Peng Bao</p>
<p>About the Presenter Mudassar Raza, PhD Student at Department of Automation, University of Science and Technology of China (USTC), Anhui, Hefei</p>	
16:45--17:00	<p>OR011 (0042) Dynamic synchronization state discrimination in local field potentials of neuropathic pain H Luo, X Du, Y Huang, S Wang</p>
<p>About the Presenter Huichun Luo is a Ph.D student of Biomedical Engineering in University of Science and Technology of China. She is focuses on using sparse coding method to identification the state of neuropathic pain and Parkinson's Disease based on Local filed potentials which recorded from deep brain nucleus.</p>	
17:00--17:15	<p>OR012 (0085) MRI motion artefact mitigation methodology using spin echo pulse sequence on A 4.7 T scanner A R FARIAS, M F D MORAES, H A MAGALHAES, E M A M MENDES</p>
<p>About the Presenter Mr. Alexandre Rodrigues Farias holds a degree in Electronic and Telecommunications Engineering from Pontifical Catholic University of Minas Gerais and a MSc in Science and Technology of Mineral and Materials Radiation from Nuclear Technology Development Centre. He is currently a PhD student in the Biomedical Engineering area working mainly with MRI processing. His research within the PhD is focused on proposing signal processing techniques in MRI that mitigate the damage caused by the movement of a structure being imaged. He is currently maintenance teacher of biomedical equipment in CEFET-MG (Brazil) and has experience with diagnostic imaging equipment. His area of interest is related to medical equipment, magnetic resonance, x-ray equipment, microcontroller systems and signal & image processing.</p>	
<p>Poster Session (all day on Saturday, 13 May 2017)</p>	
PO001 (0009)	<p>Classifying Nodule from Normal Thyroid Tissue Based on Attenuation Value on Non-enhancement CT Images Yihong chen, chenbin liu, wenxian peng, shunren xia</p>
<p>About the Presenter Wenxian Peng is an associate professor (senior engineer) from department of radiology of hangzhou medical college, Zhejiang Province, China. He graduated from Zhejiang university, majoring biomedical engineering. His research interest is on medical image processing, medical imaging technology.</p>	

PO002 (0015)	A Tool for 3D reconstruction of neuronal population reconstruction : preliminary results H Zhou, S W Li, Y X Li, T W Quan, A A Li, Q M Luo, S Q Zeng
About the Presenter Hang Zhou is PhD student in Britton Chance Centre for Biomedical Photonics, Wuhan National Laboratory for Optoelectronics, from 2013 up to now. He received bachelor degree in Huazhong University of Science and Technology, 2013. He has made research on whole mouse brain neuron morphology digital reconstruction at micro-meter level. He is co-author of a Nature Methods brief communication.	
PO003 (0018)	Automatic classification of neurons based on three-dimensional cytoarchitectonic images X Xu, A Li, H Gong, Q Luo, Y He
About the Presenter X Xu is a Ph.D student from Qingming Luo's lab in Huazhong University of Science and Technology. My research interests lies in the visible brain-wide networks, especially three-dimensional image segmentation and big data analysis	
PO004 (0020)	3D bilateral filtering applying to de-noise of microscopic brain image stack Y Zhu, A Li, J Peng, H Gong, Q Luo
About the Presenter Y Zhu is a master student from Qingming Luo's lab in Huazhong University of Science & Technology. I focus on imaging processing of microscopic brain image sets.	
PO005 (0023)	A Novel Weighted Sparse Representation Denoising Method for X-ray Cardiovascular Angiogram Image Zhenghua Huang, Qian Li, Hao Fang, Tianxu Zhang
About the Presenter Zhenghua Huang received his MS degree in College of Biomedical Engineering from South-Central University for Nationalities, Wuhan, China, in 2010. Currently, he is pursuing his PhD degree in the School of Automation, Huazhong University of Science and Technology (HUST). His research interests include medical image processing and computer vision.	
PO006 (0028)	A Prototype System for Ultrasound Computer Tomography with Ring Array J J song, S S Wang, L Zhou, Y Peng, M Y Ding, M Yuchi
About the Presenter JJ Song is currently working toward the Ph.D. degree in biomedical engineering from Huazhong University of Science & Technology. My research activities are focused on the development of high performance ultrasound imaging systems for testing of new ultrasound diagnostic techniques	
PO007 (0029)	Distributed Functional Connectivity Impairment in Schizophrenia: A Multi-site Study Yong Yang, Tianzi Jiang
About the Presenter Lichao Lian has been a PhD candidate with the optical engineering at Huazhong University of Science and Technology, Wuhan, China Since 2011. His research interests focus on small animal imaging with hybrid FMT/micro-CT technology.	

PO008 (0030)	Point-spread-function analysis for ultrasound computed tomography with ring array X Y fang, M Y Ding, M Yuchi
About the Presenter X Y Fang is a doctoral student from Department of Biomedical Engineering, School of Life Science and Technology, Huazhong University of Science and Technology. I am majoring in Biomedical Engineering. The main project I am currently involved in is ultrasound tomography for breast cancer diagnosis.	
PO009 (0034)	Segmentation of dynamic contrast enhanced micro-CT images for fluorescence molecular tomography reconstruction D M Yan, W H Xie, Z H Zhang, Q M Luo, X Q Yang
About the Presenter Dongmei Yan, a Ph.D. student from Britton Chance Center for Biomedical Photonics, Wuhan National Laboratory for Optoelectronics-Huazhong University of Science and Technology, engaged in X-ray computed tomography imaging.	
PO010(0049)	Research on Ultrasound Beamforming Algorithm Based on GPU Parallel Delay Multiply and Sum Algorithm Ting Su, Dingjie Yao, Dayu Li, Shi Zhang
About the Presenter Dayu Li obtained his education at the University of Science and Technology of China (BE) and at the Graduate School of Chinese Academy of Sciences (PhD). He joined Northeastern University (China) as a faculty member in 2010. His current research efforts focus on signal processing and electronic engineering for biomedical systems.	
PO011 (0071)	An automated imaging system of wide-view of optical microscopy of pathological tissue Shangbin Han, Jimin Yang, Honglin Wan, Juan Yang
About the Presenter I am born in Jinan. I am studying in School of Physics and Electronics, Shandong Normal University as a graduate student. I major in Electronic science and technology.	
PO012 (0079)	normalization method of suppressing excitation noise in fluorescence molecular tomography Lian Lichao, Deng Yong, Xie Wenhao, Yang Xiaoquan, Luo Qingming
About the Presenter Lichao Lian has been a PhD candidate with the optical engineering at Huazhong University of Science and Technology, Wuhan, China Since 2011. His research interests focus on small animal imaging with hybrid FMT/micro-CT technology.	
PO013 (0081)	Detection of PPG and ECG and fusion estimation of respiration rate based on Android platform and wearable watch Z L He, X X Chen, Z Fang, T Y Sheng, S H Xia

About the Presenter

Zhengling He is a graduate student in the University of Chinese Academy of Science, he received his B.E. degree in computer science from Wuhan University of Technology in 2015, his current research interests include embedded signal process for wearable medical devices, machine learning, applications development and optimization on Android platform.

PO014 (0082)**Design and Implementation of A Novel Human-Machine Interactive Healthcare System for Visual Reproduction Test**

A R Qi, W J Li, A N Zheng, L M Tao

About the Presenter

Anran Qi, she is a senior student in Beijing University of Posts and Telecommunications. She is studying in a Joint-training Programme by Beijing University of Posts and Telecommunications and Queen Mary University of London, UK and majors in multimedia communication. Now, she is a Research Member of Institute of HCI and Media Integration, Tsinghua University.

PO015 (0086)**Extraction of Visual Evoked Potential using Improved Wiener Filter**

D C Liu, B Sun, C Q Chang, J F Yang, J J Wang, N Hu

About the Presenter

Dacheng Liu received the B.E. degree in electronics and information engineering from Huaiyin Institute Of Technology, in 2014. Currently, he is working towards the Master degree in School of Electronic and Information Engineering, Soochow University. His research interest is EEG Signal Processing.

Sunday, 14 May 2017 Technical visit**2017年5月14日，技术参观**

08:45 Gather outside Wuhan National Laboratory of Optoelectronics (WNLO)

武汉光电国家实验室门口集合

09:00-10:00 Visit WNLO

参观武汉光电国家实验室

10:00-11:00 Transfer

乘车前往光谷生物城

11:00-12:00 Visit Biolake (ANKON TECHNOLOGIES CO.,LTD)

参观光谷生物城（安翰光电技术）

12:00 return to WNLO

大巴返回武汉光电国家实验室