The 2015 5th International Conference on Information Science and Technology (ICIST 2015)

FINAL   PROGRAM

April 24–26, 2015, Changsha, Hunan, China

The 2015 5th International Conference on Information Science and Technology

Greeting from the General Chairs

It is our great honor to welcome you to the 2015 5th International Conference on Information Science and Technology (ICIST 2015), held in Changsha, Hunan, China during April 24–26, 2015. Changsha is the capital and largest city of Hunan province in south-central China, located on the lower reaches of Xiang River, a branch of the Yangtze River. Changsha has rich historical heritages including old wall remains, tomb sites, religious temples and buildings. What earns the city its reputation among visitors are two things. One is a great man in recent history, Chairman Mao Zedong and the other is Yuelu Academy, a time-honored academic school perched on the scenic Yuelu Mountain. Xiang Cuisine is one of the Eight Cuisines in China and has a fine and delicate appearance and a spicy taste. All participants of ICIST 2015 will have a technically rewarding experience as well as memorable experiences in this great city.

ICIST 2015, as a sequel of ICIST 2011 (Nanjing, China), ICIST 2012 (Wuhan, China), ICIST 2013 (Yangzhou, China) and ICIST 2014 (Shenzhen, China), aims to provide a high-level international forum for scientists, engineers, and educators to present the state-of-the-art of research and applications of information science and technology in diverse fields. ICIST 2015 received 244 submissions from 17 countries and regions. Based on expert reviews, 116 papers were selected for publication in the conference proceedings. The papers collected in the proceedings cover a broad spectrum of fields, ranging from information theory and applications, computational intelligence, intelligent sensing technology, computer vision and image processing, network and communication, speech and natural language processing, high performance computation, bioinformatics and biomedical engineering, theoretical computer science, control and automation, signal processing, automotive electronics and electric vehicles, robotics, big data processing and management information systems. In addition to the contributed papers, three distinguished scholars (Professor Zhi-Hua Zhou, Professor Qionghai Dai and Professor Han-Xiong Li) were invited to give plenary lectures, providing us with recent hot topics, latest developments and novel applications.

ICIST 2015 was organized by the Institute of Automation, Chinese Academy of Sciences, Beijing, China, and co-sponsored by the Chinese University of Hong Kong and the National Natural Science Foundation of China. We would like to acknowledge technical supports from the IEEE Computational Intelligence Society. We wish to express our appreciation and gratitude to all the individuals who have contributed to ICIST 2015 in a variety of ways. Special thanks are extended to our colleagues for their thorough review of all the submissions, which is vital to the success of this conference, and also to the members of the organizing committee and our volunteer students who have dedicated their time and efforts in planning, promoting, organizing and helping the conference. Our special thanks go to distinguished plenary lecturers, as well as all the authors for contributing their latest research work to the conference, and to all the participants in making ICIST 2015 a memorable event. We are very grateful to the Institute of Automation of the Chinese Academy of Sciences, the Chinese University of Hong Kong, and the National Natural Science Foundation of China for their financial support.

Enjoy the conference!

Cesare Alippi and Jun Wang
ICIST 2015 General Chairs

ICIST 2015 Organization

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Yiwen Wang	Hai Zhao
Bing Wang	Bo Zhao
Dan Wang	Zhaohui Hu

Conference Venue

ICIST 2015 will be held at the **Hunan Xiangtou Gold Source Hotel**. The Golden Source Hotel is conveniently located on Furong Middle Road, which is one of the main arteries of the Changsha city's south to north transportation, and on the opposite of He Long stadium, the landmark of Changsha, with convenient business, shopping, and fast transportation.

Hotel Address:	酒店地址**：**
Hunan Xiangtou Gold Source Hotel	湖南湘投金源大酒店
No. 279, Section 2, Furong Middle Road	芙蓉中路二段 **279** 号
Changsha City, Hunan Province, China	中国湖南省长沙市
Tel:+86 731 8555 8888	电话：**(0731) 8555 8888**

Registration Information

The ICIST 2015 registration desk, located in the Lobby of Xiangtou Gold Source Hotel, will be open during:

➢ April 24, 2015 (Friday)   09:00 –18:00

➢ April 25, 2015 (Saturday)   09:00 –17:00

➢ April 26, 2015 (Sunday)   09:00 –12:00

Full registration includes a welcome reception ticket, conference attendance, a banquet ticket, and the conference CD-ROM proceedings.

Additional sets of CD-ROM proceedings and hardcopy proceedings may be purchased at the registration desk (50 US dollars for CD-ROM proceedings and 100 US dollars for one volume of hardcopy proceedings). In addition, each additional banquet ticket is 50 US dollars.

Plenary Lecture I

From AdaBoost to LDM

Zhi-Hua Zhou

Nanjing University, Nanjing, China

AdaBoost is a famous mainstream ensemble learning approach that has greatly influenced machine learning and related areas. A well-known mystery of AdaBoost lies in the phenomenon that it seems resistant to overfitting, which has inspired a lot of theoretical investigations. In this talk, we will briefly introduce the margin theory that has a long history of debating but recently defensed. We will show how the theoretical findings provide inspiration for LDM, a promising direction of designing powerful learning algorithms.

Zhi-Hua Zhou is a Professor of Nanjing University. He is the founding director of LAMDA, and deputy director of the National Key Lab for Novel Software Technology. He got all his degrees in computer science from Nanjing University, all with the highest honors. His research interests are mainly in machine learning, data mining and pattern recognition. He authored the book "Ensemble Methods: Foundations and Algorithms", and published more than 100 papers in top-tier journals and conference proceedings. According to GoogleScholar, his papers have received more than 16,000 citations. He has received various awards, including the National Natural Science Award of China, the IEEE Computational Intelligence Society Outstanding Early Career Award, the Microsoft Professorship Award, and 14 international journal/conference paper/presentation or competition awards. He serves as the Executive Editor-in-Chief of Frontiers of Computer Science, Associate Editor-in-Chief of Science China: Information Science, and Associate Editor of the ACM Trans. Intelligent Systems and Technology, IEEE Trans. Neural Networks and Learning Systems, etc. He is the founder of the ACML, Steering Committee member of PAKDD and PRICAI, and General Chair, Program Chair or Area Chair for more than thirty conferences including IJCAI, AAAI, ICML, NIPS, KDD, ICDM, etc. He is the Chair of the CCF AI&PR Society, CAAI Machine Learning Society, IEEE Computational Intelligence Society Data Mining Technical Committee, and IEEE Computer Society Nanjing Chapter. He is an ACM Distinguished Scientist, IEEE Fellow, IAPR Fellow, IET/IEE Fellow and CCF Fellow.

Plenary Lecture II

Computational Hyperspectral Imaging

Qionghai Dai

Tsinghua University, Beijing, China

Spectral capture technique collects information with more color channels than traditional trichromatic sensing. Therefore, it provides more detailed properties of the light source and the scene. Possible applications span across lots of fields such as remote sensing, materials science, bio-photonics, environmental monitoring, and so on. Spectral capture technique needs to record massive data in spatial, temporal and spectral domains, traditional spectral capture systems suffer from temporal and spatial scanning, thus is not suitable for video capture. Nowadays, with rapid development in sampling theory and electronic techniques, spectral video acquisition is becoming tractable. In this talk, we present recent progresses on the high resolution spectral video acquisition. Prism-Mask Image Spectrometer (PMIS) is proposed which accomplishes high quality video capture in three domains: spectral (1nm), spatial (one mega-pixels) and temporal (real-time) resolution. Both the optical principle and the prototype setup of the PMIS are introduced. In the end, a bunch of machine vision applications (object tracking, skin detection, automatic white balance, etc) based on PMIS are also discussed.

Qionghai Dai received the Ph.D. degrees in automation from Northeastern University, Shenyang, China, in 1996. From 1997 to 1999, he was a Postdoctoral Researcher in the Department of Automation, Tsinghua University.

Since 1999, he has been with the faculty of Tsinghua University: 1999–2004, as an associate professor; 2005–present, as Professor and the Director of the Broadband Network and Digital Media Laboratory. He now also serves as the Associate Head of the Department of Automation. He was awarded the Distinguished Young Scholars of the National Natural Science Foundation of China in 2005.

Prof. Dai's researches focus on the fundamental challenges and key technologies in computational photography, stereo vision and high-dimensional signal processing, including: built a multi-scale dynamic light field system, unveiled the intrinsic mechanisms under joint multi-view and illumination optimized capture, and raised the temporal resolution up to 2 orders of magnitude; proposed an ultra-fast lens-less computational imaging system based on the emerging femto-photography field. He has published more than 100 papers in peer-reviewed journals and conferences, including 42 papers in IEEE Trans. on SP, PAMI, IP, NNLS, CSVT, STSP, and IJCV, etc, Besides, he holds 58 patents in China.

Plenary Lecture III

3D Fuzzy Logic System for Intelligent Modeling and Control

Han-Xiong Li

Department of Systems Engineering and Engineering Management

City University of Hong Kong, Hong Kong, China;

State Key Laboratory of High Performance Complex Manufacturing

Central South University, Hunan, China

The fuzzy logic system (FLS) has been successfully developed for decades for process modeling and control. However, it may not be effective when encountering the process that contains multi-physics information. In order to handle the uncertainty coming from the extra domain, a 3-domain (3D) fuzzy logic system can be designed for engineering applications. Two different types of 3D FLS are proposed in this talk, the probabilistic FLS for decision making and the spatiotemporal FLS for distributed process control.

- By adding the probabilistic density function as the extra domain to the traditional fuzzy set, a probabilistic fuzzy MF is constructed to accommodate stochastic uncertainties. After designing probabilistic inference engine, a probabilistic fuzzy logic system (PFLS) is developed to have the inherent capacity to model the complex stochastic process. Except the satisfactory numerical results, the explainable rules associated with probability will have a better interpretable characteristic. This would be very useful when making decision under uncertainties.

- By adding the 'space' dimension into the traditional fuzzy set, a 3-dimensional fuzzy set is constructed to accommodate spatiotemporal uncertainties. After designing the proper inference logic, the developed fuzzy logic system will have the inherent ability to handle the spatiotemporal dynamics. With the help of a few sensors, this spatiotemporal FLS can be applied to control the spatiotemporal dynamic processes, like thermal/fluid dynamic systems that are also called distributed parameter systems.

Both numerical simulations and real-time experiments are conducted to confirm the effectiveness of the proposed 3D fuzzy logic systems and their potential to engineering applications.

Han-Xiong LI (S'94-M'97-SM'00-F'11) received his B.E. degree in aerospace engineering from the National University of Defence Technology, China, M.E. degree in electrical engineering from Delft University of Technology, Delft, The Netherlands, and Ph.D. degree in electrical engineering from the University of Auckland, Auckland, New Zealand.

Currently, he is a full professor in the Department of Systems Engineering and Engineering Management, the City University of Hong Kong. Over the last thirty years, he has had opportunities to work in different fields, including military service, industry, and academia. He published over 160 SCI journal papers (nearly half of them in IEEE Transactions and ASME Transactions) with h-index 30. His current research interests are in intelligent manufacturing, intelligent learning and control, system engineering and cybernetics, and distributed parameter systems with applications to electronics packaging.

Dr. Li serves as Associate Editor of IEEE Transactions on Cybernetics, and IEEE Transactions on Industrial Electronics (2009-2015). He was awarded the Distinguished Young Scholar (overseas) by the China National Science Foundation in 2004, a Chang Jiang professor by the Ministry of Education, China in 2006, and a national professorship in China Thousand Talents Program in 2010. He serves as a distinguished expert for Hunan Government and China Federation of Returned Overseas. He is a fellow of the IEEE.

ICIST 2015 Technical Program (Glance)

April 24, 2015 (Friday)

09:00 – 18:00   Registration   (Lobby of Hunan Xiangtou Gold Source Hotel, 金源大酒店 大厅)
18:00 – 20:00   Buffet Dinner Reception (St. Paul Restaurant, 1st floor, 一楼圣保罗西餐厅)

April 25, 2015 (Saturday)

Period / Hall	Jin Cheng Hall, 5th floor (五楼金城厅)		
09:00 – 09:15	Opening Ceremony		
09:15 –10:15	Plenary Lecture I: **From AdaBoost to LDM** Speaker: Zhi-Hua Zhou Chair: Derong Liu		
10:15 –10:35 Coffee Break			
10:35 –11:50	Panel Discussion: **How to publish SCI papers** Panelists: Derong Liu and Jun Wang Moderator: Cesare Alippi		
12:00 – 13:30 Buffet Lunch (St. Paul Restaurant, 1st floor, 一楼圣保罗西餐厅)			
Period / Hall	**Jin Shan Hall, 5th floor** (五楼金山厅)	**Jin Xi Hall, 5th floor** (五楼金玺厅)	**Jin Ge Hall, 5th floor** (五楼金阁厅)
14:00 – 15:45	Oral session SaA11 Information Theory and Applications	Oral session SaA12 Computational Intelligence	Oral session SaA13 Multi-Agent Systems and Networked Systems
15:45 – 16:15 Coffee Break			
16:15 –18:00	Oral session SaA21 Computer Vision and Image Processing	Oral session SaA22 Control and Automation	Oral session SaA23 Robotics and Model Analysis
18:30 – 20:00 Banquet (Xiang Jin Yuan, 2nd floor, 二楼湘金苑)			

April 26, 2015 (Sunday)

Period / Hall	Jin Cheng Hall, 5th floor (五楼金城厅)		
09:00 –10:00	Plenary Lecture II: **Computational Hyperspectral Imaging** Speaker: Qionghai Dai Chair: Derong Liu		
10:00 –10:30 Coffee Break			
10:30 –11:30	Plenary Lecture III: **3D Fuzzy Logic System for Intelligent Modeling and Control** Speaker: Han-Xiong Li Chair: Jun Wang		
11:45 – 13:15 Buffet Lunch (St. Paul Restaurant, 1st floor, 一楼圣保罗西餐厅)			
Period / Hall	**Jin Shan Hall, 5th floor** (五楼金山厅)	**Jin Xi Hall, 5th floor** (五楼金玺厅)	**Jin Ge Hall, 5th floor** (五楼金阁厅)
13:30 – 15:15	Oral session SuA11 Signal Processing	Oral session SuA12 Advanced Information Technology and Applications	Oral session SuA13 Network and Communication
15:15 – 15:45 Coffee Break			
15:45 –17:30	Oral session SuA21 Intelligent Technology	Oral session SuA22 Automotive Electronics and Electric Vehicles	Oral session SuA23 Machine Learning and Pattern Recognition
18:00 – 20:00 Buffet Dinner (St. Paul Restaurant, 1st floor, 一楼圣保罗西餐厅)			

Oral sessions

April 25, 2015 (Saturday)

Oral session SaA11: Information Theory and Applications		
Chairs: Lei Wang and Junjian Huang		
14:00 – 15:45, Jin Shan Hall, 5th floor		
Submission Number	**Authors**	**Titles**
4	Yazhen Liu and Junxing Zhang	Veri-Card: An Interpersonal Relationship Verification System on Mobile Phones
46	Xiang-Zhong Meng, Wen-Chao Wang, Zi-Sheng Hou and Yong-Gang Chen	Applications of FFT Algorithm to Energy Management System of Electric Equipment for Underground Coal Mine
50	Yabing Kang, Lei Cao, Shangkun Xiong, Fangjiong Chen and Biyun Ma	On Energy Efficient Antenna Deployment of Distributed Antenna Systems
121	Junjian Huang, Xing He and Wei Xiong	Fuzzy processing design to finite-time stabilize of memristor-based chaotic systems
97	Li Xue, Shiwei Wang, Ming Li and Liangliang Wang	FM-to-AM Conversion Comparison of Typical Second-order Phase Modulation Signals
116	Xiaoyan Zhao, Bin Zhou, Ziqing Fan, Xun Zhou, Zhaohui Zhang, Xiangwei Dong and Lu Qin	Research on Image Acquisition and Wireless Transmission based on STM32
172	Hongjun Tian, Dongsheng Yang, Lei Wang and Qidi Wu	Information Security Attack-defense Research Based on the Military Balance Operation Mechanism
214	Hongjun Tian, Lei Wang and Qidi Wu	The Enlightenment of Western Military Operation Mechanism to Information Security Defense
67	Gui Jin, Michael Johnson, Jia Liu and Xiaokang Lin	Voice Conversion Based on Gaussian Mixture Modules with Minimum Distance Spectral Mapping
223	Chunyu Pan,Xiangli Zhang and Kun Yan	Efficient Spectrum Handoff Scheme in Cognitive Radio
Oral session SaA12: Computational Intelligence		
Chairs: Shukai Duan and Jun Zhao		
14:00 – 15:45, Jin Xi Hall, 5th floor		
Submission Number	**Authors**	**Titles**
107	Xiaomei Cao, Jian Wang and Wenjie Hu	A trust model based on fuzzy Q-learning algorithm in mobile P2P network
113	Lisheng Ma, Jundong Zhang and Guang Ren	An improved selection strategy differential evolution algorithm for reconfiguration of shipboard power system
66	Rui Du, Yangyu Fan and Jianshu Wang	Wideband Beamforming based on Compressive Sensing
231	Zhiyuan Jiang, Shukai Duan, Lidan Wang and Xiaofang Hu	A Threshold Adaptive Memristor Model Analysis with Application in Image Storage

232	Hairui Yao, Shukai Duan and Lidan Wang	Composite Behaviors of Series and Parallel Meminductor Circuits
54	Cong Li, Zhengzheng Cong, Baolei Zhang and Hui Jing	A Simulated Annealing Algorithm based Optimization for Vehicle Powertrain Mounting System
86	Xumin Huang, Jiawen Kang and Rong Yu	Optimal Roadside Unit Placement with Location Privacy Enhancement in Vehicular Social Network
19	Myongchan Kim, Kwangchol Choe, Guangsu Go and Ming Che	A Parallel Algorithm for Electrostatic Interactions Based on Wolf Method Charge-neutral Condition and Modified Cell-linked List Method
68	Chengwei Wu, Jiahui Wang, Hongyi Li and Hongjing Liang	Fuzzy-Model-Based Control for Nonlinear Networked Systems with Random Packet Losses
242	Chengguo Du, Chunyang Sheng, Jun Zhao, Ying Liu, Wei Wang	A multi-output fuzzy model for converter gas holder level prediction in steel industry

Oral session SaA13: Multi-Agent Systems and Networked Systems

Chairs : Hongwen Ma and Xisong Dong

14:00 – 15:45, Jin Ge Hall, 5th floor

Submission Number	Authors	Titles
12	Hongwen Ma, Ding Wang and Derong Liu	Bipartite Output Consensus of Power Integrator Multi-Agent Systems with Input Noises
99	Yingying Liu, Deqiang Ouyang, Haijun Jiang and Cheng Hu	Second-order consensus in multi-agent systems with Multi-leaders under nonlinear dynamics control
8	Kai Xu and Long Qin	Multi-Agent Formation Control based on Virtual Forces
56	Yi Shen, Yang Liu and Xiaoping Wang	Realization of a Memristor-Based Second-Order Active Low-Pass Filter
230	Hanquan Lin, Qinglai Wei and Derong Liu	Adaptive Tracking Control of Leader-Following Multi-Agent Systems
73	Chenxi Shao, Yubing Duan and Binghong Wang	Attractive Density: A New Node Similarity Index of Link Prediction in Complex Networks
92	Junjie Yang, Kan Xie, Haochuan Zhang and Rong Yu	A Semiblind Discriminatory Channel Estimation Training Scheme in MIMO Two-Way Full Duplex Relay Networks
25	Xisong Dong, Timo R. Nyberg, Pekka Hämäläinen, Gang Xiong, Yuan Liu and Jiachen Hou	Vulnerability Analysis of Smart Grid Based on Complex Network Theory
95	Weifeng Zhong, Chuan Lu and Rong Yu	Adaptive Price Control for Electric Vehicle Charging in Smart Grid

Oral session SaA21: Computer Vision and Image Processing

Chairs: Chengdong Li and Dongsheng Guo

16:15 –18:00, Jin Shan Hall, 5th floor

Submission Number	Authors	Titles
11	Xiaogang Zhang, Zhanyu Bu, Hua Chen and Min Liu	Fast Image Dehazing Using Joint Local Linear SURE-based Filter and Image Fusion

14	Dongmei Liu, Xuan Wang and Junfang Song	A Robust Pedestrian Detection Based on Corner Tracking
17	Weimin Huang and Eric Gill	Retrieving Wind Speed from Rain-Contaminated X-band Nautical Radar Images
18	Ping Zhou, Shuo Huang, Yunlei Yu and Guochao Cai	Extraction and Measurement of Facial Wrinkles
51	Haitao Wang, Dongbin Zhao and Chengdong Li	Online Synchronous Policy Iteration Based Concurrent Learning to Solve Continuous-time Optimal Control Problem
58	Shilong Liu, M.A. Rahman, C. Y. Wong, S.C.F. Lin, G. Jiang and Ngaiming Kwok	Dark Channel Prior based Image De-hazing: A Review
76	Huimin Qian, Jun Zhou, Yue Yuan and Xiaoyun Zhou	Visual Activity Recognition Based on Depth Contour Image
111	Haoqian Wang,Jiangfeng, Yang and Xingzheng Wang	A New Image Denoising Algorithm Based on Massive Image Database
233	Dongsheng Guo, Yaqiong Ding, Xiaodong Li, Senbo Fu and Yunong Zhang	Zhang Neuronet Solving Complex-Valued Time-Varying Linear Inequalities
245	Yang Yang, Yue Deng, Xiangyang Ji and Qionghai Dai	Log-Sum Heuristic Recovery for Automated Isoform Discovery and Abundance Estimation from RNA-Seq Data

Oral session SaA22: Control and Automation

Chairs: Chuandong Li and Chao Li

16:15 –18:00, Jin Xi Hall, 5th floor

Submission Number	Authors	Titles
7	Pan Liu and Wei Wang	An Improved Time Tracking Algorithm for Fast Frequency-Hopping/BFSK Systems
20	Asmat Ullah, Wen Chen and Mushtaq Ahmad Khan	Fracto-Integer Order Total Variation Based Multiplicative Noise Removal Model
21	Xiangwu Gong, Wei Shao and Qing Yao	Joint Power Control and Transceiver Beamforming with Individual Secrecy Rate Constraints for Multiuser MIMO
23	Ruizhuo Song and Qinglai Wei	Multiple Data-based ADP Structures to Solve the Infinite Horizon Optimal Control Problem
29	Dengqing Tang, Tianjiang Hu, Lincheng Shen, Daibing Zhang and Dianle Zhou	Chan-Vese Model Based Binocular Visual Object Extraction for UAV Autonomous Take-off and Landing
65	Xiaohua Yuan, Chuandong Li and Tingwen Huang	Complete Synchronization and projective lag synchronization of complexvalued hyperchaotic Lorenz system and Lü system via active control
229	Teng-Hai Qiu, Biao Luo, Huai-Ning Wu and Lei Guo	RBF Neural Network Identifier based Constrained Optimal Guidance for Mars Entry Vehicles
115	Yifan Li, Hai-Lin Liu, Kan Xie and Xiuli Yu	A Method for Distributing Reference Points Uniformly along the Pareto Front of DTLZ Test Functions in Many-Objective Evolutionary Optimization

Submission Number	Authors	Titles
234	Yunong Zhang, Deyang Zhang, Zhengli Xiao, Hongzhou Tan and Zhen Li	Solving Online for Time-Varying pth Root via ZD from Real Domain to Complex Domain

Oral session SaA23: Robotics and Model Analysis

Chairs: Jiancheng Lv and Yang Song

16:15 –18:00, Jin Ge Hall, 5th floor

Submission Number	Authors	Titles
55	Yang Song, Bo Zhao and Yuanchun Li	Adaptive Fuzzy Position/Force Hybrid Control for Constrained Reconfigurable Manipulators with Unknown Disturbances
105	Jinke Li, Ruiqing Fu, Xinyu Wu, Jiaquan Sun, Huiwen Guo and Shaomin Zhang	A New Path Following Algorithm With Uncertainty Information Of Robot's Initial Position and Its Implementation
110	Lixin Chen, Huiwen Guo, Huan Wang, Yen-Lun Chen and Xinyu Wu	The Visual Location of Workpiece Based on Hermite Interpolation and Mapping for Robot Arms
112	Haifei Huang, Nannan Li, Huiwen Guo, Yen-Lun Chen and Xinyu Wu	Calibration of Non-overlapping Cameras Based on a Mobile Robot
236	Antoni Malki, Chenguang Yang, Ning Wang and Zhijun Li	Mind guided Motion Control of Robot Manipulator using EEG signals
24	Hou Muzhou, Chen Ming, Zhang Yangchun and Moon Ho Lee	A Quantitative Evaluation Model of Classroom Teaching Based on Floridi's Semantic Information Formula
45	Jinfeng Yang, Yi Guan and Xishuang Dong	Analogies between Language and the Immune System
125	Yajie Hu, Yunpeng Cheng and Weiwei Yang	Performance Analysis of a Cooperative SC-FDE D-STBC Transmission System with Best Relay Selection
235	Imran Mumtaz, Jiancheng Lv and Jiangshu Wei	A Novel Method Based on Online Action Segmentation and Classification

April 26, 2015 (Sunday)

Oral session SuA11: Signal Processing		
Chairs : Yousheng Xia and Zhijun Li		
13:30 – 15:15, Jin Shan Hall, 5th floor		
Submission Number	**Authors**	**Titles**
13	Hai Liu, Zhaoli Zhang, Sanya Liu, Zhonghua Yan and Tingting Liu	Band Narrowing with Sparsity Regularization for Spectroscopic Data
31	Jiacheng Chen, Yilei Jiang, Weibo Xu and Shulian Chai	A Novel Method of Power Spectrum Estimation in CW Radar Signal Processing
38	Chunjiao Wang, Xiaoyuan Luo and Xinping Guan	Robust L_2—L_infinite Filter Design for Stochastic Systems
108	Zheng Gong and Yousheng Xia	Two Speech Enhancement-Based Hearing Aid Systems and Comparative Study
71	Haolin Yang Xiaohui Hu, Lele Cao and Fuchun Sun	A New Slip-detection Method Based on Pairwise High Frequency Components of Capacitive Sensor Signals
77	Tong Liu and Ping Qin	Research on Three Dimensional Mathematic Model of Land Echo Image in Marine Radar Simulator
82	Qidong Xiao, Ao Peng and Gang Ou	A Novel Weak Signal Acquisition Scheme for Beidou nGEO Satellite Signals
119	Dezhen Xu, Guangliang Dong and Haitao Li	Simulation Analysis of Different Time Delay Estimation Algorithms for Down-Converted Signals
224	Lihua Liu, Zhengjun Cao and Zhenzhen Yan	A Method to Distinguish Sequences with Same Mean and Same Variance
Oral session SuA12: Advanced Information Technology and Applications		
Chairs: Jun Zhao and Nicola Sfondrini		
13:30 – 15:15, Jin Xi Hall, 5th floor		
Submission Number	**Authors**	**Titles**
30	Lei Deng and Jerry Gao	An Advertising Analytics Framework Using Social Network Big Data
28	Nicola Sfondrini, Giannmario Motta and Linlin You	Service Level Agreement (SLA) in Public Cloud Environments：A Survey on the current enterprises adoption
49	Li Zhou, Zhaohui Yang and Ge Chang	Salient Region Detection based on Compactness with Manifold Ranking
57	Anna Knyazeva, Oleg Kolobov, Fjodor Tatarsky and Igor Turchanovsky	A merging　pproach for authority records
74	Wei Zhao, Yimin Wei, Yuehong Shen, Pengcheng Xu, Zhigang Yuan and Wei Jian	An Extended and Efficient Approach for Block BSS in Time Domain
91	Beihai Tan, Jinrong Lin, Weijun Li and Kun Cai	A Discriminant Method of Blind Source Separation Based on FECG Correlations
101	Wei Lin, Yue-Fei Zhu and Rui-Jie Cai	Junk Code Elimination Based on Idle Object Set
102	Chaoming Huang, Jingyang Li and Wensheng Liu	Study on Friction and Wear Behavior of Ceramic Metal Additives by Vibration

Submission Number	Authors	Titles
122	Aphirak Jansang and Anan Phonphoem	The evaluation of ATMV2 mechanism over IEEE 802.11e HCCA by Youtube movie trailers
220	Anhui Yan and Yue Guan	Correlation Study on DWI manifestation, ADC Value and Serum NSE Level in Neonates with Hypoxia-Ischemic Encephalopathy
243	Zhiming Lv, Zheng Lv, Jun Zhao, Ying Liu, Wei Wang	A simplified nonlinear modeling for a two-stage grinding process circuit

Oral session SuA13: Network and Communication

Chairs: Badong Chen and Zhixiang Deng

13:30 – 15:15, Jin Ge Hall, 5th floor

Submission Number	Authors	Titles
106	Jing Fang, Shenwen Lin, Xiongjie Du, Yong Yang and Shaohua Wu	Detection Technology of Scripting Attack of Network Device Based on Vulnerability Modeling
22	Shuo Feng, Mingan Wang, Qilin Yu and Zhonghua Li	Improved Neighbor Table-based Tree Routing Strategies in ZigBee Wireless Networks
171	Zhixiang Deng, Yuan Gao and Changchun Cai	Secrecy Rate of a Class of State-dependent Untrusted Relay Channel with Orthogonal Components
26	Gang Xiong, Timo R. Nyberg, Pekka Hämäläinen, Xisong Dong, Yuan Liu and Jiachen Hou	To Enhance Power Distribution Network Management of Local Power Service Enterprise by using Cloud Platform
124	Shijie Wang, Yuanyuan Gao, Guozhen Zang, Nan Sha and Kun Xu	A Lifetime-Concerned Probabilistic Routing Scheme in Wireless Cooperative Sensor Network
75	Wei Zhao, Yuehong Shen, Pengcheng Xu, Yimin Wei, Zhigang Yuan and Wei Jian	Statistic Division Multiplexing for Wireless Communication Systems
94	Feihong Dong, Yuanzhi He, Xionglin Zhou, Qing Yao and Long Liu	Optimization and Design of HAPs Broadband Communication Networks
176	Ke Yin	Fire Evacuation Simulation for the Case of a Non-Symmetrical Metro station using Wireless Sensor Network
237	Xiguang Xu, Hua Qu, Jihong Zhao and Badong Chen	Cooperative Spectrum Sensing in Cognitive Radio Networks with Kernel Least Mean Square

Oral session SuA21: Intelligent Technology

Chairs: Jianlong Qiu and Zhonghua Zhou

15:45 –17:30, Jin Shan Hall, 5th floor

Submission Number	Authors	Titles
70	Zhongjun Yang and Huaguang Zhang	Prediction of Melt Rate of Vibrating-electrode Electroslag Remelting Process Using Artificial Neural Network
78	Guo Min and Jing Guo	Constructing Smart Campus Network Based on Ubiquitous Sensor Technology
219	Jianhua Liu and Yan Hu	A new Off-line Electronic Cash Scheme for Bank Delegation

89	Peitao Wang, Jun Lu, Bin Zhang and Zeng Tang	A Review on Transfer Learning for Brain-computer Interface Classification
104	Yiliang Xing, Yun Pei, Huajun Lei and Yongfang Chu	The Development of Android Application based on SL4A
53	Xiangyi Li and Yanheng Li	The application of three-phase project teaching in PHP programming design
93	Zhonghua Zhou, Kang Wang, Jiapeng Wu, Qunyang Wang and Dongbo Pei	A High Reliability Design for Space-Borne Large-scale SRAM-Based FPGAs with Low Requirement of Memory Space
114	Wenhui Li and Zhigang Liu	An Approach to Classify Transient Disturbances with Incomplete S-transform and Morlet Wavelet Spectral Kurtosis
238	Chengdong Yang, Jianlong Qiu, Tongxing Li, Xiao Chen, Xiangyong Chen, Ancai Zhang and Liuqing Yang	Distributed Proportional-Spatial Derivative Control Design for 3-Dimensional Parabolic PDE Systems
221	Zhiyuan Wang and Fubao Wu	Android Malware Analytic Method Based on Improved Multi-level Signature Matching

Oral session SuA22: Automotive Electronics and Electric Vehicles

Chairs: Tieshan Li and Zhouhua Peng

15:45 –17:30, Jin Xi Hall, 5th floor

Submission Number	Authors	Titles
40	Qichao Wang, Chao Li, Xiaolin Wang, Chunchao Ma and Binbin Zhou	Researches on Intelligent Pre-alarm/alarm System for Inland Rivers Shipping
41	Siming Peng, Zhigang Yuan, Jun You, Yuanyuan Wu, Yuehong Shen and Wei Jian	Cooperation of Clipping with Companding to Improve the BER Performance for Multicarrier Transmission Systems with Nonlinear HPA
42	Bin Wang, Dongbin Zhao, Chengdong Li and Yujie Dai	Design and Implementation of an Adaptive Cruise Control System Based on Supervised Actor-Critic Learning
47	Zhouhua Peng, Dan Wang and Jun Wang	Containment Control of Networked Autonomous Underwater Vehicles Using Output Information
69	Lu Liu, Dan Wang and Zhouhua Peng	Output Feedback Adaptive Control for Autopilot Design of An Unmanned Surface Vehicle
85	Wei Gao and Weitao Tie	A Test Method for Electronic Jamming Effect Based on an Unmanned Aircraft
123	Ke Huang, Zhigang Liu and Ying Wang	Analysis of Vehicle Body Over-voltage under Ground's Automatic Electrical Phase
79	Zhongming Xiao, Tieshan Li, Fujun Liu and Xiaohui Yang	Direct Adaptive Fuzzy Control for a Class of Discrete-time Nonlinear Systems
239	Yongfang Wang, Jianlong Qiu, Tongxing Li, Xin Luan and Dalei Song	An Algorithm of Calculating Turbulence Kinetic Energy Dissipation Rate Based on Motion Compensation
228	Li Jiang and Kai Hu	The Development of pre-treatment program for progressing collapse based on LS-DYNA

Oral session SuA23: Machine Learning and Pattern Recognition		
Chairs: Fuxiao Tan and Jie Xu		
15:45 –17:30, Jin Ge Hall, 5th floor		
Submission Number	**Authors**	**Titles**
83	Jie Xu, Kan Xie and Zhiyu Wang	Nonnegative Linear Reconstruction Measure based Face Recognition System
109	Hongjie Duan and Haolin Zhang	Studying on Extraction Method for Semantic Relationship among Topic Words
117	Quan Chen, Dapeng Shi, Guihuan Feng, Xiaoyan Zhao and Bin Luo	On-line Handwritten Flowchart Recognition Based on Logical Structure and Graph Grammar
60	Xin Wang, Ying Zhan and Yuanzhong Wang	Study on the Composition Rules for Chinese Jiangnan Ditty
98	Zhijun Zhao and Lingyun Xie	The Influence of Video Quality on Difference Threshold of Loudness Perception
39	Shuo Feng, Mingan Wang, Jie Yan, Yanfei Zhu and Zhonghua Li	Independent Component Analysis Based Tag Anti-collision Algorithm in Multi-antenna Radio Frequency Identification
90	Peitao Wang, Jun Lu, Chuan Lu and Zeng Tang	An Algorithm for Movement Related Potentials Feature Extraction Based on Transfer Learning
96	Zixiao Shen, Fen Miao, Qinghan Meng and Ye Li	Cuffless and Continuous Blood Pressure Estimation based on Multiple Regression Analysis
240	Fuxiao Tan, Zhongrui Liu and Tongtong Yang	Optimal Control of Nonaffine Nonlinear Discrete-Time Systems Using Kernel-based Adaptive Dynamic Programming
241	Tianpeng Han and Daimu Wang	An Applied Research Based on Improved Association Rules

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