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 Shenyang Aerospace University (China)

<b>Session</b>	<b>SuM4: Energy &amp; Environment (I)</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 6
<b>Chairs</b>	Georg Frey, <i>Saarland University</i> Quan Jiang, <i>Anhui University</i>

- SuM4.1 13:25 – 13:45 P1620  
**Predictive Power Management for a Solar-Powered Off-Grid Surface Water Quality Monitoring System 382**  
 Raja Rehan Khalid, Angelika Meyer, Josef Meiers, Horst P. Beck and Georg Frey  
*Saarland University (Germany)*
- SuM4.2 13:45 – 14:05 P1240  
**Coordinated Control Strategy for Improving Fault Ride-through Performance of Photovoltaic/Battery Microgrid 388**  
 Xue Fu<sup>1</sup>, Peng Wang<sup>1,2</sup>, Songjie Zhang<sup>1</sup>, Xiaoqing Han<sup>1</sup>, Wenping Qin<sup>1</sup>, Yanbing Jia<sup>1</sup>  
<sup>1</sup>Taiyuan University of Technology (China), <sup>2</sup>Nanyang Technological University (Singapore)
- SuM4.3 14:05 – 14:25 P1246  
**Design of Secondary Voltage Regulation System of DC Microgrid Based on Vanadium Redox Battery Storages 394**  
 Zhichang Mi<sup>1</sup>, Xiaoqing Han<sup>1</sup>, Chunguang Ren<sup>1</sup>, Wenping Qin<sup>1</sup>, Peng Wang<sup>1,2</sup>  
<sup>1</sup>Taiyuan University of Technology (China), <sup>2</sup>Nanyang Technological University (Singapore)
- SuM4.4 14:25 – 14:45 P1407  
**A Review of Individual Pitch Control for Wind Turbines 399**  
 Zhihong Jiang\*, Zhe Chen<sup>+</sup>, Wenzhou Liu\*, Yang Liu\*, Xiuyan Wang  
 \*Changchun Institute of Technology Changchun City (China), Aalborg University (Denmark)
- SuM4.5 14:45 – 15:05 P1417  
**Coupling Thermodynamics Modeling and Analysis of a Free Piston Linear Generator Range-extender for HEVs 405**  
 Peng Sun<sup>1</sup>, Chi Zhang<sup>1</sup>, Lianlian Mao<sup>2</sup>, Dequan Zeng<sup>2</sup>, Fei Zhao<sup>1</sup>, Jinhua Chen<sup>1</sup>  
<sup>1</sup>Chinese Academy of Sciences (China), <sup>1</sup>Zhejiang Key Laboratory of Robotics and Intelligent Manufacturing Equipment Technology (China), <sup>2</sup>Shanghai University (China)

<b>Session</b>	<b>SuM5: Adaptive and Intelligent Control (II)</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 11
<b>Chairs</b>	Wen Chen, <i>Wayne State University</i> Nian Heng, <i>Zhejiang University</i>

- SuM5.1 13:25 – 13:45 P1438  
**Research on Effect of Temperature on Performance and Temperature Compensation of Interior Permanent Magnet Motor 411**  
 Zhenggen Zhang, Guoli Li, Zhe Qian, Qiubo Ye, Yu Xia  
*Anhui University (China)*
- SuM5.2 13:45 – 14:05 P1599  
**The Study of Variable Speed Variable Pitch Controller for Wind Power Generation Systems Based on Sliding Mode Control 415**  
 ZHU Yinzhong, MI Yang  
*Shanghai University of Electric Power (China)*

- SuM5.3 14:05 – 14:25 P1159  
**Runway Extraction Method based on Rotating Projection for UAV** 421  
 Yu-jie Sun, Yang Li, Huan Yang  
*Beijing Institute of Technology (China)*
- SuM5.4 14:25 – 14:45 P1436  
**Design of workshop production management control system based on Multi- Agent** 427  
 Chen Wei, Jin Jing, Chen Mei, Gui Shaoting  
*Hefei University of Technology (China)*
- SuM5.5 14:45 – 15:05 P1162  
**Fuzzy Modeling and Particle Swarm Optimization Based on Energy Consumption Data of the Combined Cold-Heat and Power System** 431  
 Hong-Li Lyu\*, Chun-Jun Zhang\*, Wen Chen<sup>+</sup>  
 \*Shandong Jianzhu University (China), <sup>+</sup>Wayne State University (USA)

<b>Session</b>	<b>SuM6: Invited Session – Monitoring, Diagnostic Methods and Applications (I)</b>
<b>Organizers</b>	Prof. Zhiwei Gao, <i>Northumbria University, UK</i> Prof. Lina Yao, <i>Zhengzhou University, China</i>
<b>Date/Time</b>	Sunday, 5 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 12
<b>Chairs</b>	Lina Yao, <i>Zhengzhou University</i> Shichuan Ding, <i>Anhui University</i>

- SuM6.1 13:25 – 13:45 P1480  
**Robust fault estimation for stochastic nonlinear systems with Brownian perturbations** 438  
 Xiaoxu Liu, Zhiwei Gao, and Sarah Odofoin  
*University of Northumbria (UK)*
- SuM6.2 13:45 – 14:05 P1806  
**Fault Detection and Isolation of Sensor in Time-Delay Systems based on Space Geometry Method** 444  
 Dianfeng Qiao, Qianshuai Cheng, Yandong Hou  
*Henan University (China)*
- SuM6.3 14:05 – 14:25 P1476  
**Active Fault Tolerant Control for Nonlinear Non-Gaussian Singular Stochastic Distribution Systems** 450  
 Lina Yao, Lifan Li, Chunhui Lei  
*Zhengzhou University (China)*
- SuM6.4 14:25 – 14:45 P1477  
**Robust fault diagnosis and fault tolerant control for non-Gaussian uncertainty stochastic distribution systems** 456  
 Yuancheng Sun, Lina Yao  
*Zhengzhou University (China)*
- SuM6.5 14:45 – 15:05 P1479  
**Retrofit Reconfigurable Fault Tolerant Control for Mechanical Systems** 462  
 Bing Xiao, Zhengzhou Fu, Jia Yang, Chaofan Wu, and Xing Huo  
*Bohai University (China)*
- SuM6.6 15:05 – 15:25 P1478  
**Robust actuator fault detection for an induction motor via genetic algorithms optimization** 468  
 Sarah Odofoin\*, Zhiwei Gao\*, Xiaoxu Liu\*, Kai Sun<sup>+</sup>  
 \*University of Northumbria (UK), <sup>+</sup>Shandong University of Technology (China)

<b>Session</b>	<b>SuM7: Power Electronics (IV)</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 12
<b>Chairs</b>	Youyuan Ni, <i>Hefei University of Technology</i> Xing Qi, <i>Anhui University</i>

- SuM7.1 13:25 – 13:45 P1145  
**Research on the Pre-charging Control Strategies of the Series Part of MMC-UPQC** 474  
 Qian Yeniu, Wang Jianbo, Du changJun, Sun Jian  
*State Grid Beijing Electric Power Company (China)*
- SuM7.2 13:45 – 14:05 P1221  
**Line-Start Permanent Magnet Synchronous Motor Starting Capability Improvement Using Pole-Changing Method** 479  
 Mengmeng Tian, Xiuhe Wang, Guanqun Li  
*Shandong University (China)*
- SuM7.3 14:05 – 14:25 P1205  
**A Triple Closed-loop Control System for a Sensorless Brushless DC Motor Based on Disturbance Observer** 484  
 Youyuan Ni, Hao Chen  
*Hefei University of Technology*
- SuM7.4 14:25 – 14:45 P1584  
**The Influence of Leakage Inductance on Multi Pulse Rectifier Based on the Modulation Theory** 489  
 Li Yuan, Yang Wei, Yang Shiyang  
*Harbin Institute of Technology (China)*
- SuM7.5 14:45 – 15:05 P1380  
**Improved Small Signal Modeling and Dynamic Analysis of High Step-up Converter with Charged Pump and Boost Converter** 495  
 Faqiang Wang, Jing Li  
*Xi'an Jiaotong University*

<b>Session</b>	<b>SuMP1: Poster Session – Network and Communication Technologies</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- SuMP1.1 P1707  
**PFO: Priority-based Flow Scheduling for Online Social Network Datacenter** 500  
 Xingyan Zhang<sup>1,2</sup>, Minghao Ding<sup>3</sup>  
<sup>1</sup>*Huazhong University of Science and Technology (China)*, <sup>2</sup>*Jiangnan University (China)*, <sup>3</sup>*Tianjin Electronic Information College (China)*
- SuMP1.2 P1690  
**A Novel Efficient Forwarding Protocol for 3-D Underwater Wireless Sensor Networks** 506  
 Wang Qingwen<sup>1</sup>, Cao Fei<sup>1</sup>, Li Zhi<sup>2</sup>, Qi Qian<sup>3</sup>  
<sup>1</sup>*Xi'an Research Institute of High Technology (China)*, <sup>2</sup>*Academy of Equipment (China)*, <sup>3</sup>*Northwestern Polytechnical University (China)*
- SuMP1.3 P1504  
**Cancellable Multi-Modal Biometric Authentication for Cloud based MobilityFirst like Environment** 510  
 Muhammad T. Alam, Haozhang Li, Muneera Chowdhury  
*University of Toronto (Canada)*

- SuMP1.4 P1169  
**Models and Analysis of Video Streaming End-to-End Distortion over LTE Network 516**  
 Huayong Fu\*, Hui Yuan\*, Mengyu Li\*, Zhenzhen Sun\*, Fengrong Li<sup>+</sup>  
 \*Shandong University (China), <sup>+</sup>Chinese Academy of Sciences (China)
- SuMP1.5 P1280  
**A Trellis Coded Pulse Interval Modulation for Measurement While Drilling Telemetry 522**  
 CHEN Wei\*, JIANG Peipei\*, GU Qingshui\*, ZHANG Songwei<sup>+</sup>  
 \*University of Electronic Science and Technology of China (China), <sup>+</sup>China Oilfield Services Ltd. (China)
- SuMP1.6 P1095  
**A TSOA based Localization Algorithm in Wireless Networks 526**  
 Shuonan Li\*, Jingyu Hua<sup>1,\*</sup>, Guomin Zhong\*, Weidang Lu\*, Bin Jiang<sup>+</sup>  
 \*Zhejiang University of Technology (China), <sup>+</sup>Southeast University (China)

<b>Session</b>	<b>SuMP2: Poster Session – Signal Processing</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- SuMP2.1 P1254  
**Research on Sequence Component Detection Algorithm Based on Sliding-window Mean-value 531**  
 ZHENG Changbao, ZHANG Jun, LI Guoli  
 Anhui University (China)
- SuMP2.2 P1329  
**An Effective Pansharpening Method Based on Guided Filtering 534**  
 Xu L<sup>\*i</sup>, Weifeng Qi\*, Shigang Yue<sup>+</sup>  
 \*Northwestern Polytechnical University (China), University of Lincoln (UK)
- SuMP2.3 P1046  
**An Image Encryption Model Based on Hyperchaotic System 539**  
 Xiaoyu-Hu,Tianshi-Shen,Junkang-Ni,Chongxin-Liu,Kai-Liu,Zece-Zhang  
 Xi'an Jiaotong University (China)
- SuMP2.4 P1631  
**Load Parameter Identification Based on Particle Swarm Optimization and the Comparison to Ant Colony Optimization 545**  
 Li Haoguang<sup>1,2</sup>, Liu Wenjie<sup>2</sup>, Shen Xuefeng<sup>1</sup>, Yu Yunhua<sup>1</sup>  
 China University of Petroleum (East China), Chinese Academy of Sciences (China)
- SuMP2.5 P1786  
**An Improved CFAR for Life Detection of UWB Radar 551**  
 Hui Wang, Guohua Wei, Teng Wang, Xu Wang  
 Beijing Institute of Technology (China)
- SuMP2.6 P1638  
**Analysis of Chaos characteristics of A large Complex Mechanical Vibrations 555**  
 Xiao Qijun\*, Luo Zhonghui<sup>+</sup>  
 \*Zhaoqing University (China), <sup>+</sup>Guangdong Polytechnic Normal University
- SuMP2.7 P1416  
**A novel image splicing detection method based on the inconsistency of image noise 560**  
 Jing Dong, Li Chen, Jing Tian,Xin Xu  
 Wuhan University of Science and Technology (China)

- SuMP2.8 P1617  
**Eye-Gaze Tracking System By Haar Cascade Classifier 564**  
 Yunyang Li, Xin Xu., Nan Mu, and Li Chen  
*Wuhan University of Science and Technology (China)*
- SuMP2.9 P1311  
**Performance Evaluation of Binary Descriptors for Mobile Robots 568**  
 Zhen Zeng, Hong Liang\*, Ming Su, Chunnian Zeng  
*Wuhan University of Technology*
- SuMP2.10 P1516  
**Adaptive Similarity Fusion Strategy in Stereo Matching Algorithm 574**  
 Baoping Li <sup>1,2</sup>  
<sup>1</sup>*Communication University of China (China)*, <sup>2</sup>*Henan Polytechnic University (China)*
- SuMP2.11 P1422  
**Adaptation of the Object Recognition Method Based on Random Ferns for Mobile Robots 579**  
 Hong Liang, Fan Xu, Yanlin Ji Sihao Deng and Chunnian Zeng  
*Wuhan University of Technology (China)*
- SuMP2.12 P1121  
**Fornasini-Marchesini Model Realization of MIMO Radar Image by Elementary Operation Approach 585**  
 Zhihao Fang, Hua Cheng, Gengguo Cheng  
*Wuhan University of Science and Technology (China)*
- SuMP2.13 P1172  
**Design and Analysis of LFM/Barker RF Stealth Signal Waveform 591**  
 Fu Yinjuan, Li Yong, Huang Qiongdan, Zhang Kunhui  
*Northwestern Polytechnical University*
- SuMP2.14 P1326  
**A Study on the Load Model Based on Particle Swarm Optimization 596**  
 Yan Pang , Yonghai Xu, Shun Tao  
*North China Electric Power University (China)*

<b>Session</b>	<b>SuP1: Power Electronics (V)</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor Room 1
<b>Chairs</b>	NingYi Dai, <i>University of Macau</i> Qian Zhang, <i>Anhui University</i>

- SuP1.1 15:55 – 16:15 P1393  
**A Novel Bridgeless Buck PFC Converter With Half Dead Zones 602**  
 Xiang Lin, Faqiang Wang  
*Xi'an Jiaotong University (China)*
- SuP1.2 16:15 – 16:35 P1728  
**Multiband HCC for Cascaded H-bridge Multilevel Inverter based DSTATCOM 607**  
 Ravikant Pandey, Ravi Nath Tripathi and Tsuyoshi Hanamoto  
*Kyushu Institute of Technology (Japan)*
- SuP1.3 16:35 – 16:55 P1571  
**The study of the power quality emission characteristics of different types of lamps and its impacts on distribution systems 613**  
 Shunfu Lin, Nana Huang, Mingxing Zhu  
*Shanghai University of Electric Power (China), Anhui University (China)*



- SuP1.4 16:55 – 17:15 P1181  
**A Controller of PMSM for Electrical Bicycle with Hall Effect Sensors 619**  
 Puru Zhang, Qianfan Zhang  
*Harbin Institute of Technology (China)*
- SuP1.5 17:15 – 17:35 P1363  
**Optimize the series LC design for a Quasi Proportional-Resonant Controlled Hybrid Active Power Filter with Harmonic Compensation**  
**Insulator Contamination 624**  
 Tao Ye\*, NingYi Dai\*, Miao Zhu+  
 \*University of Macau (China), +Shanghai Jiao Tong University (China)

<b>Session</b>	<b>SuP2: Power Electronics (VI)</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 3
<b>Chairs</b>	Xijun Yang, <i>Shanghai Jiao Tong University</i> Quan Chen, <i>Anhui University</i>

- SuP2.1 15:55 – 16:15 P1065  
**Simulation on the Active Voltage Balancing of Series Connected IGBTs by Monte Carlo Analysis 630**  
 Xuzhe Xu, Yinghui Gao  
*Chinese Academy of Sciences (China)*
- SuP2.2 16:15 – 16:35 P1141  
**A Novel Control Strategy of Parallel Connected Inverters in Microgrid 636**  
 Xiaobin Zhang<sup>1,2</sup> Ting Han<sup>1</sup> Guang Zeng<sup>1</sup>  
<sup>1</sup>*Xi'an University of Technology (China)*, *National Engineering Laboratory of Energy-saving (China)*
- SuP2.3 16:35 – 16:55 P1263  
**Modeling, Control and Implementation of High Step-up Ratio IDDB Converters for Fuel Cell Applications 640**  
 WANG Yue<sup>1</sup>, GAO Dawei<sup>1,2</sup>, LIU Jiexun<sup>1</sup>  
<sup>1</sup>*Tsinghua University (China)*, <sup>2</sup>*Collaborative Innovation Center of Electric Vehicles (China)*
- SuP2.4 16:55 – 17:15 P1114  
**A Novel Efficient Structure Applied to Non-isolated Single-phase Photovoltaic Grid Inverters 645**  
 Shi-cheng Zheng, Xian-bing Hu, Dan Zhang  
*Anhui University of Technology (China)*
- SuP2.5 17:15 – 17:35 P1463  
**Discontinuous PWM in Single-phase Grid-connected Inverter 651**  
 Xi-jun YANG\*, Hao QU\*, Hou-junTang\*, Bin-ruo ZHU‡, Jian-feng JIANG‡, Zhi-hong JIANG†  
 \*Shanghai Jiao Tong University, ‡Shanghai electric power company (China), †Changchun Institute of Technology (China)
- SuP2.6 17:35 – 17:55 P1075  
**Field Flashing Control for Large Synchronous Generator 658**  
 Qiantao Huo, Yixiang Shao and Shaoxing Zhao  
*NARI Technology Development Co. Ltd (China)*

<b>Session</b>	<b>SuP3: Image Processing</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 5
<b>Chairs</b>	Shiqian Wu, <i>Wuhan University of Science and Technology</i> Changbao Zheng, <i>Anhui University</i>

- SuP3.1 15:55 – 16:15 P1318  
**Weighted Bilateral Filtering for Near-edge Artifacts Avoidance and Impulse Noise Suppression 663**  
 Ba Thai, Guang Deng, Robert Ross and Phat Huynh  
*La Trobe University (Australia)*
- SuP3.2 16:15 – 16:35 P1048  
**Superresolution Imaging Using Constrained Iterative Deconvolution 669**  
 Xiongjun Fu<sup>1</sup>, Shuilian Peng<sup>1</sup>, Shengqi Qian<sup>1</sup>, Chengyan Zhang<sup>1</sup>, Ming Xie<sup>1</sup>, Shuguang Li<sup>2</sup>  
<sup>1</sup>*Beijing Institute of Technology (China)*, <sup>2</sup>*Shanghai Aerospace Electronic Technology Institute (China)*
- SuP3.3 16:35 – 16:55 P1523  
**Superpixels-Based Non-local Means Image Denoising 673**  
 Weihua Liu<sup>1,2</sup>, Shiqian Wu<sup>2</sup>  
<sup>1</sup>*Xi'an University (China)*, <sup>2</sup>*Wuhan University (China)*
- SuP3.4 16:55 – 17:15 P1629  
**Fast Stereo Matching with Fuzzy Correlation 678**  
 Mozammel Chowdhury<sup>1</sup>, Junbin Gao<sup>2</sup>, Rafiqul Islam<sup>1</sup>  
<sup>1</sup>*Charles Sturt University*, <sup>2</sup>*University of Sydney Business School*
- SuP3.5 17:15 – 17:35 P1286  
**Adaptive Window Algorithm for Stereo Vision Using Successive Disparity Difference Feedback 683**  
 Phat Huyn , Robert Ross, Andrew Martchenko and John Devlin  
*La Trobe University (Australia)*
- SuP3.6 17:35 – 17:55 P1153  
**Comparative Study of Compressive Classification-based Approaches for Face Recognition 689**  
 Binbin Sun, Huang Bai, Aihua Yu, and Zeru Lu  
*Zhejiang University of Technology (China)*

<b>Session</b>	<b>SuP4: Energy &amp; Environment (II)</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 6
<b>Chairs</b>	Weixiang Shen, <i>Swinburne University of Technology</i> Wenjian Cai, <i>Nanyang Technological University</i>

- SuP4.1 15:55 – 16:15 P1511  
**H infinity observer based state of charge estimation for battery packs in electric vehicles 694**  
 Fengxian He\*, W.X. Shen\*, A. Kapoor\*, Damon Honnery<sup>+</sup>, Daya Dayawansa<sup>+</sup>  
 \**Swinburne University of Technology (Australia)*, <sup>+</sup>*Monash University (Australia)*
- SuP4.2 16:15 – 16:35 P1308  
**Dynamic Operation Optimization of Micro grid: Model Establishment and Solution Design 700**  
 Shan Cheng, Long-Long Zhao, Xiao-Yu Jiang  
*China Three Gorges University (China)*
- SuP4.3 16:35 – 16:55 P1641  
**Overview of Advanced Control Technology for Wind Power Generation 706**  
 Wenzhou Liu\*, Xun Liu<sup>+</sup>, Zhihong Jiang\*, Ning Li<sup>+</sup>, Dengkao Xi<sup>+</sup>  
 \**Changchun Institute of Technology*, <sup>+</sup>*Changchun University of Technology*

- SuP4.4 16:55 – 17:15 P1697  
**Operating Points as Communication Bridge between Energy Evaluation with Air Temperature and Velocity based on Extreme Learning Machine (ELM) Models 712**  
 Deqing Zhai, Yeng Chai Soh, Wenjian Cai  
*Nanyang Technological University (Singapore)*
- SuP4.5 17:15 – 17:35 P1743  
**Optimization and Comparison of Boiling-Off Gas re-liquefaction processes for liquid ethylene vessels 717**  
 Hongbo TAN\*, Wenjian CAI<sup>+</sup>, Qing-guo Wang<sup>+++</sup>, Nannan Sun\*  
 \*Xi'an Jiaotong University (China), <sup>+</sup>Nanyang Technological University (Singapore), <sup>+++</sup>University of Johannesburg (South Africa)
- SuP4.6 17:35 – 17:55 P1820  
**Current Situation and Prospect of Distributed Generation in China 723**  
 Yang Li<sup>1,2</sup>, Zhiyuan Cai<sup>1</sup>, Yupeng Liu<sup>2</sup>, Haitao Liu<sup>2</sup>, Hui Yu<sup>2</sup>  
<sup>1</sup>Shenyang University of Technology (China), <sup>2</sup>China Electric Power Research Institute (China)

<b>Session</b>	<b>SuP5: Hybrid Control and Digital Control</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 11
<b>Chairs</b>	Raymond Chuei, <i>Swinburne University of Technology</i> Xing Zhu, <i>InspiRain Technologies Pte Ltd</i>

- SuP5.1 15:55 – 16:15 P1607  
**A Simple Dynamic Model of Dehumidifier for Control and Optimization in LDDS 731**  
 Xianhua Ou<sup>1,2</sup>, Xiongiong He<sup>1</sup>, Wenjian Cai<sup>2</sup>, Qingguo Wang<sup>3</sup>, Yiming Wu<sup>1</sup>  
<sup>1</sup>Zhejiang University of Technology (China), <sup>2</sup>Nanyang Technological University (Singapore), <sup>3</sup>University of Johannesburg (South Africa)
- SuP5.2 16:15 – 16:35 P1796  
**PSO tuned Fuzzy based Pitch Blade Controller of Grid-tied Variable Speed Wind Turbine 737**  
 Hasan Wahhab Salih<sup>1,a</sup>, Shaorong Wang<sup>1</sup>, Bashar Sakeen Farhan<sup>1,b</sup>, Asad Waqar<sup>1</sup>  
<sup>1</sup>Huazhong University of Science and Technology (China), <sup>a</sup>Ministry of Electricity, Al Furat-Middle General Directorate of Electricity Region (Iran), <sup>b</sup>Baghdad governorate – Republic of Iraq (Iran)
- SuP5.3 16:35 – 16:55 P1560  
**Discrete Extended State Observer based Repetitive Control System for Improved Disturbance Rejection Performance 743**  
 A H M Sayem, Zhenwei Cao, Zhihong Man, Raymond Chuei  
*Swinburne University of Technology (Australia)*
- SuP5.4 16:55 – 17:15 P1487  
**An Active Splitting Strategy Space Reduction Method Based on Flow Tracing Technique 747**  
 Qiangming Zhou\*, Hongqiao Yu\*, Qian Pu\*, Yifan Zhou<sup>+</sup>, Wei Hu<sup>+</sup>  
 \*Hubei Electrical Power Company (China), <sup>+</sup>Tsinghua University (China)
- SuP5.5 17:15 – 15:05 P1232  
**Permanent Magnet Synchronous Motor Parameter Identification with Multi- Innovation Least Squares 752**  
 Baolong Jin, Yanxia Shen, Dinghui Wu  
*Jiangnan University (China)*
- SuP5.6 15:05 – 17:55 P1548  
**Design of Super Twisting Repetitive Control 758**  
 Raymond Chuei, Zhenwei Cao, and Zhihong Man  
*Swinburne University of Technology (Australia)*

<b>Session</b>	<b>SuP6: Invited Session – Design for Electrical Components and Systems</b>
<b>Organizers</b>	Prof. Yaoguang Hu, <i>Beijing Institute of Technology</i> Dr. Jin Xiao, <i>Beihang University</i>
<b>Date/Time</b>	Sunday, 5 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 11
<b>Chairs</b>	Jin Xiao, <i>Beihang University</i> Wenxiang Xie, <i>Seagate Technology International</i>

- SuP6.1 15:55 – 16:15 P1769  
**A high efficiency DC-DC converter based on bidirectional half-bridge 763**  
 Bin Cao, Jin Xiao, Jingfang Chen, Wenyuan Qin, Changbo Fan  
*Beihang University (China)*
- SuP6.2 16:15 – 16:35 P1684  
**The research on the distribution of the spacecraft energy utilization 769**  
 Liu Jing<sup>1</sup>, Xia Hui<sup>2</sup>, Liu Yihong<sup>1</sup>, Li Xiaofei<sup>1</sup>  
<sup>1</sup>*Beijing Institute of Spacecraft System Engineering (China)*, <sup>2</sup>*Beijing Spacecrafts (China)*
- SuP6.3 16:35 – 16:55 P1686  
**Research on a distributed detection system model and its application in engineering 774**  
 Xia Wenyue, Yuan Haiwen  
*Beijing University of Aeronautics and Astronautics (China)*
- SuP6.4 16:55 – 17:15 P1762  
**Joint optimization of delivery constraint and capacity adjustment for electronic component production system 779**  
 Yu Guan, YaoGuan Hu, Rui Zhou  
*Beijing Institute of Technology (China)*
- SuP6.5 17:15 – 17:35 P1674  
**Auxiliary power supply system of passenger train based on photovoltaic and energy storage 784**  
 MA Wei<sup>1,2</sup>, WANG Wei<sup>1,2</sup>, HU Ruonan<sup>1,2</sup>, WANG Ziyi<sup>1</sup>  
<sup>1</sup>*National Active Distribution Network Technology Research Center (China)*, <sup>2</sup>*Collaborative Innovation Center of Electric Vehicles in Beijing (China)*
- SuP6.6 17:35 – 17:55 P1663  
**A Novel Design of Variable Stiffness Linkage with Distributed Leaf Springs 789**  
 Xingming Wu, Zijian Zhao\*, Jianhua Wang, Dong Xu, Weihai Chen  
*Beihang University (China)*

<b>Session</b>	<b>SuP7: Best Paper Selection Session</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor Room 5
<b>Chairs</b>	Huiqi Li, <i>Beijing Institute of Technology</i> Lijun Jiang, <i>Republic Poly</i>

- SuP7.1 15:55 – 16:15 P1744  
**Automatic Detection of Arteriovenous Nicking in Retinal Images 795**  
 Jieliang Kang\*, Zhiyang Ma\*, Huiqi Li\*, Liang Xu<sup>+</sup>, Li Zhang<sup>+</sup>  
 \**Beijing Institute of Technology (China)*, <sup>+</sup>*Beijing Tongren Hospital*

- SuP7.2 16:15 – 16:35 P1644  
**Open Circuit Switch Fault Diagnosis for Three Level Active NPC Converter 801**  
 Bo Zhang<sup>1,2</sup>, Qiongquan Ge<sup>1</sup>, Dongdong Cui<sup>1,2</sup>, Xiaoxin Wang<sup>1</sup>, Yang Yu<sup>1,2</sup>  
<sup>1</sup>*Institute of Electrical Engineering, Chinese Academy of Sciences, <sup>2</sup>University of Chinese Academy of Sciences (China)*
- SuP7.3 16:35 – 16:55 P1608  
**Model-driven soft sensor for predicting biomass calorific value in combustion power plants 807**  
 Fethi Belkhir, Georg Frey  
*Saarland University (Germany)*
- SuP7.4 16:55 – 17:15 P1662  
**Two-dimension dynamic thermal circuit network model of cylinder 813**  
 Manyi Guo<sup>1</sup>, Shaoping Wang<sup>1</sup>, Xingjian Wang<sup>1</sup>, Di Wu<sup>1</sup>, Mileta M. Tomovic<sup>2</sup>  
<sup>1</sup>*Beihang University (China), <sup>2</sup>Old Dominion University (USA)*
- SuP7.5 17:15 – 17:35 P1527  
**Face Recognition Based on Stretchy Regression 819**  
 Kar-Ann Toh  
*Yonsei University (Korea)*
- SuP7.6 17:35 – 17:55 P1220  
**Observer-based Real-Time DDoS Detection 825**  
 Fengling Han\*, Long Xu\*, Xinghuo Yu\*, Zahir Tari\*, Yong Feng<sup>+</sup>, Jiankun Hu<sup>++</sup>  
<sup>\*</sup>*RMIT University (Australia), <sup>+</sup>Harbin Institute of Technology (China), <sup>++</sup>University of New South Wales (Australia)*

<b>Session</b>	<b>SuPP1: Poster Session – Combined Session</b>
<b>Date/Time</b>	Sunday, 5 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- SuPP1.1 P1104  
**Establishment and Case Analysis of a Photovoltaic Cloud Management System 831**  
 Kuo-Hsiung Tseng, Hung-Ju Wu, Guan-Hong Lin, Po-Tang Cheng  
*National Taipei University of Technology*
- SuPP1.2 P1106  
**Planning and Setup of Grid-Connected Photovoltaic Generation Systems 837**  
 Kuo-Hsiung Tseng\*, Chih-Ju Chou\*, To-Cheng Liu\*, Kang-Chin Liu<sup>+</sup>  
<sup>\*</sup>*National Taipei University of Technology, <sup>+</sup>National Penghu University of Science and Technology (Taiwan)*
- SuPP1.3 P1140  
**A Solution for Intelligent Street Lamp Monitoring and Energy Management 843**  
 Kuo-Hsiung Tseng, Chin-Liang Hsieh  
*National Taipei University of Technology*
- SuPP1.4 P1332  
**Resource Allocation for Multicarrier Secure Communications in Energy Harvesting Decode-and-Forward Relay Network 848**  
 Yuan Lin, Jianli Huang, Huajun Chen, Liming Chen, Fuzheng Zhang, Yixin Jiang, Aidong Xu, Xiaobin Guo, and Baoren Chen  
*Electric Power Research Institute, CSG (China), Sun Yat-Sen University (China)*
- SuPP1.5 P1265  
**Imaging Reconstruction with the Compensation of Inhomogeneous Microwave Energy Distribution 852**  
 Xin Bi, Jinsong Du, Yang Gao, Wei Wang  
*Shenyang Institute of Automation, Chinese Academy of Science (China)*

- SuPP1.6 P1573  
**Automatic Generation of High-Coverage Tests for RTL Designs using Software Techniques and Tools** 856  
 Yu Zhang, Wenlong Feng and Mengxing Huang  
*Hainan University*
- SuPP1.7 P1074  
**Simulation of 30kV High-Frequency High-Voltage Power Supply with Phase Shifted Control** 862  
 Liu Kun, Gao Yinghui  
*Chinese Academy of Sciences (China)*
- SuPP1.8 P1112  
**Research and simulation on Modular Multilevel Topology** 866  
 Shi-cheng Zheng, Wang-fang Wang, Meng-lin Cao  
*Anhui University of Technology (China)*
- SuPP1.9 P1139  
**A Novel Localization Algorithm using Iterative Ranging Scaling under NLOS Environments** 872  
 Xiaoya Huang\*, Jingyu Hua<sup>1,\*</sup>, Shuonan Li \*, Kai Zhou\*, Bin Jiang<sup>+</sup>  
 \*Zhejiang University of Technology (China), <sup>+</sup>Southeast University (China)
- SuPP1.10 P1188  
**Design of Photovoltaic MPPT Controller Using Interleaving Parallel Buck Circuit** 876  
 Li Li\*, Cun-gang Hu\*, Chang-bao Zheng\*, Li Wan<sup>+</sup>  
 \*Anhui University (China), <sup>+</sup>Gold star M&E Technical Development co., LTD (China)
- SuPP1.11 P1245  
**Effect on Harmonic Performance for Three-Level ANPC Converter with Small Change in SHEPWM Switch Angles** 881  
 Dajun Ma, Cungang Hu ,Qiubo Ye and Qunjing Wang  
*Anhui University (China)*
- SuPP1.12 P1812  
**JL1X1/LHA1-1040/550 Development of aluminum alloy core forming aluminum twisted line pair splicing sleeve** 886  
 Hai-Jun NIU\*, Kuan-Jun ZHU\*, Jia-Jun SI\*, Shengchun LIU\*, Huang Tianfang<sup>+</sup>, Dong Kaijie<sup>+</sup>, Li Duanling<sup>+</sup>  
 \*China Electric Power Research Institute (China), <sup>+</sup>University of Posts and Telecommunications (China)
- SuPP1.13 P1576  
**Control of Single-Stage AC-AC Solid State Transformer for Power Exchange Between Grids** 892  
 Yupeng Liu<sup>1,2</sup>, Wencheng Wang<sup>1</sup>, Yushan Liu<sup>2</sup>, Haitham Abu-Rub<sup>2</sup>  
<sup>1</sup>China Agriculture University (China), <sup>2</sup>Texas A&M University at Qatar (Qatar)
- SuPP1.14 P1279  
**Research on Three-phase Phase-controlled Rectifier Bridge Load Simulation Method** 897  
 Pengxian Song<sup>1</sup>, Yuqi Zhang<sup>2</sup>, Qinghua Tang<sup>1</sup>, Yaohua Li<sup>3</sup>  
<sup>1</sup>State Grid Tianjin Electric Power Research Institute (China), <sup>2</sup>State Grid Customer Service Center (China),  
<sup>3</sup>Chinese Academy of Sciences
- SuPP1.15 P1154  
**New Control Strategy Based on Model Predictions and PI for Three-Phase Off-grid Inverter** 903  
 Qingqing Hou, Cungang Hu ,Qiubo Ye and Guoli Li  
*Anhui University (China)*
- SuPP1.16 P1341  
**Master-Slave Control Strategy for Input-Series Output-Parallel Connected Flyback Converters** 907  
 Ling Yuesheng, Liu Da, Song Guiying, Tang Yanbin  
*Hebei University of Technology (China)*
- SuPP1.17 P1709  
**Design of IoT-based Energy Efficiency Management System for Building Ceramics Production Line** 912  
 Jianhua Wang, Jianxiang Huang, Weihai Chen, Jingmeng Liu  
*Beihang University (China)*

- SuPP1.18 P1445  
**SOC estimation scheme of super capacitor based on Calman filter 918**  
 Zheng Tao Gui Shaoting Li Xin Jin Jing  
*Hefei University of Technology*
- SuPP1.19 P1237  
**Self-Balancing DC-link Capacitor Voltages in Seven-Level Inverter using Selective Harmonics Elimination PWM 922**  
 Khoukha Imarazene<sup>1</sup>, El Madjid Berkouk<sup>2</sup>, Hachemi Chekireb<sup>3</sup>  
<sup>1</sup> *Electrical and Industrial System Laboratory, U.S.T.H.B.*, <sup>2</sup> *Control Process Laboratory, ENP*, <sup>3</sup> *Control Process Laboratory, ENP (Algérie)*
- SuPP1.20 P1303  
**The Harmonic Probability Distribution of Power Grid with Multi-Harmonic Sources 928**  
 Wang Yaqi, Xu Yonghai, Tao Shun  
*North China Electric Power University*

<b>Session</b>	<b>MoA1: Industrial Informatics &amp; Computational Intelligence (II)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor Room 1
<b>Chairs</b>	Charles Liu, <i>Macquarie University</i> Quan Jiang, <i>Anhui University</i>

- MoA1.1 10:45 – 11:05 P1747  
**Fuzzy Knowledge Based Enhanced Matting 934**  
 Charles Z. Liu, Manolya Kavakli  
*Macquarie University (Australia)*
- MoA1.2 11:05 – 11:25 P1146  
**Software for Automated Theorem Proving Based on the Calculus of Positively Constructed Formulas 940**  
 Igor Bychkov\*, Evgeny Cherkashin<sup>+</sup>, Artem Davydov\* and Alexander Larionov\*  
 \**Matrosov Institute for System Dynamics and Control Theory of Siberian Branch of Russian Academy of Sciences (Russia)*
- MoA1.3 11:25 – 11:45 P1214  
**An Innovative Sensor Selection and Optimization Method Considering Reliability and Detectability 946**  
 Wang Jian, Sun Wuji, Li Ting, Cao Yuyan, Wang Xinmin  
*Northwestern Polytechnical University (China)*
- MoA1.4 11:45 – 12:05 P1640  
**Wind Turbine Gearbox Fault Diagnosis Based on EEMD and Fractal Theory 952**  
 Dongdong Li, Wenlei Zhou, Xiaoxia Zheng, Xiaolin Ge, Shunfu Lin  
*Shanghai University of Electric Power (China)*
- MoA1.5 12:05 – 12:25 P1320  
**Electromagnetic Gun Loading Control System based on Cloud Model 957**  
 Jin Ma<sup>1,2</sup>, Dongdong Zhang<sup>1</sup>, Weiqun Yuan<sup>1</sup>, Kun Liu<sup>1</sup>, Weidong Xu<sup>1</sup>, Ping Yan<sup>1</sup>  
<sup>1</sup>*Chinese Academy of Sciences (China)*, <sup>2</sup>*University of Chinese Academy of Sciences (China)*

<b>Session</b>	<b>MoA2: Power Electronics (VII)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor VVIP 3
<b>Chairs</b>	Pengfei Tu, <i>Nanyang Technological University</i> Shichuan Ding, <i>Anhui University</i>

- MoA2.1 10:45 – 11:05 P1371  
**Analytical Evaluation of IGBT Turn-on Loss with Double Pulse Testing 963**  
 Pengfei Tu\*, Peng Wang\*, Xiaolei Hu\*, Chen Qi\*, Shan Yin\*, Michael A. Zagrodnik<sup>+</sup>  
 \**Nanyang Technological University (Singapore)*, <sup>+</sup>*Rolls-Royce Singapore Pte Ltd (Singapore)*
- MoA2.2 11:05 – 11:25 P1192  
**Investigation on the Electromagnetic Transient of Parallel Transmission Lines Considering the Interference from Magnetic Storms 969**  
 Richang Xian<sup>1</sup>, Hanwu Luo<sup>2</sup>, Lingqiang Fan<sup>3</sup>, Fan Yang<sup>4</sup>, Peng Cheng<sup>5</sup> and Liu Kai<sup>6</sup>  
<sup>1</sup>*Shandong University of Science and Technology*, <sup>2</sup>*East Inner Mongolia Electric Power Company Limited*,  
<sup>3</sup>*Chongqing University (China)*
- MoA2.3 11:25 – 11:45 P1257  
**A Bidirectional Switched-Capacitor based AC-AC Resonant Converter 973**  
 Yajie Mu\*, Xiaofeng Yang\*, Yao Xue\*, Zhiqin Lin\*, Trillion Q. Zheng\*, Seiki IGARASHI<sup>+</sup>  
 \**Beijing Jiao Tong University (China)*, <sup>+</sup>*Fuji Electric Co., Ltd (Japan)*
- MoA2.4 11:45 – 12:05 P1055  
**Control Strategy Design for Line-Commutated Converter Based Special Series Multi-Terminal DC Transmission 978**  
 Shaohua Li\*, Xiuli Wang\*, Jianming Gao\*, Yun Mo<sup>+</sup>, Wang Zhang<sup>+</sup>  
 \**Xi'an Jiaotong University (China)*, <sup>+</sup>*XJ Electric Co., Ltd (China)*
- MoA2.5 12:05 – 12:25 P1081  
**Disturbance Rejection Using Direct Thrust Control in Permanent Magnet Linear Synchronous Motor 984**  
 Yunsheng Su, Fei Dong, Jiwen Zhao, Siliang Lu, Zhenbao Pan  
*Anhui University (China)*

<b>Session</b>	<b>MoA3: Computer Vision</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor VVIP 5
<b>Chairs</b>	Wenxiang Xie, <i>Seagate Technology International</i> Lijun Jiang, <i>Republic Poly</i>

- MoA3.1 10:45 – 11:05 P1285  
**3D Anomaly Inspection System for Sewer Pipes Using Stereo Vision and Novel Image Processing 988**  
 Phat Huyn , Robert Ross, Andrew Martchenko and John Devlin  
*La Trobe University (Australia)*
- MoA3.2 11:05 – 11:25 P1412  
**An efficient 3D partial face recognition approach with single sample 994**  
 Yinjie Lei\*, Siyu Feng\*, Xinzhi Zhou\*, Yulan Guo<sup>+</sup>  
 \**Sichuan University (China)*, <sup>+</sup>*National University of Defense Technology (China)*



- MoA3.3 11:25 – 11:45 P1447  
**Learning-based Leaf Occlusion Detection In Surveillance Video 1000**  
 Jiaxiang Liu, Li Chen, Jing Tian, Dawei Zhu  
*Wuhan University of Science and Technology (China)*
- MoA3.4 11:45 – 12:05 P1610  
**Depth Estimation from a Single Image in Pedestrian Candidate Generation 1005**  
 Yali Guo, Shihao Zou, Huiqi Li  
*Beijing Institute of Technology (China)*
- MoA3.5 12:05 – 12:25 P1401  
**Weighting Linear Matching for Stereo Vision 1009**  
 Bin Chen, Shiqian Wu  
*Wuhan University of Science and Technology (China)*

<b>Session</b>	<b>MoA4: Mechatronics (II)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor VVIP 6
<b>Chairs</b>	Guoli Li, <i>Anhui University</i> Wenjian Cai, <i>Nanyang Technological University</i>

- MoA4.1 10:45 – 11:05 P1605  
**Indoor Localization of Transport Vehicle Using RSSI Constraints and UHF Transponders Installed on Planar Floor 1015**  
 Gi-Dong Kim<sup>1</sup>, Yun-Won Choi<sup>2</sup>, Chan-Gyu Park<sup>3</sup>, Suk-Gyu Lee<sup>1</sup>  
<sup>1</sup>*Yeungnam University*, <sup>2</sup>*ETRI*, <sup>3</sup>*Yeungnam University College (Korea)*
- MoA4.2 11:05 – 11:25 P1125  
**Development of a Prototype of Puncturing Robot for CT-guided Intervention 1020**  
 Hajime Ishii\*, Tetsushi Kamegawa\*, Hiroki Kitamura\*, Takayuki Matsuno\*, Takao Hirakiy<sup>+</sup> and Akio Gofuku\*  
 \**Okayama University (Japan)*, <sup>+</sup>*Okayama University Hospital (Japan)*
- MoA4.3 11:25 – 11:45 P1369  
**Adaptive Backstepping Dynamic Surface Tracking Control of Nonholonomic Mobile Robots 1026**  
 Jeng-Tze Huang, Ying-Liang Sung  
*Chinese Culture University (Taiwan)*
- MoA4.4 11:45 – 12:05 P1519  
**Improved Numerical Technique for Industrial Robots Model Reduction and Identification 1032**  
 Khalid Bouabaz, Qidan Zhu  
*Harbin Engineering University (China)*

<b>Session</b>	<b>MoA5: Cyber Physical Systems (I)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor VVIP 11
<b>Chairs</b>	Carsten Schleyer, <i>University of Applied Sciences</i> Xing Zhu, <i>InspiRain Technologies Pte Ltd</i>

- MoA5.1 10:45 – 11:05 P1702  
**A Framework to Mitigate Social Engineering through Social Media in Enterprise 1039**  
 Heidi Wilcox, Maumita Bhattacharya  
*Charles Sturt University (Australia)*
- MoA5.2 11:05 – 11:25 P1632  
**Discrete Firefly Algorithm Based Distribution Networks Reconfiguration 1045**  
 Yaomin Chen<sup>1</sup>, Ying Sun<sup>1</sup>, Hongxin Zhang<sup>2</sup>, Liqiang Gao<sup>1</sup>  
*<sup>1</sup>Shandong University (China), <sup>2</sup>State Grid Shandong Electric Power Company (China)*
- MoA5.3 11:25 – 11:45 P1335  
**A Comparative Study and Future Research Directions in Cloud Service Discovery 1049**  
 Asma Musabah Alkalbani yand Farookh Khadeer Hussain  
*University of Technology, Sydney (Australia)*
- MoA5.4 11:45 – 12:05 P1234  
**Smart Factory and Education 1057**  
 Marcus Kurth, Carsten Schleyer, Daniel Feuser  
*University of Applied Sciences (Germany)*
- MoA5.5 12:05 – 12:25 P1572  
**On Identifying Vulnerable Nodes for Power Systems in the Presence of Undetectable Cyber-Attacks 1062**  
 Ting Zhao, Yun Xu, Yinan Wang, Zhiyun Lin, Wenyuan Xu and Qiang Yang  
*Zhejiang University (China), Smart Grid Research Institute State Grid (China)*

<b>Session</b>	<b>MoA6: Combined Session</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor VVIP 12
<b>Chairs</b>	Bing Xiao, <i>Bohai University</i> Guilin Yang, <i>Chinese Academy of Sciences</i>

- MoA6.1 10:45 – 11:05 P1722  
**A Decision-making approach to field service delivery under mixed maintenance policy 1068**  
 Rui Zhou, Yaoguang Hu, Shasha Xiao, Jingqian Wen  
*Beijing Institute of Technology (China)*
- MoA6.2 11:05 – 11:25 P1526  
**Finger-Knuckle-Print for Identity Verification Based on Difference Images 1073**  
 Jooyoung Kim, Kangrok Oh, Andrew Beng-Jin Teoh and Kar-Ann Toh  
*Yonsei University (Korea)*
- MoA6.3 11:25 – 11:45 P1678  
**Numerical analysis of rotary lip seal performance deterioration 1078**  
 Di Liu<sup>1</sup>, Shaoping Wang<sup>1</sup>, Jian Shi<sup>1</sup>, Chao Zhang<sup>1</sup>, Mileta Tomovic<sup>2</sup>  
*<sup>1</sup>Beihang University (China), <sup>2</sup>Old Dominion University (USA)*

- MoA6.4 11:45 – 12:05 P1788  
**Kinematic Design of a 3-DOF Force-controlled End-effector Module 1084**  
 Kaichao Ma and Guilin Yang  
*Chinese Academy of Sciences (China)*
- MoA6.5 11:25 – 11:45 P1464  
**Cell Voltage Balancing Control of Isolated Modular Multilevel Using Inter-Submodule Phase-Shift Modulation Scheme 1090**  
 Changjiang SUN, Yudong MOU, Jianwen ZHANG, Miao ZHU, and Xu CAI  
*Shanghai Jiao Tong University (China)*

<b>Session</b>	<b>MoAP1: Poster Session – Energy and Environment</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- MoAP1.1 P1269  
**A rotating magnetic guidance method for measurement while drilling 1095**  
 Zong Yanbo\*, Wang Lei\*, Shi Xiaofeng<sup>+</sup>  
*\*Sinopec Research Institute of Petroleum Engineering (China), <sup>+</sup>Beihang University (China)*
- MoAP1.2 P1475  
**A discontinuous coordinated charging strategy for electric vehicle 1099**  
 HOU Yanjin<sup>1\*</sup>, YANG Yong<sup>2</sup>, LIU Zhizhen<sup>2</sup>, SUN Linlin<sup>3</sup>  
*<sup>1</sup>Energy Research Institute of Shandong Academy of Science (China), <sup>2</sup>Shandong University (China), <sup>3</sup>Huaneng Liaocheng Thermal Power Co.,Ltd (China)*
- MoAP1.3 P1260  
**A New Fire Protection System of Power Cable Tunnel Based On Wireless Sensor Network Monitoring System 1103**  
 Yongzhong Chen\*, Deyi Zhang\*, Jiaping Chen\*, Fan Yang<sup>+</sup>, Kai Liu<sup>+</sup>  
*\*Development & Design Institute Co., Ltd, <sup>+</sup>Chongqing University*
- MoAP1.4 P1102  
**BART-based Prediction of Cache Reliable Energy-Efficiency 1107**  
 Cheng Yu, Chen Qinbi, Yu Bao  
*Jiuquan Satellite Launch Center (China)*
- MoAP1.5 P1604  
**Research on STATCOM/BESS Control Strategy for Wind Turbine with Squirrel-cage Induction Generator 1111**  
 Wenping Wang, Shengtie Wang, Guizhen Tian  
*Inner Mongolia University of Technology (China)*
- MoAP1.6 P1470  
**CFD simulation of structured packing in Liquid Desiccant Dehumidification System (LDDS) 1117**  
 Suping Shen\*, Wenjian Cai\*, Haoren Yon\*, Qing-Guo Wang<sup>+</sup>  
*\*Nanyang Technological University (Singapore), <sup>+</sup>The University of Johannesburg (South Africa)*
- MoAP1.7 P1127  
**Voltage Profile and Power Loss Improvement in Distribution System using MVDS Considering Economic Enticements 1122**  
 Firas M. F. Flaih<sup>1,2</sup>, Lin Xiangning<sup>1</sup>, Asad Waqar<sup>1</sup> and Rasool M. Imran<sup>1</sup>  
*<sup>1</sup>Huazhong University of Science and Technology (China), <sup>2</sup>Ministry of Electricity (Iraq)*
- MoAP1.8 P1309  
**Multi-objective optimization model of combined cooling heating and power system based on solar energy 1127**  
 Zheng Tao, Sheng Tingting, Li Xin, Pan Wangyang  
*Hefei University of Technology (China)*

- MoAP1.9 P1502  
**Evaluation of Impact Mode-Based Piezoelectric Power Generator 1131**  
 Seiji Hashimoto\*, Amat Amir Basari\*, Takahiro Iwase\*, Bunji Homma<sup>+</sup>, Hiroaki Okada<sup>+</sup>, Hideki Okuno<sup>+</sup>  
 \*Gunma University (Japan), <sup>+</sup>Mitsuba Corporation (Japan)
- MoAP1.10 P1239  
**Artificial Neural Networks applied in the forecast of pollutants into the Rio Santiago, based on the sample of a pollutant, by Data Fusion 1135**  
 Marco A. Pérez Cisneros, J. Miguel Morán L, Alicia García Arreola  
 Universidad de Guadalajara (Mexico)

<b>Session</b>	<b>MoAP2: Poster Session – Special Invited Session</b>
<b>Organizers</b>	Prof. Weihai Chen, <i>Beihang University</i> Prof. Chi Zhang, <i>Ningbo Institute of Industrial Technology; Chinese Academy of Sciences</i>
<b>Date/Time</b>	Monday, 6 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- MoAP2.1 P1097  
**Proportional Reactive Power Sharing for Islanded Microgrids 1139**  
 M. I. Azim\*, M. A. Hossain\*, S. M. Mohiuddin\*, M. J. Hossain\*\* and H. R. Pota\*  
 \*The University of New South Wales (Australia), \*\*Griffith School of Engineering Griffith University (Australia)
- MoAP2.2 P1752  
**Development of Simulation Platform for Physicochemical Regenerative Environment Control and Life Support System in Space Station 1145**  
 Mingbo Lv, Yunhua Li, Wei Liu, Rui Guo, Liman Yang, Liping Pang, Yunze Li, Jun Wang  
 Beihang University (China)
- MoAP2.3 P1760  
**Testability Virtual Verification Technique Based on Modelica 1151**  
 Chunling Yang\*, Jianmin Yue\*, Yang Jiao<sup>+</sup>, Min Zhu\*  
 \*Harbin Institute of Technology (China), <sup>+</sup>2311 Secondary Metrology Station of Science, Technology and Industry for National Defense (China)
- MoAP2.4 P1764  
**Object detection on robot operation system 1155**  
 Dong Xu\*, Qian Huang\*, Hanwu Liu<sup>+</sup>  
 \*Beihang University (China), <sup>+</sup>Special Machinery Research Institute (China)
- MoAP2.5 P1801  
**Study on the Method of Capacity Increase for the Main Lifting System of the Casting Crane 1160**  
 Jintao Cui\*, Xiumei Tao\*, Dazhi Xin\*, Chao Lyu<sup>+</sup>  
 \*Chaoyang Teachers College (China), <sup>+</sup>Harbin Institute of Technology (China)
- MoAP2.6 P1802  
**The Design of a Four DOFs Light Manipulator Used for a Dangerous Environment Detection Robot 1165**  
 Xiumei Tao\*, Jintao Cui\*, Dazhi Xin\*, Chao Lyu<sup>+</sup>  
 \*Chaoyang Teachers College (China), <sup>+</sup>Harbin Institute of Technology (China)
- MoAP2.7 P1510  
**Design of Data Communication System for Space Manipulator Teleoperation 1169**  
 Zhongwei Guo, Sibao Zhang, Yue Wang, Danni Nian  
 China Academy of Space Technology (China)
- MoAP2.8 P1669  
**Reliability Analysis for NC Machines Based on Doubly-Trucked Weibull Distribution 1175**  
 Nan Dongle, Jia Zhixin, Li Wei  
 University of Science and Technology Beijing (China)

- MoAP2.9 P1676  
**Design of Control System for Dual-arm Manipulator Considering Coordinated Manipulation 1179**  
 Yiru Wang, Qingxuan Jia, Gang Chen  
*Beijing University of Posts and Telecommunications (China)*
- MoAP2.10 P1569  
**Phase-Shift and Wavefront Retrieval in Two-Step-Only Phase-Shifting Holography 1185**  
 Jianyang Zhou\*, Shuqun Zhang<sup>+</sup>  
 \*Xiamen University (China), <sup>+</sup>City University of New York (USA)

<b>Session</b>	<b>MoM1: Power Electronics (VIII)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor Room 1
<b>Chairs</b>	Fanglin Luo, <i>Anhui University</i> Weihai Chen, <i>Beihang University</i>

- MoM1.2 13:45 – 14:05 P1090  
**High-power and High Repetitive Rate Charging Techniques of Laser Power Supply 1189**  
 Gao Yinghui, Liu Kun, Fu Rongyao, Sun Yao-hong, Pin Yan  
*Chinese Academy of Sciences (China)*
- MoM1.3 14:05 – 14:25 P1116  
**Voltage and Power Management in AC Micro-Grids with Exponential Droop Control 1195**  
 Qiuye Sun\*, Rui Wang\*, Yue Han<sup>+</sup>  
 \*Northeastern University (China), <sup>+</sup>State Grid Liaoning Electric Power Supply Co.Ltd (China)
- MoM1.4 14:25 – 14:45 P1216  
**Dual-Input DC-DC power converter for Solar Battery Charger 1201**  
 Ting-Lien Wu, Jia-Sheng Hu  
*National University of Tainan (Taiwan)*
- MoM1.5 14:45 – 15:05 P1372  
**Study of Predictive Direct Power Control for Three-level NPC Converter 1207**  
 Quan Chen, Qunjing Wang, Long Cheng, Changbao Zheng  
*Anhui University (China)*
- MoM1.6 15:05 – 15:25 P1462  
**Dynamic Model Predictive Voltage Control for Single-Input Dual-Output Flyback Converter 1212**  
 Benfei Wang, Liang Xian, and King Jet Tseng  
*Nanyang Technological University (Singapore)*

<b>Session</b>	<b>MoM2: Power Electronics (IX)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 3
<b>Chairs</b>	Weixiang Shen, <i>Swinburne University of Technology</i> Yunhua Li, <i>Huazhong University of Science and Technique</i>

- MoM2.1 13:25 – 13:45 P1517  
**Robust Adaptive Backstepping Controller Design for DC-DC Buck Converters with External Disturbances 1218**  
 T. K. Roy, M. A. Mahmud, Weixiang Shen, M. E. Haque, A. M. T. Oo  
*Swinburne University of Technology (Australia)*

- MoM2.2 13:45 – 14:05 P1626  
**Influence of Diode Reverse Recovery on the Commutation Behavior of Doubly Salient Brushless DC Generator 1224**  
 Zhangming Bian, Li Yu, Zhuoran Zhang, Senior Member, IEEE, and Yuke Shi  
*Nanjing University of Aeronautics and Astronautics (China)*
- MoM2.3 14:05 – 14:25 P1223  
**Power Transfer Efficiency Analysis of the 4-coil Wireless Power Transfer System Based on Circuit Theory and Coupled-mode Theory 1230**  
 Shuo Wang<sup>1</sup>, Dawei Gao<sup>1,2</sup>  
<sup>1</sup>*Tsinghua University (China)*, <sup>2</sup>*Collaborative Innovation Center of Electric Vehicles (China)*
- MoM2.4 14:25 – 14:45 P1294  
**Position Estimation in Permanent Magnet Synchronous Linear Motor Without Position Sensor 1235**  
 Sixing Dong, Fei Dong, Jiwen Zhao\*, Siliang Lu, Jian Huang  
*Anhui University (China)*
- MoM2.5 14:45 – 15:05 P1289  
**A Carrier-based Control Scheme for Five-leg Back-to-Back Converter-Fed Induction Motor Drive 1239**  
 Yunhua Li, Chengguang Huang, Dehong Zhou, Jin Zhao  
*Huazhong University of Science and Technology (China)*

<b>Session</b>	<b>MoM3: Image Processing (II)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 5
<b>Chairs</b>	Prof. Xin Xu, <i>Wuhan University of Science and Technology</i> Xing Qi, <i>Anhui University</i>

- MoM3.1 13:25 – 13:45 P1400  
**Salient object detection via multi-scale local-global superpixel contrast 1245**  
 Xiaolong Zhang, Jia Hu, Xin Xu, and Li Chen  
*Wuhan University of Science and Technology (China)*
- MoM3.2 13:45 – 14:05 P1061  
**Digital Image Edge Detection Based on LVQ Neural Network 1251**  
 Xiaofeng Li\*, Yinhui Zhang<sup>+</sup>  
<sup>\*</sup>*Renai College of Tianjin University (China)*, *Samsung Mobile R&D Center China-Tianjin (China)*
- MoM3.3 14:05 – 14:25 P1007  
**A Quadratic Distortion Criterion with Lagrangian Multiplier for Depth Map Coding 1256**  
 Hui Yuan\*, Zhixin Guo\*, Ju Liu\*, Fengrong Li<sup>+</sup>  
<sup>\*</sup>*Shandong University (China)*, <sup>+</sup>*Chinese Academy of Sciences (China)*
- MoM3.4 14:25 – 14:45 P1163  
**A High Embedding Capacity Image Watermarking Method With Rank-Based Embedder And Decoder 1260**  
 Tianrui Zong<sup>1</sup>, Yong Xiang<sup>1</sup>, Peng Chen<sup>2</sup>, Saeid Nahavandi<sup>1</sup> and Gleb Beliaikov<sup>1</sup>  
<sup>1</sup>*Deakin University (Australia)*, <sup>2</sup>*Sichuan University (China)*
- MoM3.5 14:45 – 15:05 P1574  
**A Novel Solo Dictionary Learning Method for Single Image Super-resolution 1265**  
 Rui Dong<sup>1,2</sup>, Dongfang Chen<sup>1,2</sup>, Xiaofeng Wang<sup>1,2</sup>  
<sup>1</sup>*Wuhan University of Science and Technology (China)*, <sup>2</sup>*Hubei Province Key Laboratory of Intelligent Information Processing and Real-time Industrial System (China)*
- MoM3.6 15:05 – 15:25 P1083  
**Vision Model based Image Fusion in Nonsubsampled Contourlet Transform Domain 1270**  
 Yanxiang Hu, Rui Zhang  
*Tianjin Normal University (China)*

<b>Session</b>	<b>MoM4: Mechatronics (III)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 6
<b>Chairs</b>	Zheng Li, <i>Hebei University of Science and Technology</i> Chinyin Chen, <i>Chinese Academy of Sciences</i>

- MoM4.1 13:25 – 13:45 P1543  
**Design and Motion Control of a Spherical robot with Stereovision 1276**  
 Ye Ping, Sun Hanxu Qiu, Zhongjiang, Chen Jiazhen  
*Beijing University of Posts and Telecommunications (China)*
- MoM4.2 13:45 – 14:05 P1568  
**Control System Design of a Teleoperated Omni-directional Mobile Robot Using ROS 1283**  
 Andres Belzunce, Ming Li, Heikki Handroos  
*Lappeenranta University of Technology (Finland)*
- MoM4.3 14:05 – 14:25 P1580  
**Data Driven Machine Learning Approach for Predicting Volumetric Moisture Content of Concrete Using Resistance Sensor Measurements 1288**  
 Karthick Thiyagarajan, Sarath Kodagoda, Nalika Ulapane  
*University of Technology Sydney (Australia)*
- MoM4.4 14:25 – 14:45 P1639  
**A New Method for Robot Path Planning Based Artificial Potential Field 1294**  
 Xing Yang<sup>1,2</sup>, Wei Yang<sup>1</sup>, Huijuan Zhang<sup>1</sup>, Hao Chang<sup>1</sup>, Chin-Yin Chen<sup>1</sup>  
<sup>1</sup>Ningbo Institute of materials Technology & Engineering, CAS (China), <sup>2</sup>North University of China (China)
- MoM4.5 14:45 – 15:05 P1513  
**Application of ECS in metal material separation based on ANSYS 1300**  
 Guihua Li\*, Zhengkui Wei\*, Zhe Qian\*, Xiushui Ma<sup>+</sup>  
 \*Anhui University (China), Zhejiang University (China)
- MoM4.6 15:05 – 15:25 P1616  
**Electromagnetic System Modeling and Analysis of a 3-DOF Type Combined Drive Motor 1305**  
 Zheng Li, Shuanghong Li  
*Hebei University of Science and Technology (China)*

<b>Session</b>	<b>MoM5: Cyber Physical Systems (II)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 11
<b>Chairs</b>	Changbao Zheng, <i>Anhui University</i> Quan Jiang, <i>Anhui University</i>

- MoM5.1 13:25 – 13:45 P1409  
**Human Detection and Localization in Secure Access Control by Analysing Facial Features 1311**  
 Mozammel Chowdhury<sup>1</sup>, Junbin Gao<sup>2</sup>, Rafiqul Islam<sup>1</sup>  
<sup>1</sup>Charles Sturt University, <sup>2</sup>University of Sydney Business School
- MoM5.2 13:45 – 14:05 P1062  
**Research on MapReduce-based Cloud Storage Batch Auditing 1317**  
 Yu Jin<sup>1,2</sup>, Dong Yan<sup>1,2</sup>, Heng He<sup>1,2</sup>  
<sup>1</sup>Wuhan University of Science & Technology (China), <sup>2</sup>Hubei Province Key Laboratory of Intelligent Information Processing and Real-time Industrial System (China)

- MoM5.3 14:05 – 14:25 P1333  
**A New Safety Theory: Concept, Methodology, and Application 1323**  
 M.Y. Cai\*, C.J. Liu\*, C.A. van Luttervelt<sup>+</sup>, J.W. Wang<sup>++</sup>, W.J. Zhang<sup>\*+++</sup>  
 \*East China University of Science and Technology (China), <sup>+</sup>Delft University of Technology (Netherlands),  
<sup>+++</sup>University of Saskatchewan
- MoM5.4 14:25 – 14:45 P1334  
**Statistical Analysis of Energy-aware Real-Time Automotive Systems in EAST-ADL/Stateflow 1328**  
 Eun-Young Kang, Jianda Chen\*, Liu Ke\* and Shangyu Chen \*  
 University of Namur (Belgium), \*Sun Yat-Sen University (China)
- MoM5.5 14:45 – 15:05 P1533  
**A New Framework of Electrical Cyber Physical Systems 1334**  
 Yinan Wang, Zhiyun Lin, Sicheng Zeng, Wenyuan Xu, Qiang Yang, Gangfeng Yan  
 Zhejiang University (China)
- MoM5.6 15:05 – 15:25 P1115  
**Analysis of Transient Performance of Capacitorcoupled 1340**  
 Zhang peng, Zhu mingxing, Wang Qunjin  
 Anhui University (China)

<b>Session</b>	<b>MoM6: Invited Session – System Design and Test (I)</b>
<b>Organizers</b>	Prof. Chi Zhang, <i>Ningbo Institute of Industrial Technology; Chinese Academy of Sciences</i> Prof. Qiang Zhou, <i>Beihang University</i>
<b>Date/Time</b>	Monday, 6 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 12
<b>Chairs</b>	Zhengguo Li, <i>Institute for Infocomm Research</i> Guoli Li, <i>Anhui University</i>

- MoM6.1 13:25 – 13:45 P1683  
**Control Architecture Design for Intelligent Robot Assisted Intervention for Children with Autism 1345**  
 Yongli Feng, Qingxuan Jia, Gang Chen, Chaochao Li  
 Beijing University of Posts and Telecommunications (China)
- MoM6.2 13:45 – 14:05 P1706  
**Error Compensation Analysis of the Probe-radius of the Online Measurement Device for Joint Internal Thread 1350**  
 Qiang Zhou\*, Qiushuang Zhang\*, Yanfei Yin<sup>+</sup>  
 \*Beihang University (China), <sup>+</sup>Beijing Information Control Institute (China)
- MoM6.3 14:05 – 14:25 P1659  
**Hot-swap and Redundancy Technology for CPCI Measurement and Control Systems 1355**  
 Dan Li, Xiaoguang Hu  
 Beihang University (China)
- MoM6.4 14:25 – 14:45 P1675  
**Leakage model and failure factors analysis of mechanical seals 1359**  
 Xuemeng Zhang<sup>1</sup>, Jian Shi<sup>1</sup>, Shaoping Wang<sup>1</sup>, Chao Zhang<sup>1</sup>, Mileta Tomovic<sup>2</sup>  
<sup>1</sup>Beihang University (China), <sup>2</sup>Old Dominion University (USA)
- MoM6.5 14:45 – 15:05 P1763  
**An Design of batch electronic thermometers automatic verification system based on LabVIEW 1365**  
 Chenglang Li, Yaqiong Fu, Da Shen, Le Chen  
 China Jiliang University (China)



<b>Session</b>	<b>MoMP1: Poster Session – Industrial Informatics &amp; Computational Intelligence</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- MoMP1.1 P1494  
**A hybrid genre-based personalized recommendation algorithm 1369**  
 Yajie Hu\*, Yi Yang\*, Caihong Li\*, Yachen Wang\*, Lian Li+  
 \*Lanzhou University (China), +Hefei University of Technology (China)
- MoMP1.2 P1799  
**Exploring the discrepancies between users' and designers' perception to identify users' real needs 1374**  
 Yu Fu, Xusheng Zhang  
 Zhejiang University (China)
- MoMP1.3 P1164  
**A Simple FPGA System for ECG R-R Interval Detection 1379**  
 Hadeel N. Abdullah, Bassam H. Abd  
 University of Technology (Iraq)
- MoMP1.4 P1428  
**An Intelligent Medicine Recommender System Framework 1383**  
 Youjun Bao, Xiaohong Jiang  
 Zhejiang University
- MoMP1.5 P1456  
**Transient signal period detection for bearing fault diagnosis using amplitude demodulation and signal segmentation and labeling 1389**  
 Siliang Lu, Fang Liu, Hui Yang, Wenrui Li, Rui Zhou  
 Anhui University (China)
- MoMP1.6 P1544  
**Study of Method on Parking Guidance Based on Video 1394**  
 Liyan Xie, Jihong Liu, Chenchen Miao, Mo Liu  
 Northeastern University (China)
- MoMP1.7 P1331  
**On the Membership of Black-box or White-box of Artificial Neural Network Models 1400**  
 Z.F. Wu<sup>1</sup>, Jin Li<sup>1</sup>, M.Y. Cai<sup>1</sup>, W.J. Zhang<sup>1,2</sup>, Y. Lin<sup>3</sup>  
<sup>1</sup>East China University of Science and Technology (China), <sup>2</sup>University of Saskatchewan (Canada),  
 Northeastern University (USA)
- MoMP1.8 P1023  
**Multicriteria Group Decision Making for Selecting Human Resources Management Information Systems Projects 1405**  
 Santoso Wibowo<sup>1</sup>, Xibao Zhang<sup>2</sup>, Hepu Deng<sup>3</sup>  
<sup>1</sup>CQUniversity, Melbourne (Australia), <sup>2</sup>Qingdao University (China), <sup>3</sup>RMIT University (Australia)
- MoMP1.9 P1795  
**An Improved Genetic Algorithm Based on Fuzzy Inference Theory And Its Application in Distribution Network Fault Location 1411**  
 Lin Yu, Ying Sun, Ke-jun Li, Mi Xu  
 Shandong University
- MoMP1.10 P1590  
**A Novel Camera Calibration Method Combined with Calibration Toolbox and Genetic Algorithm 1416**  
 Yuanyuan Dong, Xuanzuo Ye, Xiongxiang He  
 Zhejiang University of Technology
- MoMP1.11 P1546  
**Research on Parallel Algorithms For Calculating Static Characteristics of Electromagnetic Relay 1421**  
 Jiaxin You\*, Hongda Kezhang\*, Huimin Liang\*, Bin Xiao+  
 \*Harbin Institute of Technology, +Zhenhua Qunying Electrical Apparatus Ltd (China)

- MoMP1.12 P1336  
**A New Approach to Classification of Devices and its Application to Classification of In-Pipe Robots 1426**  
 Zhao Li\*, Q. Z. Wang\*, Jin Li\*, Y. F. Liu\*, C. J. Liu\*, Lin Cao<sup>+</sup>, W. J. Zhang<sup>+</sup>  
*\*East China University of Science and Technology (China), <sup>+</sup>University of Saskatchewan (Canada)*

<b>Session</b>	<b>MoMP2: Poster Session – Power Electronics</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- MoMP2.1 P1319  
**The 9-kJ Modular Pulsed Power Units for Electromagnetic Launching Application 1432**  
 Xin Fu<sup>1,2</sup>, Zhimin Huang<sup>1,2</sup>, Jin Ma<sup>1,2</sup>, Xingmin Hou<sup>1,2</sup>, Dongdong Zhang<sup>1</sup>, Ping Yan<sup>1</sup>  
*<sup>1</sup>Chinese Academy of Sciences (China), <sup>2</sup>University of Chinese Academy of Sciences (China)*
- MoMP2.2 P1340  
**Investigation of the Effects of Insulation Defects on the 3-D Electromagnetic-Thermal Coupling Fields of Power Cable Joint 1436**  
 Fu Jin\*, Cheng peng<sup>+</sup>, Chen Wei \*, Hu Xiaorui \*, Wang Qian\*, Yang Qi<sup>+</sup>, Yang Fan<sup>+</sup>  
*\*State Grid Chongqing Electric Power Corporation Research Institute (China), <sup>+</sup>Chongqing University (China)*
- MoMP2.3 P1387  
**An Improved Control Strategy for Three-Phase Four-Wire Active Power Filter Based on Vector-Resonant Control 1440**  
 Yuhao Chen\*, Runquan Meng\*, Lei Wang\*, Yizhao Liu\*, Xiaoqing Han\*, Yu Yang<sup>+</sup>  
*\*Taiyuan University of Technology (China), <sup>+</sup>Shanxi Electric Power Corporation (China)*
- MoMP2.4 P1170  
**A Grid-connected Battery Charger with Power Factor Correction 1446**  
 Chih-Yi Hung\*, Jinn-Chang Wu\*, Yong-Lin Chen\*, Hurng-Liahng Jou<sup>+</sup>  
*\*National Kaohsiung Marine University (Taiwan), <sup>+</sup>National Kaohsiung University of Applied Sciences (Taiwan)*
- MoMP2.5 P1173  
**Novel Active Power Line Conditioner Integrating Fuel Cell and Battery Set 1453**  
 Ci-Mou Cai\*, Hurng-Liahng Jou\*, Kuen-Der Wu\*, Yun-Hao Shen\*, Jinn-Chang Wu<sup>+++</sup>  
*\*National Kaohsiung University of Applied Sciences (Taiwan), <sup>+++</sup>National Kaohsiung Marine University (Taiwan)*
- MoMP2.6 P1348  
**Diagnosis of faults in wind power generation systems 1459**  
 Paul Juinn Bing Tan, Ming-Hung Hsu  
*National Penghu University of Science and Technology, Magong (Taiwan)*
- MoMP2.7 P1349  
**Crack Effects on the Dynamic Behavior of Orthotropic Composite Pre-Twisted Blades Using Radial Basis Function Model 1463**  
 Paul Juinn Bing Tan, Ming-Hung Hsu  
*National Penghu University of Science and Technology, Magong (Taiwan)*
- MoM1.1 P1088  
**Bi-directional AC-DC Converter for Distributed DC Power System with Wide Bus Voltage 1469**  
 Yang Chen, Zhang Binfeng, Li Juan, Xie Shao-jun, MAO Ling  
*Nanjing University of Aeronautics and Astronautics (China)*

<b>Session</b>	<b>MoP1: Power Electronics (X)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor Room 1
<b>Chairs</b>	Qunjing Wang, <i>Anhui University</i> Quan Chen, <i>Anhui University</i>

- MoP1.1 15:55 – 16:15 P1298  
**Disturbance Suppression Research in Parallel Dual Permanent Synchronous Linear Motors Based on 2DOF PID Controller 1475**  
 Jiaojiao Tang, Fei Dong, Jiwen Zhao, Siliang Lu, Jian Huang  
*Anhui University (China)*
- MoP1.3 16:35 – 16:55 P1490  
**The Basic Research of Novel Hybrid Excitation Brushless Claw Pole Alternatorl 1479**  
 CONG Min, WANG Xiuhe, ZHU Changqing  
*Shandong University (China)*
- MoP1.4 16:55 – 17:15 P1066  
**Thrust Ripple Reduction According to Coil Arrangement in PMLSM with Double Secondary Side 1484**  
 Le Li, Fei Dong, Jiwen Zhao, Lufeng Ju, Siliang Lu, Dan Zhang, Guoli Li  
*Anhui University (China)*
- MoP1.5 17:15 – 17:35 P1373  
**Reducing Cogging Torque in Permanent-Magnet Synchronous Motors by Auxiliary Teeth Method 1488**  
 Qingling He, Xiaohua Bao  
*Hefei University of Technology (China)*
- MoP1.6 17:35 – 17:55 P1210  
**Demagnetization Study of Line-start Permanent Magnet Synchronous Motor Under Out-of-step and Supersynchronous Faults 1496**  
 Xu Tang, Xiuhe Wang, Guanqun Li, Mengmeng Tian  
*Shandong University (China)*

<b>Session</b>	<b>MoP2: Power Electronics (XI)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 3
<b>Chairs</b>	Qian Zhang, <i>Anhui University</i> Jingbing Zhang, <i>IDC Asia/Pacific</i>

- MoP2.1 15:55 – 16:15 P1060  
**Research of the Thrust Fluctuation in TPMLSM with Unequal Pole-Pitch 1502**  
 Ning-Ning Ren, Huai-Shu Li, Zhi-Qiang Xue  
*Naval University of Engineering (China)*
- MoP2.2 16:15 – 16:35 P1156  
**Sensorless Control of BLDC Motor Drive for a Drilling Rig System in Shale Gas Development 1508**  
 CHEN Yongjun, RUAN Bo  
*Yangtze University (China)*
- MoP2.3 16:35 – 16:55 P1165  
**Fault-Tolerant Control of Novel Axial Field Flux-Switching Permanent Magnet Machine 1514**  
 Xingyan Liang, Wei Zhang, Wenlin Wang  
*Nantong University (China)*

- MoP2.4 16:55 – 17:15 P1203  
**Direct Torque Control of Interior Permanent Magnet Synchronous Motor with Maximum Torque per Ampere 1519**  
 Zhang Xinghua, Tang Qitai, Wen Ting  
*Nanjing Tech University (China)*
- MoP2.5 17:15 – 17:35 P1226  
**Vector Control Strategy for PMSM Using Rotor Kinetic Energy 1525**  
 Anbang Wang, Qian Zhang, Qiubo Ye  
*Anhui University (China)*
- MoP2.6 17:35 – 17:55 P1271  
**Monitoring Magnetic Field of Stator Yoke to Detect Eccentricity Fault in Induction Motor 1530**  
 Xiaohua Bao, Cheng Zhang, Hanfeng Wang  
*Hefei University of Technology (China)*

<b>Session</b>	<b>MoP3: Acoustic Signal Processing</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 5
<b>Chairs</b>	Yuqiang Dou, <i>Communication University of China</i> Lijun Jiang, <i>Republic Poly</i>

- MoP3.1 15:55 – 16:15 P1136  
**Robustness and Embedding Capacity Enhancement in Time-Spread Echo-Based Audio Watermarking 1536**  
 Iynkaran Natgunanathan\*, Yong Xiang\*, Lei Pan\*, Peng Chen<sup>+</sup>, Dezhong Peng<sup>+</sup>  
 \**Deakin University (Australia)*, <sup>+</sup>*Sichuan University (China)*
- MoP3.2 16:15 – 16:35 P1388  
**Voice Recognition Based on Adaptive MFCC and Deep Learning 1542**  
 Hyan-Soo Bae, Ho-Jin Lee, Suk-Gyu Lee  
*Yeungnam University (Korea)*
- MoP3.3 16:35 – 16:55 P1461  
**An Algorithm of Sound Source Localization Using Range Differences of Arrival and Energy Ratios of Arrival 1547**  
 Yuqiang Dou<sup>1,2</sup>, Hui Wang<sup>1</sup>, Sai Ma<sup>1</sup>  
<sup>1</sup>*Communication University of China (China)*, <sup>2</sup>*Henan Normal University (China)*
- MoP3.4 16:55 – 17:15 P1370  
**De-noising of acoustic signal by natural gas pipeline leakage based on DTCWT-SVD 1551**  
 Ye Yingchun, Zhang Laibin  
*China University of Petroleum (China)*
- MoP3.5 17:15 – 17:35 P1648  
**A variable step size LMS equalization algorithm in the satellite communication system 1557**  
 Changhao Du, Xue Sun, Yixia Wang, Nan Lu  
*Beijing Institute of Technology (China)*
- MoP3.6 17:35 – 17:55 P1466  
**Characteristic Analysis of Single-phase Grounding Fault in Resonant Grounded Systems based-on HHT 1563**  
 Yingwei Xiao, Hongbin Wu, Lin Zhang, Benxian Xiao  
*Hefei University of Technology (China)*

<b>Session</b>	<b>MoP4: Energy &amp; Environment (III)</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 6
<b>Chairs</b>	Hongbo Tan, <i>Xi'an Jiaotong University</i> Fanglin Luo, <i>Nanyang Technological University</i>

- MoP4.1 15:55 – 16:15 P1821  
**A Control Method of Microgrid Based on The Life Model of Battery 1569**  
 Weiwen Li<sup>1</sup>, Jieming Zhang<sup>1</sup>, Xiaowen Qi<sup>2</sup>, Jun Li<sup>3</sup>, Xunru Zhang<sup>3</sup>  
<sup>1</sup>Zhaoqing Power Supply Bureau of Guangdong Power Grid (China), <sup>2</sup>Shanghai Holleysoft System Co. (China), <sup>3</sup>Power supply branch of Shanghai Metro maintenance and support Co., Ltd. (China)
- MoP4.2 16:15 – 16:35 P1379  
**Optimal Placement and Optimal mix of RDG for Improving Voltage Stability/Maximum Loadability using PSAT 1574**  
 Mohammed Kdair Abd, Shi Jie Cheng, Hai Shun Sun  
*Huazhong University of Science & Technology (China)*
- MoP4.3 16:35 – 16:55 P1539  
**Optimal DG Placement and Sizing for Power Loss Reduction in a Radial Distribution Systems using MPGSA and Sensitivity Index Method 1579**  
 Mohammed Kdair Abd, Shi Jie Cheng, Hai Shun Sun  
*Huazhong University of Science & Technology (China)*
- MoP4.4 16:55 – 17:15 P1028  
**Experimental study on a self-refrigerated auto air conditioning system based on LNG-fuelled trucks 1586**  
 Hongbo TAN, Nannan SUN, Chen LIN, Yanzhong LI  
*Xi'an Jiaotong University (China)*
- MoP4.5 17:15 – 17:35 P1550  
**Experimental Research on the Performance of Ultracapacitor in EVs's Application 1592**  
 Wen Chen, Shichuan Ding, Changbao Zheng, Guoli Li  
*Anhui University (China)*
- MoP4.6 17:35 – 17:55 P1202  
**The Electric Power Source Structure Optimization Based on Capital Investment Efficiency 1596**  
 Lei Tang, Xifan Wang, Can Dang, Weijun Teng, Shenquan Liu and Pengwei Sun  
*Xi'an Jiaotong University (China)*

<b>Session</b>	<b>MoP5: Process Control</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 11
<b>Chairs</b>	Qingwei Gao, <i>Anhui University</i> Wenjian Cai, <i>Nanyang Technological University</i>

- MoP5.1 15:55 – 16:15 P1701  
**Study on Dual-loop  $\lambda$  Control Model of Gasoline Engine Based on Unilateral Time Delay PI Controller 1601**  
 Yong-Jun Huang, Guo-Hua Chen  
*Huazhong University of Science and Technology (China)*
- MoP5.2 16:15 – 16:35 P1131  
**A New Defensive Line of Central China Power Grid Based on Application and Evaluation Criteria of Dynamic ACE 1607**  
 Hang Dong\*, Wei Hu\*, Xianzhuang Liu\*, Wei Xu<sup>+</sup>, Faqi Yan<sup>+</sup>  
 \*Tsinghua University (China), <sup>+</sup>Centre China Grid Company Limited (China)

- MoP5.3 16:35 – 16:55 P1449  
**Study on the Control of Photovoltaic inverter based on Virtual Synchronous Generator 1612**  
 Li Xin, Wang Ning  
*Hefei University of Technology (China)*
- MoP5.4 16:55 – 17:15 P1440  
**Research on Rotor Magnet Loss in Fractional-Slot Concentrated-Windings Permanent Magnet Motor 1616**  
 Yu Xia, Guoli Li, Zhe Qian, Qiubo Ye, Zhenggen Zhang  
*Anhui University (China)*
- MoP5.5 17:15 – 17:35 P1472  
**A Case Study of Underground Bus Chiller SCADA System and The Development of Custom Design Systems 1621**  
 Chin-Tsung Chen<sup>1</sup>, Kang-Chin Liu<sup>2</sup>, To-Cheng Liu<sup>3</sup>  
<sup>1</sup>*Tungnan University of Science and Technology New Taipei* <sup>220</sup>, <sup>2</sup>*National Penghu University of Science and Technology Penghu 880*, <sup>3</sup>*National Taipei University of Technology Taipei* <sup>10608</sup> (Taiwan)
- MoP5.6 17:35 – 17:55 P1773  
**Logistic Regression and Feature Extraction based Fault Diagnosis of main bearing of Wind Turbines 1628**  
 Muhammad Kamran Bodla\*, Sarmad Majeed Malik\*, Muhammad Tahir Rasheed\*, Muhammad Numan<sup>+</sup>,  
 Muhammad Zeeshan Ali<sup>+</sup>, Jimmy Baimba Brima<sup>+</sup>  
 \**National University of Science and Technology (Pakistan)*, <sup>+</sup>*North China Electric Power University (China)*

<b>Session</b>	<b>MoP6: Invited Session – Performance and Algorithm Optimization</b>
<b>Organizers</b>	Prof. Qingxuan Jia Prof. Hiawen Yuan
<b>Date/Time</b>	Monday, 6 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 12
<b>Chairs</b>	Chi Zhang, <i>Chinese Academy of Sciences</i> Jiwen Zhao, <i>Anhui University</i>

- MoP6.1 15:55 – 16:15 P1719  
**Study on Brush Gesture Feature Recognition Based on the 3D Point Cloud 1634**  
 Huang Mingji, Li Lin  
*University of Science and Technology Beijing (China)*
- MoP6.2 16:15 – 16:35 P1710  
**Learning Contextual Information for Indoor Semantic Segmentation 1639**  
 Jianhua Wang, Chuanxia Zheng, Weihai Chen and Xingming Wu  
*Beihang University (China)*
- MoP6.3 16:35 – 16:55 P1653  
**An improved regularized extreme learning machine based on Symbiotic Organisms Search 1645**  
 Boyang Zhang<sup>1</sup>, Lingjie Sun<sup>1,2</sup>, Haiwen Yuan<sup>1</sup> and Jianxun Lv<sup>1</sup>, Zhao Ma<sup>3</sup>  
<sup>1</sup>*Beihang University (China)*, <sup>2</sup>*Taizhou Vocational and Technical College (China)*, <sup>3</sup>*China Electric Power Research Institute (China)*
- MoP6.4 16:55 – 17:15 P1668  
**Improved RBF Neural Network Algorithm for Reliability Data 1649**  
 Nan Donglei, Jia Zhixin, Li Wei  
*University of Science and Technology Beijing (China)*
- MoP6.5 17:15 – 17:35 P1781  
**Design and comparison of three-type VCMs for Nano-positioning system 1656**  
 Liang Dong<sup>1,2</sup>, Jinhua Chen<sup>1</sup>, Chi Zhang<sup>\*1</sup>, Dingbing Wu<sup>1,2</sup>, Guangwei Yu<sup>2</sup>, Qiang Liu<sup>1</sup>  
<sup>1</sup>*Chinese Academy of Sciences (China)*, <sup>2</sup>*Shanghai University (China)*

- MoP6.6 17:35 – 17:55 P1818  
**A Novel Approach based on Spectral-Temporal Information Fusion for Multi-Target Detection 1661**  
 Guoliang Zhanga, Chunling Yanga\*, Yan Zhanga, Yang Jiaob  
*<sup>a</sup>Harbin Institute of Technology (China), <sup>b</sup>Secondary Metrology Station of Science, Technology and Industry for National Defense (China)*

<b>Session</b>	<b>MoPP1: Poster Session – Special Invited Session</b>
<b>Organizers</b>	Prof. Weihai Chen, <i>Beihang University</i> Prof. Chi Zhang, <i>Ningbo Institute of Industrial Technology; Chinese Academy of Sciences</i>
<b>Date/Time</b>	Monday, 6 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- MoPP1.1 P1714  
**Measurement of Multi-DOF Error Based on Microvision for Optical Fiber Assembly 1666**  
 Fei Yu, Weihai Chen\*, Haosong Yue, Jianbin Zhang  
*BeiHang University (China)*
- MoPP1.2 P1654  
**Variance Adaptive SLIC 1671**  
 Fei Kou<sup>1,2</sup>, Zhengguo Li<sup>3</sup>, Changyun Wen<sup>2</sup> and Weihai Chen<sup>1</sup>  
*<sup>1</sup>Beihang University (China), <sup>2</sup>Nanyang Technological University (Singapore), <sup>3</sup>Signal Processing Department, Institute for Infocomm Research (Singapore)*
- MoPP1.3 P1692  
**A Decoupled Flexure-based Alignment Mechanism for Micromanipulation 1676**  
 Shang Yang, Weihai Chen, Jingmeng Liu, Jianbin Zhang  
*Beihang University (China)*
- MoPP1.4 P1696  
**Aliasing signal separation of oil debris monitoring 1682**  
 Zhi Zhong<sup>+</sup>, Shaoping Wang<sup>+</sup>, Wei Hong<sup>+</sup>, Mileta Tomovic\*  
*<sup>+</sup>Beihang University (China), \*Old Dominion University (USA)*
- MoPP1.5 P1715  
**A novel closed-loop robotic fish experimental system based on ROS 1688**  
 Dong Xu, Xiang Peng, Jingmeng Liu, Jianhua Wang  
*Beihang University (China)*
- MoPP1.6 P1680  
**Research and Realization of Digital Export Boards in CPCI Test System Based on High Availability Hot-swap Technology 1693**  
 Tianxu Yang, Xiaoguang Hu  
*Beihang University*
- MoPP1.7 P1693  
**A Dynamic Decoupling Control Structure for Permanent Magnet Spherical Actuators Based on Active Disturbance Rejection Control 1697**  
 Jingmeng Liu, Huiyang Deng, Weihai Chen, Jianbin Zhang  
*Beihang University (China)*
- MoPP1.8 P1726  
**Fault Diagnosis Method for Vacuum Pump of Space Environment Simulator 1703**  
 Haiyang Zhan<sup>1</sup>, Na Li<sup>1</sup>, Yu Wang<sup>1</sup>, Xingjian Wang<sup>2</sup>, Siru Lin<sup>2</sup>  
*<sup>1</sup>Beijing Institute of Spacecraft Environment Engineering Beijing (China), <sup>2</sup>Beihang University (China)*

- MoPP1.9 P1725  
**Fuzzy Petri Net-Based Fault Diagnosis for Vacuum System in Space Environment Simulator 1708**  
 Na Li<sup>1</sup>, Haiyang Zhan<sup>1</sup>, Yu Wang<sup>1</sup>, Xingjian Wang<sup>2</sup>  
<sup>1</sup>Beijing Institute of Spacecraft Environment Engineering (China), <sup>2</sup>Beihang University (China)
- MoPP1.10 P1565  
**Stability enhancement of DFIG wind turbine using LQR pitch control over rated wind speed 1714**  
 Kazi Shariful Islam<sup>1</sup>, Weixiang Shen<sup>1</sup>, Apel Mahmud<sup>2</sup>, Md Ayaz Chowdhury<sup>3</sup>, Jingxin Zhang<sup>1</sup>  
<sup>1</sup>Swinburne University of Technology (Australia), <sup>2</sup>Deakin University (Australia), <sup>3</sup>University Malaysia (Malaysia)
- MoPP1.11 P1204  
**Cogging Torque Reduction of a Permanent Magnet Canned Motor 1720**  
 Youyuan Ni, Qiang He  
 Hefei University of Technology
- MoPP1.12 P1021  
**Sustainability Performance Evaluation of Automotive Manufacturing Companies 1725**  
 Srimannarayana Grandhi, Santoso Wibowo  
 Central Queensland University (Australia)

<b>Session</b>	<b>MoPP2: Poster Session – Control and Systems</b>
<b>Date/Time</b>	Monday, 6 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- MoPP2.1 P1063  
**The Research on Multi-target Control Strategy of EVs Based on Real-time Price 1731**  
 Tu Yiyun  
 Shanghai University of Electric Power (China)
- MoPP2.2 P1581  
**Design and Simulation of Control Systems for Electric-Assisted Bikes 1736**  
 Jin-Shyan Lee\*, Jun-Wei Jiang\*, Yuan-Heng Sun<sup>+</sup>  
 National Taipei University of Technology\* (Taiwan), <sup>+</sup>Industrial Technology Research Institute (Taiwan)
- MoPP2.3 P1429  
**Design and implementation of the monitoring interface for the combustion process based on C# language 1741**  
 Qingchao Ning, Guoli Li, Qian Zhang, Dong Chen, Tong Liu, Zhenglei Ma, Lei Sun  
 Anhui University (China)
- MoPP2.4 P1025  
**Research on Road Feeling Control Strategy for Electric Forklift Steer-by-wire System 1744**  
 Zuxun Xiao, Benxian Xiao  
 Hefei University of Technology (China)
- MoPP2.5 P1255  
**An Improved Method Based on Wavelet for Power Quality Compression 1750**  
 Zhang Li, Ma Shiqiang, ZHENG Chang-bao, Li Guoli  
 Anhui University (China)
- MoPP2.6 P1031  
**Evaluating the Sustainability Performance of Thermal Power Enterprises 1754**  
 Santoso Wibowo, Srimannarayana Grandhi  
 Central Queensland University (Australia)



- MoPP2.7 P1364  
**Design and Simulation of Inverted pendulum system based on the fractional PID controller 1760**  
 Chunyang Wang, Gaofeng Yin, Canglong Liu, Weicheng Fu  
*Changchun University of Science and Technology (China)*
- MoPP2.8 P1700  
**An overall structure optimization for a light-weight robotic arm 1765**  
 Haibin Yin, Shansheng Huang, Mingchang He, Junfeng Li  
*Wuhan University of Technology (China)*

<b>Session</b>	<b>TuA1: Industrial Informatics &amp; Computational Intelligence (III)</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor Room 1
<b>Chairs</b>	Mohammad Rashid, <i>Massey University</i> Weihai Chen, <i>Beihang University</i>

- TuA1.1 10:45 – 11:05 P1528  
**Distance-Weighted Manifold Learning In Facial Expression Recognition 1771**  
 DU Jing, LI Bo  
*Wuhan University of Science and Technology (China)*
- TuA1.2 11:05 – 11:25 P1054  
**The Symplectic Multi-Resolution Time-Domain Scheme for Waveguide Simulation 1776**  
 Min Wei\*, Fang Xie\*, Wei Chen<sup>+</sup>  
 \**Anhui University (China)*, <sup>+</sup>*Anhui Agricultural University (China)*
- TuA1.3 11:25 – 11:45 P1634  
**Filling Modules into Spaces for Rapid Prototyping of Mechanical Assembly: Algorithm 1779**  
 Zhiqin Qian\*, Bin Han\*, Ying Lin<sup>+</sup>, Wenjun Lin<sup>++</sup>, Wenjun Zhang<sup>++</sup>  
 \**East China University of Science and Technology (China)*, <sup>+</sup>*Northeastern University (China)*, <sup>++</sup>*University of Saskatchewan (Canada)*
- TuA1.4 11:45 – 12:05 P1384  
**Research on Torque Optimization of the Spherical Motor Based on SVM 1786**  
 Lufeng Ju\*, Zhe Qian\*, Guoli Li<sup>+</sup>, Rui Zhou<sup>+</sup>  
 \**National Engineering Laboratory of Energy-Saving Motor & Control Technology (China)*,  
<sup>+</sup>*Anhui University (China)*
- TuA1.5 12:05 – 12:25 P1177  
**Gesture and Voice Control of Internet of Things 1791**  
 Xiao Han, M A Rashid  
*Massey University (New Zealand)*

<b>Session</b>	<b>TuA2: Industrial Informatics &amp; Computational Intelligence (IV)</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor VVIP 3
<b>Chairs</b>	Xiwei Liu, <i>Tongji University</i> Wenxiang Xie, <i>Seagate Technology International</i>

- TuA2.1 10:45 – 11:05 P1703  
**An Investigation on Experimental Issues in Financial Fraud Mining 1796**  
 Jarrod West, Maumita Bhattacharya  
*Charles Sturt University (Australia)*
- TuA2.2 11:05 – 11:25 P1321  
**Bridge the Gap Between Network-Based Inference Method and Global Ranking Method in Personal Recommendation 1802**  
 Xiwei Liu  
*Tongji University (China), The Key Laboratory of Embedded System and Service Computing, Ministry of Education (China)*
- TuA2.3 11:25 – 11:45 P1454  
**Semantic Pheromone Walking: a Semantic Clue Discovering Scheme based on Concept Relatedness in Open Domain Knowledge Network 1807**  
 Zhang Bo<sup>1</sup>, Hu Sihui<sup>1</sup>, Peng Ruxiang<sup>2</sup>, Lu Yajun<sup>3</sup>  
<sup>1</sup>*Shanghai Normal University (China)*, <sup>2</sup>*The Third Research Institute of Ministry of Public Security (China)*, <sup>3</sup>.  
*Changzhou Institute of Technology (China)*
- TuA2.4 11:45 – 12:05 P1600  
**User Preference with Trust and Rating in Collaborative Filtering 1813**  
 Jiwei Qin, Wendong Zhang  
*Xinjiang University*

<b>Session</b>	<b>TuA3: Data Processing</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor VVIP 5
<b>Chairs</b>	Teng Li, <i>Anhui University</i> Xing Qi, <i>Anhui University</i>

- TuA3.1 10:45 – 11:05 P1483  
**Data Aware QoE-QoS Management 1818**  
 Charles Z. Liu, Manolya Kavakli  
*Macquaire University (Australia)*
- TuA3.2 11:05 – 11:25 P1486  
**Signal Propagation in Neuronal Networks with Hierarchical Structure 1824**  
 Zhihong Wang, Chongqing Hao, Zheng Li  
*Hebei University of Science and Technology (China)*
- TuA3.3 11:25 – 11:45 P1816  
**A Fast Verification Method for Timing Related Faults by Forming Special Testbench Group on Critical Paths in Simulation 1828**  
 Can Gao, Ligang Hou  
*Beijing University of Technology (China)*

- TuA3.4 11:45 – 12:05 P1108  
**Enhanced bearing fault diagnosis using adaptive stochastic resonance 1832**  
 Siliang Lu\*, Fang Liu\*, Yongbin Liu\*, Jiwen Zhao\*, Qingbo He<sup>+</sup>, Xiwen Guo\*  
 \*Anhui University (China), <sup>+</sup>University of Science and Technology of China (China)

<b>Session</b>	<b>TuA4: Energy &amp; Environment (IV)</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor VVIP 6
<b>Chairs</b>	Jiwen Zhao, <i>Anhui University</i> Quan Chen, <i>Anhui University</i>

- TuA4.1 10:45 – 11:05 P1467  
**Effects of Initial Temperature on the Performance of Free Piston Linear Generator 1837**  
 Dequan Zeng<sup>1,2</sup>, Chi Zhang<sup>1</sup>, Shuai Guo<sup>2</sup>, Fei Zhao<sup>1</sup>, Jinhua Chen<sup>1</sup>, Peng Sun<sup>1</sup>, Lianlian Mao<sup>1,2</sup>  
<sup>1</sup>Chinese Academy of Sciences (China), <sup>1</sup>Zhejiang Key Laboratory of Robotics and Intelligent Manufacturing Equipment Technology (China), <sup>2</sup>Shanghai University (China)
- TuA4.2 11:05 – 11:25 P1553  
**Influence of Anode Flow Field on Mass Transport in a Air-breathing Micro Direct Methanol Fuel Cell 1843**  
 Jie Yang\*, Zhenyu Yuan\*, Hongyuan Shen\*, Xiaoyang Li<sup>+</sup>, Jia Di<sup>++</sup>  
 \*Northeastern University (China), <sup>+</sup>University of Arkansas (USA), <sup>++</sup>Shanghai University, Shanghai (China)
- TuA4.3 11:25 – 11:45 P1521  
**PID Control for Improving P&O-MPPT Performance of Grid-Connected Solar PV System With Ziegler-Nichols Tuning Method 1847**  
 Emmanuel Kwaku Anto\*, Johnson A. Asumadu<sup>+</sup>, Philip Yaw Okyere\*  
 \*Kwame Nkrumah University of Science & Technology (Ghana), <sup>+</sup>Western Michigan University (USA)
- TuA4.4 11:45 – 12:05 P1398  
**Design and Implementation of a Visio-Based Planning-Design and Techno-Economic Evaluation Software for Microgrid 1853**  
 Xinhao Lin\*, Nian Liu\* and Jinyong Lei<sup>+</sup>  
 \*North China Electric Power University (China), <sup>+</sup>China Southern Power Grid, Guangdong, China
- TuA4.5 12:05 – 12:25 P1244  
**Forecast of pollutants in the Rio Santiago, using data fusion technique using statistical and regression methods. 1858**  
 Marco A. Pérez Cisneros, Alicia García Arreola, J. Miguel Morán L.  
*Universidad de Guadalajara (Mexico)*

<b>Session</b>	<b>TuA5: Networked control, Cooperative control and Bio-control</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor VVIP 11
<b>Chairs</b>	Cungang Hu, <i>Anhui University</i> Chun-Liang Lin, <i>National Chung Hsing University</i>

- TuA5.1 10:45 – 11:05 P1004  
**Synchronization of Stochastic Complex Networks Using Nonlinear Optimal Control 1863**  
 Ziqian Liu\*, Qunjing Wang<sup>+</sup>, and Guoli Li<sup>+</sup>  
 \*State University of New York Maritime College (USA), <sup>+</sup>Anhui University (China)

- TuA5.2 11:05 – 11:25 P1646  
**Coordination Control Strategy between Human Vision and Wheelchair Manipulator Based on BCI 1872**  
 CHEN Naijian, WANG Yantao, Cai Xinglai, Yang Hao and CHEN Hui  
*University of Jinan (China)*
- TuA5.3 11:25 – 11:45 P1525  
**An Undergraduate Research Platform for Cooperative Control and Swarm Robotics 1876**  
 Edward Bear, Teddy Maxwell, Timothy Anglea, Dhvani Raval, Ian Buckley, Yongqiang Wang  
*Clemson University (USA)*
- TuA5.4 11:45 – 12:05 P1468  
**Networked-based Distributed Cooperative Voltage Control for Power Electronics Interfaced Microgrids 1880**  
 Jingang Lai\*, Cungang Hu<sup>+</sup>, Guoli Li<sup>+</sup>, Xiaoqing Lu<sup>++</sup>, Hong Zhou\*  
 \*Wuhan University (China), <sup>+</sup>Anhui University (China), <sup>++</sup>Hunan University (China)
- TuA5.5 12:05 – 12:25 P1076  
**On the Design of Static Genetic Memory 1886**  
 Chun-Liang Lin, and Yu-Jia Hu  
*National Chung Hsing University (Taiwan)*

<b>Session</b>	<b>TuA6: Invited Session – System Control and Modeling</b>
<b>Organizers</b>	Prof. Wei Wang Prof. Chunling Yang
<b>Date/Time</b>	Tuesday, 7 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor VVIP 12
<b>Chairs</b>	Shaoping Wang, <i>Beihang University</i> Zhengguo Li, <i>Institute for Infocomm Research</i>

- TuA6.1 10:45 – 11:05 P1789  
**A Novel Localization Method based on Sharp Corners for Indoor Mobile Robots 1892**  
 Wei Yang, Guilin Yang, Hao Chang, Huijuan Zhang, Xing Yang  
*Chinese Academy of Sciences (China)*
- TuA6.2 11:05 – 11:25 P1787  
**Parameters Identification and Adaptive Feedforward Control of Permanent Magnet Linear Synchronous Motor 1898**  
 Rui Liu<sup>1,2</sup>, Chi Zhang<sup>1\*</sup>, Linyong Shen<sup>2</sup>, Fei Zhao<sup>1</sup>, Yanlong Zhang<sup>1</sup>, Shuangchi Zhang<sup>3</sup>  
<sup>1</sup>Chinese Academy of Sciences (China), <sup>2</sup>Shanghai University (China), <sup>3</sup>ChinFong (China) Machine Industry Co., Ltd
- TuA6.3 11:25 – 11:45 P1765  
**Nonlinear ODE Parameter Identification of Electro-hydraulic servo system Based on Trust-Region Optimization Algorithm 1904**  
 Yixin Zhang, Shaoping Wang, Xingjian Wang, Jun Wang  
*Beihang University (China)*

<b>Session</b>	<b>TuAP1: Poster Session – Control and Systems</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- TuAP1.1 P1347  
**Research on an improved cross coupling control algorithm based on disturbance compensation** 1910  
 Junbo Zhang<sup>1</sup>, Hong Lu<sup>\*1,2</sup>, Shaojun Wang<sup>3</sup>, Wei Fan<sup>1</sup>, Yongquan Zhang<sup>1</sup>  
<sup>1</sup>Wuhan University of Technology (China), <sup>2</sup>Key Laboratory of Hubei Province for Digital Manufacture (China), <sup>3</sup>Southeast Missouri State University (USA)
- TuAP1.2 P1175  
**An Improved Nonlinear State Observer Based on BP Neural Network for Coal-fired Power Unit** 1915  
 Guolian Hou, Huan Guo, Yu Yang, Jianhua Zhang  
 China Electric Power University (China)
- TuAP1.3 P1375  
**Design of a stabilization control system for high-speed crafts based on robust techniques. Two different approaches** 1920  
 Rocío Muñoz-Mansilla, José Manuel Díaz, Dictino Chaos, Joaquín Aranda  
 Department of Computer Science and Automatic Control. UNED (Spain)
- TuAP1.4 P1259  
**Design of Water Tank Level Cascade Control System Based on Siemens S7--200** 1926  
 Hong Ying Cao, Na Deng  
 Kaifeng University (China)
- TuAP1.5 P1157  
**Development of Shale Gas Fracturing Digital Network Control System Based on Programmable Logic Controller** 1929  
 CHEN Yongjun, RUAN Bo  
 Yangtze University (China)
- TuAP1.6 P1302  
**Research on Multilevel inverter control system based on PWM algorithm** 1935  
 Li Xin, Pan Wangyang, Zheng Tao, Sheng Tingting  
 Hefei University of Technology (China)
- TuAP1.7 P1133  
**Coupling Analysis and Loop Pairing method via an Information-theoretic Approach** 1939  
 Jianhua Zhang, Yamin Kuai, Mingming Lin, Rui Wang, Guolian Hou  
 North China Electric Power University (China)
- TuAP1.8 P1570  
**On Definitions of Bandwidth and Response Time** 1945  
 Bernard Friedland  
 New Jersey Institute of Technology (USA)
- TuAP1.9 P1138  
**Study on a dual-motor driving electric power steering system for commercial vehicle** 1949  
 Li Yaohua, Xu Peng, Hou Shuo  
 Chang'an University (China)
- TuAP1.10 P1426  
**Co-Simulation of Field Oriented Control in Induction Motor Drive System** 1955  
 Bing Hang, Guoli Li, Fang Xie  
 Anhui University (China)
- TuAP1.11 P1433  
**Sensorless Vector Control System of Induction Motor by Nonlinear Full-order Observer** 1959  
 Jin Cao, Guoli Li, Xing Qi, Qiubo Ye, Qian Zhang, and Qunjing Wang  
 Anhui University (China)

- TuAP1.12 P1434  
**Electric Vehicle Differential System Based on Co-simulation of Carsim/Simulink 1963**  
 Huamei Cui, Quan Chen, Xing Qi, Hu Wang  
*Anhui University (China)*
- TuAP1.13 P1098  
**Analysis on Security Standards for Industrial Control System and Enlightenment on Relevant Chinese Standards 1967**  
 Xin HAO, Feng ZHOU, Xi CHEN  
*China Software Testing Center (China)*
- TuAP1.14 P1524  
**Exploratory Simulation Models for Fraudulent Detection in Bitcoin System 1972**  
 Haozheng WEI, Vincent Lee  
*Monash University (Australia)*
- TuAP1.15 P1770  
**Modeling and Control for Swing and Anti-swing of a Wind Pendulum 1978**  
 Yue Long, Jin Xiao\*, Tian Zhang, Hao Cheng  
*Beihang University (China)*

<b>Session</b>	<b>TuAP2: Poster Session – Cyber-physical Systems</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 10:45 – 12:25
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5
<b>Chairs</b>	

- TuAP2.1 P1739  
**A new manufacturing resources integration and sharing modes in big data environment 1984**  
 Feng Xiang, XiaoWu Chen, GuoZhang Jiang  
*Wuhan University of Science and Technology (China)*
- TuAP2.2 P1738  
**Green Manufacturing Service Composition in Cloud Manufacturing System: an Introduction 1988**  
 Feng Xiang, LuLu Xu  
*Wuhan University of Science and Technology (China)*
- TuAP2.3 P1087  
**Smartphone Based Car-Searching System for Large Parking Lot 1994**  
 Junhuai Li, Yang An, Rong Fei, Huaijun Wang  
*Xi'an University of Technology (China)*
- TuAP2.4 P1742  
**Potential Applications of IoT-based Product Lifecycle Energy Management 1999**  
 Yiwen Wang\*, Meng Zhang<sup>+</sup>, Ying Zuo\*  
*\*Northeastern University at Qinhuangdao (China), Beihang University (China)*
- TuAP2.5 P1507  
**A New Spindle Rotation Error Measurement System Based on Three Point Method 2003**  
 Hong Lu<sup>1,2</sup>, Qiang Wu<sup>1</sup>, Shucheng Wu<sup>1</sup>, Zilong Wang<sup>1</sup>, Yifeng Ren<sup>3</sup>  
*<sup>1</sup>Wuhan University of Technology (China), <sup>2</sup>Key Laboratory of Hubei Province for Digital Manufacture (China), <sup>3</sup>Texas A&M University (USA)*

<b>Session</b>	<b>TuM1: Power Electronics (XII)</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor Room 1
<b>Chairs</b>	Yan Lv, <i>China University of Mining and Technology</i> Guoli Li, <i>Anhui University</i>

- TuM1.1 13:25 – 13:45 P1337  
**Speed Sensorless Control of Electrically Excited Synchronous Motor Based on the Reduce-order State Observer Flux Observation 2009**  
 Peng Dai, Yan Lv, Nan Xu, Houqing Xie  
*China University of Mining Technology*
- TuM1.2 13:45 – 14:05 P1342  
**Fault diagnosis of a Permanent Magnet Synchronous Generator Connected to a Uncontrolled Rectifier Bridge 2015**  
 Jun Hang<sup>1,2</sup>, Shichuan Ding<sup>1</sup>, Guoli Li<sup>1</sup>, Fang Xie<sup>1</sup>  
<sup>1</sup>*Anhui University (China)*, <sup>2</sup>*Southeast University (China)*
- TuM1.3 14:05 – 14:25 P1343  
**Fault Tolerant Control for a Five-Phase Permanent Magnet Synchronous Machine Driving System 2021**  
 Shichuan Ding<sup>1</sup>, Wen Chen<sup>1</sup>, Minghao Tong<sup>1,2</sup>, Fang Xie<sup>1</sup>, Changbao Zheng<sup>1</sup>  
<sup>1</sup>*Anhui University (China)*, <sup>2</sup>*Southeast University (China)*
- TuM1.4 14:25 – 14:45 P1512  
**Design and Test for High Speed Permanent Magnet Wind Generator and Research on Rotor Protection Measures 2026**  
 Dingwang Xu, Xiuhe Wang, Guanqun Li  
*Shandong University (China)*
- TuM1.5 14:45 – 15:05 P1540  
**Harmonic Analysis Based Fault Detection for a Five-phase PMSG Diode Rectifier Conversion Chain 2032**  
 Chenchen Liang<sup>1,2</sup>, Gang Yao<sup>2</sup>, Mourad Aït-ahmed<sup>1</sup>, Jean-Claude Le Claire<sup>1</sup>, Mohamed-Fouad Benkhoris<sup>1</sup>  
<sup>1</sup>*Université de Nantes (France)*, <sup>2</sup>*Shanghai Maritime University (China)*
- TuM1.6 15:05 – 15:25 P1615  
**The Balanced Control of Dual-redundancy Brushless DC Motor Servo System 2038**  
 LI Jing<sup>1</sup>, LI Shanfeng<sup>1</sup>, ZHANG Yanqing<sup>1</sup>, YU Shaolei<sup>2</sup>, WU Xiangyang<sup>1</sup>  
<sup>1</sup>*Beijing Specialized Machinery Institute (China)*, <sup>2</sup>*Beihang University, Beijing*

<b>Session</b>	<b>TuM2: Power Electronics (XIII)</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 3
<b>Chairs</b>	Shuye Ding, <i>Harbin University of Science and Technology</i> Qian Zhang, <i>Anhui University</i>

- TuM2.1 13:25 – 13:45 P1685  
**Investigation of Characteristics of Fluid Flow Pattern for Air-Cooled Motor 2044**  
 Shuye Ding, Hailing Li  
*Harbin University of Science and Technology (China)*
- TuM2.2 13:45 – 14:05 P1315  
**Emergency Energy Management Strategy for Commercial Building Microgrid Consisting of PV and Energy Storage 2049**  
 Yi Cui, Nian Liu  
*North China Electric Power University (China)*

- TuM2.3 14:05 – 14:25 P1389  
**Study of Photovoltaic Three-Phase Grid-Connected Inverter based on the Grid Voltage-Oriented Control 2055**  
 Tao ZHAO<sup>1,2</sup>, Qian ZONG<sup>1</sup>, Tao ZHANG<sup>1</sup>, You XU<sup>1</sup>  
<sup>1</sup>Nanjing Institute of Technology (China), <sup>2</sup>Jiangsu Key Laboratory of Advanced Numerical Control Technology (China)
- TuM2.4 14:25 – 14:45 P1231  
**Research on control strategy of load voltage unbalance problem for three-phase combined inverter 2061**  
 BiYing Ren, Meng Zhang, XinRong Zhao, XiangDong Sun  
*Xi'an University of Technology (China)*
- TuM2.5 14:45 – 15:05 P1588  
**Power System Probabilistic Production Simulation Including Large Scale Grid-connected Photovoltaic Generation 2066**  
 Fan Hong, Lu Ru, Jiang Yanbin  
*Shanghai University of Electric Power (China)*
- TuM2.6 15:05 – 15:25 P1230  
**Local Control Strategy of PV Inverters for Overvoltage Prevention in Low Voltage Feeder 2071**  
 BiYing Ren, Meng Zhang, ShaoLiang An, XiangDong Sun  
*Xi'an University of Technology (China)*

<b>Session</b>	<b>TuM3: Design and Performance Evaluation</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 5
<b>Chairs</b>	Changyun Wen, <i>Nanyang Technological University</i> Qingwei Gao, <i>Anhui University</i>

- TuM3.1 13:25 – 13:45 P1386  
**Pulse Shaping Approach to PAPR Reduction for Multiuser OFDM Systems 2076**  
 Regina Reine, Zhuquan Zang  
*Curtin University Sarawak Campus (Malaysia)*
- TuM3.2 13:45 – 14:05 P1272  
**Design of Hardware-in-the-loop Simulation System for LTE –A System based on USRP 2081**  
 Zhaoming Chen<sup>1</sup>, Yanjun Hu<sup>1</sup>, Xue Wang<sup>2</sup>, Haowen Wang<sup>2</sup>, Delin Cai<sup>3</sup>  
<sup>1</sup>Anhui University (China), <sup>2</sup>Shanghai Research Center for Wireless Communications (China), <sup>3</sup>China Electronics Technology Group Corporation (China)
- TuM3.3 14:05 – 14:25 P1541  
**Calculation Method of Network reliability with Multi-constraint Quality of Service 2086**  
 Xuecai Bao<sup>1,2</sup>  
<sup>1</sup>Nanchang Institute of Technology (China), <sup>2</sup>Jiangxi Province Key Laboratory of Water Information Cooperative Sensing and Intelligent Processing (China)
- TuM3.4 14:25 – 14:45 P1766  
**A New Method to Parallel Implementation for Batching Vast Small-scale Computing Tasks Based on GPU 2092**  
 Jun Zhu\*, Haifeng Yao\*, Tao Yang\*, Qiaomei Zhou<sup>+</sup>, Kai Li<sup>+</sup>  
 \*Anhui University (China), <sup>+</sup>Shanghai Research Center for Wireless Communications (China)
- TuM3.5 14:45 – 15:05 P1040  
**Research and Analysis of GNSS Performance Test Methods 2096**  
 He He, Ershen Wang, Tao Pang  
*Shenyang Aerospace University (China)*



- TuM3.6 15:05 – 15:25 P1377  
**Wireless Building Automation Devices Supporting Multiple Standards: Challenges and Feasibility 2101**  
 Gargi Bag\*, Zhibo Pang\*, Morgan E. Johansson\*, Xiaoyu Min<sup>+</sup>, Shaoling Zhu<sup>+</sup>  
 \*ABB Corporate Research (Sweden), <sup>+</sup>KTH Royal Institute of Technology (Sweden)

<b>Session</b>	<b>TuM4: Mechatronics (IV)</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 6
<b>Chairs</b>	Zaichun Feng, <i>University of Missouri</i> Xing Zhu, <i>InspiRain Technologies Pte Ltd</i>

- TuM4.1 13:25 – 13:45 P1488  
**CORDIC-based implementation architectures for the second-harmonic excitation of a micro-gyroscope 2107**  
 Huijie Zhu<sup>1,2</sup>, Yizhou Ge<sup>1,2</sup>  
<sup>1</sup>Science and Technology on Communication Information Security Control Laboratory (China),  
<sup>2</sup>No. 36 Research Institute of China Electronics Technology Group Corporation (China)
- TuM4.2 13:45 – 14:05 P1567  
**Dynamic Compensation of Temperature Sensors Using a Continuum Model 2111**  
 Z.C. Feng and Yuwen Zhang  
*University of Missouri (USA)*
- TuM4.3 14:05 – 14:25 P1135  
**Modeling of a 3D Force Flexible Tactile Sensor and Its Structural Optimization 2118**  
 Shanhong Li\*, Zhong Chu\*, Qinglong Wang\*, Fangfang Meng\*, Yubing Wang<sup>+</sup>, Yunjian Ge<sup>+</sup>  
 \*Hefei University (China), <sup>+</sup>Chinese Academy of Sciences (China)
- TuM4.4 14:25 – 14:45 P1392  
**Design and Simulation of an Aerial Robotic Arm 2124**  
 Xiaofeng Wu, Yijun Huang and Sherad Kueh  
*University of Sydney (Australia)*
- TuM4.5 14:45 – 15:05 P1355  
**Sliding Mode Control of the Planar Switched Reluctance Motor for Interference Suppression 2130**  
 Zhan-Zhi Xu<sup>1</sup>, Guang-Zhong Cao<sup>1</sup>, Su-Dan Huang<sup>1,2</sup> and Hong-Xin Zheng<sup>1</sup>  
<sup>1</sup>Shenzhen University, <sup>2</sup>Southwest Jiaotong University (China)

<b>Session</b>	<b>TuM5: Robust Control and Nonlinear System &amp; Control</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 11
<b>Chairs</b>	Salim Ibrir, <i>King Fahd University of Petroleum and Minerals</i> Jingbing Zhang, <i>IDC Asia/Pacific</i>

- TuM5.1 13:25 – 13:45 P1105  
**Dynamic-output Stabilization and Tracking of Uncertain Linear Systems with mixed H2/Hinf Performance 2135**  
 Salim Ibrir, Adeel Sabir  
*King Fahd University (Saudi Arabia)*

- TuM5.2 13:45 – 14:05 P1147  
**A Combined Robust Terminal Sliding Mode Controller with Perturbation Estimator for Piezoelectric Actuated Positioner 2141**  
 Ali Al-Ghanimi, Jinchuan Zheng, and Zhihong Man  
*Swinburne University of Technology (Australia)*
- TuM5.3 14:05 – 14:25 P1367  
**Path Tracking Control for Eight-Rotor Aircraft Based on Linear ADRC Algorithm 2147**  
 Chunyang Fu\*, Yantao Tian\*, Cheng Peng<sup>+</sup>, Xun Gong<sup>+</sup>, Yue Bai<sup>+</sup>  
 \**Jilin University (China)*, <sup>+</sup>*Chinese Academy of Sciences Changchun (China)*
- TuM5.4 14:25 – 14:45 P1295  
**Control of Piezoelectric Inertia-Friction Actuator with Consideration of Thermal Effects 2153**  
 Y.F. Liu\*, J. Li\*, W.J. Zhang\*, X. H. Hu<sup>+</sup>, W.J. Zhang<sup>+</sup>  
 \**East China University of Science and Technology (China)*, <sup>+</sup>*University of Saskatchewan (Canada)*
- TuM5.5 14:45 – 15:05 P1284  
**Nonlinear predictive control of a boiler-turbine system based on T-S fuzzy model 2159**  
 Guolian Hou\*, Yu Yang\*, Feng Yin<sup>+</sup>, Quan Li<sup>+</sup>, Jianhua Zhang\*  
 \**China Electric Power University (China)*, <sup>+</sup>*State grid zhejiang electric power research institute (China)*
- TuM5.6 15:05 – 15:25 P1532  
**Optimal Motion Control for Multi-Robot System by Multilayer Network Operator 2164**  
 A. I. Diveev, E. Yu. Shmalko  
*Federal Research Center “Computer Science and Control” of Russian Academy of Sciences (Russia)*

<b>Session</b>	<b>TuM6: Invited Session – Electric Motor &amp; System Test and Analysis (II)</b>
<b>Organizers</b>	Prof. Shaoru Zhang, <i>Hebei Normal University</i>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor VVIP 12
<b>Chairs</b>	Cungang Hu, <i>Anhui University</i> Fanglin Luo, <i>Anhui University</i>

- TuM6.1 13:25 – 13:45 P1756  
**An Improved Active Frequency Drift Anti-islanding Detection Method 2170**  
 Shuai Wang<sup>1</sup>, Shaoru Zhang<sup>1,2</sup>, Lingling Liu<sup>1</sup>, Yikun Jia<sup>1</sup>, Chenjie Qie<sup>1</sup>  
<sup>1</sup>*Hebei Normal University (China)*, <sup>2</sup>*Anhui University (China)*
- TuM6.2 13:45 – 14:05 P1727  
**Performance Degradation Model of Roots Pump in Vacuum System Based on Leakage of Rotor Wear 2174**  
 Quan Zhang\*, Shaoping Wang\*, Jian Shi\*, Xingjian Wang\*, Mileta Tomovic<sup>+</sup>  
 \**Beihang University (China)*, <sup>+</sup>*Old Dominion University (USA)*
- TuM6.3 14:05 – 14:25 P1754  
**Complete Control of Radial Suspension Force for Bearingless Induction Motors 2180**  
 Shaoru Zhang<sup>1,2</sup>, Lingling Liu<sup>1</sup>, Shuai Wang<sup>1</sup>, Yikun Jia<sup>1</sup> and Chenjie Qie<sup>1</sup>  
<sup>1</sup>*Hebei Normal University (China)*, <sup>2</sup>*Anhui University (China)*
- TuM6.4 14:25 – 14:45 P1755  
**Compensation Control for Radial Suspension Force in Bearingless Induction Motors 2185**  
 Shaoru Zhang<sup>1,2</sup>, Lingling Liu<sup>1</sup>, Yikun Jia<sup>1</sup>, Shuai Wang<sup>1</sup> and Chenjie Qie<sup>1</sup>  
<sup>1</sup>*Hebei Normal University (China)*, <sup>2</sup>*Anhui University (China)*
- TuM6.5 14:45 – 15:05 P1720  
**Sealing Mechanism and Failure Analysis of Actuator Reciprocating Seal 2190**  
 Yanwei Zhang<sup>1</sup>, Jian Shi<sup>1</sup>, Shaoping Wang<sup>1</sup>, Chao Zhang<sup>1</sup>, Mileta M. Tomovic<sup>2</sup>  
<sup>1</sup>*Beihang University (China)*, <sup>2</sup>*Old Dominion University (USA)*

- TuM6.6 15:05 – 15:25 P1699  
**Adaptive Control for Motion Synchronization of HA/EHA System by Using Modified MIT Rule 2196**  
 Waheed Ur Rehman<sup>1</sup>, Shaoping Wang<sup>1</sup>, Xingjian Wang<sup>1</sup>, Cun Shi<sup>1</sup>, Chao Zhang<sup>1</sup>, Mileta Tomovic<sup>2</sup>  
<sup>1</sup>Beihang University (China), <sup>2</sup>Old Dominion University (USA)

<b>Session</b>	<b>TuMP1: Poster Session – Power Electronics</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 13:25 – 15:25
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5
<b>Chairs</b>	

- TuMP1.1 P1193  
**Effect of Removing the Filter Capacitor in Rectifier Circuit on the Steady-state Performances of the Permanent Magnet Direct Current Motor 2202**  
 Haoxia Yu, Xiuhe Wang, Guanqun Li  
*Shandong University (China)*
- TuMP1.2 P1059  
**Research of Heat Transfer Characteristic for PMSM with Two-way Ventilation Structure 2206**  
 Shuye Ding, Shanshan Li  
*Harbin University of Science and Technology (China)*
- TuMP1.3 P1503  
**Experimental Researches on the Novel Single-phase Induction Motor 2211**  
 Ying Pei\*, Xinghua Liu<sup>+</sup>, Xiuhe Wang<sup>++</sup>, Dingwang Xu<sup>++</sup>  
<sup>\*</sup>State Grid of China Technology College (China), <sup>+</sup>State Grid Zibo Power Supply Company (China),  
<sup>++</sup>Shandong University (China)
- TuMP1.4 P1577  
**Maximum Power Point Tracking for Photovoltaic Power Based on the Improved Interleaved Boost Converter 2215**  
 Tian Xue, Zheng Minxin and Yang Songtao  
*Beihang University (China)*
- TuMP1.5 P1473  
**The Starting Performance Research on the Novel Single-phase Induction Motor 2219**  
 Ying Pei\*, Xinghua Liu<sup>+</sup>, Xiuhe Wang<sup>++</sup>, Mengmeng Tian<sup>++</sup>  
<sup>\*</sup>State Grid of China Technology College (China), <sup>+</sup>State Grid Zibo Power Supply Company (China),  
<sup>++</sup>Shandong University (China)
- TuMP1.6 P1194  
**Design of High-power Buck-Boost LED Constant Current Drive Circuit 2223**  
 Yin Lu, Qunjing Wang, Yi Hong, Changbao Zheng  
*Anhui University (China)*
- TuMP1.7 P1356  
**Junction Temperature Acquiring System of The 3L-ANPC Inverter Base on Labview 2227**  
 Yuqing He, Quan Chen, Changbao Zheng, Long Cheng  
*Anhui University (China)*
- TuMP1.8 P1338  
**Simulation and Analysis of Propagation Characteristics of Partial Discharge signal in XLPE Cable Joint 2232**  
 Wang Qian<sup>1</sup>, Yang Qi<sup>2</sup>, Hu Xiaorui<sup>1</sup>, Fu Jin<sup>1</sup>, Chen Wei<sup>1</sup>, Yang Fan<sup>2</sup>  
<sup>1</sup>State Grid Chongqing Electric Power Corporation Research Institute (China), *Chongqing University (China)*
- TuMP1.9 P1358  
**LCL Filter Design In T-Type Three-Level Grid-Connected Inverter 2236**  
 Mengyan Wang, Quan Chen, Guoli Li, Cungang Hu, Long Cheng, and Rui Zhou  
*Anhui University (China)*

- TuMP1.10 P1017  
**Research on Cross-regulation Characteristic of Flyback Power Converter with Multiple-output Port and Its Controlling Technique 2241**  
 Lijun Zhang, Xianghua Ma, Yinzong Ye  
*Shanghai Institute of Technology (China)*
- TuMP1.11 P1092  
**Design of Pulse Generator and Drive Circuit for High-Voltage Repetition-Frequency Thyristor Series Switch 2247**  
 Liu Kun\*, Gao Yinghui\*, Wang Lei<sup>+</sup>, Fan Ailong<sup>+</sup>  
 \*Chinese Academy of Sciences (China), <sup>+</sup>University of Chinese Academy of Sciences (China)
- TuMP1.12 P1035  
**Mechanism analysis and modeling research of novel hybrid excitation guiding system 2251**  
 Yaping Liu, Xiaozhuo Xu, Xudong Wang, Haichao Feng  
*Henan Polytechnic University (China)*
- TuMP1.13 P1155  
**Research on Reactive Compensation in Ultra-high Voltage Power Grid Using Shunt Reactors 2257**  
 ZHANG Yonggao, LIU Wanqing, GAO Yanli  
*EastChina JiaoTong University (China)*
- TuMP1.14 P1179  
**A New Method of Islanding Detection Based on Voltage Positive Feedback 2261**  
 Ying Cheng\*, Long Zhao<sup>+</sup>, Yaqiao Luo<sup>3</sup>, Cungang Hu\*<sup>+</sup>, Tao Rui<sup>+</sup> and Xing Qi\*<sup>+</sup>  
 \*Anhui University (China), <sup>+</sup>Anhui Electric Power Science Research Institute (China)
- TuMP1.15 P1189  
**Investigation of Contact Resistance Influence on Power Cable Joint Temperature Based on 3-D Coupling Model 2265**  
 Hanwu Luo<sup>1</sup>, Peng Cheng<sup>2</sup>, Haibo Liu<sup>3</sup>, Kai Kang<sup>3</sup>, Fan Yang<sup>4</sup>, Qi Yang<sup>4</sup>  
<sup>1</sup>East Inner Mongolia Electric Power Company Limited, <sup>2</sup>Chongqing University, <sup>3</sup>East Inner Mongolia Electric Power Company Limited, <sup>4</sup>Chongqing University (China)
- TuMP1.16 P1190  
**Investigation of Propagation Characteristics of UHF Electro-magnetic Wave Due to PD in Switchgear 2269**  
 Hanwu Luo<sup>1</sup>, Peng Cheng<sup>2</sup>, Haibo Liu<sup>3</sup>, Kai Kang<sup>3</sup>, Fan Yang<sup>4</sup>, Qi Yang<sup>4</sup>  
<sup>1</sup>East Inner Mongolia Electric Power Company Limited, <sup>2</sup>Chongqing University, <sup>3</sup>East Inner Mongolia Electric Power Company Limited, <sup>4</sup>Chongqing University (China)
- TuMP1.17 P1191  
**Research on the UHF Microstrip Antenna for Partial Discharge Detection in High Voltage Switchgear 2273**  
 Hanwu Luo<sup>1</sup>, Peng Cheng<sup>2</sup>, Haibo Liu<sup>3</sup>, Kai Kang<sup>3</sup>, Fan Yang<sup>4</sup>, Kai Liu<sup>4</sup>  
<sup>1</sup>East Inner Mongolia Electric Power Company Limited, <sup>2</sup>Chongqing University, <sup>3</sup>East Inner Mongolia Electric Power Company Limited, <sup>4</sup>Chongqing University (China)
- TuMP1.18 P1256  
**Variable-Order Fractional Equivalent Circuit Model for Lithium-ion Batteries 2277**  
 Qi Zhang, Yun-long Shang, Yan Li, Bin Duan, Cheng-hui Zhang  
*Shandong University (China)*
- TuMP1.19 P1222  
**Design of Bi-directional DC-DC Converter 2283**  
 Xiaohu Xu<sup>1,2</sup>, Changbao Zheng<sup>1,2,3</sup>, Cungang Hu<sup>1,2,3</sup>, Yin Lu<sup>1,2</sup>, Qunjing Wang<sup>1,2,3</sup>  
<sup>1</sup>Anhui University (China), <sup>2</sup>Collaborative Innovation Center of Industrial Energy-saving and Power Quality Control (China), <sup>3</sup>Engineering Research Center of Power Quality (China)
- TuMP1.20 P1771  
**Wind Pendulum Modeling based-on Improved PID Algorithm 2288**  
 Hao Cheng, Jin Xiao\*, Yue Long, Tian Zhang  
*Beihang University (China)*

<b>Session</b>	<b>TuP1: Power Electronics (XIII)</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor Room 1
<b>Chairs</b>	Muhammad Numan, <i>North China Electric Power University</i> Jiwen Zhao, <i>Anhui University</i>

- TuP1.1 15:55 – 16:15 P1552  
**Research on CMV Reduction and NPV Balance for a T type Three Level Inverter Controller** 2294  
 Shaoliang An, Junni Li, Xiangdong Sun, Biying Ren, Lu Lai  
*Xi'an University of Technology (China)*
- TuP1.2 16:15 – 16:35 P1559  
**An Online Lyapunov-based Algorithm of Resource Sharing for Interconnected DC Nanogrids** 2299  
 Wei Fan, Nian Liu, Jianhua Zhang  
*North China Electric Power University*
- TuP1.3 16:35 – 16:55 P1563  
**Requirements driven implementation of Smart Grid applications and technology** 2305  
 Muhammad Numan, Prof. Zhou Ming, Jimmy B. Brima, Ibrahim J. Sowe, M. Kamran Bodla  
*North China Electric Power University (China)*
- TuP1.4 16:55 – 17:15 P1611  
**Multi-scenarios PV-based microgrids investment decision considering feed-in-tariff regulation** 2311  
 Nan Zhou, Nian Liu, Jianhua Zhang  
*North China Electric Power University (China)*
- TuP1.5 17:15 – 17:35 P1660  
**Voltage Sags/Swells Subsequent to Islanding Transition of PV-Battery Microgrids** 2317  
 Pan Zhongmei, Hou Tonghui, Wang Yuqing  
*Xi'an University of Technology (China)*
- TuP1.6 17:35 – 17:55 P1471  
**Research on Zero-sequence Circulating Current Suppression Strategy Based on T-type Three-level Photovoltaic Grid-connected Inverters** 2322  
 Xiang-dong Sun, Shu-you Liu, Bi-ying Ren, Yu-han Jing  
*Xi'an University of Technology (China)*

<b>Session</b>	<b>TuP2: Power Electronics (XIV)</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP3
<b>Chairs</b>	Bin Duan, <i>Shandong University</i> Qi Zhang, <i>Shandong University</i>

- TuP2.1 15:55 – 16:15 P1249  
**An Automatic Equalization Method Without Voltage Sensing Circuits for Series Connected Battery String** 2327  
 Yao Han, Yunlong Shang, Bin Duan, Chenghui Zhang  
*Shandong University (China)*
- TuP2.2 16:15 – 16:35 P1614  
**Input-Parallel Output-Parallel DC-DC Converter with MPPT Technique for Grid Connection of Multiple Distributed Generators** 2329  
 Da Fang\*, Weiyu Xu\*, Ling Bu\*, Lei Song<sup>+</sup>  
 \*China University of Geosciences (China), <sup>+</sup>State Grid Jibei Electric Power Co., Ltd

- TuP2.3 16:35 – 16:55 P1790  
**The electromagnetic compatibility analysis of experimental apparatus based on wireless power transmission 2334**  
 Yaodong Li, Li Zhang, Tong Zhao, Liang Zou  
*Shandong University (China)*
- TuP2.4 16:55 – 17:15 P1199  
**Study on coordinate control strategy for photovoltaic generation and hybrid energy storage system 2339**  
 Hui Yang, Xiangdong Sun, Ya Zhang, YangFei Chen, BiYing Ren  
*Xi'an University of Technology (China)*
- TuP2.5 17:15 – 17:35 P1339  
**Research on energy management system of hybrid electric vehicle based on permanent magnet synchronous motor 2345**  
 Peng Dai, Weinan Sun, Nan Xu, Yan Lv, Xiaoying Zhu  
*China University of Mining Technology*
- TuP2.6 17:35 – 17:55 P1376  
**Finite Control Set Model Predictive Control-A Powerful Control Algorithm for Grid-Connected Power Converters 2350**  
 Mahlagha Mahdavi Aghdam<sup>1</sup>, Li Li<sup>1</sup>, Jianguo Zhu<sup>1</sup>, Omid Palizban<sup>2</sup>  
<sup>1</sup>*University of Technology Sydney (Australia)*, <sup>2</sup>*University of Vaasa (Finland)*

<b>Session</b>	<b>TuP3: Estimation and Identification</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP5
<b>Chairs</b>	Guoan Bi, <i>Nanyang Technological University</i> Shichuan Ding, <i>Anhui University</i>

- TuP3.1 15:55 – 16:15 P1579  
**Weighed MUSIC algorithm based on delay correlation function 2356**  
 Ping Chu  
*Shenzhen University (China)*
- TuP3.2 16:15 – 16:35 P1587  
**Real-Time Estimation of Vehicle's Lateral Dynamics at Inclined Road Employing Extended Kalman Filter 2360**  
 Kun Jiang, Alessandro Corrêa Victorino, Ali Charara  
*Université de Technologie de Compiègne (France)*
- TuP3.3 16:35 – 16:55 P1613  
**A Detection Method for Abnormal Harmonic Current Monitoring Data Using Three-parameter Weibull Distribution 2366**  
 Tian-Lei Zang\*, Yan Wang\*, Zhi-Yuan Ma<sup>+</sup>  
 \**Southwest Jiaotong University (China)*, <sup>+</sup>*Guangzhou Power Supply Bureau (China)*
- TuP3.4 16:55 – 17:15 P1049  
**Normalized Radar Cross Section Measurement for Space Objects 2372**  
 Xiongjun Fu<sup>1\*</sup>, Shuilian Peng<sup>1</sup>, Chengyan Zhang<sup>1</sup>, Ming Xie<sup>1</sup>, Shuguang Li<sup>2</sup>  
<sup>1</sup>*Beijing Institute of Technology (China)*, <sup>2</sup>*Shanghai Aerospace Electronic Technology Institute (China)*
- TuP3.5 17:15 – 17:35 P1152  
**A Gradient-based Algorithm for Optimizing Sensing Matrix with Normalization Constraint 2376**  
 Zeru Lu, Huang Bai, and Binbin Sun  
*Zhejiang University of Technology (China)*

- TuP3.6 17:35 – 17:55 P1694  
**A Sparsity-Driven Auto-focus Technique for Radar Imaging 2381**  
 Lifan Zhao<sup>1</sup>, Lu Wang<sup>2</sup>, Guoan Bi<sup>1</sup>, Lei Yang<sup>1</sup> and Haijian Zhang<sup>3</sup>  
<sup>1</sup>Nanyang Technological University (Singapore), <sup>2</sup>Northwestern Polytechnical University (China), <sup>3</sup>Wuhan University (China)

<b>Session</b>	<b>TuP4: Mechatronics (V)</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP6
<b>Chairs</b>	Lijun Jiang, Republic Poly Changbao Zheng, Anhui University

- TuP4.1 15:55 – 16:15 P1390  
**Grey Control Strategy of Predictive Current for PMSM 2386**  
 Rong Zhang\*, Guangzhao Luo\*, Wencong Tu\*, Zhe Chen<sup>+</sup>, Ralph Kennel<sup>+</sup>  
 \*Northwestern Polytechnical University (China), <sup>+</sup>Technical University of Munich (Germany)
- TuP4.2 16:15 – 16:35 P1082  
**Design on a kind of multi-channel electric spark source system 2391**  
 Ailong Fan<sup>1,2</sup>, Yaohong Sun<sup>1</sup>, Ping Yan<sup>1</sup>, Xuzhe Xu<sup>1</sup>, Rongyao Fu<sup>1</sup>, Kun Liu<sup>1</sup>  
<sup>1</sup> Chinese Academy of Sciences (China), <sup>2</sup> Liaoning institute of science and technology (China)
- TuP4.3 16:35 – 16:55 P1500  
**Insertion Force Quality Consistency Investigation of Electrical Connector 2395**  
 Le Xu\*, Sanqiang Ling\*, Dawei Li<sup>+</sup>  
 \*Harbin Institute of Technology (China), <sup>+</sup>Institute of China Aerospace Vehicle Technology (China)
- TuP4.4 16:55 – 17:15 P1305  
**Research on straightening process model based on iteration and self-learning 2400**  
 LU Hong, XIAO Xiong  
 Wuhan University of Technology (China)

<b>Session</b>	<b>TuP5: Nonlinear System &amp; Control</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 11
<b>Chairs</b>	Puren Ouyang, Ryerson University Chen Naijian, University of Jinan

- TuP5.1 15:55 – 16:15 P1273  
**Nonlinear PD-type Control in Position Domain 2407**  
 P.R. Ouyang<sup>1,2</sup>, V. Pano<sup>1</sup>, J. Tang<sup>2</sup> and W.H. Yue<sup>2</sup>  
<sup>1</sup> Ryerson University (Canada), <sup>2</sup>Hunan University of Science and Technology (China)
- TuP5.2 16:15 – 16:35 P1410  
**A Problem of Identification Synthesis for Mobile Robot by the Network Operator Method 2413**  
 T.P. Dang, A.I. Diveev, E.A. Sofronova  
 Peoples' Friendship University of Russia (Russia)
- TuP5.3 16:35 – 16:55 P1101  
**Higher-order NTSM Control of chaos in Permanent Magnet Synchronous Generators 2419**  
 Xuemei Zheng, He Li, Rui Song, Yong Feng  
 Harbin Institute of Technology (China)

- TuP5.4 16:55 – 17:15 P1647  
**Adaptive Robust Control of the Mobile Manipulator Based on Neural Network** 2425  
 CHEN Naijian\*, YANG Hao\*, AI Changsheng\*, TANG Chenglong<sup>+</sup>, LI Xiangkui<sup>+</sup>  
 \*University of Jinan (China), <sup>+</sup>Shandong Shuaike Machinery Manufacturing Limited Co. (China)
- TuP5.5 17:15 – 17:35 P1450  
**Event-Triggered Output-Feedback Control for Switched Linear Systems with Applications to a Boost Converter** 2431  
 Guoqi Ma, Linlin Qin, Xinghua Liu, Gang Wu  
 University of Science and Technology of China (China)
- TuP5.6 17:35 – 17:55 P1453  
**Predictive Current Control of The Three-Phase Inverter In A Stand-Alone Wind Energy System** 2437  
 Son Nguyen Thanh, Tuan Pham Van, Hoa Ha Xuan, Cong Nguyen The, Phi Pham Hung  
 Hanoi University of Science and Technology (Vietnam)

<b>Session</b>	<b>TuP6: Invited Session – Design of Mechanical and electrical system</b>
<b>Organizers</b>	Prof. Liman Yang, <i>Beihang University</i> Prof. Jian Shi, <i>Beihang University</i>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor VVIP 12
<b>Chairs</b>	Yunhua Li, <i>Beihang University</i> Jian Shi, <i>Beihang University</i>

- TuP6.1 15:55 – 16:15 P1718  
**Research on Measurement Techniques for Mechanical Properties of Metal Rubber Based on 3D-DIC** 2443  
 Huang Mingji, Meng Lingzhao  
 University of Science and Technology Beijing (China)
- TuP6.2 16:15 – 16:35 P1664  
**Modeling and simulation of the stiffness of deployable structures based on scissor-style unit** 2447  
 Li Duanling, Huang Tianfang ,Bai Lei ,Dong Kaijie,Wang Zhe  
 Automation School of Beijing University of Posts and Telecommunications (China)
- TuP6.3 16:35 – 16:55 P1677  
**Vibration response analysis of space manipulator considering arm flexibility** 2450  
 Xunchao Hong, Qingxuan Jia, Gang Chen, Long Zhang  
 Beijing University of Posts and Telecommunications (China)
- TuP6.4 16:55 – 17:15 P1782  
**Design and Dynamic Response Analysis of A Flexure-Based Nano-positioning System** 2456  
 Dingbing Wu<sup>1,2</sup>, Chi Zhang<sup>1\*</sup>, Aolei Yang<sup>2</sup>, Guilin Yang<sup>1</sup>, Liang Dong<sup>1,2</sup>, Qiang Liu<sup>1</sup>  
<sup>1</sup>Chinese Academy of Sciences (China), <sup>2</sup>Shanghai University (China)
- TuP6.5 17:15 – 17:35 P1748  
**Bearing Characteristics Analysis and Multi-Field Coupling Simulation on Slipper-Piston Component** 2462  
 Liman Yang, Hengbo Li, Yunhua Li and Kunyuan Dang  
 Beihang University (China)
- TuP6.6 16:55 – 17:15 P1757  
**Improved switching boost inverter** 2468  
 Yikun Jia<sup>1</sup>, Shaoru Zhang<sup>1,2</sup>, Lingling Liu<sup>1</sup>, Shuai Wang<sup>1</sup>, Chenjie Qie<sup>1</sup>  
<sup>1</sup>Hebei Normal University (China), <sup>2</sup>Anhui University (China)



<b>Session</b>	<b>TuPP1: Poster Session – Industrial Informatics &amp; Computational Intelligence</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- TuPP1.1 P1043  
**TADS: A Task Assignment Decision Support System for IT Services 2472**  
 Yang Duan, Chung-Hsing Yeh  
*Monash University (Australia)*
- TuPP1.2 P1819  
**Advantages and Limitations of Genetic Algorithms for Clustering Records 2478**  
 A. H. Beg, Md Zahidul Islam  
*Charles Sturt University (Australia)*
- TuPP1.3 P1822  
**Branches of Evolutionary Algorithms and their Effectiveness for Clustering Records 2484**  
 A. H. Beg, Md Zahidul Islam  
*Charles Sturt University (Australia)*
- TuPP1.4 P1080  
**Extract the Backbone links and the Weakness nodes via Community Detection 2490**  
 Guangquan Lu<sup>1,2</sup>, Jian Li<sup>2</sup>, Zhiyi Mo<sup>2</sup>, Faliang Huang<sup>3</sup>, Wenzhong Liang<sup>1,2\*</sup>  
<sup>1</sup>*Guangxi Normal University (China)*, <sup>2</sup>*Wuzhou University (China)*, <sup>3</sup>*Fujian Normal University (China)*
- TuPP1.5 P1481  
**Detecting Gambling Sites From Post Behaviors 2495**  
 Shensi Tong\*, Hanlong Zhang\*, Beijun Shen\*, Yongjian Wang<sup>+</sup> and Bo Jin<sup>+</sup>  
 \**Shanghai Jiao Tong University (China)*, <sup>+</sup>*The Third Research Institute of Ministry of Public Security (China)*
- TuPP1.6 P1052  
**Sustainable planning of WEEE recycling innovation strategies 2501**  
 Yan Xu\*, Chung-Hsing Yeh<sup>+</sup>  
 \**Northwestern Polytechnical University (China)*, <sup>+</sup>*Monash University*

<b>Session</b>	<b>TuPP2: Poster Session – Power Electronics</b>
<b>Date/Time</b>	Tuesday, 7 June 2016 / 15:55 – 17:55
<b>Venue</b>	3rd floor corridor opposite VVIP 3 and 5

- TuPP2.1 P1251  
**A Study of Evaluation System Based on large scale photovoltaic power generation 2507**  
 FAN Hong, CHEN Si  
*Shanghai University of Electric Power (China)*
- TuPP2.2 P1253  
**An Any-Cell(s)-to-Any-Cell(s) Equalizer Based on Bidirectional Inductor Converters for Series Connected Battery String 2511**  
 Zhongkai Zhou, Yunlong Shang, Bin Duan, Chenghui Zhang  
*Shandong University (China)*
- TuPP2.3 P1542  
**Design of Simulate Capacitor Loads Experiment and Results Analysis for Polarized Relay 2516**  
 Jiaxin You\*, Hao Chen\*, Ruichao Wang\*, Zhaowen Cai<sup>+</sup>, Fubiao Luo<sup>+</sup>  
 \**Harbin Institute of Technology*, <sup>+</sup>*G&A Technologies Co., Ltd., (China)*
- TuPP2.4 P1609  
**Distribution Network Planning Method with Efficiency Power Plant 2521**  
 Fan Hong, Lu Ru, Jiang Yanbin  
*Shanghai University of Electric Power (China)*

- TuPP2.5 P1038  
**Research on Power Control of Hybrid Power Supply EV 2527**  
 Jun Liu, Yonggao Zhang  
*East China Jiao Tong University (China)*
- TuPP2.6 P1595  
**Optimization Design of the Sleeve for High Speed Permanent Magnet Machine 2531**  
 Dingwang Xu, Xiuhe Wang, Guanqun Li  
*Shandong University (China)*
- TuPP2.7 P1585  
**Method of photovoltaic and network access systems to voltage stability based on typical faults 2536**  
 Fan Hong, Ma Lian  
*Shanghai University of Electric Power (China)*
- TuPP2.8 P1018  
**Study of Harmonic Analysis Based on Improved Discrete Fourier Transform 2541**  
 Jin Zhang, Chao Xu, Guoli Li, Deyang Shao, Long Jiao  
*Anhui University (China)*
- TuPP2.9 P1518  
**Master-Slave With Phase-Shift Control Strategy for Input-Series and Output-Parallel Full-Bridge DC-DC Converter system 2546**  
 Song Guiying, Liu Da, Ling Yuesheng, Tang Yanbin  
*Hebei University of Technology (China)*
- TuPP2.10 P1149  
**Grid Power Quality Improvement with STATCOM/HESS for Wind Turbine with Squirrel-cage Induction Generator 2552**  
 Liu Lei, Wang Shengtie, Tian Guizhen  
*Inner Mongolia University of Technology (China)*
- TuPP2.11 P1465  
**Photovoltaic Grid-Connected Inverter Based on Frequency Feedback PR Controller 2558**  
 Pei Yao, Cungang Hu and Yin Lu  
*Anhui University (China)*
- TuPP2.12 P1452  
**Solar Street Lamp System Using GPRS and ZIGBEE Technology 2561**  
 Xiaopu Wu and Qian Zhang  
*Anhui University (China)*
- TuPP2.13 P1823  
**Configuration and Operation of DC Microgrid Cluster Linked Through DC-DC Converter 2565**  
 Jianjun MA, Miao ZHU, Jianwen ZHANG, Xu CAI  
*Shanghai Jiao Tong University (China)*
- TuPP2.14 P1772  
**A Generic Satellite Simulation Framework Design and Implementation 2571**  
 Jianxin Fan, Xiaoguang Hu, Dawen Ding, Jin Xiao  
*Beihang University (China)*