


Session Opening Ceremony and Keynote Lecture 1
Date / Time Tuesday, 3 June 2008 / 09:00 – 10:00 hrs
Venue Atrium Ballroom

08:30 – 09:00 Opening Address

09:00 – 10:00 Keynote Lecture 1 **Pg No.**
9
 Energy, Environment and Process Automation
SAMAD Tariq

 10:00 – 10:30 **Coffee Break**

Session TUE1-1 (Aut) - Automation
Date / Time Tuesday, 3 June 2008 / 10:30 - 12:50 hrs
Venue Changi Room 1
Session Chair(s) LIU Tien-I & KENNE Jean-Pierre

10:30 - 10:50 TUE1-1 (Aut)-1 conf130a129 **Pg No.**
77
 On-Line Monitoring and Diagnosis of Tapping Process Using Neuro Fuzzy
 Systems
LIU Tien-I, LEE Junyi and GILL Gurinder Singh

10:50 - 11:10 TUE1-1 (Aut)-2 conf130a170 77
 A Replacement Policy of Deteriorating Production Systems Subject to Imperfect
 Repairs
DÉHAYEM NODEM F. I., KENNE J.P. and GHARBI A.

11:10 - 11:30 TUE1-1 (Aut)-3 conf130a333 77
 Application of Neural Network Data Fusion Algorithm in Measurement Circuit
NI Xiaoyong, WANG Dianhong and ZHANG Hongjian

11:30 - 11:50 TUE1-1 (Aut)-4 conf130a688 78
 An Adaptive Annealing Genetic Algorithm for Job-shop Scheduling
LIU Min and BAI Li

11:50 - 12:10 TUE1-1 (Aut)-5 conf130a803 78
 One Kind of Water Level Monitor Recording Instrument
PENG Xuange, LI Peipei and HUANG Chunying

12:10 - 12:30 TUE1-1 (Aut)-6 conf130a986 78
 Optimization Method of Short Life Cycle Product Supply Chain Network with
 Recycle Flow and Dispersed Markets
CHEN Xili, HUANG Yen kai and MURATA Tomohiro

12:30 - 12:50 TUE1-1 (Aut)-7 conf130a356 79
 Design of Information Display and Control Instrument Based on SoC for AIS
 and GPRS Monitoring System
WANG Ershen, ZHANG Shufang, HU Qing and LIANG Lifang

Session	TUE1-2 (CI-1) - Computational Intelligence-1		
Date / Time	Tuesday, 3 June 2008 / 10:30 - 12:30 hrs		
Venue	Changi Room 2		
Session Chair(s)	LI Yongzhong		
10:30 - 10:50	TUE1-2 (CI-1)-1	conf130a108 A New Intrusion Detection Method Based on Fuzzy HMM <i>LI Yongzhong, GE Yang, XU Jing and ZHAO Bo</i>	Pg No. 79
10:50 - 11:10	TUE1-2 (CI-1)-2	conf130a174 Line-of-Sight Tracking Based Upon Modern Heuristics Approach <i>McCARTY Kevin and MANIC Milos</i>	79
11:10 - 11:30	TUE1-2 (CI-1)-3	conf130a308 Flocking Task Research for Multiple Mobile Robots Based on Game Theory <i>CEN Yuwan, YE Ye, XIE Nenggang, BAO Jiahan and SONG Chongzhi</i>	80
11:30 - 11:50	TUE1-2 (CI-1)-4	conf130a328 Evolutionary Game Theory Method for Multi-objective Automotive Active Suspension Control <i>WANG Lu, SONG Chongzhi and YE Ye</i>	80
11:50 - 12:10	TUE1-2 (CI-1)-5	conf130a379 Research the Effectiveness of Neural Network for Telecom Planning Prediction <i>ZHANG Zhenyu and XIE Xiaoyao</i>	80
12:10 - 12:30	TUE1-2 (CI-1)-6	conf130a286 Evaluation of Network Losses Role in TNEP Considering Voltage Level and Number of Bundle Lines Using GA <i>KAZEMI A., JALILZADEH Saeed, MAHDAVI Meisam and HADDADIAN Hosein</i>	81

Session	TUE1-3 (CI-2) - Computational Intelligence-2		
Date / Time	Tuesday, 3 June 2008 / 10:30 - 12:30 hrs		
Venue	Changi Room 3		
Session Chair(s)	ZHAO Shengkui		
10:30 - 10:50	TUE1-3 (CI-2)-1	conf130a53 Research on VRPTW Optimizing Based on k-means Clustering and IGA for Electronic Commerce <i>REN Chunyu</i>	Pg No. 81
10:50 - 11:10	TUE1-3 (CI-2)-2	conf130a495 The Effect of Features Reduction on Different Texture Classifiers <i>SAMAWI Venus W. and BASHEER Omer A. AL</i>	81
11:10 - 11:30	TUE1-3 (CI-2)-3	conf130a643 GA based Optimized LS-SVM Forecasting of Short Term Electricity Price in Competitive Power Markets <i>MAHJOOB M. J., ABDOLLAHZADE M. and ZARRINGHALAM R.</i>	82
11:30 - 11:50	TUE1-3 (CI-2)-4	conf130a709 Intelligent Citrus Seed Identification <i>LAU Bee Theng</i>	82

11:50 - 12:10	TUE1-3 (CI-2)-5 conf130a768 A Parallel XML Documents Placement Algorithm Based on Adaptive Ant Clustering of Chaos <i>LIU Bo, YANG LuMing, ZHAI XueMin and DENG YunLong</i>	82
12:10 - 12:30	TUE1-3 (CI-2)-6 conf130a838 Using Elitist Particle Swarm Optimization to Facilitate Resources Leveling Optimization Analysis <i>LIU Rui and WANG Xiao-ya</i>	83

Session **TUE1-4 (MEC-1) - Mechatronics-1**
Date / Time **Tuesday, 3 June 2008 / 10:30 - 12:30 hrs**
Venue **Kallang Room**
Session Chair(s) **TIAN Qi**

10:30 - 10:50	TUE1-4 (MEC-1)-1 conf130a321 Dynamic Modelling of a Two-link Flexible Manipulator System Incorporating Payload <i>AHMAD M. A., MOHAMED Z. and HAMBALI N.</i>	<i>Pg No.</i> 83
10:50 - 11:10	TUE1-4 (MEC-1)-2 conf130a324 A Model of Ant Colony and Immune Network and its Application in Path Planning <i>YUAN Mingxin, WANG Sunan and LI Pengkun</i>	83
11:10 - 11:30	TUE1-4 (MEC-1)-3 conf130a510 Robust Motion Control of Electromagnetic Actuators Using H^∞ Optimization <i>WIEDEMANN Daniel, FAVOT Valerio, HERRMANN Marcus and ULBRICH Heinz</i>	83
11:30 - 11:50	TUE1-4 (MEC-1)-4 conf130a517 Nonlinear Modelling and Flatness-Based Control for Electromagnetic Reluctance Force Actuator <i>FAVOT Valerio, WIEDEMANN Daniel, HERRMANN Marcus and ULBRICH Heinz</i>	84
11:50 - 12:10	TUE1-4 (MEC-1)-5 conf130a605 Novel Adaptive Kalman Filtering and Fuzzy Track Fusion Approach For Real-time Applications <i>TAFTI Abdolreza Dehghani and SADATI Nasser</i>	84
12:10 - 12:30	TUE1-4 (MEC-1)-6 conf130a247 Genetic Algorithms for Optimization of a Six Degree of Freedom Micro Parallel Robot <i>STAN Sergiu-Dan, MATIES Vistrian and BALAN Radu</i>	84

Session **TUE1-5 (CSA-1) - Control Systems and Applications-1**
Date / Time **Tuesday, 3 June 2008 / 10:30 - 12:30 hrs**
Venue **Seletar Room 1**
Session Chair(s) **KHOO Suiyang**

10:30 - 10:50	TUE1-5 (CSA-1)-1 conf130a23 An Indirect Method for the Minimum Altitude of Air-to-Surface Missile <i>SUBCHAN S.</i>	<i>Pg No.</i> 85
---------------	--	----------------------------

10:50 - 11:10	TUE1-5 (CSA-1)-2 conf130a127 Analysis on Stability and Robustness of MIMO Nonlinear Synthetic Control System <i>HAN Zhong-xu, HUANG Huan-pao and LI Dan</i>	85
11:10 - 11:30	TUE1-5 (CSA-1)-3 conf130a141 Definition of Incremental PI Function Observer in Broad Sense and its Mathematical Analysis <i>HAN Zhong-xu, SUN Ying, PAN Gang and ZHANG Tong-wei</i>	85
11:30 - 11:50	TUE1-5 (CSA-1)-4 conf130a139 A Nonlinear Elastic Path Controller for a Robotic Wheelchair <i>ZHOU Longjiang, TEO Chee Leong and BURDET Etienne</i>	86
11:50 - 12:10	TUE1-5 (CSA-1)-5 conf130a167 Simple Neuron-Fuzzy Tool for Small Control Devices <i>MADSEN Per Printz</i>	86
12:10 - 12:30	TUE1-5 (CSA-1)-6 conf130a404 Universal Construction of Robust Adaptive Control Laws for a Class of Nonlinear Systems Preceded by Generalized Prandtl-Ishlinskii Representation <i>FENG Ying, SU Chun-Yi and HONG Henry</i>	86

Session **TUE1-6 (CSA-2) - Control Systems and Applications-2**
Date / Time **Tuesday, 3 June 2008 / 10:30 - 12:30 hrs**
Venue **Seletar Room 2**
Session Chair(s) **LIU Zhen-ya & LI Hongmei**

10:30 - 10:50	TUE1-6 (CSA-2)-1 conf130a232 Intelligent Residential Security Alarm and Remote Control System Based On Single Chip Computer <i>LIU Zhen-ya, WANG Zhen-dong, CHEN Rong and WU Xiao-feng</i>	Pg No. 87
10:50 - 11:10	TUE1-6 (CSA-2)-2 conf130a486 Design of Active Suspension Based on Genetic Algorithm <i>SONG Chongzhi, ZHAO Youqun and WANG Lu</i>	87
11:10 - 11:30	TUE1-6 (CSA-2)-3 conf130a474 A Multi-objective Lead Time Control Problem Based on the Failure Rate of Products <i>HE Zhen, ZHANG Meng, LIANG Zhaolei and LIU Yafen</i>	87
11:30 - 11:50	TUE1-6 (CSA-2)-4 conf130a405 Hopf Bifurcation Criterion and Control of the Induction Motor Drive System <i>LI Hongmei and LI Xiaozun</i>	87
11:50 - 12:10	TUE1-6 (CSA-2)-5 conf130a489 Fuzzy Control of Double Inverted Pendulum by Using State Varieties Synthesis <i>ZHANG Shifeng, ZHANG Zhenxing and ZHANG Shaode</i>	88
12:10 - 12:30	TUE1-6 (CSA-2)-6 conf130a595 A General Nonlinear System MRAC Strategy Based on Neural Network <i>ZHANG Shaode, LI Shengquan and ZHANG Shifeng</i>	88

Session	Special Talk 1 & 2	
Date / Time	Tuesday, 3 June 2008 / 10:30 – 12:30 hrs	
Venue	Seletar Room 3	
10:30 – 11:30	Special Talk 1 Deterministic Pattern Classification <i>TOH Kar-Ann</i>	<i>Pg No.</i> 13
11:30 – 12:30	Special Talk 2 Kinematic Control for a Class of 3-Legged Parallel Robots Based on Paden-Kahan Subproblems <i>CHEN Weihai</i>	14

Session	TUE-P1 - Poster Session (TUE-P1)	
Date / Time	Tuesday, 3 June 2008 / 10:30 - 12:30 hrs	
Venue	Foyer	
10:30 - 12:30	TUE-P1-01 conf130a70 The System Identification and PID Auto-Tuning for Unstable Processes <i>ZHAO Yongguo, JIA Lei and CAI Wenjian</i>	<i>Pg No.</i> 88
10:30 - 12:30	TUE-P1-02 conf130a156 Automatic Positioning System of Towel Laser Marker Line <i>CHENG Chien-Lung, CHERN Shyi-Ching, YEH Jim-Chwen and WU Ming-Yi</i>	88
10:30 - 12:30	TUE-P1-03 conf130a159 Design of Simple Identifying System for Towel Cutting <i>CHENG Chien-Lung, YEH Jim-Chwen, CHERN Shyi-Ching and LAN Yi-Hung</i>	89
10:30 - 12:30	TUE-P1-04 conf130a337 A Fuzzy Neural Network Based Multi-criteria Decision Making Approach for Outsourcing Suppliers Evaluation <i>LI Quan</i>	89
10:30 - 12:30	TUE-P1-05 conf130a110 Learning Markov Equivalence Classes of Bayesian Network with Immune Genetic Algorithm <i>JIA Haiyang, LIU Dayou, CHEN Juan and GUAN Jinghua</i>	89
10:30 - 12:30	TUE-P1-06 conf130a398 Reduced Credit Risk Measurement Model with Particle Filter Approach <i>ZHOU Yingying, QIN Xuezhi, SHANG Qin and LIU Zhen</i>	89
10:30 - 12:30	TUE-P1-07 conf130a8 Identifying Method of Rocket Resistance Coefficients Based on Sensitivity Function <i>WANG Xin, ZHANG Fengge, ZENG Fanju and YAO Jun</i>	90
10:30 - 12:30	TUE-P1-08 conf130a166 Soft-Switching Fuzzy P ² ID for Robot Navigation <i>PURAHONG Boonchana</i>	90
10:30 - 12:30	TUE-P1-09 conf130a705 Varying Load Big Electric Current Rectifier Autocontrol Method Study <i>QIN Xiaoli, GUO Yanqing, QI Zaikang, WANG Rui and LIANG Sheng</i>	90

10:30 - 12:30	TUE-P1-10	conf130a230	The Embedded Communication System of Underwater Glider Based on QNX <i>ZHAO Jing</i>	90
10:30 - 12:30	TUE-P1-11	conf130a152	The Application of Combinatorial Optimization by Genetic Algorithm and Neural Network <i>ZHOU Shiqiong, KANG Longyun, GUO Guifang, ZHANG Yanning, CAO Jianbo and CAO Binggang</i>	91
10:30 - 12:30	TUE-P1-12	conf130a262	Study on the Optimized Cost-Benefit Model of Recycling Logistics System with Reverse Process <i>GENG Xiaoqing and YU Baoqin</i>	91
10:30 - 12:30	TUE-P1-13	conf130a18	A New Simplified and Uniform Space Vector PWM Method for N-Level Inverters <i>LI Zixin, WANG Ping, ZHU Haibin and LI Yaohua</i>	91
10:30 - 12:30	TUE-P1-14	conf130a9	Study of Harmonic Elimination Technology for Multi-level Inverters <i>YE Manyuan, SONG Pinggang and ZHANG Chaowei</i>	92
10:30 - 12:30	TUE-P1-15	conf130a16	Research on a Novel Three-Phase Single-Stage Soft-Switching PFC Converter <i>MENG Tao, BEN Hongqi and SHI Gengsu</i>	92
10:30 - 12:30	TUE-P1-16	conf130a34	Soft-Switching Two-Switch Flyback Converter with Wide Range <i>ZHAO Jinbin and DAI Fengzhi</i>	92
10:30 - 12:30	TUE-P1-17	conf130a693	Two New Bag Generators with Multi-instance Learning for Image Retrieval <i>LIU Wei, XU Weidong, LI Lihua and LI Guoliang</i>	92
10:30 - 12:30	TUE-P1-18	conf130a158	HMM+KNN Classifier For Facial Expression Recognition <i>WEN Ch. J. and ZHAN Y. Zh.</i>	93
10:30 - 12:30	TUE-P1-19	conf130a452	A Robust Watermarking Scheme Based on Mean Quantization <i>HUANG Song, ZHANG Wei, WEI Pengcheng and LIU Zhen</i>	93
10:30 - 12:30	TUE-P1-20	conf130a283	Multifunctional Intelligent Wireless Alarm System <i>WANG Xiaoping, WANG Yanfang and XIE Junfang</i>	93
10:30 - 12:30	TUE-P1-21	conf130a414	Blind Equalization Technique based on the Initialization of Constant Modulus Algorithm <i>ZHU Ting-ting and WANG Ying-min</i>	93
10:30 - 12:30	TUE-P1-22	conf130a317	A Street Reference Model of MIMO Vehicle-to-Vehicle Fading Channel <i>CHEN Wei, HE Zhiyi and YAO Tianren</i>	94
10:30 - 12:30	TUE-P1-23	conf130a619	Prototype of a Virtual Environment Develop Platform Based on DirectX <i>WANG Zhiliang, SHI Lin and LI Zhigang</i>	94

10:30 - 12:30	TUE-P1-24 A Vision-Based Road Recognition Algorithm <i>LIU Jia, LI Zheyang, ZHANG Huan and LV Caixia</i>	conf130a468 94
10:30 - 12:30	TUE-P1-25 MHTSECE: Multi-Hops Transmission and Surplus Energy Cluster-Heads Election Protocol for Wireless Sensor Networks <i>ZHANG Jian-wu and JI Ying-ying</i>	conf130a475 95

	12:30 - 13:30	Lunch Break
---	----------------------	--------------------

Session	TUE2-1 (CI-3) - Computational Intelligence-3
Date / Time	Tuesday, 3 June 2008 / 13:30 - 15:30 hrs
Venue	Changi Room 1
Session Chair(s)	CHAUDHARI Narendra & WANG Yi

13:30 - 13:50	TUE2-1 (CI-3)-1 Time Series Prediction Using Principal Feature Analysis <i>TAN Hui Ling, CHAUDHARI Narendra S. and ZHOU Junhong</i>	conf130a816 Pg No. 95
13:50 - 14:10	TUE2-1 (CI-3)-2 Path Planning Method for Mobile Robot Based on Ant Colony Algorithm <i>CEN Yuwan, SONG Choingzhi, XIE Nenggang and WANG Lu</i>	conf130a77 95
14:10 - 14:30	TUE2-1 (CI-3)-3 A Multiplier-less GA Optimized Pulsed Neural Network for Satellite Image Analysis Using a FPGA <i>ZHUANG Hualing, LOW Kay-Soon and YAU Wei-Yun</i>	conf130a977 96
14:30 - 14:50	TUE2-1 (CI-3)-4 Wireless Based Object Tracking Based on Neural Networks <i>DERR Kurt and MANIC Milos</i>	conf130a1047 96
14:50 - 15:10	TUE2-1 (CI-3)-5 Price Forecasting by ICA-SVM in the Competitive Electricity Market <i>WANG Yi and YU Songqing</i>	conf130a1038 96
15:10 - 15:30	TUE2-1 (CI-3)-6 Qualitative Performance Analysis of Blind Source Extraction <i>LEONG Wai Yie</i>	conf130a949 96

Session	TUE2-2 (MEC-2) - Mechatronics-2
Date / Time	Tuesday, 3 June 2008 / 13:30 - 15:30 hrs
Venue	Changi Room 2
Session Chair(s)	MOYA Javier & CHAISRICHAOEN Roungsan

13:30 - 13:50	TUE2-2 (MEC-2)-1 Detection of Errors and Failures using Intelligent Interface During a Teleoperation Process on Skid Steered Mobile Machine <i>JAVIER Moya, KARHU Oiso I., UUSISALO Jarno R. A. and HUHTALA Kalevi J.</i>	conf130a707 Pg No. 97
13:50 - 14:10	TUE2-2 (MEC-2)-2 Design and Implementation of A Hierarchical Control System for Wheeled Mobile Robot <i>ZHANG Yun-zhou, WU Cheng-dong, XUE Dingyu and XIAO Wendong</i>	conf130a626 97

14:10 - 14:30	TUE2-2 (MEC-2)-3 conf130a1045 The Advancement of an Autonomous Underwater Vehicle (AUV) Technology <i>TAN Kuan Meng, LIDDY Tommie, ANVAR Amir and LU Tien-Fu</i>	97
14:30 - 14:50	TUE2-2 (MEC-2)-4 conf130a83 Monopole-Gear Optimization Design Based on Neural Network and Ant Colony Optimization <i>WU Yuguo, SONG Chongzhi and WANG Lu</i>	97
14:50 - 15:10	TUE2-2 (MEC-2)-5 conf130a128 On-Line Detection of Ball Bearing Failures by an Intelligent Technique <i>LIU Tien-I, LEE Junyi and SINGH Palvinder</i>	98
15:10 - 15:30	TUE2-2 (MEC-2)-6 conf130a1036 A Novel Balanced Differential-Pair Multi-Output CMOS CCCII <i>CHIPIPOP Boonruk, CHAISRICHAOEN Roungsan and SIRINAOVAKUL Boonchareon</i>	98

Session TUE2-3 (MEC-3) - Mechatronics-3
Date / Time Tuesday, 3 June 2008 / 13:30 - 15:30 hrs
Venue Changi Room 3
Session Chair(s) SITAR Jan

13:30 - 13:50	TUE2-3 (MEC-3)-1 conf130a612 The Planning of Limb Movement with Emotion in Humanoid Robot <i>YU Jun, XIE Lun, WANG Zhiliang and XIA Yongxiang</i>	<i>Pg No.</i> 98
13:50 - 14:10	TUE2-3 (MEC-3)-2 conf130a662 Snake Robot: Basic Mechanical Design, Simulation and Realization <i>SITAR Jan and RACEK Vladimir</i>	98
14:10 - 14:30	TUE2-3 (MEC-3)-3 conf130a875 New Approach to Computation of Offset Curves for Point-based Geometries <i>GE Liling and ZHANG Yingjie</i>	99
14:30 - 14:50	TUE2-3 (MEC-3)-4 conf130a946 A High-Speed Control Algorithm Using Look-Ahead Strategy in CNC Systems <i>CAO Yunan, WANG Tianmiao, CHEN Youdong, WEI Hongxing and SHAO Zili</i>	99
14:50 - 15:10	TUE2-3 (MEC-3)-5 conf130a734 System-On-a-Chip Design of Electronic Control Unit for Car Body Control <i>LI Hong-qiang, MIAO Chang-yun and WANG Hua-ping</i>	99
15:10 - 15:30	TUE2-3 (MEC-3)-6 ICIEA-07-002 Registration of Remote Sensing Images Based on Gaussian Fitting <i>WANG Xiaofei, ZHANG Junping and ZHANG Ye</i>	100

Session TUE2-4 (PE-1) - Power Electronics-1
Date / Time Tuesday, 3 June 2008 / 13:30 - 15:30 hrs
Venue Kallang Room
Session Chair(s) LIN Bor-Ren & WU Chun Hsun

13:30 - 13:50	TUE2-4 (PE-1)-1 conf130a13 Analysis and Implementation of a Bidirectional ZVS DC-DC Converter with Active Clamp <i>LIN B.-R., CHEN J.-J., LEE Y.-E and CHIANG H.-K.</i>	<i>Pg No.</i> 100
---------------	--	----------------------

13:50 - 14:10	TUE2-4 (PE-1)-2 Analysis of Integrated Buck-Flyback ZVS Converter <i>LIN B.-R., CHEN J.-J., HUANG C.-L. and CHIANG H.-K.</i>	conf130a12	100
14:10 - 14:30	TUE2-4 (PE-1)-3 Implementation of a Zero Voltage Switching Sepic-Cuk Converter <i>LIN B.-R., SHIH K. -L., CHEN J.-J. and CHIANG H.-K.</i>	conf130a14	100
14:30 - 14:50	TUE2-4 (PE-1)-4 Design and Implementation of Induction Generator Controller for Single Phase Self Excited Induction Generator <i>PALWALIA D. K. and SINGH S. P.</i>	conf130a312	101
14:50 - 15:10	TUE2-4 (PE-1)-5 Implementation of the Programmable Low Power DC-DC Voltage Converter by FPGA <i>CHU Yen-Chia, WU Chun-Hsun and CHANG-CHIEN Le-Ren</i>	conf130a975	101
15:10 - 15:30	TUE2-4 (PE-1)-6 Inductor-Free Low Power Step-Down DC-DC Switching Voltage Converter <i>WU Chun-Hsun and CHANG-CHIEN Le-Ren</i>	conf130a68	101

Session TUE2-5 (PE-2) - Power Electronics-2
Date / Time Tuesday, 3 June 2008 / 13:30 - 15:30 hrs
Venue Seletar Room 1
Session Chair(s) ZHAO Shengkui


13:30 - 13:50	TUE2-5 (PE-2)-1 Analysis of Super-Lift Luo-Converters with Capacitor Voltage drop <i>LUO Fang Lin</i>	conf130a35	Pg No. 102
13:50 - 14:10	TUE2-5 (PE-2)-2 Research and Simulation of Parallel Current-Mode Controlled Buck Converter <i>LIU Xiaodong, DENG Jiaojiao, LIU Yan-Fei and YANG Pengyi</i>	conf130a383	102
14:10 - 14:30	TUE2-5 (PE-2)-3 Improved Gate Signal Generation Scheme of Auxiliary IGBT Switches for V _{DC} /2 -Retained 2τ-delayed Overvoltage Suppression Method <i>TONGKHUNDAM Grit and KONGHIRUN Mongkol</i>	conf130a991	102
14:30 - 14:50	TUE2-5 (PE-2)-4 Static Voltage Analysis for Distribution System Based on the Synthesis Load Model <i>DENG Guiping and SUN Yuanzhang</i>	conf130a182	102
14:50 - 15:10	TUE2-5 (PE-2)-5 Modeling and Power Quality Enhancement to AC Drives Based on Synchronous PI Current Control Technology of PWM Rectifier <i>GUO Chaoyong, LIN Fei, YOU Xiaojie and ZHENG Trillion Q.</i>	conf130a186	103
15:10 - 15:30	TUE2-5 (PE-2)-6 Review of Novel Control Strategies for UPQC <i>REZAEIPOUR R. and KAZEMI A.</i>	conf130a116	103

Session	TUE2-6 (CSA-3) - Control Systems and Applications-3	
Date / Time	Tuesday, 3 June 2008 / 13:30 - 15:30 hrs	
Venue	Seletar Room 2	
Session Chair(s)	SHEN Weixiang	
13:30 - 13:50	TUE2-6 (CSA-3)-1 conf130a1064 Applications of Switched Control in Game Theory <i>LI Z. G., WEN C. Y., SOH Y. C. and XIE S. L.</i>	Pg No. 103
13:50 - 14:10	TUE2-6 (CSA-3)-2 conf130a28 Current Sensorless Synchronous Reluctance Motor Speed Drive with the Novel Fuzzy Sliding Mode Control <i>CHEN Chien-An, CHIANG H.-K and LIN B.-Ren</i>	103
14:10 - 14:30	TUE2-6 (CSA-3)-3 conf130a692 Hierarchical Optimal Control of Nonlinear Systems; An Application to a Benchmark CSTR Problem <i>SADATI Nasser. and RAMZANI M. H.</i>	104
14:30 - 14:50	TUE2-6 (CSA-3)-4 conf130a523 Forward and Backward Motion Control of Wheelchair on Two Wheels <i>AHMAD Salmiah and TOKHI M. O.</i>	104
14:50 - 15:10	TUE2-6 (CSA-3)-5 conf130a633 Functional Safety in Building Automation and Control Systems <i>PAN Dongbo, LIU Feng, ZHOU Xuelian and LI Tao</i>	104
15:10 - 15:30	TUE2-6 (CSA-3)-6 conf130a467 Decentralized Controllers Design For Nonlinear Uncertain Systems with Application on Robotic Systems <i>ISHAK H. and OSMAN J. H. S.</i>	105

Session	Special Talk 3	Pg No.
Date / Time	Tuesday, 3 June 2008 / 13:30 – 14:30 hrs	
Venue	Seletar Room 3	
13:30 – 14:30	Special Talk 3 3D Data Measurement, Processing and Applications <i>HE Mingyi</i>	15
<hr/>		
Session	TUE-P2 - Poster Session (TUE-P2)	Pg No.
Date / Time	Tuesday, 3 June 2008 / 13:30 - 15:30 hrs	
Venue	Foyer	
13:30 - 15:30	TUE-P2-01 conf130a63 Automated Metrics for Industrial Applications Software Polymorphic Interactions <i>ZHOU Hang, HUANG Zhi-qiu, WANG Li and CHEN Liang</i>	105
13:30 - 15:30	TUE-P2-02 conf130a114 Design and Implementation of Marine Electric Propulsion Dynamic Load Simulation System <i>CHEN Jutao, ZHENG Huayao and YE Aibing</i>	105
13:30 - 15:30	TUE-P2-03 conf130a134 Automatic Testing System Based on LabVIEW for DC Motor of Portable Washing Machine <i>CHENG Chien-Lung, YEH Jim-Chwen, CHERN Shyi-Ching and LAN Yi-Hung</i>	106
13:30 - 15:30	TUE-P2-04 conf130a864 Research of Key Technologies in a Windows CE-based Monitoring and Control System <i>DUAN Jianmin, LIN Fan and LIU Zhen</i>	106
13:30 - 15:30	TUE-P2-05 conf130a122 Research on Path Planning for Mobile Robot Based on Ant Colony Algorithm in Dynamic Environment <i>YU Yang, GAO Hongwei and WANG David</i>	106
13:30 - 15:30	TUE-P2-06 conf130a171 Partially Unknown Nonlinear Systems Identification Based on Two-Neural-Network <i>LI Yan and ZHENG Pei</i>	106
13:30 - 15:30	TUE-P2-07 conf130a293 A Fast Motion Estimation Algorithm by using Immune Quantum Algorithm <i>LIU Zhen, SHI Jin-ming, BAI Zhong-ying and ZHAO Jin-yan</i>	107
13:30 - 15:30	TUE-P2-08 conf130a300 Genetic Optimization Algorithm on PID Decoupling Controller for Variable Flow Heating System <i>WANG Jiangjiang, JING Youyin and ZHANG Chunfa</i>	107
13:30 - 15:30	TUE-P2-09 conf130a373 Application of Genetic Algorithm to QoS-Aware Web Services Composition <i>LI Jian-hua, CHEN Song-qiao, LI Yong-jun and LI Gui-lin</i>	107
13:30 - 15:30	TUE-P2-10 conf130a401 A Hybrid GA-SA-BPNNs for Human Capital Prediction of China Regions <i>YU Shiwei, GAO Siwei and ZHU Kejun</i>	107

13:30 - 15:30	TUE-P2-11 Self-adjusting Fuzzy Controller Application for Linear Induction Motor Control System <i>WANG Yuhua, LIN Zhu-Xi, DANG Zhiqian and SUN Ying</i>	conf130a388	108
13:30 - 15:30	TUE-P2-12 Adaptive PID Control with BP Neural Network Self-Tuning in Exhaust Temperature of Micro Gas Turbine <i>WANG Jiangjiang, ZHANG Chunfa and JING Youyin</i>	conf130a299	108
13:30 - 15:30	TUE-P2-13 Research of Feeder Automation System Based on Multi-Agent <i>LI Le-le, XIE Zhi-yuan and LI Na</i>	conf130a318	108
13:30 - 15:30	TUE-P2-14 Neural Network Vector Control of a Permanent Magnet Synchronous Motor Drive <i>WANG Jian, WANG Honghua, ZHANG Xueqin and WANG Jiangtao</i>	conf130a323	109
13:30 - 15:30	TUE-P2-15 Study on Realizing MPPT by Improved Incremental Conductance Method with Variable Step-size <i>ZHOU Yan, LIU Fei, YIN Jinjun and DUAN Shanxu</i>	conf130a249	109
13:30 - 15:30	TUE-P2-16 Design of a Control System for Sensorless Brushless DC Motor Using the dsPIC <i>XIA Zezhong, LI Wen, SHENG Wenjuan and YUAN Youxin</i>	conf130a506	109
13:30 - 15:30	TUE-P2-17 A Novel High-Efficiency Inverter for Stand-Alone and Grid-Connected Systems <i>DUAN Rou-Yong and CHANG Chao-Tsung</i>	conf130a657	109
13:30 - 15:30	TUE-P2-18 Computing and Simulation on the Over-voltage of Regenerative Braking Electric Locomotives <i>LI Na, LIU Ming-guang and WEN Xiaoyan</i>	conf130a420	110
13:30 - 15:30	TUE-P2-19 The Analysis of Inverter Output Impedance and its Influence on Circulating Power for Inverters Paralleling <i>LIN Xinchun, LIU Fangrui, DUAN Shanxu and KANG Yong</i>	conf130a418	110
13:30 - 15:30	TUE-P2-20 Image Denoising Method Based on Curvelet Transform <i>WANG Aili, ZHANG Ye, MENG Shaoliang and YANG Mingji</i>	conf130a400	110
13:30 - 15:30	TUE-P2-21 Modified Top-hat transformation Based on Contour Structuring Element to Detect Infrared Small Target <i>BAI Xiangzhi, ZHOU Fugen, XIE Yongchun and JIN Ting</i>	conf130a355	110
13:30 - 15:30	TUE-P2-22 Studies on Multiple Description Coding based on Lower-Tree Wavelet <i>ZHANG Yan, LIU Cuixiang, SUN Yicai and ZHANG Shaoru</i>	conf130a297	110
13:30 - 15:30	TUE-P2-23 A New Addressing Scheme for Cube-Connected Cycles Network <i>PENG Limin, WEI Wenhong and XIANG Jun</i>	conf130a423	111

13:30 - 15:30	TUE-P2-24 Design of Turbo Codes Based on QPP Interleavers for Deep-space Communication <i>ZHANG Guihua, JI Hongbing, HU Jiaquan and LI Huilian</i>	conf130a549 111
13:30 - 15:30	TUE-P2-25 2-Layer Orchestration Mechanism for Service Composition <i>CHU Lijun, ZHENG Xuefeng and WANG Shaojie</i>	conf130a545 111

 **15:30 - 16:00** **Tea Break**

Session	TUE3-1 (PE-3) - Power Electronics-3	
Date / Time	Tuesday, 3 June 2008 / 16:00 - 17:40 hrs	
Venue	Changi Room 1	
Session Chair(s)	SHEN Weixiang	
16:00 - 16:20	TUE3-1 (PE-3)-1 Chopper-Cycloconverters for Energy Saving in Motor Control <i>ZHOU Qianzhi, LIN Jianwei and LIU Yan-Fei</i>	conf130a212 Pg No. 111
16:20 - 16:40	TUE3-1 (PE-3)-2 Flicker Mitigation of Arc Furnace Load Using Modified P-Q-R Method <i>HAN Yang, KHAN Muhammad Mansoor, YAO Gang, ZHOU Li-Dan and CHEN Chen</i>	conf130a282 112
16:40 - 17:00	TUE3-1 (PE-3)-3 Investigation of Transformer Cooling Improvement Utilizing Online Monitoring System <i>SHAHBAZI B., SAVAGHEBI M., ASHOURI M. and VADIATI M.</i>	conf130a307 112
17:00 - 17:20	TUE3-1 (PE-3)-4 Dual Channel Current-Source Gate Drivers for High-Frequency DC-DC Converters <i>LIU Yan-Fei, GE Lusheng and ZHENG Shicheng</i>	conf130a367 112
17:20 - 17:40	TUE3-1 (PE-3)-5 Research and Implementation of Photovoltaic Charging System with Maximum Power Point Tracking <i>ZHENG Shicheng and LIU Wei</i>	conf130a326 112

Session	TUE3-2 (CSA-4) - Control Systems and Applications-4	
Date / Time	Tuesday, 3 June 2008 / 16:00 - 18:00 hrs	
Venue	Changi Room 2	
Session Chair(s)	KHOO Suiyang	
16:00 - 16:20	TUE3-2 (CSA-4)-1 Fuzzy Immune Self-Tuning PID Controller and its Simulation <i>KAN Jiangming, LI Wenbin and LIU Jinhao</i>	conf130a577 Pg No. 113
16:20 - 16:40	TUE3-2 (CSA-4)-2 Model Based Decoupling Control for Waste Incineration Plants <i>KOZEK Martin and VOIGT Andreas</i>	conf130a645 113

16:40 - 17:00	TUE3-2 (CSA-4)-3 conf130a648 Hardware Design of Image Recognition System Based ARM and FPGA <i>ZHANG Daode, YANG Guangyou, ZHANG Jiangtao and GAO Heng</i>	113
17:00 - 17:20	TUE3-2 (CSA-4)-4 conf130a791 Permanent Magnet Synchronous Motor Fault Detection and Isolation Using Second Order Sliding Mode Observer <i>HUANGFU Yigeng, LIU Weiguo and MA Ruiqing</i>	113
17:20 - 17:40	TUE3-2 (CSA-4)-5 conf130a997 The Nine-point Controller <i>QI Qian, HUANG Wei, HE Qiang, ZHAO Yixin and HUANG Qiaoli</i>	114
17:40 - 18:00	TUE3-2 (CSA-4)-6 conf130a502 Multi-Model Algorithm Based Akaike's Information Criterion for Maneuvering Targets <i>MAHDAVIAN Hamid Reza Feyz and SADATI Nasser</i>	114

Session **TUE3-3 (CSA-5) - Control Systems and Applications-5**
Date / Time **Tuesday, 3 June 2008 / 16:00 - 18:00 hrs**
Venue **Changi Room 3**
Session Chair(s) **ZHAO Shengkui**

16:00 - 16:20	TUE3-3 (CSA-5)-1 conf130a119 Nonlinear PID Control for Three-Phase PWM Rectifier Based on Predictive Current Control <i>MA Liang, LIN Fei, YOU Xiaojie and ZHENG Trillion Q.</i>	Pg No. 114
16:20 - 16:40	TUE3-3 (CSA-5)-2 conf130a808 A Real-Time Nonlinear Robust Controller for Magnetic Levitation Systems <i>SABOORI Iman, MENHAJ M. B., KARIMI Babram and SABOORI Ehsan</i>	114
16:40 - 17:00	TUE3-3 (CSA-5)-3 conf130a818 Double-command Fuzzy Control of a Nonlinear CSTR <i>MOHAMMEDZAHERI Morteza and CHEN Lei</i>	115
17:00 - 17:20	TUE3-3 (CSA-5)-4 conf130a831 Dynamic Characteristic Research for Piezo Pneumatic Intelligent Valve Positioner <i>HUANG Wei, ZHAO Zhongli, ZHAO Yixin, QI Qian and HUANG Qiaoli</i>	115
17:20 - 17:40	TUE3-3 (CSA-5)-5 conf130a848 Research on Distributed Transmission of Power Telecontrol Information Based on ACSI/MMS <i>WANG Dewen, ZHU Yongli, LIU Peipei, HUANG Jiancai and ZHAO Wenqing</i>	116
17:40 - 18:00	TUE3-3 (CSA-5)-6 conf130a759 Time-delay Estimate and Compensation Control on Internet-based Control Systems Using LMS Filter Algorithm <i>LI Hongyan</i>	116

Session	TUE3-4 (IS-A2) - Invited Session - Sensing and Control for Mobile Robots		
Date / Time	Tuesday, 3 June 2008 / 16:00 - 17:40 hrs		
Venue	Kallang Room		
Session Chair(s)	WANG Wei		
16:00 - 16:20	TUE3-4 (IS-A2)-1	conf130a1071 The CPG Control Algorithm for a Climbing Worm Robot <i>WANG Wei, WANG Yingying, QI Jinghao, ZHANG Houxiang and ZHANG Jianwei</i>	<i>Pg No.</i> 116
16:20 - 16:40	TUE3-4 (IS-A2)-2	conf130a1072 Construction and Realization of A 3D Perceptual System Based on 2D Laser Radar <i>GAO Mingchen, CHEN Weihai, LI Bing and LV Tao</i>	116
16:40 - 17:00	TUE3-4 (IS-A2)-3	conf130a1073 The Study of an Integer Design and Development of Virtual Human Motion Analysis Software on VC Platform <i>HONG Lei, JIA Qing-Xuan, SUN Han-Xu and CHEN Gang</i>	117
17:00 - 17:20	TUE3-4 (IS-A2)-4	conf130a1074 Real-time Control Realization of a New Pneumatic Climbing Robot <i>ZHANG H. X., WANG W., ZHANG J. W. and ZONG G. H.</i>	117
17:20 - 17:40	TUE3-4 (IS-A2)-5	conf130a1075 3D Reconstruction Embedded System Based on Laser Scanner for Mobile Robot <i>WANG Jianhua, LI Bing, CHEN Weihai and RONG Lixia</i>	117
Session	TUE3-5 (E&E-1) - Energy and Environment-1		
Date / Time	Tuesday, 3 June 2008 / 16:00 - 18:00 hrs		
Venue	Seletar Room 1		
Session Chair(s)	SHEN Weixiang		
16:00 - 16:20	TUE3-5 (E&E-1)-1	conf130a150 Design of Standalone Photovoltaic System at Minimum Cost in Malaysia <i>SHEN Weixiang</i>	<i>Pg No.</i> 118
16:20 - 16:40	TUE3-5 (E&E-1)-2	conf130a203 Study on the Intelligent Fuzzy Control Method for MPPT in Photovoltaic Voltage Grid System <i>LI Xiao-bo, DONG Ke and WU Hao</i>	118
16:40 - 17:00	TUE3-5 (E&E-1)-3	conf130a369 An Investigation on Optimum Volume of Superconducting Element of RSFCL Considering Harmonic Generation <i>HOOSHYAR H., HEYDARI H., SAVAGHEBI M., SHARIFI R. and SHAHBAZI B.</i>	118
17:00 - 17:20	TUE3-5 (E&E-1)-4	conf130a382 Determinants of Aggregate Energy Intensity with Consideration of Intra-industry Trade <i>LIU C. P. and HAN G. Y.</i>	119
17:20 - 17:40	TUE3-5 (E&E-1)-5	conf130a503 Unsteady Numerical Study on Steam Spontaneous Condensation in a Turbine Cascade <i>QIAN Jiangbo, HAN Zhonghe and AN Liansuo</i>	119

17:40 - 18:00	TUE3-5 (E&E-1)-6 conf130a274 A Hybrid Condenser Model for Applications in Steam Ejector Air-Conditioning Systems <i>DING Xudong, CAI Wenjian, JIA Lei and WEN Changyun</i>	119
---------------	---	------------

Session **TUE3-6 (E&E-2) - Energy and Environment-2**
Date / Time **Tuesday, 3 June 2008 / 16:00 - 17:40 hrs**
Venue **Seletar Room 2**
Session Chair(s) **HU Wei**

		<i>Pg No.</i>
16:00 - 16:20	TUE3-6 (E&E-2)-1 conf130a822 Reliability Analysis of Electric Distribution System Integrated with Wind Power <i>LI Dong Dong and NIU Li Qun</i>	119
16:20 - 16:40	TUE3-6 (E&E-2)-2 conf130a385 An Active Islanding Detection Method for Grid-Connected Converters <i>LIU Fangrui, LIN Xinchun, KANG Yong, ZHANG Yu and DUAN Shanxu</i>	120
16:40 - 17:00	TUE3-6 (E&E-2)-3 conf130a527 The Environmental Impacts from Coal Power Plant Generation <i>KIHWELE S. and KUNDY B.</i>	120
17:00 - 17:20	TUE3-6 (E&E-2)-4 conf130a585 Digital PI Current Control for Grid Connected PV Inverter <i>SELVARAJ J., RAHIM N. A. and KRISMADINATA C.</i>	120
17:20 - 17:40	TUE3-6 (E&E-2)-5 conf130a600 Real Time Supervise System of Flue Gas Desulfurization in Coal Fired Power Plants <i>XU Fei, HU Wei and MIN Yong</i>	120

Session **TUE-P3 - Poster Session (TUE-P3)**
Date / Time **Tuesday, 3 June 2008 / 16:00 - 18:00 hrs**
Venue **Foyer**

16:00 - 18:00	TUE-P3-01 conf130a483 Torque Ripple Control of Position-Sensorless Brushless DC Motor Based on Neural Network Identification <i>CAO Jianbo, CAO Binggang, XU Peng, ZHOU Shiqiong, GUO Guifang and WU Xiaolan</i>	<i>Pg No.</i> 121
16:00 - 18:00	TUE-P3-02 conf130a424 An Effective Immune Particle Swarm Optimization Algorithm for Scheduling Job Shops <i>ZHANG Rui and WU Cheng</i>	121
16:00 - 18:00	TUE-P3-03 conf130a285 Genetic Algorithm-Based Investigation of Load Growth Factor Effect on the Network Loss in TNEP <i>KAZEMI A., JALILZADEH Saeed, MAHDAVI Meisam and HADDADIAN Hosein</i>	121


16:00 - 18:00	TUE-P3-04 Application of Flexible Tolerance Genetic Algorithm for Optimum Design of Double-Crank Mechanism <i>SHANG Wanfeng, ZHAO Shengdun and SHEN Yajing</i>	conf130a656 122
16:00 - 18:00	TUE-P3-05 Application of LSSVM with AGA Optimizing Parameters to Nonlinear Modeling of SRM <i>SHANG Wanfeng, ZHAO Shengdun and SHEN Yajing</i>	conf130a306 122
16:00 - 18:00	TUE-P3-06 Modeling a Complex System Using Multiobjective Genetic Programming <i>BAI Yan, JIANG Yiheng, ZHU Yaochun, LI Xiaofei and FAN Li</i>	conf130a378 122
16:00 - 18:00	TUE-P3-07 Neural Network Ensemble with Combination Weights Adaptive Modulation <i>WANG Qinghua, ZHANG Youyun and YANG Junyan</i>	conf130a853 122
16:00 - 18:00	TUE-P3-08 Direct Conversion of PID Controller to Fuzzy Controller Method for Robustness <i>LV Hongli, DUAN Peiyong, CAI Wenjian and JIA Lei</i>	conf130a374 123
16:00 - 18:00	TUE-P3-09 Characteristic Analysis of Electro-Slag Remelting System Model and Multi-loop PID Control <i>ZHAO Lili, SONG Jinchun and LIU Hong-yi</i>	conf130a391 123
16:00 - 18:00	TUE-P3-10 Modeling and Simulation of Hydraulic Control System for Vehicle Continuously Variable Transmission <i>SONG Jinchun and WANG Changzhou</i>	conf130a392 123
16:00 - 18:00	TUE-P3-11 Comparison of P&O and Hill Climbing MPPT Methods for Grid-Connected PV Converter <i>LIU Fangrui, KANG Yong, ZHANG Yu and DUAN Shanxu</i>	conf130a386 124
16:00 - 18:00	TUE-P3-12 An Improved MPPT Arithmetic and Grid-connected Control Strategy for Single-Stage Three-Phase PV Converter with LCL Filter <i>LIU Fei, ZHOU Yan, YIN Jinjun and DUAN Shanxu</i>	conf130a191 124
16:00 - 18:00	TUE-P3-13 A Novel Dual-Section Space Vector PWM for Three-Level Rectifier <i>WU Wen-jun, ZHONG Yan-ru, WANG Jian-yuan and DUAN Bo</i>	conf130a410 124
16:00 - 18:00	TUE-P3-14 An Experimental Investigation of a Heat Pipe Integrated Power Module <i>ZHANG YaPing, YU XiaoLing and FENG QuanKe</i>	conf130a387 124
16:00 - 18:00	TUE-P3-15 Study on IMC-PID Control for Single-phase Voltage-source UPS Inverters <i>XU Yingnian, ZHAO Yang, KANG Yong and XIONG Rui</i>	conf130a448 125
16:00 - 18:00	TUE-P3-16 Decouple-Control of Thrust-and-Normal Forces in SLIM Based on Voltage Vector Selection <i>WANG Ke, SHI Liming, LI Yaohua and HE Jinwei</i>	conf130a479 125

16:00 - 18:00	TUE-P3-17	conf130a706	Intermittent Chaos and Subharmonics in Current-mode Controlled SEPIC Converters <i>JIANG Xue-dong, ZHOU Yu-fei, CHEN Jun-ning and WANG Shi-bing</i>	125
16:00 - 18:00	TUE-P3-18	conf130a213	Automatic Generation of Initial Contours on Image Segmentation <i>ZHANG Yingjie and GE Liling</i>	125
16:00 - 18:00	TUE-P3-19	conf130a313	Analysis of the Performance of Error Correcting Coding in Audio Watermarking <i>LIU Haiyan, ZHENG Xuefeng and WANG Ying</i>	126
16:00 - 18:00	TUE-P3-20	conf130a586	Radiated Noise Sources Location Based on MVDR Near-field Focused Beamforming <i>SHI Jie, LIU Bosheng, SONG Haiyan, ZHAO Longlong and LI Ming</i>	126
16:00 - 18:00	TUE-P3-21	conf130a433	A Novel LOFDM Signal And Its Optimization Over Doubly-dispersion Channels <i>YUAN Zhi-gang and SHEN Yue-hong</i>	126
16:00 - 18:00	TUE-P3-22	conf130a854	Research and Application of Web Development Based on ASP.NET 2.0+Ajax <i>WANG H. and YANG J.</i>	126
16:00 - 18:00	TUE-P3-23	conf130a566	Performance Analysis Method under Process Variations <i>HU Jing, MA Guangsheng and LI Donghai</i>	127
16:00 - 18:00	TUE-P3-24	conf130a832	Operating State Monitoring and Fault Diagnosis on Traction Power Supply System <i>LI Xiaqing, FAN Shengtao and LU Yanqing</i>	127
16:00 - 18:00	TUE-P3-25	conf130a296	The Parameter Estimation of Inter-harmonics in Power System <i>CHEN Han, LIU Hui-jin, LI Da-lu and DAI Jing</i>	127
16:00 - 18:00	TUE-P3-26	conf130a811	A New Space-Time-Doppler Code for Time-Selective Fading Channels <i>WEI N., LI T. C., YANG S. Y. and LI M.</i>	127

Session **Keynote Lecture 2**
Date / Time **Wednesday, 4 June 2008 / 09:00 - 10:00 hrs**
Venue **Atrium Ballroom**

09:00 – 10:00 Power Factor Compensation for Electrical Circuits: A Framework for
 Analysis and Design in the Nonlinear Nonsinusoidal Case
ORTEGA Romeo

Pg No.
10

 10:00 – 10:30 **Coffee Break**

Session **WED1-1 (PE-4) - Power Electronics-4**
Date / Time **Wednesday, 4 June 2008 / 10:30 - 12:30 hrs**
Venue **Changi Room 1**
Session Chair(s) **PATEL Himanshu**

10:30 - 10:50 WED1-1 (PE-4)-1 conf130a487
 Reduction in Electromagnetic Interference of Switching Converters Using Self-
 Excitation-Chaos
LI Qingnan, XIONG Rui and HE Ou

Pg No.
128

10:50 - 11:10 WED1-1 (PE-4)-2 conf130a655
 Development of a High-PF Two-Phase Flyback Converter Based on Chasing
HWU K. I. and YAU Y. T.

128

11:10 - 11:30 WED1-1 (PE-4)-3 conf130a695
 An On-line Monitoring System of Transmission Line Conductor De-icing
HUANG Xin-bo, SUN Qin-dong and DING Jianguo

128

11:30 - 11:50 WED1-1 (PE-4)-4 conf130a22
 Voltage Transient Spikes Suppression in Flyback Converter Using Dissipative
 Voltage Snubbers
PATEL Himanshu K.

128

11:50 - 12:10 WED1-1 (PE-4)-5 conf130a26
 A Novel DSP Based Space Vector PWM Switching Pattern for Current-Source
 Converters
GAO Jilei, LIU Jianqiang, YANG Zhongping and ZHENG Trillion Q.

129

12:10 - 12:30 WED1-1 (PE-4)-6 conf130a57
 Power System Stabilizer Based on Improved Simple Adaptive Control
ZHANG Shaoru and LUO Fang Lin

129

Session **WED1-2 (PE-5) - Power Electronics-5**
Date / Time **Wednesday, 4 June 2008 / 10:30 - 12:30 hrs**
Venue **Changi Room 2**
Session Chair(s) **ZHAO Shengkui**

10:30 - 10:50 WED1-2 (PE-5)-1 conf130a972
 A Digital Amplifier with Hi-Fi Signal Controlled by DSP
MENG Yongmin and LI Tiecai

Pg No.
129

10:50 - 11:10 WED1-2 (PE-5)-2 conf130a74
 Distance Relay Over-Reaching Due to SSSC Presence on Second Circuit of
 Double Circuit Line
JAMALI S., KAZEMI A. and SHATERI H.

130

11:10 - 11:30	WED1-2 (PE-5)-3 conf130a376 The Study of SPWM Control Strategy to Reduce Common-Mode Interferences in Three-Phase Four-Leg Inverters <i>HUANG Jin, XIONG Rui, ZHOU Yunping, WANG Zhi and SHI Haixia</i>	130
11:30 - 11:50	WED1-2 (PE-5)-4 conf130a442 Switch Linear Hybrid Power Converter and its Applications <i>HU Wenhua, MA Weiming and ZHOU Qianzhi</i>	130
11:50 - 12:10	WED1-2 (PE-5)-5 conf130a644 Single-Phase Inverter with Fully Controllable Regenerative Capabilities using Single-Phase Matrix Converter <i>NOOR S.Z. Mohammad, BAHAROM R., DAMANHURI N. S. and HAMZAH M. K.</i>	130
12:10 - 12:30	WED1-2 (PE-5)-6 conf130a417 Analysis and Design of a Soft-Switched and Isolated Bi-Directional DC-DC Converter <i>LIN Xinchun, LIU Fangrui, DUAN Shanxu and KANG Yong</i>	131

Session **WED1-3 (NCT-1) - Network & Communication Technologies-1**
Date / Time **Wednesday, 4 June 2008 / 10:30 - 12:30 hrs**
Venue **Changi Room 3**
Session Chair(s) **MIN Lequan**

10:30 - 10:50	WED1-3 (NCT-1)-1 conf130a927 Cooperative Design Based on Ontology <i>WANG Shanli</i>	Pg No. 131
10:50 - 11:10	WED1-3 (NCT-1)-2 conf130a858 Generalized Synchronization Theorems for a Kind of Neural Network with Application in Data Encryption <i>ZANG Hongyan and MIN Lequan</i>	131
11:10 - 11:30	WED1-3 (NCT-1)-3 conf130a911 Design and Throughput Analysis of an Adaptive Backoff Scheme for Wireless LANs <i>FAN J., GAO F, ZHAO B. and LI F.</i>	131
11:30 - 11:50	WED1-3 (NCT-1)-4 conf130a883 An Extended the Contract Net Protocol Based on the Personal Assistant <i>FAN Gaojun, HUANG Hongbing and JIN Shiyao</i>	132

Session **WED1-4 (SP-1) - Signal Processing-1**
Date / Time **Wednesday, 4 June 2008 / 10:30 - 12:30 hrs**
Venue **Kallang Room**
Session Chair(s) **DAS Poulami**

10:30 - 10:50	WED1-4 (SP-1)-1 conf130a177 Quantum Watermarking and Extraction for Handwritten Signature <i>BANDYOPADHYAY Samir Kumar, BHATTACHARYYA Debnath and DAS Poulami</i>	Pg No. 132
---------------	--	-----------------------------

10:50 - 11:10	WED1-4 (SP-1)-2 conf130a314 Handwritten Signature Recognition Using Departure of Images from Independence <i>BANDYOPADHYAY Samir Kumar, BHATTACHARYYA Debnath and DAS Poulami</i>	132
11:10 - 11:30	WED1-4 (SP-1)-3 conf130a413 A New Diagnosis Algorithm for Sensors Based On Morphology-Wavelet <i>HOU Guo-Lian, ZHANG Yi and ZHANG Jian-Hua</i>	133
11:30 - 11:50	WED1-4 (SP-1)-4 conf130a457 Coal Differential Thermogravimetry Signal Denoising Method Based on HHT and Threshold Denoising <i>YU L., YU L., LI J., HU Y. and YU W.</i>	133
11:50 - 12:10	WED1-4 (SP-1)-5 conf130a547 Unbiased Maximum Likelihood Estimator for Underwater DOA Estimation <i>HOU Yunshan, ZHANG Lijie and HUANG Jianguo</i>	133

Session **WED1-5 (SP-2) - Signal Processing-2**
Date / Time **Wednesday, 4 June 2008 / 10:30 - 12:30 hrs**
Venue **Seletar Room 1**
Session Chair(s) **YU Zhuliang & WAN Shuai**

10:30 - 10:50	WED1-5 (SP-2)-1 conf130a509 A Fast Adaptive Fuzzy Median Filter for Removal of Impulses from Color Images <i>ZHOU Yan, TANG Quan-hua, JIN Wei-dong and HANG Bo</i>	<i>Pg No.</i> 134
10:50 - 11:10	WED1-5 (SP-2)-2 conf130a579 A New Method of Vehicle License Plate Location Based on Mathematical Morphology and Texture Characteristics <i>SUN Guangmin, LI Gang, XU Lei and WANG Jing</i>	134
11:10 - 11:30	WED1-5 (SP-2)-3 conf130a411 On Performance of Transform Domain Adaptive Filters with Markov-2 Inputs <i>ZHAO Shengkui, MAN Zhibong and KHOO Suiyang</i>	134
11:30 - 11:50	WED1-5 (SP-2)-4 conf130a582 Automatic Measurement of Trunk and Branch Diameter of Standing Trees Based on Computer Vision <i>KAN Jiangming, LI Wenbin and SUN Renshan</i>	135
11:50 - 12:10	WED1-5 (SP-2)-5 conf130a672 Gradient-threshold Edge Detection based on Perceptually Adaptive Threshold Selection <i>WAN Shuai, YANG Fuzheng and HE Mingyi</i>	135
12:10 - 12:30	WED1-5 (SP-2)-6 conf130a538 Innovation-based Adaptive Estimation Unscented Kalman Filtering and its Application in Navigation <i>QU C. S., XU H. L., TAN Y. and ZHOU X. G.</i>	135

Session	WED1-6 (SP-3) - Signal Processing-3		
Date / Time	Wednesday, 4 June 2008 / 10:30 - 12:30 hrs		
Venue	Seletar Room 2		
Session Chair(s)	LAU Bee Theng		
10:30 - 10:50	WED1-6 (SP-3)-1	conf130a671 A Hybrid Naive Bayes Approach for Information Filtering <i>CHIONG Raymond and LAU Bee Theng</i>	<i>Pg No.</i> 136
10:50 - 11:10	WED1-6 (SP-3)-2	conf130a787 Hidden Component Analysis of Undetermined Recordings <i>LEONG Wai Yie</i>	136
11:10 - 11:30	WED1-6 (SP-3)-3	conf130a815 Reconfigurable Embedded Platform for Object Detection using Color Images Segmentation <i>SAAADI Slami, MEKKI Hamza and GUESSOUM Abderrezak</i>	136
11:30 - 11:50	WED1-6 (SP-3)-4	conf130a868 Vision-based Automatic Needle Inspection System for Safety Lancets <i>YIN Xiaoming and FANG Zhongping</i>	137
11:50 - 12:10	WED1-6 (SP-3)-5	conf130a1040 Load Elasticity Analysis in the Deregulated Electricity Market <i>WANG Yi, LIU Yuanxin and YU Songqing</i>	137
12:10 - 12:30	WED1-6 (SP-3)-6	ICIEA-07-001 Genetic Algorithm Based Reference Bands Selection in Hyperspectral Image Compression <i>CHEN Yushi, WANG Aili and ZHANG Ye</i>	137

Session	Special Talk 4 & 5	
Date / Time	Wednesday, 4 June 2008 / 10:30 – 12:30 hrs	
Venue	Seletar Room 3	
10:30 – 11:30	Special Talk 4 From Science Fiction to Reality – Merging of Mind and Machine <i>MANIC Milos</i>	<i>Pg No.</i> 16
11:30 – 12:30	Special Talk 5 Sliding Mode Control in Discrete-Time Domain <i>YU Xinghuo</i>	17
<hr/>		
Session	WED-P1 - Poster Session (WED-P1)	
Date / Time	Wednesday, 4 June 2008 / 10:30 - 12:30 hrs	
Venue	Foyer	
10:30 - 12:30	WED-P1-01 conf130a430 Mine Elevator Comprehensive Performance Testing System Based on Virtual Instrument <i>WANG Guimei, WANG Qingdong, LI Jiangbo and WEI Jianfeng</i>	<i>Pg No.</i> 137
10:30 - 12:30	WED-P1-02 conf130a446 A New Algorithm for Dynamic Decoupling Control of HPMSM using Fuzzy Controllers <i>XIA Changliang, GUO Chen and SHI Tingna</i>	138
10:30 - 12:30	WED-P1-03 conf130a496 The Application Study of ERP Data Quality Assessment and Improvement Methodology <i>ZHAO Xiaosong, HE Zhen, ZHANG Meng, YU Dainuan and ZHANG Ting</i>	138
10:30 - 12:30	WED-P1-04 conf130a87 A Path Planning Study of Autonomous Mobile Robot in Dynamic Environment <i>LIU Yanju, CAO Yundong, LI Yanbin, YU Yang, WANG David, WANG Xin and YAO Jun</i>	138
10:30 - 12:30	WED-P1-05 conf130a120 Study of the Dielectric Gaussian Surface Emissivity Feature <i>CHEN Liang, YU Yang and WANG David</i>	138
10:30 - 12:30	WED-P1-06 conf130a121 Temperature Error in Casting Radiation Thermometry Caused by Emissivity Error and Measurement Wavelength <i>CHEN Liang, GAO Hongwei, ZHAO Yawei, YU Yang and WANG David</i>	139
10:30 - 12:30	WED-P1-07 conf130a27 Research of Embedded Numerical Control System in Network Environment <i>ZHOU Z. D. and CHEN B. Y.</i>	139
10:30 - 12:30	WED-P1-08 conf130a461 Robust Pitch Controller Design in Hybrid Wind-Diesel Power Generation System <i>SUPRIYADI A.N. Cuk, NGAMROO I., KAITWANIDVILAI S., KUNAKORN A., HASHIGUCHI T. and GODA T.</i>	139

10:30 - 12:30	WED-P1-09	conf130a421	Adaptive Variable Structure Controller Design of Turbomolecular Pump with Active Magnetic Bearings <i>FAN Yi-Hua, JIANG Yan-Che, CHEN Rong-Jhe, LEE Ying-Tsun and WU Tzu-Wei</i>	139
10:30 - 12:30	WED-P1-10	conf130a546	Design Considerations and Topology Selection for DC-Module-Based Building Integrated Photovoltaic System <i>LIU Bangyin, LIANG Chaohui and DUAN Shanxu</i>	140
10:30 - 12:30	WED-P1-11	conf130a670	Overview of Orbital Debris Detection Using Spaceborne Radar <i>FU Xiongjun, LIU Guoman and GAO Meiguo</i>	140
10:30 - 12:30	WED-P1-12	conf130a850	Experimental Study of Energy Attenuation on the Discharge Wire in Pulse Discharge Reactor <i>DONG Bingyan, ZHANG Dachao, KE Wei and WU Yan</i>	140
10:30 - 12:30	WED-P1-13	conf130a179	Heat Meter with Ultra-Low-Power Consumption Microcontroller <i>ZHANG Yong, GENG Xin and ZHANG Jindou</i>	140
10:30 - 12:30	WED-P1-14	conf130a518	Research on Fast Calibration Method for Scale Factor of Micro-machined Gyroscope <i>WU L. F., ZHANG F. X. and PENG Zh.</i>	141
10:30 - 12:30	WED-P1-15	conf130a32	The Controller of Turned Filter Based on Self-Optimizing <i>XU Fan, JIANG Zhengrong, CHEN Jianye, LEI Yonghong and MIAO Haitao</i>	141
10:30 - 12:30	WED-P1-16	conf130a377	A Novel Modulation Strategy Based on SVPWM Natural Overmodulation Characteristic <i>WEN Xiaoyan, YANG Zhongping, ZHANG Liwei and ZHENG Trillion Q.</i>	141
10:30 - 12:30	WED-P1-17	conf130a412	Research on the Reactive Power Control of Grid-connected Inverter of Distributed Generation System Based on Genetic Algorithm <i>WANG Rui, LIN Fei, YOU Xiaojie and ZHENG Trillion Q.</i>	141
10:30 - 12:30	WED-P1-18	conf130a578	The Sliding Mode Control for Arc Welding Inverter Power Source <i>ZHAO Liu, XIAO Bai-lu, WANG Shu-hui, ZHU Guo-rong, DUAN Shanxu and KANG Yong</i>	142
10:30 - 12:30	WED-P1-19	conf130a553	Electric Power Steering System Design Based on MC68HC908AB32 <i>LIANG Xiu-Xia, LIANG Xiu-hong, SUN Jia-ming and SUN He-Xu</i>	142
10:30 - 12:30	WED-P1-20	conf130a256	A Simple and Efficient Hybrid Image Fusion Approach <i>ZHANG Yingjie and GE Liling</i>	142
10:30 - 12:30	WED-P1-21	conf130a354	Simplification of Small Target Tracking by Using Motion Properties to Reduce False Alarms in Clutter <i>JIN Ting, BAI Xiangzhi, ZHOU Fugen and XIE Yongchun</i>	143

10:30 - 12:30	WED-P1-22	conf130a335	Implementation of Convolutional Code Based on FPGA in OFDM-UWB System <i>ZOU Decai, LU Xiaochun, WU Haitao and XU Jinsong</i>	143
10:30 - 12:30	WED-P1-23	conf130a357	Application of Data Fusion in Multi-Sensor Integrated Navigation System <i>XU Jinsong, LU Xiaochun, WU Haitao, BIAN Yujing and ZOU Decai</i>	143
10:30 - 12:30	WED-P1-24	conf130a113	Distributed Grid Location Estimation Scheme Based on Euclidean Distance <i>JIA Zi-xi, WU Cheng-dong, ZHANG Yun-zhou and XIAO Wen-dong</i>	144
10:30 - 12:30	WED-P1-25	conf130a210	Research on Key Technologies of 3D Collaborative Design System Based on Multi-Agent System <i>QU Ligang, WANG Wei, GONG Ya-dong and WANG Wan-shan</i>	144
10:30 - 12:30	WED-P1-26	conf130a1025	Security Analysis and Improvement of Yahalom Protocol <i>CHEN Li and SHI Mingxia</i>	144

	12:30 - 13:30	Lunch Break
---	----------------------	--------------------

Session	WED2-1 (PE-6) - Power Electronics-6
Date / Time	Wednesday, 4 June 2008 / 13:30 - 15:30 hrs
Venue	Changi Room 1
Session Chair(s)	ZHAO Shengkui

13:30 - 13:50	WED2-1 (PE-6)-1	conf130a436	A Neutral-Point Potential Balancing Technique Implemented at the Front End in Back-to-Back-Connected Three-Level Converter <i>TIAN Kai, WANG Mingyan and LIU Songbin</i>	<i>Pg No.</i> 145
13:50 - 14:10	WED2-1 (PE-6)-2	conf130a437	Research on Loading Simulation of DC Torque Motor for Electrical Load Simulator <i>LIU Songbin, WANG Mingyan, TIAN Kai and WANG Yiwei</i>	145
14:10 - 14:30	WED2-1 (PE-6)-3	conf130a451	A New Single-Phase Dual Converter Using Single-Phase Matrix Converter <i>BAHAROM R., HASHIM H., SEROJI M. N. and HAMZAH M. K.</i>	145
14:30 - 14:50	WED2-1 (PE-6)-4	conf130a455	Improved Switching Strategy Sequence of Single-Phase Matrix Converter as a Direct AC-AC Converter <i>HANAFI H.M., HAMZAH N. R., SAPARON A. and HAMZAH M. K.</i>	146
14:50 - 15:10	WED2-1 (PE-6)-5	conf130a488	An Area-Efficient Sinusoidal Pulse Width Modulation (SPWM) Technique for Single Phase Matrix Converter (SPMC) <i>ROMLI M. S. N., IDRIS Z., SAPARON A. and HAMZAH M. K.</i>	146
15:10 - 15:30	WED2-1 (PE-6)-6	conf130a649	An Improved Switching Strategy for a Three-Phase Three-Leg DSTATCOM <i>G. Vincent, MISHRA Mahesh K. and RAO U. Koteswara</i>	146

Session	WED2-2 (ET) - Emerging Technologies		
Date / Time	Wednesday, 4 June 2008 / 13:30 - 15:30 hrs		
Venue	Changi Room 2		
Session Chair(s)	CHEN Gang		
13:30 - 13:50	WED2-2 (ET)-1	conf130a625	<i>Pg No.</i> 147
	Dynamic Virtual Enterprise Integration via Business Rule Enhanced Semantic Service Composition Framework <i>CHEN G., REN W., ZHANG, J. B., YANG Z., LOW C. P., SUN C. and CHEN D.</i>		
13:50 - 14:10	WED2-2 (ET)-2	conf130a932	147
	A Li-ion Battery Management System Based on CAN-bus for Electric Vehicle <i>ZHENG Minxin, QI Bojin and WU Hongjie</i>		
14:10 - 14:30	WED2-2 (ET)-3	conf130a1121	147
	The Relationship between Different Pulse Wave Velocity and Systolic/Diastolic Pressure <i>CHEN Yan, WEN Changyun, TANG Haitao and TENG Linda Xiuzhen</i>		
14:30 - 14:50	WED2-2 (ET)-4	conf130a763	148
	A Low Complexity Fractionally Spaced Equalizer Design for DTTB System <i>CHEN Wei, YI ChengGang and LONG BiQi</i>		
14:50 - 15:10	WED2-2 (ET)-5	conf130a1015	148
	Research on the System of Data Acquisition and Evaluation in Diesel Locomotive Combustion System <i>ZHANG Hao, CHEN Ming, QIN Bo and ZHANG Ming-wu</i>		

Session	WED2-3 (IS-0) - Invited Session		
Date / Time	Wednesday, 4 June 2008 / 13:30 - 15:30 hrs		
Venue	Changi Room 3		
Session Chair(s)	YAO Jun		
13:30 - 13:50	WED2-3 (IS-0)-1	conf130a3	<i>Pg No.</i> 148
	Research on Speediness Stability of Flight Vehicle Based on Maximum Principle <i>YAO Jun, WANG Xin, CHEN Tao and WANG Yuxin</i>		
13:50 - 14:10	WED2-3 (IS-0)-2	conf130a4	148
	A Method of Identifying Rocket Trajectory Parameters Based on Generalized Kalman Attenuating Memory Algorithm <i>YAO Jun, WANG Xin, GAO Yunhua and WANG Yuxin</i>		
14:10 - 14:30	WED2-3 (IS-0)-3	conf130a7	149
	Sensitivity Analyzing of Rocket Ballistic Parameters Based on Sensitivity Function Theory <i>WANG Xin, ZHANG Fengge, YAO Jun and WANG Yuxin</i>		
14:30 - 14:50	WED2-3 (IS-0)-4	conf130a88	149
	Implementation of the Self-Turning PID Algorithm on DSP <i>LIU Yanju, CAO Yundong, LI Yanbin, YU Yang, WANG David, WANG Xin and YAO Jun</i>		
14:50 - 15:10	WED2-3 (IS-0)-5	conf130a125	149
	The Study of TE Process Based on the Improved PCA Method <i>YU Yang, ZHAO Yawei, YANG Qing, WANG David and CHEN Liang</i>		

15:10 - 15:30	WED2-3 (IS-0)-6 conf130a613 The Planning And Simulating Of CNC Trajectory Motion Based On Reference Time <i>JIANG Yong-min, WU Li-hong and XU Ming-heng</i>	149
---------------	--	-----

Session **WED2-4 (IS-A1) - Invited Session - Space Robot and Optimal Control**
Date / Time **Wednesday, 4 June 2008 / 13:30 - 15:30 hrs**
Venue **Kallang Room**
Session Chair(s) **JIA Qingxuan**

13:30 - 13:50	WED2-4 (IS-A1)-1 conf130a1065 Fault-Tolerant Strategy Based on Dynamic Model Matching For Dual-Redundant Computer in the Space Robot <i>SHI Guo-Zhen, JIA Qing-Xuan, SUN Han-Xu and ZHENG Yi-li</i>	<i>Pg No.</i> 150
13:50 - 14:10	WED2-4 (IS-A1)-2 conf130a1066 Research on Optimal-torque Control Method of Permanent Magnet Synchronous Motor <i>XU Dong, WANG Tianmiao, LIU Jingmeng and WEI Hongxing</i>	150
14:10 - 14:30	WED2-4 (IS-A1)-3 conf130a1067 Adaptive Control of Manipulator Flexible-Joint with Friction Compensation Using LuGre Model <i>ZHANG Xiaodong, JIA Qing-xuan, SUN Han-Xu and CHU Ming</i>	150
14:30 - 14:50	WED2-4 (IS-A1)-4 conf130a1068 Power-Aware Real-Time Task Scheduling With Feedback Control for Mobile Robots <i>WANG Bin, WANG Tianmiao, WEI Hongxing, WANG Meng and SHAO Zili</i>	151
14:50 - 15:10	WED2-4 (IS-A1)-5 conf130a1069 The Study of an Improved Algorithm for Binocular Stereo Vision Based on Intravicular Robot System <i>JIA Qing-Xuan, CHEN Gang, SUN Han-Xu, HONG Lei and SUN Xun</i>	151
15:10 - 15:30	WED2-4 (IS-A1)-6 conf130a1070 Simulation of a Closed Loop Wastewater Treatment System for Extended Space Flight <i>XIA Shu, MORSE Audra, JACKSON Andrew and WIESNER Theodore F</i>	151

Session **WED2-5 (CSA-6) - Control Systems and Applications-6**
Date / Time **Wednesday, 4 June 2008 / 13:30 - 15:30 hrs**
Venue **Seletar Room 1**
Session Chair(s) **KHOO Suiyang**

13:30 - 13:50	WED2-5 (CSA-6)-1 conf130a1014 The Research on Integrated SCM System Based on Agent <i>XU Chaofeng, FU Ruixue and XIN Zhanhong</i>	<i>Pg No.</i> 152
13:50 - 14:10	WED2-5 (CSA-6)-2 conf130a1043 Fuzzy Logic in Gain Scheduling of Multivariable Control <i>VARSO Joonas and KOIVO Heikki N.</i>	152
14:10 - 14:30	WED2-5 (CSA-6)-3 conf130a941 Online Estimation Technique for Jacobian Matrix in Robot Visual Servo Systems <i>ZHAO Qingjie, ZHANG Liqun and CHEN Yunjiao</i>	152

14:30 - 14:50	WED2-5 (CSA-6)-4 conf130a1039 Investigation on Control Strategies for Pulse Gas Metal Arc Welding Process <i>ZHU Jinhong, SONG Shuzhong, SHI Hongxin and LEE Kang Yong</i>	153
14:50 - 15:10	WED2-5 (CSA-6)-5 conf130a874 Optimization of PID Controllers for a Fluid Mixing System using Metamodeling Approach <i>ABDULLAH S. S., MOHAMED ALI M. S. and MOHAMAD HASYIM A. W. I.</i>	153
15:10 - 15:30	WED2-5 (CSA-6)-6 conf130a1060 A Near-Optimal Operation Strategy for Ice Storage Air-Conditioning Systems <i>HE Dasi, FAN Xiaowei and CAI Wenjian</i>	153

Session **WED2-6 (IS-A3) - Invited Session - Image Processing and System Control**
Date / Time **Wednesday, 4 June 2008 / 13:30 - 15:30 hrs**
Venue **Seletar Room 2**
Session Chair(s) **CHEN Weihai**

13:30 - 13:50	WED2-6 (IS-A3)-1 conf130a1076 A Date Dropouts Feedback Scheduling Policy of Networked Control Systems <i>LI Feng, WANG Tianmiao, WEI Hongxing, CHEN Diansheng and LIU Jingmeng</i>	Pg No. 154
13:50 - 14:10	WED2-6 (IS-A3)-2 conf130a1077 A Flexible-Resolution 3D Laser Scanning Method Based on DSP <i>SONG Weiyang, CHEN Weihai, LIU Yabin and XU Lihong</i>	154
14:10 - 14:30	WED2-6 (IS-A3)-3 conf130a1078 Development and Research of Lighting System Based on DALI <i>LI Huadong, WU Mingguang and ZHONG Yufang</i>	154
14:30 - 14:50	WED2-6 (IS-A3)-4 conf130a1079 Implementation of 3-axis Linear Interpolation in a FPGA-based 4-axis Motion Controller <i>CHEN Weihai, WEN Zhaojin, XU Zhiyue and LIU Jingmeng</i>	154
14:50 - 15:10	WED2-6 (IS-A3)-5 conf130a1080 Optimal Deadbands Feedback Scheduling of Resource-Constrained Embedded Control Systems <i>WANG Tianmiao, LI Feng, CHEN Diansheng, WEI Hongxing, WANG Bin and LIU Jingmeng</i>	155
15:10 - 15:30	WED2-6 (IS-A3)-6 conf130a1081 Real-time Monitoring and Filtering System for Mobile SMS <i>WU Ningning, WU Mingguang and CHEN Siguo</i>	155

Session **WED-P2 - Poster Session (WED-P2)**
Date / Time **Wednesday, 4 June 2008 / 13:30 - 15:30 hrs**
Venue **Foyer**

13:30 - 15:30	WED-P2-01 conf130a528 Developing a Framework for Integration Flexible Manufacturing Systems Based on Ontology <i>ZHOU Gui-xian and XIE Qing-sheng</i>	Pg No. 155
---------------	--	-----------------------------

13:30 - 15:30	WED-P2-02 Cascade Predictive Adaptive Control on The Longitudinal Flight Channel <i>LIANG Xiu-Xia, QIAO Yan-Hua, YIN Mao-Zhen, SUN He-Xu and CHEN Zeng-Qiang</i>	conf130a552	155
13:30 - 15:30	WED-P2-03 Efficiency Evaluation Model on the Damage of Radiation Source by Anti-Radiation UAV <i>DAI Huan-yao and JIANG Hong-yu</i>	conf130a499	156
13:30 - 15:30	WED-P2-04 Empirical Research on Firm Scale Based on Fuzzy Neural Network to Listed Companies of Chinese Warehousing and Transportation Industry <i>SU Shunhua, GAO Siwei and YU Shiwei</i>	conf130a464	156
13:30 - 15:30	WED-P2-05 Application of Coarse-Grained Genetic Algorithm for the Optimal Design of the Flexible Multi-body Model Vehicle Suspensions <i>ZHANG Jingjun, LOU Kanghua, GAO Ruizhen, LIU Guanyuan and SUN Yang</i>	conf130a447	156
13:30 - 15:30	WED-P2-06 DCS System Function Testing and Safety Evaluation <i>LIU Na and TU Jingjing</i>	conf130a636	156
13:30 - 15:30	WED-P2-07 Research of Networked Control Based on Improved Protocol Model for Coal Mine Safety Supervision <i>SUN Yanjing and QIAN Jiansheng</i>	conf130a519	157
13:30 - 15:30	WED-P2-08 Analysis of Digital Load Cell Using 2.4GHz Band's Zig-Bee <i>BAE J. I., AN T. H., KIM Y. S. and RYU C. K.</i>	conf130a576	157
13:30 - 15:30	WED-P2-09 Mobile Robot Monte-Carlo Localization Using Image Retrieval <i>ZHAO Feng-da, KONG Ling-fu, WU Peiliang and FU Kaiyuan</i>	conf130a607	157
13:30 - 15:30	WED-P2-10 A Position-Based Approach of Extracting Elderly Daily Behavior Habits for Service Robot <i>LI Xianshan, KONG Ling-fu, ZHAO Fengda and FU Kaiyuan</i>	conf130a638	157
13:30 - 15:30	WED-P2-11 The Design of Ethernet-based Distributed Interpolator <i>CHEN Bing, XIE Jing-Ming, CHEN You-Ping and XU Wang</i>	conf130a520	158
13:30 - 15:30	WED-P2-12 Sequence Unscented Kalman Filtering Algorithm <i>LI Hui-ping, XU Demin, JIANG Li Jun and ZHANG Fu-bin</i>	conf130a438	158
13:30 - 15:30	WED-P2-13 Steady State Performance Analysis of an Approximately Optimal Variable Step Size LMS Algorithm <i>LI Ning, ZHANG Yonggang and HAO Yanling</i>	conf130a514	158
13:30 - 15:30	WED-P2-14 Identification of Scaling Regime in Chaotic Correlation Dimension Calculation <i>YANG H. Y., YE H., WANG G. Z. and PAN G. D.</i>	conf130a482	158

13:30 - 15:30	WED-P2-15	conf130a498	The Research and Implement of Tamper-proof in Surveillance Audio Coding <i>HANG Bo, HU RuiMin and ZHANG Wen</i>	159
13:30 - 15:30	WED-P2-16	conf130a359	Compound Eye Images Super-resolution Reconstruction Based on Q-Shift Dual-tree Complex Wavelet Transform <i>WAN Dingsheng, HUANG Xing, SHI Aiye and XU Lizhong</i>	159
13:30 - 15:30	WED-P2-17	conf130a598	Simulation of Short Distance Through Signature Considering Multi-Radiated Sources of Ship <i>LUO Jian, XIONG Zhu and ZHAN Yaqian</i>	159
13:30 - 15:30	WED-P2-18	conf130a627	EEG Feature Detection and Classification Algorithm in Brain-Computation Interface <i>LI Yi, FAN Yingle and TONG Qinye</i>	159
13:30 - 15:30	WED-P2-19	conf130a637	A Hybrid Algorithm Combined Color Feature and Keypoints for Object Detection <i>WU Peiliang, KONG Lingf-u, LI Xianshan and FU Kaiyuan</i>	160
13:30 - 15:30	WED-P2-20	conf130a701	Multiple Objects Segmentation and Tracking Algorithm for Intersection Monitoring <i>LI Juntao, LIU Bingwu and HUO Lingyu</i>	160
13:30 - 15:30	WED-P2-21	conf130a703	Target Recognition of MMW Radar Based on FSVM <i>LUAN Ying-hong, LI Yue-hua and LI Xing-guo</i>	160
13:30 - 15:30	WED-P2-22	conf130a723	Vlsi Implementation of an Entropy Encoder for H.264/AVC Baseline <i>LU WeiJun, LI Ying, YU DunShan and ZHANG Xing</i>	160
13:30 - 15:30	WED-P2-23	conf130a319	New Decoder for Triple-error-correcting Binary BCH Codes <i>XIE Zhi-yuan, LI Na and LI Le-le</i>	161
13:30 - 15:30	WED-P2-24	conf130a631	Construction of Distributed Connected Dominating Sets in Growth-Bounded Graphs <i>QIAN Jiansheng and SUN Yanjing</i>	161
13:30 - 15:30	WED-P2-25	conf130a602	Construct Cross-domain Authentication and Authorization in CNGI Networks <i>HUANG Chen, LI Zhong-xian and YANG Yi-xian</i>	161
13:30 - 15:30	WED-P2-26	conf130a872	Comparison of OMNET++ and Other Simulator for WSN Simulation <i>XIAN Xiaodong, SHI Weiren and HUANG He</i>	161
13:30 - 15:30	WED-P2-27	conf130a295	Estimating the Frequency in Power System Based on State Space Recursive Least Squares <i>DAI Jing, WANG Jun, CHEN Han and LI Da-lu</i>	162



15:30 - 16:00

Tea Break

Session	WED3-1 (PE-7) - Power Electronics-7		
Date / Time	Wednesday, 4 June 2008 / 16:00 - 18:00 hrs		
Venue	Changi Room 1		
Session Chair(s)	MANJUNATH T C		
16:00 - 16:20	WED3-1 (PE-7)-1	conf130a522 Study of Controller for Reactive Power Continuous Compensation based on ARM Embedded Microprocessor <i>CHEN Lezhu and GE Lusheng</i>	Pg No. 162
16:20 - 16:40	WED3-1 (PE-7)-2	conf130a575 A Torque Ripple Suppression Circuit for Brushless DC Motors based on Power DC/DC Converters <i>CHEN Wei, XIA Changliang and XUE Mei</i>	163
16:40 - 17:00	WED3-1 (PE-7)-3	conf130a531 A Novel Design and Implementation of A 3-Phase Inverter System <i>PATIL Harish, YANAMASHETTI Raju and MANJUNATH T. C.</i>	163
17:00 - 17:20	WED3-1 (PE-7)-4	conf130a532 Analytical Modeling of the Pulsation Torque of an Induction Motor under Steinmetz Circuit <i>WANG Yaw-Juen and LEE Ming-Hsueh</i>	163
17:20 - 17:40	WED3-1 (PE-7)-5	conf130a533 An Improved Fuzzy Model Based Sensorless Control for Six-Phase Induction Machines <i>NATEGH Sh., GHASEMI A., KIANINEZHAD R., SEIFOSSADAT S. Gh. and SANEIE M.</i>	164
17:40 - 18:00	WED3-1 (PE-7)-6	conf130a651 An Optimization Based Algorithm for Shunt Active Filter Under Unbalanced and Nonsinusoidal Supply Voltages <i>RAO U. Koteswara, MISHRA Mahesh K. and G. Vincent</i>	164
Session	WED3-2 (PE-8) - Power Electronics-8		
Date / Time	Wednesday, 4 June 2008 / 16:00 - 18:00 hrs		
Venue	Changi Room 2		
Session Chair(s)	ZHU Miao		
16:00 - 16:20	WED3-2 (PE-8)-1	conf130a554 Neural Network Based Detection in Switched Capacitor Filter for Harmonic Mitigation <i>RADZI M. A. M. and RAHIM N. A.</i>	Pg No. 164
16:20 - 16:40	WED3-2 (PE-8)-2	conf130a561 Development of a Data Acquisition and Analysis System for a 10 kVA 3 Phase Switchable Distribution Transformer <i>ALI S. A. M., MCGLASSON K., DRENNAN P. and HOW J. Y. N.</i>	164
16:40 - 17:00	WED3-2 (PE-8)-3	conf130a691 Primary Frequency Control Characteristic of a Grid <i>DAI Yiping, ZHAO Pan and CHANG Shuping</i>	165
17:00 - 17:20	WED3-2 (PE-8)-4	conf130a597 Implementation of Single-Phase Grid Connected Inverter Using TMS320F2812 <i>CHANIAGO Krismadinata, SELVARAJ J. and RAHIM N. A.</i>	165

17:20 - 17:40 WED3-2 (PE-8)-5 conf130a621
A Novel Sampling Method of SPWM with Non-Symmetrical Rules **165**
LI Fuzhong, XIONG Rui and ZHANG Rong

17:40 - 18:00 WED3-2 (PE-8)-6 conf130a1003
Mutual Inductances Comparison in Rogowski Coil with Circular and Rectangular **165**
Cross Sections and Its Improvement
REZAEI Morteza and HEYDARI Hossein

Session WED3-3 (PE-9) - Power Electronics-9
Date / Time Wednesday, 4 June 2008 / 16:00 - 18:00 hrs
Venue Changi Room 3
Session Chair(s) KHOO Suiyang

16:00 - 16:20 WED3-3 (PE-9)-1 conf130a630 **Pg No.**
Study on Common Mode Voltage Suppression Based on Three-Phase Four-Leg **166**
Inverter
WANG Zhi, XIONG Rui, HUANG Jin, YAO Chuan and HU Xu

16:20 - 16:40 WED3-3 (PE-9)-2 conf130a642
Realization of the Maximum Utilization Effectiveness of Semiconductor Devices **166**
and Magnetic Components for Push-Pull Converters
TAI Yu-Kun and HWU K. I.

16:40 - 17:00 WED3-3 (PE-9)-3 conf130a696
An On-line Monitoring System of Temperature of Conductors and Fittings Based **166**
on GSM SMS and Zigbee
HUANG Xin-bo, SUN Qin-dong and HAN Xiao-yan

17:00 - 17:20 WED3-3 (PE-9)-4 conf130a827
Introducing a New Method for UPQC Control to Solve the Power Quality **166**
Problems
KAZEMI A. and REZAEIPOUR R.

17:20 - 17:40 WED3-3 (PE-9)-5 conf130a679
Study on Power Factor through the Similarity of Waveform **167**
ZHOU L. X., YIN Z. D., XIAO X. N., WANG Z. Q. and ZHENG L.

Session WED3-4 (SP-4) - Signal Processing-4
Date / Time Wednesday, 4 June 2008 / 16:00 - 18:00 hrs
Venue Kallang Room
Session Chair(s) CHEN Hongyang

16:00 - 16:20 WED3-4 (SP-4)-1 conf130a95 **Pg No.**
Multi-view Invariant Shape Recognition Based on Neural Networks **167**
YAWICHAH Kritsana and KITJAIIDURE Yuttana

16:20 - 16:40 WED3-4 (SP-4)-2 conf130a765
Multiwavelet Adaptive Threshold Denoising Based on Generation Algorithm **167**
ZHANG L., WANG S. Q., SHU Z. H., ZHANG W. R. and LI H. Q.

16:40 - 17:00 WED3-4 (SP-4)-3 conf130a798
A New Approach to Compute the Euler Number of 3D Image **168**
LIN Xiaozhu, XIANG Shengjun and GU Yingying

17:00 - 17:20	WED3-4 (SP-4)-4 conf130a904 Blind Channel Estimation and Equalization based on Adaptive Subspace Tracking <i>YU Lei, YANG Shenyuan, ZHENG Liying and YANG Xuejing</i>	168
17:20 - 17:40	WED3-4 (SP-4)-5 conf130a939 A New Track Initiation Method for Multi-target Tracking <i>XU Ben-Lian, CHEN Qing-Lan and WANG Zhi-Quan</i>	168
17:40 - 18:00	WED3-4 (SP-4)-6 conf130a967 An Improved DV-Hop Localization Algorithm for Wireless Sensor Networks <i>CHEN Hongyang, SEZAKI Kaoru, DENG Ping and SO Hing Cheung</i>	168

Session **WED3-5 (NCT-2) - Network & Communication Technologies-2**
Date / Time **Wednesday, 4 June 2008 / 16:00 - 18:00 hrs**
Venue **Seletar Room 1**
Session Chair(s) **ZHAO Shengkui**

16:00 - 16:20	WED3-5 (NCT-2)-1 conf130a140 A New Mobile Agent Architecture for Wireless Sensor Networks <i>LI Yongzhong, XU Jing, ZHAO Bo and YANG Ge</i>	<i>Pg No.</i> 169
16:20 - 16:40	WED3-5 (NCT-2)-2 conf130a227 Switch-Linearity Hybrid Technology and its Application in Power Electronic Converter <i>HUANG Songqing, CHEN Lezhu and XIA Xinguo</i>	169
16:40 - 17:00	WED3-5 (NCT-2)-3 conf130a331 Improveable Deflate Algorithm <i>WU Weimin, GUO Huijiang, HU Yi, FAN Jingbao and WANG Huan</i>	169
17:00 - 17:20	WED3-5 (NCT-2)-4 conf130a380 Application Research of Evolution in Cognitive Radio Based on GA <i>ZHANG Zhenyu and XIE Xiaoyao</i>	169
17:20 - 17:40	WED3-5 (NCT-2)-5 conf130a52 A Simple Adaptive p-persistent MAC Scheme for Service Differentiation and Maximum Channel Utilization <i>BAI Xiang and MAO YuMing</i>	170

Session **WED3-6 (NCT-3) - Network & Communication Technologies-3**
Date / Time **Wednesday, 4 June 2008 / 16:00 - 18:00 hrs**
Venue **Seletar Room 2**
Session Chair(s) **SHEN Weixiang**

16:00 - 16:20	WED3-6 (NCT-3)-1 conf130a280 The application of a Markov Chain Model of Algorithmic Efficiency in Termination Time of TV Shows <i>DU Lixia, CAO Yan, LI Jiying and ZHAO He</i>	<i>Pg No.</i> 170
16:20 - 16:40	WED3-6 (NCT-3)-2 conf130a572 Impact of Security on Voice Quality in 3G Networks <i>SULAIMAN Norrozila, CARRASCO Rolando and CHESTER Graeme</i>	170
16:40 - 17:00	WED3-6 (NCT-3)-3 conf130a591 The Hybrid Subband Structure Based Blind Equalizer for High-Speed Wideband Wireless Transmission <i>ZHANG Wei and DAI Xuchu</i>	171

17:00 - 17:20	WED3-6 (NCT-3)-4 conf130a826 Angle-of-Arrival Estimation: Beamformer-Based Smart Antennas <i>LEONG Wai Yie</i>	171
17:20 - 17:40	WED3-6 (NCT-3)-5 conf130a712 Wideband Direction-of-Arrival Estimation Using Frequency-Domain Processing Approach <i>WANG Hongxia and PAN Chengsheng</i>	171
17:40 - 18:00	WED3-6 (NCT-3)-6 conf130a981 Single Gossiping with Directional Flooding Routing Protocol in Wireless Sensor Networks <i>YEN Wei, CHEN Ching-Wei and YANG Cheng-hsiang</i>	171

Session **WED-P3 - Poster Session (WED-P3)**
Date / Time **Wednesday, 4 June 2008 / 16:00 - 18:00 hrs**
Venue **Foyer**


		<i>Pg No.</i>
16:00 - 18:00	WED-P3-01 conf130a614 Distributed Production Scheduling in an Open Manufacturing Environment <i>LOU Ping, LIU Quan, ZHOU Zude and QUAN ShuHai</i>	172
16:00 - 18:00	WED-P3-02 conf130a903 Research on Manufacturing Execution System for Cement Industry <i>CAO Wen-qian, JING Shao-hong and WANG Xiao-hong</i>	172
16:00 - 18:00	WED-P3-03 conf130a526 Flux Linkage Characteristic Measurement and Parameter Identification Based on Hybrid Genetic Algorithm for Switched Reluctance Motors <i>XIA Changliang, XUE Mei, CHEN Wei and XIE Ximing</i>	172
16:00 - 18:00	WED-P3-04 conf130a684 Numerical Simulation and Analysis of the Hot Air Recirculation Phenomenon Observed in Direct Air-cooled System <i>ZHAO Wensheng, LEI Ming, WANG Songling, CUI Ning and LIU Yang</i>	173
16:00 - 18:00	WED-P3-05 conf130a596 Application of Improved Sign language Recognition and Synthesis Technology in IB <i>YANG Quan and PENG Jinye</i>	173
16:00 - 18:00	WED-P3-06 conf130a761 Predicting the Free Calcium Oxide Content in Cement Clinker on the Basis of Rough Sets and Support Vector Machines <i>SHU Yunxing, LIU Qingwei and GE Bo</i>	173
16:00 - 18:00	WED-P3-07 conf130a620 A Recurrent Neural Network Approach to Traffic Matrix Tracking Using Partial Measurements <i>QIAN Feng, HU Guangmin and XIE Jijun</i>	173
16:00 - 18:00	WED-P3-08 conf130a663 Infrared Imaging Trajectory Correction Fuze Based GPS and Accurate Exploding Point Control Technology <i>LI Lin and ZHANG He</i>	174

16:00 - 18:00	WED-P3-09	conf130a719	A New Stability Criterion and its Application on Process Control Systems with Time-delay <i>ZHANG Xiaojiang and MAN Zhibong</i>	174
16:00 - 18:00	WED-P3-10	conf130a783	Research on Logistics Control Strategy for Poka-yoke on Mixed-Model Assembly Lines <i>LIANG Haipeng, GUO Wei and YU Hongbin</i>	174
16:00 - 18:00	WED-P3-11	conf130a869	Process Control of Gene Amplification Instrument <i>WANG Jinhe and ZHANG Nan</i>	175
16:00 - 18:00	WED-P3-12	conf130a729	Present Situation and Future Development of Wind Power in China <i>CHEN Yongjun, HE Yong, BAO Yidan and SHEN Jiehui</i>	175
16:00 - 18:00	WED-P3-13	conf130a779	A Liquefied Petroleum Gas Gasification System Utilizing Solar Thermal Energy <i>SHI Guohua, JING Youyin and GAO Yuefen</i>	175
16:00 - 18:00	WED-P3-14	conf130a894	Sustainable Development and Corporate Environmental Responsibility: A Comparative Study of Chinese and Multinational Corporations <i>HE M. and CHEN J.</i>	176
16:00 - 18:00	WED-P3-15	conf130a1009	Big Electric Scooter: An Experience from Lab to the Road <i>ARMANDO Eric, GUGLIELMI Paolo, MARTINO Mariapia and PASTORELLI Michele</i>	176
16:00 - 18:00	WED-P3-16	conf130a758	AC Electronic Load and its Application in Power System Simulation <i>SHE X., SHE Y., WANG C. Z. and ZOU Y. P.</i>	176
16:00 - 18:00	WED-P3-17	conf130a784	Research on High-Frequency Buck Synchronous Rectifier Power Management IC <i>LIN Wei, HUANG Shizhen, LIN Weiming and CHEN Xueqing</i>	176
16:00 - 18:00	WED-P3-18	conf130a902	A Research on the Radial Unbalanced Force in the Unsymmetrical Brushless PM Motors <i>XU Feipeng and LI Tiecai</i>	177
16:00 - 18:00	WED-P3-19	conf130a731	Wavelet-based Image Fusion Algorithm in Intelligent Transport System <i>WANG Zengmin, YANG Zhaoxuan, WANG Qing, CHEN Yang, WU Jiapeng and DING Xuewen</i>	177
16:00 - 18:00	WED-P3-20	conf130a756	A Fast Motion Estimation Algorithm Combining Reference Frame and Mode Decision <i>XIAO Guang, HE Liang, TENG GuoWei and WU FaQing</i>	177
16:00 - 18:00	WED-P3-21	conf130a966	Scrambling Matrix Generation Algorithm for High Dimensional Image Scrambling Transformation <i>SHAO Liping, QIN Zheng, LI Huan, QIN Jun and LIU Bo</i>	178

16:00 - 18:00	WED-P3-22	conf130a724	The Statistical Characteristics of Polarization Mode Dispersion by Jones Transfer Matrix <i>DENG Fang, YU Zhen-hong, MU Lin-mei and WANG Rui</i>	178
16:00 - 18:00	WED-P3-23	conf130a913	A New Management Strategy of Service Flow in IEEE 802.16 Systems <i>WANG Lilei and XU Huimin</i>	178
16:00 - 18:00	WED-P3-24	conf130a732	Study and Implementation of Digital Interface Protocol Based on Ethernet for NC System <i>REN Qingrong, CHEN Jihong, TANG Xiaoqi and ZHANG Xiangli</i>	178
16:00 - 18:00	WED-P3-25	conf130a21	Feasible Research on Control of 2500KW Commutating Asynchronous Generator <i>LUAN Ru and LI Ying-zi</i>	179
16:00 - 18:00	WED-P3-26	conf130a29	Forecast of Power Generation for Grid-Connected Photovoltaic System Based on Grey Model and Markov Chain <i>LI Ying-zi, LUAN Ru and NIU Jin-cang</i>	179

Session **Keynote Lecture 3**
Date / Time **Thursday, 5 June 2008 / 09:00 - 10:00 hrs**
Venue **Atrium Ballroom**

09:00 – 10:00	Decision and Control in Supervisory Discrete Event Systems: Applications to Condition-Based Maintenance <i>LEWIS Frank L.</i>	<i>Pg No.</i> 12
---------------	--	----------------------------

	10:00 – 10:30	Coffee Break
---	---------------	---------------------

Session **THU1-1 (PE-10) - Power Electronics-10**
Date / Time **Thursday, 5 June 2008 / 10:30 - 12:30 hrs**
Venue **Changi Room 1**
Session Chair(s) **ZHU Miao & LI Hao**

10:30 - 10:50	THU1-1 (PE-10)-1 conf130a971 An Advanced Compensation Method to Core Loss of Digital Amplifier <i>MENG Yongmin, LI Tiecai and SHI Yonghua</i>	<i>Pg No.</i> 180
10:50 - 11:10	THU1-1 (PE-10)-2 conf130a75 Step-Up DC-DC Topology Construction Using A Series Of Output Enhanced Circuits <i>ZHU Miao and LUO Fang Lin</i>	180
11:10 - 11:30	THU1-1 (PE-10)-3 conf130a130 Impact of STATCOM Modeling on its Effect on Distance Relay Tripping Characteristic <i>KAZEMI A., JAMALI S. and SHATERI H.</i>	180
11:30 - 11:50	THU1-1 (PE-10)-4 conf130a105 A New Single-Phase to Three-Phase Cycloconverter for Low Cost AC Motor Drives <i>YANG Xiaofeng, HAO Ruixiang, YOU Xiaojie and ZHENG Trillion Q.</i>	180
11:50 - 12:10	THU1-1 (PE-10)-5 conf130a101 Development of A Discrete Energy Injection Inverter for Contactless Power Transfer <i>LI Hao Leo, HU Aiguo and COVIC Grant A.</i>	180
12:10 - 12:30	THU1-1 (PE-10)-6 conf130a399 Research on Indirect Current Control Strategy for Grid-connected Inverter <i>GUO Liang, XU Aiguo and XIE Shaojun</i>	181

Session **THU1-2 (PE-11) - Power Electronics-11**
Date / Time **Thursday, 5 June 2008 / 10:30 - 12:30 hrs**
Venue **Changi Room 2**
Session Chair(s) **FRIEDRICHS Peter**

10:30 - 10:50	THU1-2 (PE-11)-1 conf130a99 Research of DC-DC power supply for IGCT Gate Unit <i>LI Jianxu, HUANG Xianjin, ZHANG Liwei and ZHENG Trillion Q.</i>	<i>Pg No.</i> 181
---------------	---	-----------------------------

(Day 3)

10:50 - 11:10	THU1-2 (PE-11)-2 conf130a117 Silicon Carbide Power Semiconductors - New Opportunities for High Efficiency <i>FRIEDRICHS Peter</i>	181
11:10 - 11:30	THU1-2 (PE-11)-3 conf130a164 A DSP controlled three phase AC-DC Matrix Converter <i>BARBIERI I., BRIZZOLARA D., LAMBRUSCHINI P. and RAGGIO M.</i>	181
11:30 - 11:50	THU1-2 (PE-11)-4 conf130a344 Investigation of Modulation Index, Operational Mode and Load Type on the SHEM Current Source Inverter <i>FESHKI FARAHANI H., SABAGHI M., ASADI M. and SHOULAIE A.</i>	182
11:50 - 12:10	THU1-2 (PE-11)-5 conf130a1057 Fault Tolerant IPMS Motor Drive Based on Adaptive Backstepping Observer with Unknown Stator Resistance <i>NADEMI H., TAHAMI F. and REZAEI M.</i>	182

Session **THU1-3 (IS-A5) - Invited Session - Logistics Engineering**
Date / Time **Thursday, 5 June 2008 / 10:30 - 12:30 hrs**
Venue **Changi Room 3**
Session Chair(s) **HE Ketai**

10:30 - 10:50	THU1-3 (IS-A5)-1 conf130a1088 Framework of New Type of Components Management System Based on Workflow Platform <i>HE Ketai, LI Li and LI Sujian</i>	Pg No. 182
10:50 - 11:10	THU1-3 (IS-A5)-2 conf130a1089 Research on Recovery Logistics Network of Waste Electronic and Electrical Equipment in China <i>HE Ketai, LI Li and DING Wenying</i>	183
11:10 - 11:30	THU1-3 (IS-A5)-3 conf130a1090 Research Review on Bullwhip Effect Controlling Methods in a Supply Chain under Uncertainty Environments <i>SHAO Ju-ping, DONG Shao-hua, WU Li-hua, MA Tian-yun and WANG Dong</i>	183
11:30 - 11:50	THU1-3 (IS-A5)-4 conf130a1092 Multi-mode Logistics Optimization in Slab Yard of Steel Plant Based on Simulation <i>LI Lin, ZHAO Ning and DONG Shaohua</i>	183
11:50 - 12:10	THU1-3 (IS-A5)-5 conf130a1093 Biological Production of Ethanol from CO ₂ Produced by a fossil-fueled Power Plant <i>XIA Shu and WIESNER Theodore F.</i>	183
12:10 - 12:30	THU1-3 (IS-A5)-6 conf130a1091 The Research on Modeling of System-of-Systems of Logistics Based on EOTCPN <i>LIANG Sun</i>	184

Session	THU1-4 (IS-B) - Invited Session - Marine and Biomedical Signal Process		
Date / Time	Thursday, 5 June 2008 / 10:30 - 12:50 hrs		
Venue	Kallang Room		
Session Chair(s)	JIANG Lijun & TIAN Qi		
10:30 - 10:50	THU1-4 (IS-B)-1	conf130a1098 Image Enlargement by Localized Sampling <i>QIAN Liwen</i>	<i>Pg No.</i> 184
10:50 - 11:10	THU1-4 (IS-B)-2	conf130a1094 Design and Experiment of Automatic Pilot for Long-Range AUVs <i>ZHANG Lichuan, XU Demin, LI Jun and JIANG Lijun</i>	184
11:10 - 11:30	THU1-4 (IS-B)-3	conf130a1096 Optic Cup and Disk Extraction from Retinal Fundus Images for Determination of Cup-to-Disc Ratio <i>LIU J., WONG D. W. K, LIM J. H., JIA X., YIN F., LI H., XIONG W. and WONG T. Y.</i>	185
11:30 - 11:50	THU1-4 (IS-B)-4	conf130a1097 Digital Imaging System for Physiological Analysis By Tongue Colour Inspection <i>JIANG Lijun, XU Wang and CHEN Jianfeng</i>	185
11:50 - 12:10	THU1-4 (IS-B)-5	conf130a1099 An Adaptive Enhanced Focusing Technique for Whole Slide Imaging Using Contextual Information <i>XIONG Wei, TIAN Qi and LIM Joo Hwee</i>	185
12:10 - 12:30	THU1-4 (IS-B)-6	conf130a1100 Computer Aided Diagnosis of Nuclear Cataract <i>LI Huiqi, LIM Joo Hwee, LIU Jiang, WONG Damon Wing Kee and WONG T. Y.</i>	185
12:30 - 12:50	THU1-4 (IS-B)-7	conf130a250 Lossless Compression of Hyperspectral Images Based on 3D Context Prediction <i>BAI Lin, HE Mingyi and DAI Yuchao</i>	186
Session	THU1-5 (SP-5) - Signal Processing-5		
Date / Time	Thursday, 5 June 2008 / 10:30 - 12:30 hrs		
Venue	Seletar Room 1		
Session Chair(s)	SHEN Weixiang & HE Mingyi		
10:30 - 10:50	THU1-5 (SP-5)-1	conf130a542 Chaos Feature of Microseismic <i>LI Zhi-min, GOU Xian-tai, CHEN Qiang, JIN Wei-dong and ZHU Bao-long</i>	<i>Pg No.</i> 186
10:50 - 11:10	THU1-5 (SP-5)-2	conf130a350 TPCSPC Decoding over Coded Partial-Response Channels <i>ZOU Xiaoxin, QIN Zhiliang and CAI Kui</i>	186
11:10 - 11:30	THU1-5 (SP-5)-3	conf130a349 Turbo Multiuser Detection Based on Simulated Annealing <i>QIN Zhiliang, ZOU Xiaoxin and CAI Kui</i>	187
11:30 - 11:50	THU1-5 (SP-5)-4	conf130a146 Systolic Array Realization of A Neural Network-Based Face Recognition System <i>SUDHA N., MOHAN A. R. and MEHER Pramod K.</i>	187

11:50 - 12:10	THU1-5 (SP-5)-5 conf130a198 Image Registration by Integrating Similarity and Epipolar Constraints <i>HE Mingyi, DAI Yuchao and ZHANG Jing</i>	187
12:10 - 12:30	THU1-5 (SP-5)-6 conf130a267 An Efficient Crack Detection Method Using Percolation-Based Image Processing <i>YAMAGUCHI Tomoyuki, NAKAMURA Shingo and HASHIMOTO Shuji</i>	188

Session **THU1-6 (SP-6) - Signal Processing-6**
Date / Time **Thursday, 5 June 2008 / 10:30 - 12:30 hrs**
Venue **Seletar Room 2**
Session Chair(s) **CHEN Jianfeng**

10:30 - 10:50	THU1-6 (SP-6)-1 conf130a305 Hybrid Digital-Embedding using Invisible Watermarking <i>BANDYOPADHYAY Samir Kumar, BHATTACHARYYA Debnath and DAS Poulami</i>	<i>Pg No.</i> 188
10:50 - 11:10	THU1-6 (SP-6)-2 conf130a248 A Novel Iris Database Indexing Method Using the Iris Color <i>PUHAN N. B. and SUDHA N.</i>	189
11:10 - 11:30	THU1-6 (SP-6)-3 conf130a341 Adaptive Color Image Enhancement Based on Human Visual Properties <i>SONG Gang and QIAO Xiang-lei</i>	189
11:30 - 11:50	THU1-6 (SP-6)-4 conf130a320 Bi-Color Nonlinear Data Embedding and Extraction of Handwritten Signature <i>BANDYOPADHYAY Samir Kumar, BHATTACHARYYA Debnath, DEBNATH Deepshikha and DAS Poulami</i>	189
11:50 - 12:10	THU1-6 (SP-6)-5 conf130a544 Signal-Subspace High-Resolution Direction Finding Based on Orthogonal Projections <i>ZHANG Lijie, HUANG Jianguo and HOU Yunshan</i>	190
12:10 - 12:30	THU1-6 (SP-6)-6 conf130a1046 Automatic Object Detection and Diagnosis for AUV Operation Using Underwater Imaging Sonar <i>ZHAO Shi, ANVAR Amir and LU Tien-Fu</i>	190

Session **THU-P1 - Poster Session (THU-P1)**
Date / Time **Thursday, 5 June 2008 / 10:30 - 12:30 hrs**
Venue **Foyer**

10:30 - 12:30	THU-P1-01 conf130a185 A Chaotic Behavior Decision Algorithm Based on Self-Generating Neural Network for Computer Games <i>SHU Feng and CHAUDHARI Narendra S.</i>	<i>Pg No.</i> 190
10:30 - 12:30	THU-P1-02 conf130a97 A New Method for Classification of Power Quality <i>YANG G. H. and QU B.</i>	191

(Day 3)

10:30 - 12:30	THU-P1-03	conf130a909	Minimizing Makespan for Parallel Batch Processing Machines with Non-identical Job Sizes Using Neural Nets Approach <i>SHAO Hao, CHEN Hua-Ping, HUANG George Q., XU Rui, CHENG Ba-Yi, WANG Shuan-shi and LIU Bo-wen</i>	191
10:30 - 12:30	THU-P1-04	conf130a54	A Smart Design of Coolant Tank Leak Testing Equipment in Car Manufacture Using Fault Detection And Isolation Observer Based Method <i>LI C. J., QI T. Z. and ZHANG Z. Q.</i>	191
10:30 - 12:30	THU-P1-05	conf130a876	A Class of Model Reference Adaptive Decouple Control Based on RBF Neural Network in Deaerator System <i>LIANG Geng</i>	191
10:30 - 12:30	THU-P1-06	conf130a908	Research on Simulation of Sliding Mode Variable Structure Control for the Separating-Mirror Servo System Based on S-function <i>WU Z. Y., MEI X. R. and FENG R. P.</i>	192
10:30 - 12:30	THU-P1-07	conf130a51	Research on the Application of Improved Hybrid Genetic Algorithm in the Vehicle Routing Problem <i>REN Chunyu</i>	192
10:30 - 12:30	THU-P1-08	conf130a646	Study of the Spatial Object's Exterior Attitude Measurement Based on Multi-Linear CCD <i>AI Lili, YUAN Feng and DING Zhenliang</i>	192
10:30 - 12:30	THU-P1-09	conf130a834	Coupled Dynamics for Micro Electromechanical Integrated Electrostatic Harmonic Drive <i>QIN Lei and XU Lizhong</i>	193
10:30 - 12:30	THU-P1-10	conf130a976	Color Context Analysis based Efficient Real-time Flame Detection Algorithm <i>LI Huan, CHANG Shan, LI Zhe and SHAO Lipng</i>	193
10:30 - 12:30	THU-P1-11	conf130a55	Compensation for the Negative-Sequence Currents of Electric Railway Based on SVC <i>ZHU Guiping, CHEN Jianye and LIU Xiaoyu</i>	193
10:30 - 12:30	THU-P1-12	conf130a71	Research on the Application of PFC Technology in Cascade Speed Control System <i>YANG Xing-hua, XI Liang, YANG Xi-jun and JIANG Jian-guo</i>	194
10:30 - 12:30	THU-P1-13	conf130a987	A Power Quality Disturbance Classification Method Based on PQ Transform and $\alpha\beta$ Transform Analysis <i>LIU Hao, YI Tang, YU Feng and MA Xinghe</i>	194
10:30 - 12:30	THU-P1-14	conf130a80	A New Architecture for Digital Copyright Protection System Based on Mobile Agent <i>LIU Quan and LIU Hong</i>	194

10:30 - 12:30	THU-P1-15	conf130a98	Real-Time Face Detection with Self-Adaptive Cost-Sensitive AdaBoost <i>DING Xiaoyu and MA Zhengming</i>	195
10:30 - 12:30	THU-P1-16	conf130a960	Modeling of Distortion for Arbitrary Packet Loss Patterns in Video Transmission <i>LI Zhicheng, XIAO Gaoxi, ZHANG Yongjun, GU Wanyi and LIANG Sheng</i>	195
10:30 - 12:30	THU-P1-17	conf130a782	A Speaker Recognition System Based on VQ <i>ZHAO Yanling, ZHENG Xiaoshi, GAO Huixian and LI Na</i>	195
10:30 - 12:30	THU-P1-18	conf130a84	NSIS Resource Reservation Mechanism Based On the Crossover Node in the Mobile IPv6 Environment <i>WANG Demin, CAO Yan, LIU Xin and WANG Dianhai</i>	195
10:30 - 12:30	THU-P1-19	conf130a881	Comprehensive Information Integration of Power Plants in WAN Based on Web Services <i>GENG Liang</i>	196
10:30 - 12:30	THU-P1-20	conf130a728	Performance Analysis of Multicast Polling Based Bandwidth Request in IEEE 802.16 Networks <i>WANG Lilei and XU Huimin</i>	196
10:30 - 12:30	THU-P1-21	conf130a767	A RSVP Extension Scheme and Simulation for Mobile IP Networks <i>NIE Gang, QING Xiu-hua and CHENG Chuan-qing</i>	196
10:30 - 12:30	THU-P1-22	conf130a990	A Sequencing Algorithm for Filtering Fields of Firewall <i>LIU Bo-wen, WANG Weiping, JI Rong, SHAO Hao, CHEN Jiayao, CHEN Heran and XU Rui</i>	196
10:30 - 12:30	THU-P1-23	conf130a100	Supporting Dynamic Distributed Computing for Industrial Devices and Applications <i>LIANG Wen-Yew, CHANG Yang-Lang, FANG Jyh-Perng, RUAN Shanq-Jang, LEE Hung-Che and WENG Chi-Yu</i>	197
10:30 - 12:30	THU-P1-24	conf130a30	A Study on Battery Life Tradeoff between Deep Sleep and Sleep Modes of an Actual PDA <i>RUAN Shanq-Jang, TSAI Kun-Lin and LIANG Wen-Yew</i>	197
10:30 - 12:30	THU-P1-25	conf130a491	Research of Reactive Compensation Capacity for Distribution Network Based on Synthesis Load Model <i>DENG Guiping, SUN Yuanzhang and XU Jian</i>	197
10:30 - 12:30	THU-P1-26	conf130a535	Distance-based Energy Efficient Placement in Wireless Sensor Networks <i>REN Lijie, GUO Zhongwen and MA Renzhong</i>	198



12:30 - 13:30

Lunch Break

Session	THU2-1 (PE-12) - Power Electronics-12	
Date / Time	Thursday, 5 June 2008 / 13:30 - 15:30 hrs	
Venue	Changi Room 1	
Session Chair(s)	FATHI S. Hamid	
13:30 - 13:50	THU2-1 (PE-12)-1 conf130a762 Exploring Aliasing Distortion Effects on Regularly Sampled PWM Signals <i>AMIN A. M. A., EL-KORFOLLY M. I. and MOHAMMED S. A.</i>	Pg No. 198
13:50 - 14:10	THU2-1 (PE-12)-2 conf130a769 A Prediction Model for Dissolved Gas in Transformer Oil Based on Improved Verhulst Grey Theory <i>ZHAO Wenqing and ZHU Yongli</i>	198
14:10 - 14:30	THU2-1 (PE-12)-3 conf130a792 VSCF Doubly-Fed Induction Generator Control Strategy and Simulation Research <i>WANG Rongxi, LIN Fei, HAO Ruixiang, YOU Xiaojie and ZHENG Trillion Q.</i>	199
14:30 - 14:50	THU2-1 (PE-12)-4 conf130a862 Unified Modeling of UPFC-SMES in Power System Application <i>ESMAIELI A., NIAKI S. A. Nabavi, TAJFAR A. and NADEMI H.</i>	199
14:50 - 15:10	THU2-1 (PE-12)-5 conf130a813 Analysis of Multi-Carrier PWM Methods for Hybrid Asymmetric Multi-Level Inverter <i>AGHDAM M. G. Hosseini, FATHI S. H. and GHAREHPETIAN G. B.</i>	199

Session	THU2-2 (PE-13) - Power Electronics-13	
Date / Time	Thursday, 5 June 2008 / 13:30 - 15:30 hrs	
Venue	Changi Room 2	
Session Chair(s)	ZHAO Shengkui	
13:30 - 13:50	THU2-2 (PE-13)-1 conf130a866 Dynamic and Control of Fuel Cell System <i>YOUNIS M. A. A., RAHIM N. A. and MEKHILEF S.</i>	Pg No. 199
13:50 - 14:10	THU2-2 (PE-13)-2 conf130a879 Design of Single Stage Single Switch Switch Mode Rectifier based on Equal Area Criterion <i>PRAKASH Bindu and PRAKASH S.</i>	200
14:10 - 14:30	THU2-2 (PE-13)-3 conf130a912 Design and Analysis of a Novel Hybrid Excitation Synchronous Generator <i>FU Xinghe and ZOU Jibin</i>	200
14:30 - 14:50	THU2-2 (PE-13)-4 conf130a1021 Implementation of a Carrier-Based Three-Dimensional Space Vector PWM Technique for Three-Phase Four-Leg Voltage Source Converter with Microcontroller <i>MUANGJAI Worrajak and PREMRUDEEPPREECHACHARN Suttichai</i>	200
14:50 - 15:10	THU2-2 (PE-13)-5 conf130a1010 Analysis of Boundaries of Controllable Power Flow with UPFC Considering Line Loss <i>KARTHIKEYAN A., NAGAMANI C. and SRIVIDHYA S.</i>	200

15:10 - 15:30	THU2-2 (PE-13)-6 conf130a1052 A Model Based Stator Resistance Estimation Technique in the Low Speed Region for Sensorless Field Oriented Control of Induction Motor <i>CHATTERJEE Debashis and NAG Tridibesh</i>	201
---------------	--	------------

Session	THU2-3 (IS-C1) - Invited Session - Pattern Analysis and Biometrics-1
Date / Time	Thursday, 5 June 2008 / 13:30 - 15:30 hrs
Venue	Changi Room 3
Session Chair(s)	HOU Zu Jun & TOH Kar-Ann

13:30 - 13:50	THU2-3 (IS-C1)-1 conf130a1101 Fast Focal Point Localization Algorithm for Fingerprint Registration <i>AREEKUL Vutipong and BOONCHAI SEREE Natthawat</i>	<i>Pg No.</i> 201
---------------	--	-----------------------------

13:50 - 14:10	THU2-3 (IS-C1)-2 conf130a1102 Support Vector Machines (SVM)-based Biometric Watermarking for Offline Handwritten Signature <i>LOW Cheng-Yaw, TEOH Andrew Beng-Jin and TEE Connie</i>	201
---------------	--	------------

14:10 - 14:30	THU2-3 (IS-C1)-3 conf130a1103 Multi-view Gait Recognition Fusion Methodology <i>NIZAMI Imran Fareed, HONG Sungjun, LEE Heesung, AHN Sungje, TOH Kar-Ann and KIM Euntai</i>	202
---------------	---	------------

14:30 - 14:50	THU2-3 (IS-C1)-4 conf130a1104 A Topological Model for Fingerprint Image Analysis <i>HOU Z., LAM H. K., LI J., WANG H. L., CHEN L. T. P. and YAU W. Y.</i>	202
---------------	--	------------

14:50 - 15:10	THU2-3 (IS-C1)-5 conf130a1105 SVM-based Discriminant Analysis for Face Recognition <i>KIM Sang-Ki, TOH Kar-Ann and LEE Sangyoum</i>	202
---------------	--	------------

15:10 - 15:30	THU2-3 (IS-C1)-6 conf130a1106 Between AUC Based and Error Rate Based Learning <i>TOH Kar-Ann</i>	202
---------------	---	------------

Session	THU2-4 (IS-C2) - Invited Session - Pattern Analysis and Biometrics-2
Date / Time	Thursday, 5 June 2008 / 13:30 - 15:30 hrs
Venue	Kallang Room
Session Chair(s)	TEOH Andrew

13:30 - 13:50	THU2-4 (IS-C2)-1 conf130a1107 Pose and Illumination Invariant 2D to 3D Facial Recognition System <i>YANG Ukil, SHIN Hyoungchul and SOHN Kwanghoon</i>	<i>Pg No.</i> 203
---------------	--	-----------------------------

13:50 - 14:10	THU2-4 (IS-C2)-2 conf130a1108 Model-based Detection and Segmentation of Vehicles for Intelligent Transportation System <i>ENG How-Lung, THIDA Myo, CHEW Boon-Fong, LEMAN Karianto and ANGGRELLY Suryanti Yunita</i>	203
---------------	---	------------

14:10 - 14:30	THU2-4 (IS-C2)-3 conf130a1109 Mobile Fingerprint Template Protection: Progress and Open Issues <i>HU J.</i>	203
---------------	--	------------

14:30 - 14:50	THU2-4 (IS-C2)-4 conf130a1110 Sparse Random Projection for Efficient Cancelable Face Feature Extraction <i>KIM Youngsung and TOH Kar-Ann</i>	204
14:50 - 15:10	THU2-4 (IS-C2)-5 conf130a1111 Secure Biometric-Key Generation with Biometric Helper <i>TEOH Andrew Beng Jin and TOH Kar-Ann</i>	204
15:10 - 15:30	THU2-4 (IS-C2)-6 conf130a1112 Projection Learning Models <i>TOH Kar-Ann and TEOH Andrew Beng Jin</i>	204

Session **THU2-5 (CSA-7) - Control Systems and Applications-7**
Date / Time **Thursday, 5 June 2008 / 13:30 - 15:30 hrs**
Venue **Seletar Room 1**
Session Chair(s) **KHOO Suiyang**

13:30 - 13:50	THU2-5 (CSA-7)-1 conf130a1026 Research on EPA System Integration based on FDT <i>HUANG Renjie and LIU Feng</i>	<i>Pg No.</i> 204
13:50 - 14:10	THU2-5 (CSA-7)-2 conf130a529 Research on OPC UA based on Electronic Device Description <i>HUANG Renjie and LIU Feng</i>	205
14:10 - 14:30	THU2-5 (CSA-7)-3 conf130a409 Adaptive Fast Finite Time Control of A Class of Nonlinear Uncertain Systems <i>KHOO Suiyang, MAN Zhihong and ZHAO Shengkui</i>	205
14:30 - 14:50	THU2-5 (CSA-7)-4 conf130a659 Design of Mobile Farmland Information Monitoring Terminal Based on GPS and Embedded GIS Technology <i>LI Lin, SHEN Ming-xia and GUO Cui-xia</i>	205
14:50 - 15:10	THU2-5 (CSA-7)-5 conf130a394 An Efficient Approximation for Weapon-Target Assignment <i>FAN Gaojun, REN Chuanjun and JIN ShiYao</i>	205

Session **THU2-6 (PE-14) - Power Electronics-14**
Date / Time **Thursday, 5 June 2008 / 13:30 - 15:30 hrs**
Venue **Seletar Room 2**
Session Chair(s) **SABAPATHY Ananthi**

13:30 - 13:50	THU2-6 (PE-14)-1 conf130a332 Impact of Line Voltage Sag on Switch Mode Power Supply Operation <i>MEDORA Nosh K., KUSKO Alexander and THOMPSON Marc</i>	<i>Pg No.</i> 206
13:50 - 14:10	THU2-6 (PE-14)-2 conf130a342 Parameter Determination in Analog Circuit Optimization <i>ZHOU Yingquan</i>	206
14:10 - 14:30	THU2-6 (PE-14)-3 conf130a351 Variable Three Phase Induction Motor Drive Scheme With Minimal Electronic Hardware <i>ANANTHI S., RAO R. Gowri Shankar and PADMANABHAN K.</i>	206

14:30 - 14:50	THU2-6 (PE-14)-4 SVM Algorithm of Three-Level NPC Inverter <i>CHENG Shanmei, LIU Yajun and WU Bing</i>	conf130a408	207
14:50 - 15:10	THU2-6 (PE-14)-5 Modeling and Simulation of Parallel Current Mode Controlled Boost Converter <i>LIU Xiaodong, YANG Peng Yi, LIU Yan-Fei and DENG Jiaojiao</i>	conf130a548	207
15:10 - 15:30	THU2-6 (PE-14)-6 Boost Rectifier Using Single-Phase Matrix Converter <i>BAHAROM R., HAMZAH M. K., MUHAMMAD K. S. and HAMZAH N. R.</i>	conf130a450	207

Session **THU - Poster Session (THU-P2)**
Date / Time **Thursday, 5 June 2008 / 13:30 - 15:30 hrs**
Venue **Foyer**

			<i>Pg No.</i>
13:30 - 15:30	THU-P2-01 Minimizing the Total Completion Time on a Single Batch Processing Machine with Non-identical Job Sizes Using Ant Colony Optimization <i>XU Rui, CHEN Hua-Ping, HUANG George Q., SHAO Hao, CHENG Ba-Yi and LIU Bo-Wen</i>	conf130a950	207
13:30 - 15:30	THU-P2-02 Sonar Image Enhancement Based on Particle Swarm Optimization <i>ZHANG Tiedong, WAN Lei, XU Yuru and LU Yu</i>	conf130a900	208
13:30 - 15:30	THU-P2-03 A Novel Camera Calibration Method Based on Genetic Algorithm <i>YANG Z. J., CHEN F., ZHAO J. and ZHAO H. W.</i>	conf130a905	208
13:30 - 15:30	THU-P2-04 Water Supply Forecasting Based on Developed LS-SVM <i>XIE Ying and ZHENG Hua</i>	conf130a1017	208
13:30 - 15:30	THU-P2-05 Application of Cascade Control in the Polymerase Chain Reaction <i>WANG Jinhe and ZHANG Nan</i>	conf130a1018	209
13:30 - 15:30	THU-P2-06 Eigenvalue Sensitivities of Excitation System Model and Parameters <i>LIAO Qing-fen, LIU Dichen, ZENG Cong, YING Li-ming and CUI Xue</i>	conf130a921	209
13:30 - 15:30	THU-P2-07 Based on Networked Collaborative Manufacture in Multination Subsidiary Company Research. <i>HUANG Zhibui, KAN Shulin, YUAN Jing, LIN Yujuan and DONG Qiaoying</i>	conf130a1050	209
13:30 - 15:30	THU-P2-08 Integrated Maintenance Features of Hydro Generator Excitation System <i>ZENG Hongtao, GUO Jiang and XIAO Zhibuai</i>	conf130a1012	209
13:30 - 15:30	THU-P2-09 Interpolation Particle Filter for Tracking with Out-of-Sequence Measurements <i>GUO Wenyan and HAN Chongzhao</i>	conf130a795	210
13:30 - 15:30	THU-P2-10 A New Joint Permutator Design for Multiple Turbo Codes <i>LI Huilian, JI Hongbing, HU Jiaquan and LIU Qiang</i>	conf130a829	210

13:30 - 15:30	THU-P2-11 Power Quality Disturbances Detection and Location Using Mathematical Morphology and Complex Wavelet Transformation <i>XUE Cui, LIU Hui-jin, ZHANG Quan-ming, YING Li-ming and LIAO Qing-fen</i>	conf130a857	210
13:30 - 15:30	THU-P2-12 Design on Multi-channel Signal Synchronous Detecting Method <i>WU JianFeng, HU YongHui and JING WenFang</i>	conf130a885	210
13:30 - 15:30	THU-P2-13 An Image Edge Detection and Segmentation Algorithm Based on Small-World Phenomenon <i>CHEN Naijian and WANG Sunan</i>	conf130a887	211
13:30 - 15:30	THU-P2-14 Image Scrambling Algorithm Based on Random Shuffling Strategy <i>SHAO Liping, QIN Zheng, LIU Bo, QIN Jun and LI Huan</i>	conf130a922	211
13:30 - 15:30	THU-P2-15 Study on the Congestion Control Arithmetic of BACnet Routers <i>LIU Quan and REN P.</i>	conf130a805	211
13:30 - 15:30	THU-P2-16 Automatic Extraction of Web Search Interface based on Visual Features <i>ZHANG Yu-lian and QIAO Jing-yang</i>	conf130a810	212
13:30 - 15:30	THU-P2-17 A Study of Some Key Technologies of 4G System <i>QING Xiuhua, CHENG Chuanhui and WANG Li</i>	conf130a940	212
13:30 - 15:30	THU-P2-18 Multipath Differentiated Service in Ad Hoc Networks <i>LI Weidong and WANG Fangjian</i>	conf130a928	212
13:30 - 15:30	THU-P2-19 Research and Design of a Dynamic Security Interaction Model <i>XIANG Jun, QI Deyu, XU Kefu, LIU Shouqiang and WEI Wenhong</i>	conf130a918	212
13:30 - 15:30	THU-P2-20 The Drivers for Information Technology Application in Supply Chain Management: How Developing Countries' Companies Facing Globalization <i>HE M. and CHEN J.</i>	conf130a678	213
13:30 - 15:30	THU-P2-21 Analysis of the Applicability of Performance Measurement Method for XBRL Implementation in the Enterprises <i>WANG Xin-li and ZHANG Pei</i>	conf130a786	213
13:30 - 15:30	THU-P2-22 An Improved Recommendation Algorithm in E-Commerce <i>ZHANG Xuemin, XIONG Zenggang and WANG Jinbe</i>	conf130a877	213
13:30 - 15:30	THU-P2-23 A Programmable Modulator-Driver Circuit <i>WU Lan, YU Ningmei and ZHANG Yaohui</i>	conf130a926	213



15:30 - 16:00

Tea Break

Session	THU3-1 (E&E-3) - Energy and Environment-3	
Date / Time	Thursday, 5 June 2008 / 16:00 - 18:00 hrs	
Venue	Changi Room 1	
Session Chair(s)	ZHAO Shengkui	
16:00 - 16:20	THU3-1 (E&E-3)-1 conf130a632 Integration of Small Scale Wind Generator to a Single Phase Supply Using Hybrid Controller <i>HABEEBULLAH SAIT H. and ARUL DANIEL S.</i>	<i>Pg No.</i> 214
16:20 - 16:40	THU3-1 (E&E-3)-2 conf130a704 Driver's Route Choice Model Based on Traffic Signal Control <i>ZHOU Shenpei and YAN Xinping</i>	214
16:40 - 17:00	THU3-1 (E&E-3)-3 conf130a994 Optimal Planning of Substation for Distribution System based on Geographical Property Analysis <i>LI Dong Dong and FU Yang</i>	214
17:00 - 17:20	THU3-1 (E&E-3)-4 conf130a1059 Estimation the Residual Capacity of Ni-MH Battery Pack using NARMAX Method for Electric Vehicles <i>GUO Guifang, ZHUO Shiqiong, XU Peng, CAO Jianbo, BAI Zhifeng and CAO Binggang</i>	215
17:20 - 17:40	THU3-1 (E&E-3)-5 conf130a11 Research on Solution of On-line Monitoring of XLPE Cable Insulation <i>LI Guoxin, WANG Chonglin, LIAO Hongmei, WANG Junshi and LI Xiaobo</i>	215
17:40 - 18:00	THU3-1 (E&E-3)-6 conf130a843 Analysis of the Distributing on the Stray Current in Electric Traction System <i>LI Guoxin, WANG Chonglin and LIAO Hongmei</i>	215

Session	THU3-2 (PE-15) - Power Electronics-15	
Date / Time	Thursday, 5 June 2008 / 16:00 - 18:00 hrs	
Venue	Changi Room 2	
Session Chair(s)	KIM Dong Hee	
16:00 - 16:20	THU3-2 (PE-15)-1 conf130a1035 Implementation of Shunt Active Power Filter Using Source Voltage and Source Current Detection <i>KHRUATHEP Udom, PREMRUDEEPPREECHACHARN Suttichai and KUMSUWAN Yuttana</i>	<i>Pg No.</i> 215
16:20 - 16:40	THU3-2 (PE-15)-2 conf130a2 Passive Power Factor Compensation of a Controlled Rectifier with Non-sinusoidal Generator Voltage <i>ORTEGA R., HERNANDEZ-GOMEZ M., LAMNABHI-LAGARRIGUE F. and ESCOBAR G.</i>	216
16:40 - 17:00	THU3-2 (PE-15)-3 conf130a60 Fast Solution of the Worst Load Increasing Direction in AC/MTDC Power System <i>HU Linxian, WANG Bin and JIANG Zhiyong</i>	216

17:00 - 17:20	THU3-2 (PE-15)-4 conf130a126 Manufacture and Estimation of Two Phase Driver for Hybrid Type Linear Pulse Motor <i>KIM Dong-Hee, KIM Kwang-Heon, KANG Geon-Il, LEE Hwa-Chun and PARK Sung-Jun</i>	216
17:20 - 17:40	THU3-2 (PE-15)-5 conf130a472 Research on Cascaded Inverter with Separate Filters <i>HUANG Haiquan, XU Aiguo and XIE Shaojun</i>	216
17:40 - 18:00	THU3-2 (PE-15)-6 conf130a1056 Optimal Allocating and Sizing of Active Power Filters Using a PSO-Based Algorithm <i>ZIARI Iman and JALILIAN Alireza</i>	217

Session **THU3-3 (IS-A4) - Invited Session - Measuring and Modeling Technology**
Date / Time **Thursday, 5 June 2008 / 16:00 - 18:00 hrs**
Venue **Changi Room 3**
Session Chair(s) **YUAN Huimei**

16:00 - 16:20	THU3-3 (IS-A4)-1 conf130a1082 Classification of Mechanical Conditions for HVCBs Based on Artificial Immune Network <i>LV Chao and HU Xiaoguang</i>	<i>Pg No.</i> 217
16:20 - 16:40	THU3-3 (IS-A4)-2 conf130a1083 Research on Detection Method of Electromagnetic Ultrasonic Signal Based on FPGA <i>WANG Shujuan, PAN Weicai, YUAN Peng and LV Chao</i>	217
16:40 - 17:00	THU3-3 (IS-A4)-3 conf130a1084 Design and Implementation of Costas Ring Based on FPGA <i>YUAN Huimei, HU Xiaoguang and HUANG Juyong</i>	217
17:00 - 17:20	THU3-3 (IS-A4)-4 conf130a1085 Research on the Condition Parameter Tester of High Voltage Circuit Breakers <i>HU Xiaoguang and LV Chao</i>	218
17:20 - 17:40	THU3-3 (IS-A4)-5 conf130a1086 Research on Weak Signal Detection Technique for Electromagnetic Ultrasonic Inspection System <i>KANG Lei, MI Wujun, LV Chao and WANG Shujuan</i>	218
17:40 - 18:00	THU3-3 (IS-A4)-6 conf130a1087 Design and Simulation of Baseband Transceiver System Based on STBC-OFDM <i>YUAN Huimei, HU Xiaoguang and LING Yingzhuan</i>	218

Session **THU3-4 (NCT-4) - Network & Communication Technologies-4**
Date / Time **Thursday, 5 June 2008 / 16:00 - 18:00 hrs**
Venue **Kallang Room**
Session Chair(s) **KHOO Suiyang**

16:00 - 16:20	THU3-4 (NCT-4)-1 conf130a790 Answering-Measure Radar for Expressway Automotive Anti-Collision System Application <i>ZHANG Chengchan, YANG Lisheng, YAN Dangui and LI Changyong</i>	<i>Pg No.</i> 218
---------------	---	-----------------------------

16:20 - 16:40	THU3-4 (NCT-4)-2 conf130a59 A Hybrid Iterative Localization Algorithm in Wireless Sensor Networks <i>ZHOU Zude, HU Peng, LIU Quan and LOU Ping</i>	219
16:40 - 17:00	THU3-4 (NCT-4)-3 conf130a73 A Guide Based on Situation and Emotion Analysis in Ontology-based E-Learning System <i>XU Liting, ZHAN Yongzhao and ZHU Miao</i>	219
17:00 - 17:20	THU3-4 (NCT-4)-4 conf130a793 A Novel Stochastic Modeling Method for Network Security Situational Awareness <i>LIANG Y., WANG H. Q., CAI H. B. and HE Y. J.</i>	219
17:20 - 17:40	THU3-4 (NCT-4)-5 conf130a634 A Novel Public-key Cryptosystem Based on Improved Hyperbolic Function <i>WANG Dahu, DONG Aihua, YANG Haizhu and YU Fashan</i>	220

Session **THU3-5 (SP-7) - Signal Processing-7**
Date / Time **Thursday, 5 June 2008 / 16:00 - 18:00 hrs**
Venue **Seletar Room 1**
Session Chair(s) **ZHANG Xinman**

16:00 - 16:20	THU3-5 (SP-7)-1 conf130a1044 Halcon Application for Shape-Based Matching <i>XU Xuebin, ZHANG Xinman, HAN Jiuqiang and WU Cailing</i>	<i>Pg No.</i> 220
16:20 - 16:40	THU3-5 (SP-7)-2 conf130a1063 A Novel Robust Adaptive Beamformer Based on Worst-case Linear Optimization <i>YU Zhu Liang, SER Wee and ER Meng Hwa</i>	220
16:40 - 17:00	THU3-5 (SP-7)-3 conf130a1061 Robust Adaptive Beamformer Exploiting Symmetric Structure of Array <i>YU Zhu Liang, SER Wee, ER Meng Hwa and CHEN Huawei</i>	220
17:00 - 17:20	THU3-5 (SP-7)-4 conf130a1113 A Personalized Retrieval System with Preserving Privacy <i>LIU Jing Sen, DAI Guan-zhong and LI Yu</i>	221
17:20 - 17:40	THU3-5 (SP-7)-5 conf130a1114 Synthetic Spatial Spectrum DOA Estimator for Two Closely Spaced Emitters <i>YOU Hong, HUANG Jianguo and CHEN Jianfeng</i>	221
17:40 - 18:00	THU3-5 (SP-7)-6 conf130a1062 Array Steering Vector Estimation with Nonstationary Noise Exploiting Calibrated Noise Subspace <i>YU Zhu Liang, ER Meng Hwa and SER Wee</i>	221

Session **THU-P3 - Poster Session (THU-P3)**
Date / Time **Thursday, 5 June 2008 / 16:00 - 18:00 hrs**
Venue **Foyer**

16:00 - 18:00	THU-P3-01 conf130a1016 Clustering High Dimensional Data Streams at Multiple Time Granularities <i>YAN Xiao-Long and SHEN Hong</i>	<i>Pg No.</i> 221
---------------	--	-----------------------------

16:00 - 18:00	THU-P3-02	conf130a1027	Optimal Placement of PMUs in Power Systems Based on Improved PSO Algorithm <i>GAO Yang, HU Zhijian, HE Xixiong and LIU Dong</i>	222
16:00 - 18:00	THU-P3-03	conf130a1019	Distribution Network Reconfiguration Based on Ant Colony System Algorithm <i>HU Zhijian, HE Xixiong, GAO Yang and LIU Dong</i>	222
16:00 - 18:00	THU-P3-04	conf130a1049	Research of New Learning Method of Agent to Predicting Stock Performance <i>WANG Jing-hong and DONG Ruiqing</i>	222
16:00 - 18:00	THU-P3-05	conf130a1033	Price Volatility Analysis by Grey Disaster Theory <i>XIE Li, ZHENG Hua and FAN Guo-ying</i>	222
16:00 - 18:00	THU-P3-06	conf130a722	Fuzzy Compensation Control for Minimum Torque Ripple of Switched Reluctance Motor System Based on Finite Element Model <i>ZHANG Jingjun, ZHANG Haijun, GAO Ruizhen and WANG Lili</i>	223
16:00 - 18:00	THU-P3-07	conf130a1020	An Improved New Approach for Electric Capacity Forecasting Based on Historical Data of GDP <i>WEN J. N., WANG J. Z. and LU H. Y.</i>	223
16:00 - 18:00	THU-P3-08	conf130a825	Research on Simple and Efficient Series-resonant Inverter <i>XU Yingnian, ZHAO Yang and KANG Yong</i>	223
16:00 - 18:00	THU-P3-09	conf130a852	A Design of High PSRR CMOS Voltage Reference Based on Subthreshold MOSFETs <i>HUANG Shizhen, LIN Wei, CHEN Wangsheng, LIN Weiming and LU Peimin</i>	224
16:00 - 18:00	THU-P3-10	conf130a925	A Low Cost Drive Strategy for BLDC Motor with Low Torque Ripples <i>XU Feipeng, LI Tiecai and TANG Pinghua</i>	224
16:00 - 18:00	THU-P3-11	conf130a942	Analysis and Characterization of a New Trench IGBT with Improved Layers <i>YANG Lingling, LI Kaihang and WU Dongming</i>	224
16:00 - 18:00	THU-P3-12	conf130a899	A Method of Underwater Image Segmentation Based on Discrete Fractional Brownian Random Field <i>ZHANG Tiedong, WAN Lei, QIN Zaibai and LU Yu</i>	224
16:00 - 18:00	THU-P3-13	conf130a933	The Effect Of Color Space On Tracking Robustness <i>SEBASTIAN Patrick, VOON Yap Vooi and COMLEY Richard</i>	225
16:00 - 18:00	THU-P3-14	conf130a1022	Experimental Comparison of Cross Correlation-Based Time-Delay Algorithms for Acoustic Source Localization in Real Environment <i>ZHAO Jing, ZOU Yuexian and WAN Bo</i>	225

16:00 - 18:00	THU-P3-15	conf130a982	Primal Sketch of Images Based on Empirical Mode Decomposition and Hough Transform <i>DAI Fang, ZHENG Nanning and XUE Jianru</i>	226
16:00 - 18:00	THU-P3-16	conf130a985	Low Delay and High Quality Scheme for H.264 Video Transmission <i>QIN Xiao-fang, LI Zhicheng, LIAN G Sheng, ZHAO Meng and ZHAO Zhen</i>	226
16:00 - 18:00	THU-P3-17	conf130a999	A Cross-Connected Components-Based Layout Analysis Algorithm for Chinese Business Card <i>ZHU Huiying and ZOU Yuexian</i>	226
16:00 - 18:00	THU-P3-18	conf130a995	Advance Statistical Modeling for Speaker Verification <i>WAGHMARE Rupali K. and ASUTKAR Vinayak G.</i>	226
16:00 - 18:00	THU-P3-19	conf130a1029	A New Ringing Detection Based Adaptive Video Scaler with Parallel Memory Architecture <i>WANG Dong, ZHENG Nanning, REN Pengju and LU Kaifung</i>	227
16:00 - 18:00	THU-P3-20	conf130a943	Evaluating the Effects of the Dual Tree Complex Wavelet Transform and the Adaptive Rood Pattern Search Algorithm On a Video Codec <i>OKTIAWATI Unan Y and YAP Vooi Voon</i>	227
16:00 - 18:00	THU-P3-21	conf130a988	Discuss of Multicast Mechanism in EPON <i>CHENG Chuan-qing, CHENG Chuanhui and WANG Li</i>	227
16:00 - 18:00	THU-P3-22	conf130a1028	Research of Distributed Intelligent Database System and its Coordinated Mechanism <i>FANG Zhongchun and LI Hairong</i>	227
16:00 - 18:00	THU-P3-23	conf130a974	Generic Content Delivery System Research <i>MENG He, ZHAO Zheng and GENG Xiaoqing</i>	228
16:00 - 18:00	THU-P3-24	conf130a998	BAPUC: A Broadcast Authentication Protocol for Ubiquitous Computing <i>YANG Fan, CAI Hai-Bin, CAO Qi-Ying and LV Qing-Cong</i>	228
16:00 - 18:00	THU-P3-25	conf130a329	Towards Formal Probabilistic Models for Progression of Diseases <i>FONG A. C. M. and SIMPSON A.</i>	228