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Pages 1-612

Technical Programme

Session	WeA1 — Control Session
Date/Time	Wednesday, 19 June 2013 / 10:20 – 12:00
Venue	ATC205
Chair	**Deepak KUMAR**, *M.N.N.I.T. Allahabad, U.P.*
Co-Session Chair	**Chitralekha MAHANTA**, *IIT Guwahati* **Wenjie YE**, *Swinburne University of Technology*

■ WeA1.1   10:20 – 10:40   P4022
Observer based Sliding Mode Control Strategy for Vertical Take-Off and Landing (VTOL) Aircraft System'''"3"
Sanjoy Mondal, Chitralekha Mahanta
Indian Institute of Technology Guwahati

■ WeA1.2   10:40 – 11:00   P4062
Fast Fourier Transform for Estimating Process Frequency Response'''"9
Utkal Mehta
The University of the South Pacific

■ WeA1.3   11:00 – 11:20   P4086
Exact Linearization for Applications in Industrial Pneumatics'''"33
Christian Busch, Steven Lambeck, *Norman Brix
Institute of Automation and System Science
*Technical University of Ilmenau

■ WeA1.4   11:20 – 11:40   P4406
Self-tuning PID Controller for Activated Sludge System'''"38
Huong Pei Choo, Shafishuhaza Sahlan, Rickey Ting Pek Eek, Norhaliza Abdul Wahab
Universiti Teknologi Malaysia

■ WeA1.5   11:40 – 12:00   P4447
Generalized Frequency Weighted Optimal Hankel Norm Model Reduction'''"44
Deepak Kumar, S. K. Nagar
*MNNIT Allahabad, *IIT (BHU) Varanasi*

Session	WeA2 — Power Electronics
Date/Time	Wednesday, 19 June 2013 / 10:20 – 12:20
Venue	AD102
Chair	**Xiaodong LI**, *Macau University of Science and Technology*
Co-Session Chair	**Shantanu KUMAR**, *University of Western Australia*

■ WeA2.1   10:20 – 10:40   P4607
Experiment and Modeling on Heat Power of Permanent-Magnet Synchronous Motor'''"48
Shunjie Zhu, Yunhua Li, Yun-ze Li, *Hao Gu, *Qi Lu, **Duanling Li
Beihang University
*ABB Corporate Research Center China
**Beijing University of Posts and Telecommunications

- WeA2.2   10:40 – 11:00   P4556
  Extraction of DC component and Harmonic Analysis for Protection of Power Transformer"""54
  S. R. Wagh, *Shantanu Kumar, *Victor Sreeram
  VJTI
  *University of Western Australia

- WeA2.3   11:00 – 11:20   P4591
  Performance-based Comparison of UPQC Compensating Signal Generation Algorithms under Distorted Supply and Non-linear Load Conditions"""5:
  S. S. Wamane, J. R. Baviskar and S. R. Wagh, *Shantanu Kumar
  VJTI
  *University of Western Australia

- WeA2.4   11:20 – 11:40   P4561
  Simulation of Single Phase Shunt Active Power Filter for Domestic Non-linear Loads"""65"
  Payal K. Joshi, Shabbir S. Bohra
  Sarvajanic College of Engineering & Technology

- WeA2.5   11:40 – 12:00   P4601
  A Bidirectional Dual-Bridge High-Frequency Isolated Resonant DC/DC Converter"""6;
  Xiaodong Li, Hong-Yu Li, Gao-Yuan Hu, Yu Xue
  Macau University

- WeA2.6   12:00 – 12:20   P4429
  D-STATCOM Control in Distribution Networks with Composite Loads to Ensure Grid Code Compatible Performance of Photovoltaic Generators"""77
  N. K. Roy, H. R. Pota, *M. A. Mahmud, **M. J. Hossain
  The University of New South Wales
  *The University of Melbourne
  **Griffith University

Session	WeA3 — Energy
Date/Time	Wednesday, 19 June 2013 / 10:20 – 12:00
Venue	ATC101
Chair	**Jianhua ZHANG**, *North China Electric Power University*
Co-Session Chair	**Ismat HIJAZIN**, *Swinburne University of Technology*

- WeA3.1   10:20 – 10:40   P4545
  OHEW Types and its Implications on Pole EPR under Pole Fault"""83
  M. Nassereddine, J. Rizk, A. Hellany, M. Nagrial
  University of Western Sydney

- WeA3.2   10:40 – 11:00   P4546
  HV Substation Earth Grid Commissioning Using Current Injection Test (CIT) Method"""89
  M. Nassereddine, J. Rizk, A. Hellany, M. Nagrial
  University of Western Sydney

- WeA3.3   11:00 – 11:20   P4371
  Impact of DFIG Wind Turbines on Transient Stability of Power Systems – A Review"""95
  M. A. Chowdhury, W. X. Shen, I. Hijazin, *N. Hosseinzadeh, **H. R. Pota
  Swinburne University of Technology
  *Sultan Qaboos University
  ** The University of NSW @ ADFA

■ WeA3.4   11:20 – 11:40   P4518
Optimal Sizing of Distributed Generation in Microgrid considering Energy Price Equilibrium Point Analysis Model'"'"9;
Jun He, Changhong Deng, Wentao Huang
Wuhan University

■ WeA3.5   11:40 – 12:00   P4451
Multivariable Robust Control for Organic Rankine Cycle Based Waste Heat Recovery Systems'"'"': 7"
Jianhua Zhang, Song Gao, Yannan Chen, Guolian Hou
North China Electric Power University

Session	WeA4 — Intelligent System
Date/Time	Wednesday, 19 June 2013 / 10:20 – 12:00
Venue	AD208
Chair	**Mohd Fua'ad RAHMAT**, *Universiti Teknologi Malaysia*
Co-Session Chair	**Chang-hong WANG**, *Harbin Institute of Technology*

■ WeA4.1   10:20 – 10:40   P4020
Electric Charge Tomography Imaging Using Finite-Element Method and Pro-rata Distribution'"'"'; 2
I. T. Thuku G. S., M. F. Rahmat, T. Tajdari
Universiti Teknologi Malaysia

■ WeA4.2   10:40 – 11:00   P4111
Cooperative Control of UAV Based on Multi-Agent System'"'"'; 8
Jian Han, Chang-hong Wang, Guo-xing Yi
Harbin Institute of Technology

■ WeA4.3   11:00 – 11:20   P4139
Simulating Stable, Trending and Turbulent Operating Environments'"'"324
Karen Blackmore, Keith Nesbitt, David Cornforth
University of Newcastle

■ WeA4.4   11:20 – 11:40   P4543
Mobile Agent Based Artificial Immune System for Machine Condition Monitoring'"'"32:
Xue-Liang Hua, Iqbal Gondal, Farrukh Yaqub
Monash University

■ WeA4.5   11:40 – 12:00   P4314
Real-Time Pedestrian Detection Based on a Hierarchical Two-Stage Support Vector Machine'"'"'336
Kyoungwon Min, Haengseon Son, *Yoonsik Choe, *Yong-Goo Kim
Korea Electronics Technology Institute
Yonsei University

Session	WeA5 — Artificial Neural Network
Date/Time	Wednesday, 19 June 2013 / 10:20 – 11:40
Venue	AD209
Chair	**Jinchuan ZHENG**, *Swinburne University of Technology*
Co-Session Chair	**Zhuojun XU**, *Jilin University* **Zhenghua Zhou**, *Swinburne University of Technology*

■ WeA5.1   10:20 – 10:40   P4544
Feasibility Study on Extraction Finger Joint Angle Information from sEMG Signal"""342
Xu Zhuojun, Tian Yantao, Zhang Li, Yang Zhiming
Jilin University

■ WeA5.2   10:40 – 11:00   P4593
Optimization of Echo State Networks for Drought Prediction Based on Remote Sensing Data"""348
Amir Mohammadinezhad, Mahdi Jalili
Sharif University of Technology

■ WeA5.3   11:00 – 11:20   P4445
German vs. Austrian Folk Song Classification'"353'"""
Suisin Khoo, Zhihong Man, Zhenwei Cao, Jinchuan Zheng
Swinburne University of Technology

■ WeA5.4   11:20 – 11:40   P4102
A Genetic Neural Network Ensemble Prediction Model Based on Locally Linear Embedding for Typhoon Intensity"""359
Kaiping Lin, *Binglian Chen, *Yan Dong, **Ying Huang
Guangxi Meteorological Observatory
*Guangxi Teachers Education University
**Guangxi Climate Center

Session	WeM1 — Control Session
Date/Time	Wednesday, 19 June 2013 / 13:00 – 15:00
Venue	ATC205
Chair	**Young Sam LEE**, *Inha University*

■ WeM1.1   13:00 – 13:20   P4569
Intelligent Reconfigurable Method and Application for Aircraft Control System"""365
ZhengQiang Li, Zhenhua Wang
Shanghai Aircraft Development and Research Institute
*Shanghai Aircraft Development and Research Institute

■ WeM1.2   13:20 – 13:40   P4606
Adaptive Observer Design and Parameter Estimation for a Class of Uncertain Systems"""36:
Jing Zhou
Swinburne University of Technology

■ WeM1.3   13:40 – 14:00   P4118
Weighted L_1-Gain Observers for Discrete-Time Switched Positive Linear Systems With Time-Varying Delay"""376
Changhong Wang, Yanhui Tong
Harbin Institute of Technology

■ WeM1.4　　14:00 – 14:20　　P4134
Development of a Rapid Control Prototyping System based on Matlab and a USB DAQ Unit""""383
Y. S. Lee, W. S. Kim, S. Y. Kim
Inha University

■ WeM1.5　　14:20 – 14:40　　P4135
T-S Fuzzy Robust Fault-tolerant Control Strategy for Wind Energy Conversion System""""389
Yan-xia Shen, Qing-nan He, Ting-long Pan, Ding-hui Wu
Jiangnan University

■ WeM1.6　　14:40 – 15:00　　P4179
Controller Design for Position Tracking Control of Nonlinear System""""395
S. Md. Rozali, M. N. Kamarudin, *M. F. Rahmat, *A. Rashid Husain, *Amar Faiz Zainal Abidin
Universiti Teknikal Malaysia Melaka
*Universiti Teknologi Malaysia

Session	WeM2 — Invited Session: Electrical Design
Date/Time	Wednesday, 19 June 2013 / 13:00 – 15:00
Venue	AD102
Chair	**Weihai CHEN**, *Beihang University*
Co-Session Chair	**Lijun JIANG**, *Republic Polytechnic* **Wang Hai**, *Swinburne University of Technology*

■ WeM2.1　　13:00 – 13:20　　P4477
Research and Implementation on Multi-DDS Technology in High Performance Digital Up-conversion""""39:
Ji Liao, Xiaoming Ye, Xiaoguang Hu, Dan Sun
Beihang University

■ WeM2.2　　13:20 – 13:40　　P4497
Research and Implementation of Dynamic Interface in Simulation Platform""""3: 6
Siwei Tian, Xiaoming Ye, Xiaoguang Hu
Beihang University

■ WeM2.3　　13:40 – 14:00　　P4476
A Cost Effective Multi-axis Force Sensor for Large Scale Measurement: Design, Modeling, and Simulation""""3: :
Jun Jiang, Weihai Chen, Jingmeng Liu, *Wenjie Chen
Beihang University
*Singapore Institute of Manufacturing Technology

■ WeM2.4　　14:00 – 14:20　　P4482
Modeling and Angle Measuring Simulation of Radar Antenna Sum-Difference Pulse Beam""""3; 6
Yong Lv, Xiaoming Ye, Xiaoguang Hu, Li Liu
Beihang University

■ WeM2.5　　14:20 – 14:40　　P4472
A Partial Flexibility Model for Vehicle Following Algorithm""""3; ;
Xingming Wu, Guanxiong Dai, Zhiwen Zhao, Weihai Chen
Beijing University of Aeronautics & Astronautics

■ WeM2.6　　14:40 – 15:00　　P4459
Kinect Based Real Time Obstacle Detection for Legged Robots in Complex Environments """"427
Haosong Yue, Weihai Chen, Xingming Wu, *Jingbing Zhang
Beihang University
* Kulicke & Soffa Co.

Session	WeM3 — Invited Session: Biomedical Electronics

Date/Time	Wednesday, 19 June 2013 / 13:00 – 15:00
Venue	ATC101
Chair	**Huiqi LI**, *Beijing Institute of Technology*
Co-Session Chair	**Jing ZHANG**, *Sichuan University*

■ WeM3.1   13:00 – 13:20   P4572
Power Line Interference Tracking in ECG Signal Using State Space RLS"""433
Maryam Butt, Nauman Razzaq, Ismail Sadiq, Muhammad Salman, Tahir Zaidi
National University of Sciences and Technology

■ WeM3.2   13:20 – 13:40   P4376
Computer-aided Hepatocellular Carcinoma Analysis"""438
Jing Zhang, Ling He, Qi Liu, *Xu De Yin, *Peng Zhou
Sichuan University
*Sichuan Tumor Hospital

■ WeM3.3   13:40 – 14:00   P4380
Automatic Evaluation of Hypernasality and Speech Intelligibility for Children with Cleft Palate"""442
Ling He, Jing Zhang, Qi Liu, Heng Yin, *Margaret Lech
Sichuan University
*RMIT University

■ WeM3.4   14:00 – 14:20   P4381
ACHIKO-I Retinal Fundus Image Database and its Evaluation on Cup-to-Disc Ratio Measurement"""446
Fengshou Yin, Jiang Liu, Damon Wing Kee Wong, Ngan Meng Tan, Beng Hai Lee, Jun Cheng, Min Thet Htoo, Zhuo Zhang, Yanwu Xu, Xinting Gao
Institute for Infocomm Research A*STAR

■ WeM3.5   14:20 – 14:40   P4383
ACHIKO-K: Database of Fundus Images from Glaucoma Patients"""44:
Zhuo Zhang, Jiang Liu, Fengshou Yin, Beng-Hai Lee, Damon Wing Kee Wong, +Kyung Rim Sung
Institute for Infocomm Research A*STAR
+Ulsan University College of Medicine

■ WeM3.6   14:40 – 15:00   P4475
A Retinal Vessel Tracking Method Based on Bayesian Theory"""454
*Huiqi Li, Jia Zhang, Qing Nie, *Li Cheng
Beijing Institute of Technology
*Bioinformatics Institute A*STAR

Session	**WeM4 — Diagnosis & Prognosis**
Date/Time	Wednesday, 19 June 2013 / 13:00 – 15:00
Venue	AD208
Chair	**Minyou CHEN**, *Chongqing University*
Co-Session Chair	**Iqbal GONDAL**, *Monash University* **Jiang LIJUN**, *Republic Polytechnic*

■ WeM4.1   13:00 – 13:20   P4562
A Composite Fault Tolerant Control Based on Fault Estimation for Quadrotor UAVs"""458
Cen Zhaohui, Hassan Noura
UAE University

■ WeM4.2   13:20 – 13:40   P4575
The Nonlinear Characteristics Diagnosis of the Superheated Steam Temperature Control System"""464
Yinsong Wang, Liyan Huo, Tongxiang He, Yanquan Liu

North China Electric Power University

- WeM4.3   13:40 – 14:00   P4173
Quality Assessment of Clusters of Electrical Disturbances: A Case Study""""469
David Cornforth, Keith Nesbitt
University of Newcastle

- WeM4.4   14:00 – 14:20   P4229
An On-line Monitoring Method for Winding Deformation of Power Transformers""""477
Xing-ping Liu, Min-you Chen
Chongqing University

- WeM4.5   14:20 – 14:40   P4249
Multi-Size-Window Spectral Augmentation: Neural Network Bearing Fault Classifier""""483
Muhammad Amar, Iqbal Gondal, Campbell Wilson
Monash University

- WeM4.6   14:40 – 15:00   P4469
Smart Phone Based Vehicle Condition Monitoring""""489
Muhammad Farrukh Yaqub, *Iqbal Gondal
Caulfield School of Information Technology
Monash University

Session	WeM5 — Fuzzy Systems & Evolutional Computing
Date/Time	Wednesday, 19 June 2013 / 13:00 – 15:00
Venue	AD209
Chair	**Harinder PAL SINGH**, *Bhai Gurdas Institute of Engg. & Technology*
Co-Session Chair	**Santoso WIBOWO**, *Central Queensland University* **Zhenghua ZHOU**, *Swinburne University of Technology*

- WeM5.1   13:00 – 13:20   P4271
Multiobjective Load Dispatch Using Particle Swarm Optimization""""494
Harinder Pal Singh, *Yadwinder Singh Brar, **D. P. Kothari
BGIET
GNDEC
**J B Group of Insitutions*

- WeM5.2   13:20 – 13:40   P4055
A Fuzzy Multicriteria Approach for Evaluating the Sustainability Performance of Semiconductor Companies""""49:
Santoso Wibowo, *Hepu Deng
Central Queensland University
RMIT University

- WeM5.3   13:40 – 14:00   P4295
Fuzzy Logic Based Load Balancing for An Online Medical Consultation System""""4: 6
Uthpala Subodhani Premarathne, Fengling Han, Ibrahim Khalil, Zahir Tari
RMIT University

- WeM5.4   14:00 – 14:20   P4507
Fuzzy Multiattribute Evaluation of Green Supply Chain Performance""""4; 2
Santoso Wibowo
Central Queensland University

- WeM5.5   14:20 – 14:40   P4570
Automated Recognition of Ficus Deltoidea Using Ant Colony Optimization Technique"""4; 8
Asnor Juraiza Ishak, Azura Che Soh, Mohammad Hamiruce Marhaban, Shamsul Khamis, Mohammad Ali Jan Ghasab
Universiti Putra Malaysia

- WeM5.6   14:40 – 15:00   P4533
A Hybrid Search Stragety Based Particle Swarm Optimization Algorithm"""523
Qian Wang, Pei-hong Wang, Zhi-gang Su
Southeast University

Session	WeMP — Interactive Session
Date/Time	Wednesday, 19 June 2013 / 13:00 – 15:00
Venue	ATC103

- WeMP1   P4536
Application of Fuzzy Control Algorithm with Variable Scale Factor to Multi-motor Synchronization Control System"""529
Gongwu Sun, Yixin Su, *Min Hong, *Fei Long
Wuhan University of Technology
*Wuhan Institute of Marine Electric Propulsion

- WeMP2   P4566
Interval System Analysis of Boost Converter for Uncertain Load Parameter"""533
Anurag Kumar Singh
M. N. N. I. T.

- WeMP3   P4129
Model Adaptive Gait Scheme Based on Evolutionary Algorithm"""538
Han Gao, Tianmiao Wang, Jianhong Liang, Yi Zhou
Beihang University

- WeMP4   P4152
Research on Method of Improving Brushless DC Motor Drive Controller"""544
Wei Cao, Yundong Ma
Nanjing University of Aeronautics and Astronautics

- WeMP5   P4081
Robust Speed Control of Permanent Magnet Synchronous Motor"""549
Jianping Wen, *Yuchun Huang
Xi'an University of Science and Technology
*Henan University of Technology

- WeMP6   P4322
Synthesis of Multicriterial Intelligent Control System Using Network Operator Method"""553
Askhat I. Diveev, *David E. Kazaryan, Elena A. Sofronova
Dorodnicyn Computing Centre of RAS
* Peoples' Friendship University of Russia

- WeMP7   P4425
The Design of the Intelligent Electric Actuator Control System Based on Variable Frequency"""559
Shi Zhang, Shuang-long Li, Rui-cai Fan
Northeastern University

- WeMP8   P4164
Study on Control System of Fuel Supply for Scramjet Engine"""564
Du Yuhuan, Zhang Xiaodong
Northwestern Polytechnical University

Session	WeP1 — Control Session
Date/Time	Wednesday, 19 June 2013 / 15:20 – 17:00
Venue	ATC205
Chair	**Zhihong MAN**, *Swinburne University of Technology*
Co-Session Chair	**Zhenwei CAO**, *Swinburne University of Technology*

■ WeP1.1   15:20 – 15:40   P4512
A Novel Fuzzy PDC Paradigm with Multiple-Adaptive Fuzzy Control for Highway Vehicles"""'637
Ravipriya Ranatunga, Zhenwei Cao, Romesh Nagarajah, *Ahamad Rad
Swinburne University of Technology
*Simon Fraser University

■ WeP1.2   15:40 – 16:00   P4281
Robust Multiple-Adaptive Fuzzy Control with Switching for Highway Vehicles"""'643
Ravipriya Ranatunga, Zhenwei Cao, Romesh Nagarajah, *Ahamad Rad
Swinburne University of Technology
*Simon Fraser University

■ WeP1.3   16:00 – 16:20   P4275
Design of Decentralized Repetitive Control of Linear MIMO System"""'649
Edi Kurniawan, Zhenwei Cao, Zhihong Man
Swinburne University of Technology

■ WeP1.4   16:20 – 16:40   P4302
Performance Enhancement of ADRC using RC for Load Frequency Control of Power System"""'655
A. H. M. Sayem, Zhenwei Cao, Zhihong Man
Swinburne University of Technology

■ WeP1.5   16:40 – 17:00   P4283
Low Cost Controller for Small Scale Helicopter"""'65;
Tinashe Chingozha, Otis Nyandoro, Ayushi Malani
University of the Witwatersrand

Session	WeP2 — Power Electronics
Date/Time	Wednesday, 19 June 2013 / 15:20 – 17:00
Venue	AD102
Chair	**Wenjiang WEN**, *Nanyang Technological University*
Co-Session Chair	**Weidong ZHAO**, *Anhui University of Technology*

■ WeP2.1   15:20 – 15:40   P4604
Stability Analysis of a Series-Connected Five-phase Induction Motor Drive System using Flux-linkage Model"""'667
Shirazul Islam, *Farhad I Bakhs, **Atif Iqbal, ***Mohammad Saleh, ***Akhtar Kalam
TeerthankerMahaveer University
*IIT Roorkee
**Qatar University
***Victoria University

■ WeP2.2   15:40 – 16:00   P4117
Researches of Transmission Line Transformer Application in High-Voltage Pulse Source'''''673
WeiDong Zhao, Yong Hu
AnHui University of Technology

■ WeP2.3   16:00 – 16:20   P4015
Technology of Splitting PCB Conductors to Weaken the Parasitic Parameters for Planar EMI Filter'''''677
Wang Shishan, Gong Min, Xu Chenchen, Wang Wentao
Nanjing University of Aeronautics and Astronautics

■ WeP2.4   16:20 – 16:40   P4126
An Overview of Capacitively Coupled Power Transfer – A New Contactless Power Transfer Solution'''''683
Liang Huang, Aiguo Patrick Hu, Akshya Swain, Seho Kim, Yijun Ren
The University of Auckland

■ WeP2.5   16:40 – 17:00   P4168
Overview of SiC Power Devices and its Applications in Power Electronic Converters'''''688
Haihong Qin, Bin Zhao, Xin Nie, Jiaopu Wen, Yangguang Yan
Nanjing University of Aeronautics and Astronautics

Session	WeP3 — Energy
Date/Time	Wednesday, 19 June 2013 / 15:20 – 17:00
Venue	ATC101
Chair	**Kasemsak UTHAICHANA**, *Chiangmai University*
Co-Session Chair	**Lin GONG**, *Beijing Institute of Technology*

■ WeP3.1   15:20 – 15:40   P4440
Optimal Li-Ion Battery Sizing on PEMFC Hybrid Powertrain Using Dynamic Programming'''''694
Jariya Rurgladdapan, Kasemsak Uthaichana, Boonsri Kaewkham-ai
Chiang Mai University

■ WeP3.2   15:40 – 16:00   P4163
Model for Photovoltaic Cells in Series under Uneven Lighting Conditions'''''69:
Yunping Wang, Xinbo Ruan
Nanjing University of Aeronautics and Astronautics

■ WeP3.3   16:00 – 16:20   P4237
Study on Energy Saving Strategy and Evaluation Method of Green Cloud Computing System'''''6: 5
Lin Gong, Jian Xie, Xiaolan Li, Bo Deng
Beijing Institute of Technology

■ WeP3.4   16:20 – 16:40   P4358
Agent Based Coordinated Control of Protection Devices for Transient Stability Enhancement'''''6: ;
M. S. Rahman, H. R. Pota, T. F. Orchi
University of New South Wales

■ WeP3.5   16:40 – 17:00   P4557
Dynamic Interactions of PV units in Low Volatge Distribution Systems'''''6; 7
M. J. Hossain, J. Lu, **M. A. Mahmud , *N. Mithulanthan, **H. R. Pota
Griffith University,
*The University of Queensland,
**The University of New South Wales

Session	WeP4 — Remote Sensing
Date/Time	Wednesday, 19 June 2013 / 15:20 – 17:00
Venue	AD208
Chair	**Mingyi HE**, *Northwestern Polytechnical University*

■ WeP4.1   15:20 – 15:40   P4547
A Multi-Classifier and Decision Fusion System for Hyperspectral Image Classification"""723
Zhen Ye, Mingyi He, *Saurabh Prasad, **James E. Fowler
Northwestern Polytechnical University
**University of Houston*
***Mississippi State University*

■ WeP4.2   15:40 – 16:00   P4089
An Effective Pansharpening Algorithm for GeoEye-1 Satellite Images"""728
Xu Li, Mingyi He, *Lei Zhang
Northwestern Polytechnical University
**Jiangsu R&D Center for Internet of Things*

■ WeP4.3   16:00 – 16:20   P4236
Unmixing Approach for Hyperspectral Data Resolution Enhancement Using High Resolution Multispectral Image with Unknown Spectral Response Function"""733
Mohamed Amine Bendoumi, Mingyi He
Northwestern Polytechnical University

■ WeP4.4   16:20 – 16:40   P4327
Using Non-negative Matrix Factorization with Projected Gradient for Hyperspectral Images Feature Extraction"""738
Bai Lin, Gao Tao, Du Kai
Chang'an University

■ WeP4.5   16:40 – 17:00   P4548
Hyperspherical Color Transform Based Pansharpening Method for WorldView-2 Satellite Images"""742
Xu Li, Mingyi He, *Lei Zhang
Northwestern Polytechnical University
**Chinese Academy of Sciences*

Session	WeP5 — Power Electronics
Date/Time	Wednesday, 19 June 2013 / 15:20 – 17:00
Venue	AD209
Chair	**Cheng-I CHEN**, *National Central University*
Co-Session Chair	**Zheng SHICHENG**, *Anhui University of Technology*

■ WeP5.1   15:20 – 15:40   P4400
Design a Stability Power Supply for Taiwan Photon Source Project of Quadrupole and Sextupole Magnet"""746
Yong-Seng Wong, Kuo-Bin Liu, Jhao-Cyuan Huang, Wu-Shien Wen
National Synchrotron Radiation Research Center, Hsinchu, Taiwan

- WeP5.2   15:40 – 16:00   P4427
  A High-Resolution Technique for Flicker Measurement in Power Quality Monitoring'"""74:
  Cheng-I Chen, *Yeong-Chin Chen, *Chao-Nan Chen
  National Central University
  *Asia University

- WeP5.3   16:00 – 16:20   P4112
  Research on Static VAR Generator with Direct Current Control Strategy'"""756
  Shicheng Zheng, Huajun Yan, Long Chen, Sian Fang, Lusheng Ge
  Anhui University of Technology

- WeP5.4   16:20 – 16:40   P4441
  Application of SVC for Voltage Regulation in Real-Time Power Market '"""75:
  Tran Phuong Nam, *Dinh Thanh Viet, **La Van Ut
  Hue Industrial College
  *Danang University of Technology
  **Hanoi University of Science and Technology

- WeP5.5   16:40 – 17:00   P4207
  A Novel One-cycle Control Strategy for Three-Phase Power Converters'"""766
  Wei Fang, Zhi Wang, Xiaodong Liu, *Yanfei Liu
  Anhui University of Technology
  *Queen's University

Session	WePP — Interactive Session
Date/Time	Wednesday, 19 June 2013 / 15:20 – 17:00
Venue	ATC103

- WePP1   P4579
  Smart Monitoring Fault Detection System for Malfunction Traffic Light Operation'"""76;
  Azura Che Soh, Asnor Juraiza Ishak, Mohd Hanif Zaini
  Universiti Putra Malaysia

- WePP2   P4071
  Performance Comparison of Artificial Neural Network and Expert System in Prediction of Flow Stress'"""777
  Asif Iqbal
  Dalian University of Technology

- WePP3   P4128
  A Fuzzy Neural Network Prediction Model Based on Manifold Learning to Reduce Dimensions for Typhoon Intensity'"""784
  Jin Long, *Huang Xiaoyan, **Shi Xvming, Huang Ying
  Guangxi Climate Centre
  *Guangxi Meteorological Observatory
  **Guangxi Research Institute of Meteorological Disasters Mitigation

- WePP4   P4176
  Gaussian Mixture Based HMM for Human Daily Activity Recognition Using 3D Skeleton Features'"""789
  Lasitha Piyathilaka, Sarath Kodagoda
  University of Technology

- WePP5   P4438
  AU Measurements from Cascaded Adaboost for Driver Drowsiness Detection'"""795
  Yee Koon, Loh, *Shahrel A. Suandi
  Universiti Sains Malaysia
  *King Faisal University

■ WePP6   P4181
A Novel Approach for Outlier Detection and Clustering Improvement'"""799
Mohiuddin Ahmed, Abdun Naser Mahmood
University of New South Wales

■ WePP7   P4594
Quantum-Inspired Evolutionary Programming-Artificial Neural Network for Prediction of Undervoltage Load Shedding'"""7: 5
Zuhaila Mat Yasin, *Titik Khawa Abdul Rahman, Zuhaina Zakaria
Universiti Teknologi Mara
*Universiti Pertahanan Nasional

■ WePP8   P4551
An Automatic Load Sharing Approach for a DFIG Based Wind Generator in a Microgrid'"""7: ;
M. A. Barik, H. R. Pota, J. Ravishankar
The University of New South Wales

■ WePP9   P4541
Guideline to Choose a Forecasting Tool with Fuzzy Logic Support'"""7; 7
Otilia Elena Dragomir, Florin Dragomir, Veronica Stefan
Valahia University of Targoviste

■ WePP10   P4419
Adaptive Gain Sliding Mode Observer for State of Charge Estimation Based on Combined Battery Equivalent Circuit Model in Electric Vehicles'"""823
Xiaopeng Chen, Weixiang Shen, Zhenwei Cao, Ajay Kapoor, Ismat Hijazin
Swinburne University of Technology

■ WePP11   P4422
State of Charge Estimation Based on Improved Li-ion Battery Model Using Extended Kalman Filter'"""829
Xiang Zhou, Bingzhan Zhang and Han Zhao, *Weixiang Shen, *Ajay Kapoor
Hefei University of Technology
*Swinburne University of Technology

■ WePP12   P4221
Methods to Improve Accuracy of Typical Controllers Based on Predictive Algorithms'"""835
G. A. Pikina, *F. F. Pashchenko,* A. F. Pashchenko
*Moscow Power Engineering Institute, *Institute of Control Sciences*

■ WePP13   P4162
Study on Energy Recycling of Aircraft's Vibration and Noise'"""839
Xiaodong Zhang, Yutao Yang, Kai Peng
Northwestern Polytechnical University

■ WePP14   P4555
Interaction Analysis and Loop Pairing for MIMO Processes Described by Type-2 T-S Fuzzy Models'"""844
Qian-Fang Liao, Wen-Jian Cai and You-Yi Wang
Nanyang Technological University

■ WePP15   P4564
Stability Analysis of Grid-Connected Photovoltaic Systems using a Linear Zero Dynamic Controller'"""84:
M. S. Ali, H. R. Pota, *M. A. Mahmud, **M. J. Hossain, N. K. Roy
UNSW
*NICTA/ The University of Melbourne
**Griffith University

■ WePP16   P4478
System Design of Current Transformer Accuracy Tester Based on ARM'"""856
Tianxu Yang, Guofeng Zhang, Xiaoguang Hu
Beihang University

■ WePP17   P4481
A Novel Method for Squint SAR Image Reconstruction and Graphic Correction Based on the SPECAN Algorithm''''862
Guoqing Hu, Xiaoming Ye, Xiaoguang Hu, Yao Tang
Beihang University

■ WePP18   P4488
An Extension HA Design for the Hot-swap Application of CompactPCI Device''''868
Zhengtian Li, Xiaoguang Hu
Beihang University

■ WePP19   P4090
Design and Analysis of Efficient Rectifiers for Wireless Power Harvesting in DBS Devices'''''873
Md Kamal Hosain, Abbas Z. Kouzani
Deakin University

Session	**ThA1 — Control Session**
Date/Time	Thursday, 20 June 2013 / 10:20 – 12:00
Venue	ATC205
Chair	**Huibing ZHAO**, *Beijing Jiaotong University*
Co-Session Chair	**Mohd Fua'ad RAHMAT**, *Universiti Teknologi Malaysia*

■ ThA1.1   10:20 – 10:40   P4180
Safety Requirements Analysis and Performance Verification of Hot Standby System Using Colored Petri-Net''''878
Guo Zhou, Huibing Zhao, Weiwei Guo
Beijing Jiaotong University

■ ThA1.2   10:40 – 11:00   P4198
Development and Application of Boiler Combustion Air Flow Control Algorithm for Coal-Fired Power Plant''''884
Geon Pyo Lim, *Heung-Ho Lee
KEPCO Research Institute
*Chung-Nam University

■ ThA1.3   11:00 – 11:20   P4263
Sliding Mode Control with Switching-Gain Adaptation Based-Disturbance Observer Applied to an Electro-hydraulic Actuator System''''88:
Zulfatman Has, Mohd. Fua'ad Rahmat, Abdul Rashid Husain, Rozaimi Ghazali
Universiti Teknologi Malaysia

■ ThA1.4   11:20 – 11:40   P4222
Robust Sliding Mode Control for Steer-by-Wire System with AC Motors in Road Vehicles'''''896
Hai Wang, Zhihong Man, Weixiang Shen, Jinchuan Zheng
Swinburne University of Technology

■ ThA1.5   11:40 – 12:00   P4230
Study on Position Detection Method of Multi-stage Coilgun Projectile'''''8: 2
Chao Qi, Suixiong Cui, *Fengling Han, Chunling Yang
Harbin Institute of Technology
*RMIT University

Session	ThA2 — Power Electronics
Date/Time	Thursday, 20 June 2013 / 10:20 – 12:00
Venue	AD102
Chair	**Shishan WANG**, *Nanjing University of Aeronauctics and Astronauctics*
Co-Session Chair	**Haihong QIN**, *Nanjing University of Aeronauctics and Astronauctics*

ThA2.1　　10:20 – 10:40　　P4123
Filter Bank based Technique for Flicker Signals Detection and Estimation of Power Signals''''''8: 7
Jeongkyu Lee, Kyeong-Pyo Lee, *Sang-Wook Sohn, **Hun Choi, Hyeon-Deok Bae
Chungbuk National University
*University of Texas at Austin
**Dongeui University

ThA2.2　　10:40 – 11:00　　P4297
Five-level Cascaded Inverter Based Shunt Active Power Filter in Four-wire Distribution System''''''8; 2
Izzeldin Idris Abdalla, N. Perumal
Universiti Teknologi PETRONAS

ThA2.3　　11:00 – 11:20　　P4049
Effects of Mix-Mode Noise Emissions on the Design Method of Planar EMI Filter''''''8; 8
Chenchen Xu, Shishan Wang
Nanjing University of Aeronautics and Astronautics

ThA2.4　　11:20 – 11:40　　P4183
Design of Metal MUMPs based LLC Resonant Converter for On-chip Power Supplies''''''922
Fahimullah Khan, Yong Zhu, Junwei Lu, Dzung Dao
Griffith University

ThA2.5　　11:40 – 12:00　　P4453
Analytical Prediction of Switching Losses in MOSFETs for Variable Drain-source Voltage and Current Applications''''''927
Hamed Raee, Ali Rabiei, Torbjörn Thirnger
University of Technology

Session	ThA3 — Robotics
Date/Time	Thursday, 20 June 2013 / 10:20 – 11:40
Venue	ATC101
Chair	**Manolya KAVAKLI**, *Macquarie University*
Co-Session Chair	**Guochao BAI**, *Beijing University of Posts and Telecommunications*

ThA3.1　　10:20 – 10:40　　P4605
Mechanical Design and Kinematic Simulation of a Kind of Cycling Robot''''''932
Li Duanling, Li Chi, Bai Guochao, Li He, Yu Zhen, *Li Yunhua
Beijing University of Posts and Telecommunications
* Beijing University of Aeronautics and Astronautics

ThA3.2　　10:40 – 11:00　　P4446
Development of Meal Support System with Voice Input Interface for Upper Limb Disabilities''''''936
Ryoichi Suzuki, Koji Ogino, Kobayashi Nobuaki, Kiyoshi Kogure, Kanya Tanaka
Kanazawa Institute of Technology, Yamaguchi University

ThA3.3　　11:00 – 11:20　　P4047
Decoding 2D Kinematics of Human Arm for Body Machine Interfaces''''''93;

Tauseef Gulrez, Manolya Kavakli-Thorne, *Alessandro Tognetti
Macquarie University
* University of Pisa

🟧 ThA3.4   11:20 – 11:40   P4190
A Vision Based Navigation for Capsule Endoscopies"""945
Ying Zhao, Yunjiang Lou
Harbin Institute of Technology Shenzhen Graduate School

Session	ThA4 — Image Processing (I)
Date/Time	Thursday, 20 June 2013 / 10:20 – 12:20
Venue	AD208
Chair	**Cishen ZHANG**, *Swinburne University of Technology*
Co-Session Chair	**MingYu GAO**, *HangZhou DianZi University* **Zhenghua ZHOU**, *Swinburne University of Technology*

🟧 ThA4.1   10:20 – 10:40   P4044
A New Fast Super-resolution Reconstruction Method based on Non-Local Means"""94;
Yun Zhang, Junping Du, Liang Xu, Xiaoru Wang, Qingping Li
Beijing University of Posts and Telecommunications

🟧 ThA4.2   10:40 – 11:00   P4220
Multiple Scattering Model based Single Image Dehazing"""955
*+Renjie He, +Zhiyong Wangy, *Yangyu Fan, +David Dagan Feng
Northwestern Polytechnical University
+The University of Sydney

🟧 ThA4.3   11:00 – 11:20   P4443
A New Improved Seam Carving Content Aware Image Resizing Method"""95:
Zhiwei He, Mingyu Gao, Haibin Yu, Xueyi Ye, Li Zhang, Guojin Ma
Hangzhou Dianzi University

🟧 ThA4.4   11:20 – 11:40   P4524
Blind Parallel MRI Reconstruction with Arbitrary k-space Trajectories"""964
Chengpu Yu, *Cishen Zhang, Lihua Xie
Nangyang Technological University
Swinburne University of Technology

🟧 ThA4.5   11:40 – 12:00   P4212
Fast Iris Detection via Shape based Circularity"""969
Milos Stojmenovic, Aleksandar Jevremovic, *Amiya Nayak
Singidunum University
University of Ottawa

🟧 ThA4.6   12:00 – 12:20   P4210
Disparity Search Range Estimation Based on Dense Stereo Matching"""975
Rueihung Li, Bumsub Ham, Changjae Oh, Kwanghoon Sohn
Yonsei University

Session	ThA5 — Data Mining
Date/Time	Thursday, 20 June 2013 / 10:20 – 12:00
Venue	AD209
Chair	**Abdun Naser MAHMOOD**, *University of New South Wales*
Co-Session Chair	**Lili WANG**, *Civil Aviation University of China*

- ThA5.1   10:20 – 10:40   P4008
  Calculation Model of Airspace Utilization Rate Based on Flight time and the Space and Capacity of Airspace"""982
  Zhaoning Zhang, Ping Wang, *Peng Wang
  Civil Aviation University of China
  *Chang'an University

- ThA5.2   10:40 – 11:00   P4016
  Rerouting Strategy Research Based on Improved Ant Colony Algorithm"""988
  Lili Wang, Huidong Yang
  Civil Aviation University of China

- ThA5.4   11:20 – 11:40   P4259
  Classification of Malware Families Based on N-grams Sequential Pattern Features"""999
  Chatchai Liangboonprakong, *Ohm Sornil
  Suan Sunandha Rajabhat University
  *National Institute of Development Administration

- ThA5.5   11:40 – 12:00   P4014
  A Hybrid Approach to Improving Clustering Accuracy using SVM"""9: 5
  Zubair Shah, *Zubair Shah, **Abdul K Mustafa
  City University of Science and IT
  *University of New South Wales
  **University of Canberra

Session	ThM1 — Control Session
Date/Time	Thursday, 20 June 2013 / 13:00 – 15:00
Venue	ATC205
Chair	**Shaoping WANG**, *Beihang University*
Co-Session Chair	**Irraivan ELAMVAZUTHI**, *Universiti Teknologi PETRONAS* **Wang HAI**, *Swinburne University of Technology*

- ThM1.1   13:00 – 13:20   P4232
  Closed-loop Identification for Boiler-Turbine Coordinated Control System of Power Unit"""9: ;
  Ya-gang Wang, Shi-yuan Cai, *Wen-jian Cai, **Xi Zhang, **Xiao-feng Li
  University of Shanghai for Science and Technology
  *Nanyang Technological University
  **Guangdong Electric Power Research Institute

- ThM1.2   13:20 – 13:40   P4245
Performance Analysis of Fuzzy Controller with Delay'"""9; 6
Tian Zheng, Abdelkader El Kamel, *Shaoping Wang
Ecole Centrale de Lille
Beihang University

- ThM1.3   11:00 – 11:20   P4219
ADRC Trajectory Tracking Control Based on PSO Algorithm for a Quad-Rotor'"""': 22
Cheng Peng, Yantao Tian, *Yue Bai, *Xun Gong, *Changjun Zhao, *Qingjia Gao, *Dongfu Xu
Jilin University
Chinese Academy of Sciences

- ThM1.4   14:00 – 14:20   P4074
Finding Direction of Oscillation Propagation Using Non-Parametric Transfer Entropy Method'"""': 28
Liang Zhang, Chunming Xia, Jiabin Cao, Jianrong Zheng
East China University of Science and Technology

- ThM1.5   14:20 – 14:40   P4331
Bilateral Control of Vehicle Steer-by-Wire System with Variable Gear-Ratio'"""': 33
Peng Zhai, Haiping Du, Zheng Li
University of Wollongong

- ThM1.6   14:40 – 15:00   P4426
Sliding Mode based Learning Control for Interconnected Systems'"""': 38
Fei Siang Tay, Zhihong Man, *Jiong Jin, **Sui Yang Khoo, Jinchuan Zheng, Hai Wang
Swinburne University of Technology
The University of Melbourne
**Deakin University*

Session	ThM2 — Invited Session: Electrical Design
Date/Time	Thursday, 20 June 2013 / 13:00 – 14:40
Venue	AD102
Chair	**Huimei YUAN**, *Capital Normal University*
Co-Session Chair	**Ketai HE**, *Beijing University of Science and Technological*

- ThM2.1   13:00 – 13:20   P4495
A New E-HWMP Routing Algorithm in Automatic Meter Reading Networks'"""': 44
Li Li, Xiaoguang Hu, *Ketai He
BeiHang University
University of Science and Technology Beijing

- ThM2.2   13:20 – 13:40   P4504
A Low Cost Outdoor Assistive Navigation System for Blind People'"""': 4:
Jizhong Xiao, Kevin Ramdath, Manor Iosilevish, Dharmdeo Sigh, Anastasis Tsakas
The City University of New York

- ThM2.3   13:40 – 14:00   P4458
Research on Parallel and Average Current Control Strategy of Active Power Filter'"""': 56
Chaowen Zhu, Haiwen Yuan, Yangyang Jiang, Yong Cui
Beihang University

- ThM2.4   14:00 – 14:20   P4464
Design and Implementation of an Improved Constant-Gm Bias Circuit'"""': 5;
Xiao Han, Hui-mei Yuan, Xiao-min Pang
Beihang University

■ ThM2.5   14:20 – 14:40   P4465
Design of Dual Redundancy CAN-bus Controller Based on FPGA""'"": 65
Xiang-Dong Han, Hui-Mei Yuan, Xiao-Xu Zhao
Capital Normal University

Session	ThM3 — Energy & Environment
Date/Time	Thursday, 20 June 2013 / 13:00 – 15:00
Venue	ATC101
Chair	**Weixiang SHEN**, *Swinburne University of Technology*
Co-Session Chair	**Fanglin LUO**, *Nanyang Technological University*

■ ThM3.1   13:00 – 13:20   P4437
Control Strategy of Power Converter System in the Dual-power PV-grid System Energy Utilizing Cascaded Multilevel Inverter""'"": 6:
I. R. Ibrahim, A. M.Omar, Z. Hussain
Universiti Teknologi MARA (UiTM)

■ ThM3.2   13:20 – 13:40   P4362
Impact of Distributed Generation and Series Compensation on Distribution Network""'"": 76
T. F. Orchi, *M. J. Hossain, H. R. Pota
UNSW Canberra
*Griffith University

■ ThM3.3   13:40 – 14:00   P4255
Control of Hg^0 Re-emission from Wet Flue Gas Desulfurization Slurry by Sodium Dithiocarbamate""'"": 82
Jiang Yuze, *Chen Chuanmina, *Jiang Lixing, *Liu Songtao, *Gao Yang
Shandong Electric Power Research Academy
*North China Electric Power University

■ ThM3.4   14:00 – 14:20   P4243
Maximum Power Point Tracking of Solar Photovoltaic Panels Using Advanced Perturbation and Observation Algorithm""'"": 86
Duy C. Huynh, *Thu A.T. Nguyen, **Matthew W. Dunnigan, ***Markus A. Mueller
University of Technology
*Vietnam National University
**Heriot-Watt University
***The University of Edinburgh

■ ThM3.5   14:20 – 14:40   P4370
Modelling of Electric Vehicles for Underground Mining Personnel Transport""'"": 92
Fengxian He, Xiudong Cui, W. X. Shen, A. Kapoor, *Demon Honnery, *Daya Dayawansa
Swinburne University of Technology
*Monash University

■ ThM3.6   14:40 – 15:00   P4312
A Pollution Monitoring System with Hybrid Wireless Transmission""'"! 98
Cheng Pan, Hesheng Zhang, Wei Sun, Hui Li, Jingxin Xie and Yu Zhang
Beijing Jiaotong University

Session	ThM4 — Audio / Video Processing
Date/Time	June 20, 2013 (Wednesday) / 13:00 – 15:00
Venue	AD208
Chair	**Yong XIANG**, *Deakin University*
Co-Session Chair	**Wei ZHOU**, *Northwestern Polytechnic University*

ThM4.1   13:00 – 13:20   P4613
A Modified Moment-Based Image Watermarking Method Robust to Cropping Attack'''''! : 3
Tianrui Zong, Yong Xiang, Suzan Elbadry, Saeid Nahavandi
Deakin University

ThM4.2   13:20 – 13:40   P4573
State-space Approach to Linear Predictive Coding of Speech – A Comparative Assessment'''''! : 8
Azeem Irshad, Muhammad Salman
National University of Sciences and Technology

ThM4.3   13:40 – 14:00   P4608
A Fast Hierarchical 1/4-pel Fractional Pixel Motion Estimation Algorithm of H.264/AVC Video Coding'''''': ; 3
Wei Zhou, Xin Zhou
Northwestern Polytechnic University

ThM4.4   14:00 – 14:20   P4609
Fast Inter Prediction Block Mode Decision Approach for H.264/AVC Based on All-Zero Blocks Detection'''''': ; 8
Xin Zhou, Wei Zhou
Northwestern Polytechnic University

ThM4.5   14:20 – 14:40   P4612
Analysis of a Patchwork-Based Audio Watermarking Scheme'''''¦ 22
Iynkaran Natgunanathan, Yong Xiang, Suzan S. M. Elbadry, Wanlei Zhou, Yang Xiang
Deakin University

ThM4.6   14:40 – 15:00   P4412
Statistical Formant Descriptors with Linear Predictive Coefficients for Accent Classification'''''¦ 28
Yusnita MA, *Paulraj MP, *Sazali Yacob, *Shahriman AB, Nor Fadzilah Mokhtar
Universiti Teknologi MARA
**Universiti Malaysia Perlis*

Session	ThM5 — Machine Learning
Date/Time	Thursday, 20 June 2013 / 13:00 – 15:20
Venue	AD209
Chair	**David CORNFORTH**, *University of Newcastle*

ThM5.1   13:00 – 13:20   P4094
Evolutionary Programming to Adjust the Process in High Precision Foundries'''''¦ 34
Javier Nieves, Igor Santos and Pablo G. Bringas
University of Deusto

ThM5.2   13:20 – 13:40   P4374
Ascending Trajectory Optimization of Near-space Airship Based on Genetic Algorithm'''''¦ 3:
Xiaoguang Di, Yafei Yang
Harbin Institute of Technology

■ ThM5.3   13:40 – 14:00   P4341
PSO with Gompertz Increasing Inertia Weight"""; 45
Wakeel Ahmed, *Muhammad Faizan Shirazi, **Osama Munawar Jamil, Muhammad Hafeez Abbasi
King Saud University
*Kyungpook National University
**Swineburne University of Technology

■ ThM5.4   14:00 – 14:20   P4329
Computational Intelligence Methods for the Identification of Early Cardiac Autonomic Neuropathy"""; 4;
David Cornforth, *Mika Tarvainen, **Herbert F. Jelinek
University of Newcastle
*University of Eastern Finland
**Charles Sturt University

■ ThM5.5   14:20 – 14:40   P4194
Towards Detecting Inactivity Using an In-Home Monitoring System"""; 57
Masud Moshtaghi, Ingrid Zukerman, R. Andrew Russell, David Albrecht
Monash University

■ ThM5.6   14:40 – 15:00   P4056
Collective Classification for the Detection of Surface Defects in Automotive Castings"""; 63
Iker Pastor-López, Igor Santos, Jorge de-la-Peña-Sordo, Mikel Salazar, Aitor Santamaría-Ibirika, Pablo G. Bringas
University of Deusto

■ ThM5.7   15:00 – 15:20   P4170
Combinational Neural Logic System and Its Industrial Application on Hypoglycemia Monitoring System"""; 69
Phyo Phyo San, Sai Ho Ling, Hung T. Nguyen
University of Technology Sydney

Session	ThMP — Interactive Session
Date/Time	Thursday, 20 June 2013 / 13:00 – 15:00
Venue	ATC103

■ ThMP1   P4574
Active Control of Transformer Noise by Using Power Line Signal as Reference"""; 75
Debi Prasad Das, *Danielle J. Moreau, *Ben S. Cazzolato
CSIR-Institute of Minerals and Materials Technology
*The University of Adelaide

■ ThMP2   P4113
A Motion Control Method of Intelligent Wheelchair Based on Hand Gesture Recognition"""; 79
Tao Lu
Chinese Academy of Sciences

■ ThMP3   P4261
A Study on BeiDou positioning Performance Analysis Platform based on LabVIEW"""; 85
Ershen Wang, Weiping Zhao, Ming Cai
Shenyang Aerospace University

■ ThMP4   P4045
A Variable Step-Size Transform-Domain LMS Algorithm Based on Minimum Mean-Square Deviation for Autoregressive Process"""; 8:
Shengkui Zhao, *Douglas L. Jones, **Zhihong Man, ***Suiyang Khoo
*Illinois at Singapore, *University of Illinois at Urbana-Champaign*
**Swinburne University of Technology
***Deakin University

■ ThMP5   P4039

Forward Collision Warning System Considering Both Time-to-Collision and Safety Braking Distance""";94

Yuan-Lin Chen, *Kun-Yuan Shen, **Shun-Chung Wang
Ming Chi University of Technology
**Taipei Chengshih University of Science and Technology*
***Lunghwa University of Science and Technology*

■ ThMP6   P4457

Gait Design of Biped Robot Based on USBSSC32""";9:

Yangyang Jiang, Haiwen Yuan, Chaowen Zhu, Yong Cui
Beihang University

■ ThMP7   P4486

Time Delay Oriented Reliability Analysis of Avionics Full Duplex Switched Ethernet""";: 4

Shaoping Wang, *Dengfeng Sun, Jian Shi, **Mileta Tomovic
*Beihang University, *Purdue University*
***Old Dominion University*

■ ThMP8   P4491

Maximum Load Path Planning for Space Manipulator in Point-to-point Task""";: :

Qingxuan Jia, Yong Liu, Gang Chen, Hanxu Sun
Beijing University of Posts and Telecommunications BUPT

■ ThMP9   P4586

Impedance Control of Robot Manipulator with Model Reference Torque Observer"""; ; 6

Xu Dong, Zhang Shaoguang, Li Xuerong, Liu Min, Wei Hongxing
Beihang Uinversity

■ ThMP10   P4505

Modeling Conducted Emissions in Servo Drives""; ; ;

Haihui Lu, *Arun K Guru
Rockwell Automation (China) Co., Ltd.
**Rockwell Automation*

■ ThMP11   P4075

Analytic Calculation of Electromagnetic Characteristics of Switched Reluctance Machine""""3227

Y. C. Wu, S. J. Song, S. Chen, H. C. Liu, Z. H. Zhang
Northwestern Polytechnical University

■ ThMP12   P4160

A Simple Fault Tolerant Control System for Hall Effect Sensors Failure of BLDC Motor""""3233

A. Tashakori, M. Ektesabi
Swinburne University of Technology

■ ThMP13   P4455

Switched Reluctance Motor in Electric or Hybrid Vehicle Applications: A Status Review""""3239

Saeid Haghbin, Ali Rabiei, Emma Grunditz
Chalmers University of Technology

■ ThMP14   P4241

Modeling Cascading Failures in Smart Power Grid using Interdependent Complex Networks and Percolation Theory""""3245

Zhen Huang, Cheng Wang, Sushmita Ruj, Milos Stojmenovic, Amiya Nayak
University of Ottawa

■ ThMP15   P4617

Optimum Design of Coupling Inductors for Magnetic Integration in Three-phase Interleaving Buck DC/DC Converter""""324;

Rui Guo, Cong Wang, *Tao Li
China University of Mining & Technology (Beijing)
**Liaoning Technical University*

- ThMP16　　P4509
  Semantic Model Transformation for Intermodal Traffic Data Exchange''''''3256
  Christoph Engel, Rico Möbius, Christian Diedrich
  Otto-von-Guericke-University

- ThMP17　　P4106
  Data-based Inverter IGBT Open-Circuit Fault Diagnosis in Vector Control Induction Motor Drives''''325;
  Chengguang Huang, Jin Zhao, Chaorong Wu
  Huazhong University of Science and Technology

- ThMP18　　P4196
  High-order Terminal Sliding-Mode Observer for Speed Estimation of Induction Motors''''''3267
  Minghao Zhou, Yong Feng, *Xinghuo Yu
  Harbin Institute of Technology
  * RMIT University

- ThMP19　　P4344
  An Intelligent Control of Blood Pressure System using PID and Neural Network''''''326;
  I. Elamvazuthi, O. M. Aymen, Yasir Salih, Huzaifa Tawfeig
  Universiti Technologi PETRONAS

Session	**ThP1 — Invited Session: Modeling and Analysis**
Date/Time	Thursday, 20 June 2013 / 15:20 – 16:20
Venue	ATC205
Chair	**Weihai CHEN**, *Beihang University*
Co-Session Chair	**Chunling YANG**, *Harbin Institute of Technology*

- ThP1.1　　15:20 – 15:40　　P4510
  Integrated Aging Model of Rubber Seal Ring Based on Material Structure Reconfiguration''''''3276
  Shaoping Wang, Wei Hong, Jian Shi, *Mileta Tomovic
  Beihang University
  *Old Dominion University

- ThP1.2　　15:40 – 16:00　　P4523
  Multi-electrode Solid Electrolyte Sensor for Monitoring Hydrogen and the Adaptive Identification Algorithm of Hydrogen Concentration''''327;
  Chunling Yang, Zhendong Zhang, Yan Zhang
  Harbin Institute of Technology

- ThP1.3　　16:00 – 16:20　　P4461
  Identification of the Li^+ Initial Inserted Rate of Electrode Materials in Li-ion Batteries Based on Multi-Objective Genetic Algorithm''''''3287
  Liqiang Zhang, Chao Lyu, Weilin Luo, Lixin Wang
  Harbin Institute of Technology

Session	ThP2 — Power Electronics
Date/Time	Thursday, 20 June 2013 / 15:20 – 17:00
Venue	AD102
Chair	**Jie CHEN**, *Nanjing University of Aeronautics & Astronautic*
Co-Session Chair	**Lei JIANG**, *University of Newcastle*

■ ThP2.1   15:20 – 15:40   P4159
Analysis and Design of a Novel Three-Level Dual-Boost Reversible PWM Rectifier""""3293
Jie Chen, Jiawei Chen, Chunying Gong, Xiaoli Meng
Nanjing University of Aeronautics and Astronautics

■ ThP2.2   15:40 – 16:00   P4226
Realization of a High-Efficiency T5 Ballast with Multi-dimming Mechanisms Based on Lamp Arc Modeling""""3299
Shun-Chung Wang, *Yuan-Lin Chen, Han-Bin Lin, **Kun-Yuan Shen, Kuo-Che Huang
*Lunghwa University of Science and Technology, *Ming Chi University of Technology*
***Taipei Chengshih University of Science and Technology*

■ ThP2.3   16:00 – 16:20   P4253
Automatic Power Load Event Detection and Appliance Classification Based on Power Harmonic Features in Nonintrusive Appliance Load Monitoring""""32: 5
Lei Jiang, Suhuai Luo, *Jiaming Li
University of Newcastle
**Commonwealth Scientific and Industrial Research Organization*

■ ThP2.4   16:20 – 16:40   P4048
A High Step-up Voltage Gain DC/DC Converter for the Micro-Inverter""""32: ;
Ting Wang, Yu Tang
Nanjing University of Aeronautics and Astronautics

■ ThP2.5   16:40 – 17:00   P4291
DC Bus Self-Oscillation Suppression and Optimal design for Cascade Aviation Static Inverter""""32; 7
Yi-Han Chen, Zhen Wei, Jia-Wei Chen, Chun-Ying Gong
NanJing University of Aeronautics and Astronautics

Session	ThP3 — Robotics
Date/Time	Thursday, 20 June 2013 / 15:20 – 17:00
Venue	ATC101
Chair	**Chun-Liang LIN**, *NCHU*
Co-Session Chair	**Yong LIU**, *Nanjing University of Science and Technology*

■ ThP3.1   15:20 – 15:40   P4467
Optimal Design of the Flying and Adhesive Robot""""3323
Yong Liu, Guoxin Sun, *Heping Chen
Nanjing University of Science and Technology
**Texas State University*

- ThP3.2   15:40 – 16:00   P4093
  Hardware Asynchronous Cellular Automata of Spiking Neural Networks on SoC for Autonomous Machines"""'3328
  Yimin Zhou, Ludovic Krundel, David Mulvaney, *Vassilios Chouliaras, *Guoqing Xu
  Shenzhen Institutes of Advanced Technology
  *The Chinese University of Hong Kong

- ThP3.3   16:00 – 16:20   P4206
  An Overview of Development GPS Navigation for Autonomous Car"""'3334
  Wan Rahiman, Zafariq Zainal
  Universiti Sains Malaysia

- ThP3.4   16:20 – 16:40   P4215
  2-DOF Barycenter Mechanism for Stabilization of Fish-Robots"""'333;
  Pichet Suebsaiprom, Chun-Liang Lin
  National Chung Hsing University

- ThP3.5   16:40 – 17:00   P4257
  Acceleration of Parallel Robot Trajectory Generation in FPGA"""'3345
  Maciej Petko, Konrad Gac, Grzegorz Góra, Grzegorz Karpiel, Janusz Ochoński
  AGH University of Science and Technology

Session	ThP4 — Image Processing (II)
Date/Time	Thursday, 20 June 2013 / 15:20 – 17:00
Venue	AD208
Chair(s)	**Xing ZHU**, *Psiber Data*

- ThP4.1   15:20 – 15:40   P4208
  Constructing A Projector Matrix for the Quadratic Curved Screen"""'334;
  Chun-Wei Tseng, Shun-Pin Hsu, Feng-Chi Cheng, *Yuh-Chin Chang
  National Chung-Hsing Univesity
  *GoMax Electronics, Inc.

- ThP4.2   15:40 – 16:00   P4124
  A Cost-Effective Image-Processing Approach to Improving the Uniformity of LED Panels"""'3357
  Chun-Chieh Liao, Shun-Pin Hsu, Feng-Chi Cheng, *Hui-Ya Chow, *Yuh-Chin Chang
  National Chung-Hsing University
  *GoMax Electronics, Inc.

- ThP4.3   16:00 – 16:20   P4103
  Feature Decreasing Methods Using Fuzzy Rough Set Based on Mutual Information"""'3363
  Maryam Shahabi Lotfabadi, Mohd Fairuz Shiratuddin, Kok Wai Wong
  Murdoch University

- ThP4.4   16:20 – 16:40   P4277
  Analog Dial Gauge Reader for Handheld Devices"""'3369
  Mahesh Kumar Gellaboina, Gurumurthy Swaminathan, Vijendran Venkoparao
  ACS-Advanced Technology Labs, Honeywell

- ThP4.5   16:40 – 17:00   P4319
  Fingerprint Image Protection Using Two Watermarks Without Corrupting Minutiae"""'3373
  Mohammed Alkhathami, Fengling Han and Ron Van Schyndel
  RMIT University

Session	ThP5 — Network & Communication
Date/Time	Thursday, 20 June 2013 / 15:20 – 17:00
Venue	AD209
Chair	**Lixin LI**, *Northwestern Polytechnical University*
Co-Session Chair	**Ershen WANG**, *Shenyang Aerospace University*

ThP5.1   15:20 – 15:40   P4430
Matched Filter based Timing Synchronization for Orthogonal Frequency Division Multiplexing Systems"""3378
Ahsan Saadat, Muhammad Salman, Hassaan Saadat
National University of Sciences & Technology

ThP5.2   15:40 – 16:00   P4448
Performance Analysis of QC-LDPC Construction Based on Distance Graph"""3384
Lixin Li, Meng Zhu, Fan Yang, Yang Zhang
Northwestern Polytechnical University

ThP5.3   16:00 – 16:20   P4256
Research on Improving Accuracy of GPS Positioning Based on Particle Filter"""3389
Ershen Wang, Weiping Zhao, Ming Cai
Shenyang Aerospace University

ThP5.4   16:20 – 16:40   P4203
Coalitional Game Formulation for Two-Way Relay Cooperative Networks"""3394
Shen-Lun Lin, *Yu-Wei Chan, Min-Kuan Chang, Feng-Tsun Chien
National Chung Hsing University
Chung Chou University of Science and Technology

ThP5.5   16:40 – 17:00   P4239
A New LDPC-COFDM Scheme in Cooperative Communication System"""339:
Lixin Li, Wen Sun, Nan Qi, Meng Zhu, Yang Zhang
Northwestern Polytechnical University

Session	ThPP — Interactive Session
Date/Time	June 20, 2013 (Thursday) / 15:20 – 17:00
Venue	ATC103

ThPP1   P4567
Optimization of the LC Filter Based on Double Impact Factors for Cascaded H-bridge DVR"""33: 6
Guodong Chen, Miao Zhu, Xu Cai, *Jinfeng Song, *Yue Zhou, *Chengbin Ma
Shanghai Jiao Tong University
Shanghai Electric Power Transmission & Distribution Group

ThPP2   P4568
Control Strategy of DVR with a Positive and Negative Sequence Extraction Method"""33; 3
Guodong Chen, Miao Zhu, Xu Cai, *Zuyi Dong, *Luhua Zhang, *Jinfeng Song
Chinese Academy of Sciences
Shanghai Electric Power Transmission & Distribution Group

ThPP3   P4252
A Study of Hybrid Control Algorithms for Buck-Boost Converter Based on Fixed Switching Frequency"""33; 9
Quan Yu, Xuemei Wang, Bo Zhang
South China University of Technology

■ ThPP4   P4148
The Development of a Radiation Simulator in Possession of High Repetitive Frequency"""3425
Saiheng Lei, Deren Feng
AnHui University of Technology

■ ThPP5   P4174
Evaluation of Isolated Gate Driver for SiC MOSFETs"""342:
Bin Zhao, Haihong Qin, Xin Nie, Yangguang Yan
Nanjing University of Aeronautics and Astronautics

■ ThPP6   P4264
Evaluation of SiC MOSFET in Buck Converter"""3435
Ting Ma, Haihong Qin, Bin Zhao, Xin Nie, Zhiming Wu
Nanjing University of Aeronautics and Astronautics, Southeast University

■ ThPP7   P4050
Single-phase Buck-Boost Z-source Inverter"""3439
Yu Tang, Linlin Li
Nanjing University of Aeronautics and Astronautics

■ ThPP8   P4167
Modeling and Design of SR-Buck Converter with Parallel Current Mode Control Method"""3443
Xiaodong Liu, Li Han, Wei Fang, *Yanfei Liu
Anhui University of Technology
*Queen's University

■ ThPP9   P4051
Control of Series Z-Source Inverter Applied in Grid-tied PV System"""3449
Yu Tang, Linlin Li
Nanjing University of Aeronautics and Astronautics

■ ThPP10   P4318
Optimal Design of Electromagnetic Coupling Mechanism for ICPT System"""3455
Chao Hu, Yue Sun, Chun-sen Tang, Zhi-hui Wang
Chongqing University)

■ ThPP11   P4345
Design and Optimization of Control Parameters Based on Direct-Drive Permanent Magnet Synchronous Generator for Wind Power System"""345:
Lixia Sun, Chengya Gong, Fengling Han
RMIT

■ ThPP12   P4354
Study on Dynamical Control of Bi-directional Inductive Power Transfer System"""3466
Xiong-wei Xie, Ke Zhou, Li-ke Gao, Wen-ji Zhu, Zhi-ding Wu, *Xin Dai, *Zhi-hui Wang,* Jian Gao
Electric Power Research Institute
*Chongqing University

■ ThPP13   P4282
An Intelligent Diagnostic System for the Condition Monitoring of AC Motors"""346:
Muhammad Irfan, Nordin Saad, Rosdiazli Ibrahim, Vijanth S. Asirvadam
Universiti Teknologi PETRONAS

■ ThPP14   P4122
Design and Implementation of a Five-Phase Six-leg Switching Power Amplifier for Five Degrees of Freedom Magnetic Levitation Bearing System"""3476
Chengzi Liu, Zhiquan Deng, Chun Hua, Kexiang Li
Nanjing University of Aeronautics and Astronautics

■ ThPP15   P4308
Study on MPPT Approach in Photovoltaic System Based on Fuzzy Control"""347;
Lixia Sun, Zhengdandan, Fengling Han
RMIT

- ThPP16   P4298
The Mathematical Model of 18650 Lithium-ion Battery in Electric Vehicles'"""3486
Parisa Amiribavandpour, Ajay Kapoor, Weixiang Shen, Janine Shearer
Swinburne University of Technology

- ThPP17   P4587
Hierarchical Ant Colony Algorithm of Wireless Sensor Networks for Energy Monitoring'"""3492
Xu Dong, Zhang Shaoguang, Liu Min, Li Xuerong, Wei Hongxing
Beihang University

- ThPP18   P4317
Study on Synchronous Acquisition of Voltage and Current in Vehicle's Drive-motor Test'"""3497
Song Qiang, Yang Kaili Lv Chenguang
Beijing Institute of Technology

- ThPP19   P4151
Research on Three-phase PV Grid-connected Inverter Based on LCL Filter'"""349;
Wenjiao Yin, Yundong Ma
Nanjing University of Aeronautics and Astronautics

- ThPP20   P4155
Impedance-based Analysis of Grid-connected Inverter in high Impedance Grids'"""34: 6
Xin Chen, Jie Chen, ChunYing Gong, HuiZhen Wang
Nanjing University of Aeronautics & Astronautic

Session	FrA1 — Control Session
Date/Time	Friday, 21 June 2013 / 10:20 – 12:00
Venue	ATC205
Chair	**Adrian FILIPESCU**, *"Dunarea de Jos" University of Galati*
Co-Session Chair	**Zhongjie MENG**, *NWPU*

- FrA1.1   10:20 – 10:40   P4369
Sliding Mode Learning Control for Nonminimum Phase Nonlinear Systems'"""34; 2
Do Manh Tuan, Zhihong Man, Cishen Zhang, Jinchuan Zheng
Swinburne University of Technology

- FrA1.2   10:40 – 11:00   P4060
Hybrid Model Based Control of a Mechatronics Line Served by Mobile Robot with Manipulator'"""34; 8
Eugenia Minca, *Adrian Filipescu, **Alina Voda, *Adriana Filipescu Jr.
"Valahia" University of Targoviste
*"Dunarea de Jos" University of Galati
**University Joseph Fourier Grenoble 1/CNRS

- FrA1.3   11:00 – 11:20   P4409
Applying Order Reduction Model Algorithm for Balancing Control Problems of Two-wheeled Mobile Robot'"""3524
Cong Huu Nguyen, *Kien Ngoc Vu, *Du Huy Dao
*Thai Nguyen University, *Thai Nguyen University of Technology*

- FrA1.4   11:20 – 11:40   P4420
Proposal of Algorithms for Navigation and Obstacles Avoidance of Autonomous Mobile Robot'"""352:
T. T. Hoang, D. T. Hiep, P. M. Duong, N. T. T. Van, B. G. Duong, T. Q. Vinh
Vietnam National University

- FrA1.5   11:40 – 12:00   P4209
Coordinated Approach Control Method of Tethered Space Robot System'"""3536
Zhongjie Meng, *Panfeng Huang
*Northwestern Polytechnical University, *Science and Technology on Aerospace Flight Dynamics Laboratory*

Session	FrA2 — Estimation & Identification
Date/Time	Friday, 21 June 2013 / 10:20 – 12:00
Venue	AD102
Chair	**Marco QUEIROZ**, *Universidade Estadual de Mato Grosso do Sul – UEMS*
Co-Session Chair	**Jinsoo JEONG**, *Universiti Teknologi Malaysia*

FrA2.1   10:20 – 10:40   P4213
Bi-objective Optimization in a Wavelet Identification Procedure for Fault Detection in Dynamic Systems"""'353;
Marco Aparecido Queiroz Duarte, *Roberto Kawakami Harrop Galvão, *Henrique Mohallem Paiva
Universidade Estadual de Mato Grosso do Sul (UEMS)
*São José dos Campos

FrA2.2   10:40 – 11:00   P4218
Information Method of Consistent Identification of Objects"""'3547
I. S. Durgaryan, F. F. Pashchenko, *G. A. Pikina, A. F. Pashchenko
Institute of Control Sciences
*Moscow Power Engineering Institute

FrA2.3   11:00 – 11:20   P4225
Evaluation of the Firmness Measurement of Fruit by using a Non-contact Ultrasonic Technique"""'3553
Sangdae Lee, *Byoung-Kwan Cho
*National Academy of Agricultural Science, *Chungnam National University*

FrA2.4   11:20 – 11:40   P4442
Two Level Differential Evolution Algorithms for ARMA Parameters Estimation"""'3559
Momoh-Jimoh E. Salami, *Ismaila B. Tijani, Ayodele I. Abdullateef, **Musa A. Aibinu
IIUM
*UAE
**Federal University of Technology

FrA2.5   11:40 – 12:00   P4502
Identification of Acoustic Path Transfer Function Component in Beamforming Structure"""'3565
Jinsoo Jeong, Kee Chien Wong
Universiti Teknologi Malaysia

Session	FrA3 — Sensor & Actuator
Date/Time	Friday, 21 June 2013 / 10:20 – 12:00
Venue	ATC101
Chair	**Otis NYANDORO**, *University of the Witwatersrand*
Co-Session Chair	**Debi Prasad DAS**, *CSIR-Institute of Minerals and Materials Technology*

FrA3.1   10:20 – 10:40   P4611
Adjacency Graph and Matrix Representation of Scaling Mechanisms"""'356:
Guochao Bai, Shimin Wei, Duanling Li, Qizheng Liao
Beijing University of Posts and Telecommunications

- FrA3.2   10:40 – 11:00   P4599
Saw-tooth Pole Solenoid Actuator for Aerospace Applications'"''3575
Deepak P. Mahajan, Renukaprasad Narayanaswamy, Siva Bavisetti
Honeywell Technology Solutions, Inc

- FrA3.3   11:00 – 11:20   P4584
Enhancing the linearity of LVDT by two-stage functional link artificial Neural Network with High Accuracy and Precision''''357:
Sarita Das, Debi Prasad Das, Santosh Kumar Behera
CSIR-Institute of Minerals and Materials Technology

- FrA3.4   11:20 – 11:40   P4585
High Performance Ash Fusion Temperature Measurement'"'''3586
Malani A, Nyandoro O. T, Chingozha T
University of the Witwatersrand

- FrA3.5   11:40 – 12:00   P4083
Design of Estimators for the Output Shaft Torque of Automated Manual Transmission Systems'"''3592
Jiwon Oh, Jinsung Kim, Seibum B. Choi
Korea Advanced Institute of Science and Technology

Session	**FrA4 — Data Processing**
Date/Time	Friday, 21 June 2013 / 10:20 – 11:40
Venue	AD208
Chair	**Guoan BI**, *Nanyang Technological University*
Co-Session Chair	**Irraivan ELAMVAZUTHI**, *Universiti Teknologi PETRONAS*

- FrA4.1   10:20 – 10:40   P4184
A Multi-Module Anomaly Detection Scheme based on System Call Prediction'"''3598
Zhenghua Xu, Xinghuo Yu, *Yong Feng, **Jiankun Hu, Zahir Tari, Fengling Han
RMIT University
*Harbin Institute of Technology
**University of New South Wales

- FrA4.2   10:40 – 11:00   P4537
Prevent Turtle Trap in the Fishing Gear Using Ultrasound'"''35: 4
Sunardi, N.Noor Zirwatul A., M. Azrul, *Anton Yudhana
Universiti Malaysia Pahang
*Universiti Ahmad Dahlan

- FrA4.3   11:00 – 11:20   P4503
Minimum Phase Whitening Filter to Speech Beamforming Technique'"''35: :
Jinsoo Jeong
Universiti Teknologi Malaysia

- FrA4.4   11:20 – 11:40   P4061
Sampling Rate Conversion Based on DCT-II/III'"'''35; 5
Guoan Bi, *Shenghong Li
Nanyang Technological University
*Shanghai Jiao Tong University

Session	FrA5 — Computer Intelligence
Date/Time	Friday, 21 June 2013 / 10:20 – 11:40
Venue	AD209
Chair	**Weihai CHEN**, *BUAA*
Co-Session Chair	**Wenjie YE**, *Swinburne University of Technology*

FrA5.1   10:20 – 10:40   P4529
L_0 Smoothing Based Detail Enhancement for Fusion of Differently Exposed Images'""'35; :
Fei Kou, *Zhengguo Liy, **Changyun Wen, Weihai Chen
Beihang University
*Institute for Infocomm Research
**Nanyang Technological University

FrA5.2   10:40 – 11:00   P4494
Research on the Selection of Kernel Function in SVM based Facial Expression Recognition'""'3626
Fuguang Wang, Ketai He, Ying Liu, *Li Li, *Xiaoguang Hu
University of Science and Technology Beijing
*BeiHang University

FrA5.3   11:00 – 11:20   P4513
A Single-Camera Omni-Stereo Vision System for 3D Perception of Micro Aerial Vehicles (MAVs)'""'362;
Carlos Jaramillo, *Ling Guo, **Jizhong Xiao
The City College of New York
*Nanjing University of Science and Technology
**The City College of New York/CUNY City College

FrA5.4   11:20 – 11:40   P4414
Object Tracking Based on Kernel Recursive Least-Squares with Total Error Rate Minimization'""'3637
Se-In Jang, Kangrok Oh, Andrew Beng Jin Teoh, Kar-Ann Toh
Yonsei University

Session	FrAP — Interactive Session
Date/Time	Friday, 21 June 2013 / 10:20 – 12:00
Venue	ATC103

FrAP1   P4521
Research of the SC-FDE Synchronization Technology in HF Wireless Communication'""'3642
Xu Boyuan, Xu Weizhang
Communication University of China

FrAP2   P4097
A Rescue-Assist Wireless Sensor Networks for Large Building'""'3646
Long Cheng, Chengdong Wu, Yunzhou Zhang, *Li Chen
Northeastern University
*Shenyang Jianzhu University

FrAP3   P4100
The Frame Structure of Layered Quantum Signaling'""'364;
Zhang Meiling, Nie Min, Liu Lu, Liu XiaoHui, *Wang Xinmei
Xi'an University of Post and Telecommunication
*Xidian University

■ FrAP4　　P4169
Research on Information Security Cost Based on Game-Theory''''3655
Zheng Zuo, Yong Fang, Liang Liu, *Fang Fang, Xingrong Hu
Sichuan University
*Chengdu University of Information Technology

■ FrAP5　　P4303
Trial Platform for Underwater Acoustic Communication''''3659
Gao Chun-xian, Zhang Bin-Yi, Su Wei, Yuan Fei
Xiamen University

■ FrAP6　　P4618
Topology and Mapping Co-design for Complex Communication Systems on Wireless NoC Platforms''''3664
Yiou Chen, Jianhao Hu, Xiang Ling
University of Electronic Science and Technology of China

■ FrAP7　　P4149
Hybrid TDM-WDM 10G-PON for High Scalability Next Generation PON''''366:
M. E. Abdalla, S. M. Idrus, A. B. Mohammad
Universiti Teknologi Malaysia

■ FrAP8　　P4511
The Research and Design of High-Precision Strain Type Electronic Balance''''3673
Shenshen Gu, Fei Wang, Zhijian Chen, Lili Zhang, Wentao Zhang
Shanghai University

■ FrAP9　　P4064
Full Order State Observer of Stator Flux for Permanent Magnet Synchronous Motor Based on Parameter Adaptive Identification''''3678
Xin Luo, Anwen Shen, Wenchao Cao, Wenpei Rao
Huazhong University of Science and Technology

■ FrAP10　　P4515
Force and Position Control in the Electro-Hydraulic System by using a MIMO Fuzzy Controller''''3684
Pornjit Pratumsuwan, Aphaiwong Junchangpood
King Mongkut's University of Technology North Bangkok

■ FrAP11　　P4416
Factors that Influence Reliable Object Manipulation''''368:
Pavel Dzitac, Abdul Md Mazid
Central Queensland University

■ FrAP12　　P4571
LQG Controller with Sinusoidal Reference Signal Modeling for Spiral Scanning of Atomic Force Microscope''''3696
Habibullah, I. R. Petersen, H. R. Pota, M. S. Rana
University of New South Wales

■ FrAP13　　P4114
A Novel Forward-mode Three-level Inverter''''36: 2
Ye Xu, Lei Li
Nanjing University of Science and Technology

■ FrAP14　　P4519
Online Stator Resistance Estimation Using Artificial Neural Network for Direct Torque Controlled Induction Motor Drive''''36: 8
C. M. F. S. Reza, Saad Mekhilef
University of Malaya

■ FrAP15　　P4342
Surface Electromyography (sEMG) Feature Extraction based on Daubechies Wavelets''''36; 4
I. Elamvazuthi, G. A. Ling, K. A. R Ku Nurhanim, P. Vasant, *S. Parasuraman
Universiti Teknologi PETRONAS
*Monash University Sunway Campus

- FrAP16   P4610
Method to Generate True Random Numbers in HDD without Additional Hardware'"""36; 8
Xiong Liu*, Vincent Uy, WenXiang Xie
Seagate Technology International

- FrAP17   P4498
Walking Phases Detection on Structured Terrains by Using a Shoe-Integrated System'"""3723
Haobang Xu, Weihai Chen, Jianhua Wang, Jingbing Zhang
Beihang University

- FrAP18   P4490
An RGBD Data Based Vehicle Detection Algorithm for Vehicle Following Systems '"""3728
Changchen Zhao, Weihai Chen, Zhiwen Zhao, Jingmeng Liu
Beijing University of Aeronautics & Astronautics

- FrAP19   P4499
Three-dimensional Quantitative Description and Analysis of Cockroach Locomotion'""''3734
Xingming Wu, Zhifeng Li, Weihai Chen, Jianhua Wang
Beihang University

- FrAP20   P4500
A Novel Design of Pressure Sensing Foot for Lower Limb Exoskeleton'""''3739
Jingmeng Liu, Hongwei Li, Weihai Chen, Jianhua Wang
Beihang University

Session	FrM1 — Control Session
Date/Time	Friday, 21 June 2013 / 13:00 – 15:00
Venue	ATC205
Chair	**Jianhua ZHANG**, *North China Electric Power University*
Co-Session Chair	**Zhuquan ZANG**, *Curtin University Sarawak*, **Wang HAI**, *Swinburne University of Technology*

- FrM1.1   13:00 – 13:20   P4462
Sampled-Data Output Feedback Tracking of Magnetic Levitation System'""''3743
Asim Zaheer, Neelma Naz, Muhammad Salman
National University of Science and Technology

- FrM1.2   13:20 – 13:40   P4092
Multi-Scale Control – Improved Technique to Overcome Time-Delay Limitation'""''3749
Jobrun Nandong, Zhuquan Zang
Curtin University Sarawak

- FrM1.3   13:40 – 14:00   P4552
The Application of Supervisory Predictive Control in Supercritical Unit Coordinated Control System'""''3755
Guolian Hou, Jingbin Liu, Pengcheng Jiang, Jianhua Zhang
North China Electric Power University

- FrM1.4   14:00 – 14:20   P4158
Experimental Verification of LPV Modelling and Control for Conical Tank System'""''375;
S. Vijayalakshmi, D. Manamalli, G. Palani Kumar
Anna University

- FrM1.5   14:20 – 14:40   P4576
Gain Scheduled H-infinity Control for Nonlinear Stochastic Systems with Mixed Uncertainties'""''3766
Yanqing Liu, Yanyan Yin, Fei Liu, *Peng Shi, **Kok Lay Teo
Jiangnan University
Victoria University
**Curtin University*

■ FrM1.6   14:40 – 15:00   P4326
A Novel Power Flow Analysis for Microgrid Distribution System"""3772
Ting-Chia Ou, Ta-Peng Tsao, Whei-Min Lin, Chih-Ming Hong, Kai-Hung Lu, Chia-Sheng Tu
RMIT University

Session	**FrM2 — Invited Session: Testing & Control**
Date/Time	Friday, 21 June 2013 / 13:00 – 14:40
Venue	AD102
Chair	**Yaoguang HU**, *Beijing Institute of Technology*
Co-Session Chair	**Qingxuan JIA**, *Beijing University of Posts and Telecommunications*

■ FrM2.1   13:00 – 13:20   P4483
Research on Quality Tracing Based on Data Package of Electronic Components"""3778
Liu Yang, Hu Yaoguang, Han Jialin, Wen Jingqian, Wu Kongfei
Beijing Institute of Technology

■ FrM2.2   13:20 – 13:40   P4485
Optimization of Electronic Components Inventory Planning and Control Based on Fuzzy Multi-parameters"""3782
Wu Kongfei, Hu Yaoguang, Han Jialin, Wen JingQian, Liu Yang
Beijing Institute of Technology

■ FrM2.3   13:40 – 14:00   P4492
False Alarm Mechanism and Control of Aircraft Hydraulic System"""3787
Guishuang Tian, Shaoping Wang, Zhaomin He
Beihang University

■ FrM2.4   14:00 – 14:20   P4493
The Trajectory Tracking of Space Flexible Manipulator with Large Payloads Based on Optimal Control"""378;
Qingxuan Jia, Wei Yao, Gang Chen, Hanxu Sun
Beijing University of Posts and Telecommunications

■ FrM2.5   14:20 – 14:40   P4487
A Remote Calibration System for Industrial Thermometers"""3796
Le Chen, Yiyi Shao, Yaqiong Fu, Min Xie
China Jiliang University

Session	**FrM3 — Mechatronics**
Date/Time	Friday, 21 June 2013 / 13:00 – 15:00
Venue	ATC101
Chair	**Jinchuan ZHENG**, *Swinburne University of Technology*
Co-Session Chair	**Zhihong SUN**, *Donghua University*

■ FrM3.1   13:00 – 13:20   P4402
Characteristic Analysis and Control for High Speed Proportional Solenoid Valve"""379:
Qirui Xu, Guo Wei, *Xingzhong Li
Beihang University
*Volvo Cars Engine Co.Ltd

- FrM3.2　　13:20 – 13:40　　P4205
  High Speed Contouring Control of Biaxial Systems based on Task Polar Coordinate Frame"""37: 5
  Hao Meng, Yunjiang Lou, Jiaying Chen
  Harbin Institute of Technology Shenzhen Graduate School

- FrM3.3　　13:40 – 14:00　　P4384
  Research on Control Algorithm for Weaving Non-equal Diameter Tubular Fabric with Constant Weft Density"""37: ;
  Sun Zhihong, Li Zhiyao, Zhou Shenhua, Li Xiang
  Donghua University

- FrM3.4　　14:00 – 14:20　　P4214
  A Novel Electrothermally Actuated RF MEMS Switch for Wireless Applications"""37; 6
  Jitendra Pal, Yong Zhu, Junwei. Lu, Dzung Viet Dao
  Griffith University

- FrM3.5　　14:20 – 14:40　　P4397
  Fabrication and Package of Microfluidic Dielectrophoretic Chip for Trapping Two Particles"""37; ;
  +Tao Chen, Mingqiang Pan, Jizhu Liu, Yangjun Wang, Liguo Chen, Lining Sun, *Shaoqian Li
  Soochow University
  +Chinese Academy of Sciences
  *Shanghai Engineering Center for Microsatellites

- FrM3.6　　14:40 – 15:00　　P4017
  Model Predictive Control of a Dual-Stage Actuator System for Fast Setpoint Tracking"""3826
  Jinchuan Zheng
  Swinburne University of Technology

Session	FrM4 — Computer Vision
Date/Time	Friday, 21 June 2013 / 13:00 – 15:00
Venue	AD208
Chair	**Mohammed BENNAMOUN**, *The University of Western Australia*

- FrM4.1　　13:00 – 13:20　　P4042
  Improved Energy Contrast Image Fusion based on Nonsubsampled Contourlet Transform"""3832
  Xiangda Sun, Junping Du, Qingping Li, Xiaoyong Li, Liang Xu, Yawen Li
  Beijing University of Posts and Telecommunications

- FrM4.2　　13:20 – 13:40　　P4145
  Integrating Shape and Color Cues for Textured 3D Object Recognition"""3836
  Yulan Guo*+, Ferdous A. Sohel+, Mohammed Bennamoun+, Jianwei Wan*, Min Lu*
  +The University of Western Australia
  *National University of Defense Technology

- FrM4.3　　13:40 – 14:00　　P4150
  Robust Corner Detector Based on Corner Candidate Region"""3842
  Seungryong Kim, Hunjae Yoo, Kwanghoon Sohn
  Yonsei University

- FrM4.4　　14:00 – 14:20　　P4197
  A Vision-Based Obstacle Detection System for Parking Assistance"""3849
  Yu-Chen Lin, Che-Tsung Lin, Wei-Cheng Liu, Long-Tai Chen
  Industrial Technology Research Institute

- FrM4.5　　14:20 – 14:40　　P4199
  An Efficient Reliability Estimation Technique for Audio-Visual Person Identification"""3853
  Mohammad Rafiqul Alam, Mohammed Bennamoun, Roberto Togneri, Ferdous Sohel
  The University of Western Australia

■ FrM4.6   14:40 – 15:00   P4153

3D Human Pose Tracking using Gaussian Process Regression and Particle Filter Applied to Gait Analysis of Parkinson's Disease Patients""'3858

S. Sedai, M. Bennamoun, D. Q. Huynh, A. El-Sallam, S.Foo, J. Alderson, C. Lind
The University of Western Australia

Session	**FrM5 — Network & Communication**
Date/Time	Friday, 21 June 2013 / 13:00 – 15:00
Venue	AD209
Chair	**Guu-Chang YANG**, *National Chung Hsing University*
Co-Session Chair	**Taskin KOCAK**, *Bahcesehir University*

■ FrM5.1   13:00 – 13:20   P4350

Realistic Analysis of Percolation in Wireless Network under Omnidirectional Transmission Environment"""3865

Che-An Shen, Min-Kuan Chang, Guu-Chang Yang
National Chung Hsing University

■ FrM5.2   13:20 – 13:40   P4156

The Implementation of Distributed High-speed High-accuracy Data Acquisition System Based On EtherCAT"""386;

Tao Feng, Qing Li, Guorong Ren, Hongyang Wang, Fenhua Wang, Weicun Zhang, Bin Yang, *Jun Wu
University of Science and Technology Beijing
*Chinese Academy of Sciences

■ FrM5.3   13:40 – 14:00   P4315

Improved Design and Analysis of Diversity Optical-Wireless CDMA""'3876

Sheng-Han Tsai, Guu-Chang Yang, *Cheng-Yuan Chang, **Wing C. Kwong
National Chung Hsing University
*National United University
**Hofstra University

■ FrM5.4   14:00 – 14:20   P4311

Performance of Large Signal Model Heterojunction Bipolar Transistor InP/InGaAs an Optoelectronic Mixer"""3882

N.A Shaharuddin, *S. M Idrus, *S. Isaak
Universiti Teknologi Mara (UiTM)
*Universiti Teknologi Malaysia

■ FrM5.5   14:20 – 14:40   P4404

Bank Switching Performance Verification With Object-oriented Timed Petri Nets """3886

Xinju Zhang, Shuzhen Yao
BeiHang University

■ FrM5.6   14:40 – 15:00   P4133

Design and Implementation of High Throughput Bidirectional Fano Decoding""'3892

Ahmet Kakacak, *Taskin Kocak
Vestek R&D Corp.
Bahcesehir University

Session	FrMP — Interactive Session
Date/Time	Friday, 21 June 2013 / 13:00 – 15:00
Venue	ATC103

FrMP1   P4588
A Wireless Flipper Robot Using Interface Free Controller"""3898
Haslina Jaafar, Azura Che Soh, Wan Zuha Wan Hasan, Mohammad Hamiruce Marhaban, Shaufiq Abd Rashid
Universiti Putra Malaysia

FrMP2   P4565
Improvement of the Tracking Accuracy of an AFM Using MPC"""38: 3
M. S. Rana, H. R. Pota, I. R. Petersen, Habibullah
The University of New South Wales

FrMP3   P4186
Robotic Kit TEAC^{2}H-RI for Applications in Education and Research"""38: 9
Juan José González España, Jovani Alberto Jiménez Builes, John William Branch Bedoya
Universidad Nacional de Colombia

FrMP4   P4522
Real-time Pose Estimation of Rigid Objects using RGB-D Imagery"""38; 4
Umar Asif, Mohammed Bennamoun, Ferdous Sohel
The University of Western Australia

FrMP5   P4175
Sickle-shaped Voxel Approach to Enhance Automatic Reclaiming Operation using Bucket Wheel Reclaimer"""3922
Maung Thi Rein Myo, Tien-Fu Lu
University of Adelaide

FrMP6   P4435
Locational Optimization based Sensor Placement for Monitoring Gaussian Processes Modeled Spatial Phenomena"""3928
Linh Van Nguyen, Sarath Kodagoda, Ravindra Ranasinghe, Gamini Dissanayake
University of Technology

FrMP7   P4421
A Robotic Palletiser Control Strategy Redesign"""3934
Pavel Dzitac, Abdul Md Mazid
Central Queensland University

FrMP8   P4578
Decision Support for a Fuel Company using Simulation of Logistical Processes"""393:
Konstantin Aksyonov, Eugene Bykov, Olga Aksyonova, Natalia Goncharova, Alena Nevolina
Ural Federal University

FrMP9   P4520
Design of a Smart phone Based Body Sensor for Long-term Healthcare Monitoring"""3945
Kiing Ing Wong
Curtin University

FrMP10   P4333
Design and Development of the Air Conditioning System by Using OPC UA Specifications and Modbus Protocol"""3949
Nguyen Thi Thanh Tu, Huynh Quyet Thang
Hanoi University of Science and Technology

FrMP11   P4157
The Analysis of Common Cause Failure based on Impact Vector Considering Human Factor Diversity"""3955
Jie Liu, Kai Wang, Aidong Xu, Hong Wang
Shenyang Institute of Automation, Chinese Academy of Sciences

- FrMP12   P4096
  Business Process Modelling towards Derive and Implement IT Goals""395;
  Youseef Alotaibi, Fei Liu
  La Trobe University

- FrMP13   P4262
  Maximizing Output of a Sludge Drying Plant through Multiple Parameter Optimization""3967
  M. Z. Mohamed, M. F. M. Ghazali, *S. M. Idrus, *Norhaliza Abdul Wahab
  PETRONAS Penapisan Melaka Sdn Bhd
  *Universiti Teknologi Malaysia

- FrMP14   P4116
  Supervised Learning Classification for Dross Prediction in Ductile Iron Casting Production"""396;
  Igor Santos, Javier Nieves, Pablo G. Bringas, *Argoitz Zabala, Jon Sertucha
  *University of Deusto, *IK4-Azterlan*

- FrMP15   P4330
  Common Grounding Optimization for CVRP"""3977
  Wanfeng Liu, Xia Li, Naili Luo, Xiaohong Chen
  Shenzhen University

- FrMP16   P4403
  Control of an Inverted Pendulum using MODE-based Optimized LQR Controller"""397;
  Ismaila B. Tijani, *Rini Akmeliawati, Ayodele I. Abdullateef
  *ADMC, HCT, *IIUM*

- FrMP17   P4101
  Addressing Challenges for Automating Network Readiness Assessment Service for Unified Communications"""3987
  Shadan Saniepour Esfahani, Talal Siddiqui
  Cisco Systems

- FrMP18   P4563
  A FCS-MPC of an Induction Motor Fed by Indirect Matrix Converter with Unity Power Factor Control"""398;
  S. M. Muslem Uddin, Saad Mekhilef, *M. Rivera, **J. Rodriguez
  University of Malaya
  *Universidad de Talca
  **Universidad T’ecnica Federico Santa

- FrMP19   P4108
  Hybrid Cascaded Multilevel Inverter with One DC Source by Using High Frequency Link"""3997
  Hua Xia, Lei Li
  Institute of Automation, NJUST

- FrMP20   P4021
  Decoupled Identification of Electrical and Mechanical Parameters of Synchronous Motor-driven Chain with an Efficient CLOE Method"""39: 2
  P.Ph. Robet, M. Gautier
  University of Nantes/IRCCyN

Session	FrP1 — Control Session
Date/Time	Friday, 21 June 2013 / 15:20 – 17:00
Venue	ATC205
Chair	**Kristiaan SCHREVE**, *Stellenbosch University*
Co-Session Chair	**Yi CAO**, *Cranfield University*

■ FrP1.1   15:20 – 15:40   P4141
Dynamic Optimization for Batch Processes with Uncertainties via Approximating Invariant"""'39: 8
Lingjian Ye, *Vinay Kariwala, **Yi Cao
Zhejiang University
**ABB Global Industries & Services Ltd*
***Cranfield University*

■ FrP1.2   15:40 – 16:00   P4189
Application of Adaptive Decentralized PI Controller for Activated Sludge Process"""'39; 4
S. I. Samsudin, *M. F. Rahmat, *N. A. Wahab, *Muhammad Sani Gaya, *M. C. Razali
Universiti Teknikal Malaysia
**Universiti Teknologi Malaysia*

■ FrP1.3   16:00 – 16:20   P4223
Trajectory Tracking Control of the Nonholonomic Mobile Robot using Torque Method and Neural Network""'39; :
T. T. Hoang, D. T. Hiep, B. G. Duong, T. Q. Vinh
Vietnam National University

■ FrP1.4   16:20 – 16:40   P4231
Distributed Control Architecture for SSL Soccer Robots"""'3: 26
David Holtzhausen, Kristiaan Schreve, Mike Blanckenberg
University of Stellenbosch

■ FrP1.5   16:40 – 17:00   P4395
Fuzzy Control of Double Inverted Pendulum Based on the Genetic Algorithm"""'3: 32
Yifan Liu, Shifeng Zhang
Anhui University of Technology

Session	FrP2 — Power Electronics
Date/Time	Friday, 21 June 2013 / 15:20 – 16:40
Venue	AD102
Chair	**Fang Lin LUO**, *Nanyang Technological University*

■ FrP2.1   15:20 – 15:40   P4268
Investigation on Best Switching Angles to Obtain Lowest THD for Multilevel DC/AC Inverters"""'3: 36
Fang Lin Luo
AnHui University, Nanyang Technological University

■ FrP2.2   15:40 – 16:00   P4269
Laddered Multilevel DC/AC Inverters used in Solar Panel Energy Systems"""'3: 3;
Fang Lin Luo
AnHui University, Nanyang Technological University

■ FrP2.3   16:00 – 16:20   P4363
Design of Energy Feedback Mode Wireless Charging System for Electric Vehicles"""3: 49
Li-ke Gao, Ke Zhou, Wen-ji Zhu, Zhi-ding Wu, *Zhi-hui Wang, *Xin Dai
Guangxi Power Grid Electric Power Research Institute
*Chongqing University

■ FrP2.4   16:20 – 16:40   P4201
Design and Comparison of Parallel and Series Resonant Topology in Wireless Power Transfer"""3: 54
Bailian Ni, C. Y. Chung, H. L. Chan
The Hong Kong Polytechnic University

Session	FrP3 — Mechatronics
Date/Time	Friday, 21 June 2013 / 15:20 – 17:00
Venue	ATC101
Chair	**Shenshen GU**, *Shanghai University*
Co-Session Chair	**Jovani JIMENEZ**, *Universidad Nacional de Colombia*

■ FrP3.1   16:00 – 16:20   P4082
Power Assist Controller Design Taking Account of Unintentional Input Force"""3: 5:
Susumu Hara, Kota Yuchi
Nagoya University

■ FrP3.2   15:40 – 16:00   P4474
Nonlinear Calibration of Resistance Strain Type Electronic Balance and its Application in Industrial Sorting System"""3: 66
Shenshen Gu, Wentao Zhang, Fei Wang, Lili Zhang, Zhijian Chen
Shanghai University

■ FrP3.3   15:20 – 15:40   P4125
Peniel Method for the Automation of the Ultrasonic Monitoring based on the Acoustic impedance"""3: 72
Juan José González España, Jovani Alberto Jiménez Builes, John William Branch Bedoya
Universidad Nacional de Colombia

■ FrP3.4   16:20 – 16:40   P4454
Matematical Models and Design of an AGV (Automated Guided Vehicle)"""3: 79
John Faber Archila, Marcelo Becker
University of Sao

■ FrP3.5   16:40 – 17:00   P4272
Plane Detection to Improve 3D Scanning Speed Using RANSAC Algorithm"""3: 85
Tomofumi Fujiwara, Tetsushi Kamegawa, Akio Gofuku
Okayama University

Session	FrP4 — Invited Session: System Modeling and Analysis
Date/Time	Friday, 21 June 2013 / 15:20 – 16:20
Venue	AD208
Chair	**Xingming WU**, *Beihang University*
Co-Session Chair	**Chao LYU**, *Harbin Institute of Technology* **Wenxiang XIE**, *Seagate Technology International*

■ FrP4.1   15:20 – 15:40   P4473
Research on Testability Modeling with Bayesian Network Based on Multi-signal Flow Model'"""3: 92
Chunling Yang, Siwen Zhang, Chenmin Tong, *Dazhong Gu
Harbin Institute of Technology
*Shanghai Jiao Tong University

■ FrP4.2   15:40 – 16:00   P4480
An Initial Implementation of Testability Analysis Based on Multi-Signal Flow Graph Model'"""3: 96
Chao Lyu, Hao Ding, Shanshan Liu, Lixin Wang, Shujuan Wang
Harbin Institute of Technology

■ FrP4.3   16:00 – 16:20   P4496
A Complete Solution to the Inverse Kinematics Problem for 4-DOF Manipulator Robot'"""3: : 2
Yang Si, Qingxuan Jia, Gang Chen, Hanxu Sun
Beijing University of Posts and Telecommunications

Session	FrP5 — Network & Communication
Date/Time	Friday, 21 June 2013 / 15:20 – 17:00
Venue	AD209
Chair	**Ivan STOJMENOVIC**, *University of Ottawa*
Co-Session Chair	**Fei YUAN**, *Xiamen University* **Wenjian CAI**, *Nanyang Technological University*

■ FrP5.1   15:20 – 15:40   P4293
Embedded System for Sea Buoy Location and Tracking'"""3: : 7
Lian Hai-Yan, Yuan Fei, Cheng En
Xiamen University

■ FrP5.2   15:40 – 16:00   P4470
Architectural Synthesis of Networks On Chip'"""3: : ;
A. Mahdoum
Centre de Développement des Technologies Avancées

■ FrP5.3   16:00 – 16:20   P4372
Reliable Real-time Routing Protocol for Industrial Wireless Sensor and Actuator Networks'"""3: ; 7
Kan Yu, Mikael Gidlundy, Johan Akerberg, Mats Björkman
Mälardalen University

■ FrP5.4   16:20 – 16:40   P4161
Stochastic Modeling and Analysis of Opportunistic Computing in Intermittent Mobile Cloud'"""3; 24"
Deze Zeng, Song Guo, *Ivan Stojmenovic, **Shui Yu
The University of Aizu
*University of Ottawa
*Tsinghua University
**Deakin University

FrP5.5   16:40 – 17:00   P4423

Signal Strength Differentiation Based Navigation of Mobile Robot in Wireless Sensor Networks""'3; 2:
Xiaohai Li
City University of New York

Additional Paper:

Indirect Field Oriented Control of Induction Motor (IM) Drive Using
Fuzzy Logic Controller (FLC)"'"3; 36
Soud Elabed. H., Mailef Ali. M., Abdulmalek Jamal. S.