

# The Fifth International Conference on Genetic and Evolutionary Computing

Kinmen, August 29 ~ August 30, 2011, Xiamen, August 31 ~ September 1, 2011 http://bit.kuas.edu.tw/~icgec11

#### ICGEC-2011 Conference Time Table

August 29, 2011 Kinmen, Taiwan	August 30, 2011 Kinmen, Taiwan	August 31, 2011 Xiamen, China	September 1, 2011 Xiamen, China
	Keynote Speech		
Keynote Speech	Oral Sessions(B01~B03)	Keynote Speech	Post session
Lunch	Lunch	Lunch	Lunch
Oral Sessions(A01~A03)	Oral Sessions(B04~B06)	Oral Sessions(C01~C04)	Post session
Oral Sessions(A04~A06)	Oral Sessions(B07~B08)		
Dinner	Banquet		

#### August 29, 2011, Quemoy (Kinmen) University, Kinmen, Taiwan

10:40-11:00: Opening 11:00-12:00: Keynote Speech I 12:00-13:30: Lunch 13:30-15:00: Oral Sessions A01-A03 15:00-15:30: Break 15:30-17:00: Oral Sessions A04-A05 18:00-20:00: Dinner

#### August 30, 2011, Quemoy (Kinmen) University, Kinmen, Taiwan

09:30-10:30: Keynote Speech II 10:30-11:00: Break 11:00-12:00: Oral Sessions B01-B03 12:00-13:30: Lunch 13:30-15:30: Oral Sessions B04-B06 15:30-16:00: Break 16:00-17:00: Oral Sessions B07-B08 18:00-20:00: Banquet

#### August 31, 2011, Xiamen University, Xiamen, China

10:50-11:00: Welcome Address

11:00-12:00: Keynote Speech III 12:00-13:30: Lunch 13:30-15:30: Oral Sessions C01-C04

#### **ICGEC-2011 Session List**

A01: Computational Intelligence for Cyber-Physical SystemA02: Intelligent and Ubiquitous Interactive SystemsA03: Innovative Computations and Applications

A04: Innovation in Computer Networking A05: Innovative Computing Technology A06: Intelligent Technique and Its Application

B01: Innovative Circuits and SystemsB02: Intelligent Computing for Living Technology ApplicationsB03: Intelligent Office Automation Systems

B04: Innovative Intelligent Multimedia ComputingB05: Ubiquitous Computing and Multimedia ApplicationsB06: High Speed Computing Architecture and Applications

B07: Multimedia Innovative TechnologyB08: Intelligent Applications for Home and Medical Treatment

C01: Distributed Internet Computing and Internet of Things

C02: Computational Method Applications

C03: Intelligent Control and Embedded Systems

C04: Intelligent Management Engineering Applications

#### Session A01: Computational Intelligence for Cyber-Physical System

Session Chair(s): Chien-Chou Lin, National Yunlin University of Science and Technology, Taiwan Wen-Chung Kuo, National Formosa University, Taiwan

A01-01, Paper ID.: ICGEC-2011-IS12-01
Paper Title: Construct an Online Contest Game-Based Learning System for Junior High School Students
Author(s): Yuh-Ming Cheng
Affiliation: Shu-Te University, Taiwan

**A01-02**, Paper ID.: ICGEC-2011-IS12-02 Paper Title: Object-based Error Concealment in 3D Video Author(s): Chuen-Ching Wang and Chien-Shiang Hong Affiliation: Shu-Zen College of Medicine and Management, Taiwan

A01-03, Paper ID.: ICGEC-2011-IS12-03

 Paper Title: Security on the Design of RFID Access Control Protocol using the Strategy of Indefinite-index and Challenge-response
 Author(s): Bae-Ling Chen, Wen Chung Kuo, and Lih-Chyau Wuu
 Affiliation: National Formosa University

**A01-04**, Paper ID.: ICGEC-2011-IS12-04 Paper Title: The Implementation of Real-time On-line Vehicle Diagnostics and Early Fault Estimation System Author(s): Shi-Huang Chen, Jhing-Fa Wang, YuRu Wei, John Shang, and Shao-Yu Kao Affiliation: Shu-Te University, Taiwan

A01-05, Paper ID.: ICGEC-2011-IS12-05 Paper Title: A Fast Shape Context Matching Using Indexing Author(s): Chien-Chou Lin and Chun-Ting Chang Affiliation: National Yunlin University of Science and Technology, Taiwan

# Session A02 : Intelligent and Ubiquitous Interactive Systems

Session Chair(s): Jim-Min Lin, Feng-Chia University, Taiwan Zeng-Wei Hong, Asia University, Taiwan Yen-Lin Chen, National Taipei University of Technology, Taiwan

#### A02-01, Paper ID.: ICGEC-2011-IS22-01

Paper Title: A Humanoid Robot as a Teaching assistant for primary education Author(s): Kai-Yi Chin, Chin-Hsien Wu, and Zeng-Wei Hong Affiliation: Asia University, Taiwan

# A02-02, Paper ID.: ICGEC-2011-IS22-02

Paper Title: Intelligent Physiological Monitoring and Feedback System for Driver Safety Author(s): Yuan-Hsiang Lin, Chih-Fong Lin, Chong-Rong Wu, Yuan-Chang Hsu, and He-Zhong You Affiliation: National Taiwan University of Science and Technology, Taiwan A02-03, Paper ID.: ICGEC-2011-IS22-03

Paper Title: Computer Aided Diagnosis for Evaluating Colorectal Mucosal Lesions using Narrow-Band Imaging Author(s): Ming-Hung Tsai 1,2, Liu Chung-Fan 2, and Wei-Chih Shen2 Affiliation: Tungs' Taichung MetroHarbor Hospital 1 Asia University, Taiwan 2

# A02-04, Paper ID.: ICGEC-2011-IS22-04

Paper Title: An Efficient Component-Based Framework for Intelligent Home-Care System Design with Video and Physiological Monitoring Machineries Author(s): Yen-Lin Chen, Chuan-Yen Chiang, Chao-Wei Yu, and Shyan-Ming Yuan Affiliation: National Taipei University of Technology, Taiwan

A02-05, Paper ID.: ICGEC-2011-IS22-05

Paper Title: An Efficient Clustering Strategy for Wireless Sensor Networks Author(s): Jong-Shin Chen and Zong-Yi Lyu Affiliation: Chaoyang University of Technology, Taiwan

# Session A03 : Innovative Computations and Applications

Session Chair(s): Rung-Ching Chen, Chaoyang University of Technology, Taiwan Chin-Feng Lee, Chaoyang University of Technology, Taiwan Jiun-Jian Liaw, Chaoyang University of Technology, Taiwan

# A03-01, Paper ID.: ICGEC-2011-IS07-01

Paper Title: The Development of Smart Assistive Technology Devices for Urinary Catheterization Monitoring Author(s): Chuan-Pin Lu, Jui-Pin Li, Wei-Yi Liou, and Hung-Ming Chen

Affiliation: Meiho University, Taiwan

A03-02, Paper ID.: ICGEC-2011-IS07-02

Paper Title: Dynamic Dispatching Mechanism for Differentiated Services in Cloud Clusters Authors: M.-L. Chiang, C.-B. Lin, Y.-R. Chen, and Y.-C. Chang Affiliation: Chaoyang University of Technology, Taiwan

A03-03, Paper ID.: ICGEC-2011-IS07-03

Paper Title: A Light-weight Ranger Intrusion Detection System on Wireless Sensor Networks Authors: Chia-Fen Hsieh, Yung-Fa Huang, and Rung-Ching Chen Affiliation: Chaoyang University of Technology, Taiwan

A03-04, Paper ID.: ICGEC-2011-IS07-05

Paper Title: A Personalized Pair-Recommendation Approach Using Mobile Message Ontology Author(s): Li-Hua Li, Fu-Ming Lee, Tsung-Jen Pu, and Chih-Wei Chen Affiliation: Chaoyang University of Technology, Taiwan

#### Session A04 : Innovation in Computer Networking

Session Chair(s): Guan-Hsiung Liaw, I-Shou University, Taiwan Yuh-Chung Lin, Tajen University, Taiwan

**A04-01**, Paper ID.: ICGEC-2011-IS05-01 Paper Title: Bus Assisted Connectionless Routing Protocol for Metropolitan VANET Author(s): Wei Kuang Lai, Kai-Ting Yang, and Meng-Chong Li Affiliation: National Sun Yat-Sen University, Taiwan

A04-02, Paper ID.: ICGEC-2011-IS05-04
Paper Title: A TDMA Medium Access Control Mechanism for IEEE 802.11-based Wireless Networks
Author(s): Guan-Hsiung Liaw and Yen-Tung Yeh
Affiliation: I-Shou University, Taiwan

**A04-03**, Paper ID.: ICGEC-2011-IS05-05 Paper Title: Load-balance Directed Diffusion in Wireless Sensor Networks Author(s): Wei Kuang Lai, Yuh-Chung Lin, Tsung-Han Chen, and Chin-Shiuh Shieh Affiliation: Tajen University, Taiwan

#### A04-04, Paper ID.: ICGEC-2011-0230

Paper Title: New Anti-phishing Method with Two Types of Passwords in OpenID 802.11-based Wireless Networks
Author(s): Qingxiang Feng, Kuo-Kun Tseng, Jeng-Shyang Pan, Peng Cheng and Charles Chen Affiliation: Harbin Institute of Technology, China

**A04-05**, Paper ID.: ICGEC-2011-0137 Paper Title: GSM Automatic Frequency Planning with the Aid of Genetic Algorithms Author(s): Iyad Amro and Wasel Ghanem Affiliation: Information Technology College, Palestine

# Session A05 : Innovative Computing Technology

Session Chair(s): Bao Rong Chang, National University of Kaohsiung, Taiwan Tien-Tsai Huang, Lunghwa University of Science and Technology, Taiwan

**A05-01**, Paper ID.: ICGEC-2011-IS06-01

Paper Title: Access Security on Cloud Computing Implemented in Hadoop System Author(s): Bao Rong Chang, Hsiu-Fen Tsai, His-Chung Huang, and Chi-Ming Chen Affiliation: National University of Kaohsiung, Taiwan

A05-02, Paper ID.: ICGEC-2011-IS06-02

Paper Title: The Estimation of Mixture Customer Interpurchase Length Author(s): Hui-Hsin Hunag Affiliation: Aletheia University, department of Business Administration, Taiwan

A05-03, Paper ID.: ICGEC-2011-IS06-03

Paper Title: The Optimal Order and Payment Policies with Discount Cash Flows Analysis under Two Levels of Trade Credit Policy
Author(s): Chih-Te Yang, Tien-Tsai Huang, Hsiu-Feng Yen, and Liang-Ho Chen
Affiliation: Lunghwa University of Science and Technology, Taiwan

#### A05-04, Paper ID.: ICGEC-2011-0074

Paper Title: Accelerating Evolutionary Computation with Elite Obtained in Projected One-Dimensional Spaces Author(s): Yan Pei and Hideyuki Takagi

Affiliation: Kyushu University, Japan

# Session A06 : Intelligent Technique and Its Application

Session Chair: Chin-Shiuh Shieh, National Kaohsiung University of Applied Sciences, Taiwan Chao-Ho Chen, National Kaohsiung University of Applied Sciences, Taiwan

**A06-01**, Paper ID.: ICGEC-2011-0090 **(Move to C04-07)** Paper Title: Recurrent Fuzzy Neural Network for DC- motor control Author(s): Ahmad Faramarzi Affiliation: Islamic Azad University, Iran

A06-02, Paper ID.: ICGEC-2011-0103

Paper Title: A Survey on Interpretability-Accuracy (I-A) Trade-Off in Evolutionary Fuzzy Systems Author(s): Praveen Kumar Shukla and Surya Prakash Tripathi Affiliation: Northern India Engineering College, India

A06-03, Paper ID.: ICGEC-2011-0109
Paper Title: Comparison of NEAT and HyperNEAT Performance on a Strategic Decision- Making Problem
Author(s): Jessica Lowell
Affiliation: Northeastern University, USA

A06-04, Paper ID.: ICGEC-2011-0112 Paper Title: Reusable Knowledge from Symbolic Regression Classification Author(s): Ingo Schwab Affiliation: Karlsruhe University of Applied Sciences, Germany

**A06-05**, Paper ID.: ICGEC-2011-IS05-03 Paper Title: The Role of Channel Experience in Enhancing Technology Transfer Author(s): Chiou-Mei Chen Affiliation: Tajen University, Taiwan

# Session B01 : Innovative Circuits and Systems

Session Chair(s): Hung-Yu Wang, National Kaohsiung University of Applied Sciences, Taiwan

**B01-01**, Paper ID.: ICGEC-2011-IS16-01 Paper Title: Design of Low Adder Cost FIR Digital Filters Using Graph Representation Author(s): Chun-Wei Chiu, Hung-Yu Wang, Hsieh-Wei Lee, and Yuan-Long Jeang Affiliation: National Kaohsiung University of Applied Sciences, Taiwan

**B01-02**, Paper ID: ICGEC-2011-0046 Paper Title: New hardware engine for genetic algorithms Author(s): Fariborz Ahmadi Affiliation: Islamic Azad University, Iran

B01-03, Paper ID.: ICGEC-2011-0129
Paper Title: A Methodology for Determining the Non-Existence of Common Quadratic Lyapunov Functions for Pairs of Stable Systems
Author(s): Rodrigo H. Ordóñez-Hurtado and Manuel A. Duarte-Mermoud
Affiliation: University of Chille, Chile

**B01-04**, Paper ID.: ICGEC-2011-0086 **(Moved to C04-06)** Paper Title: Application of ANN Technique for DC- motor Control by using FEL Approaches Author(s): Kamel Sabahi and Easa Narimani Affiliation: Islamic Azad University, Iran

# Session B02 : Intelligent Computing for Living Technology Applications

Session Chair(s): Chun-Lin Lu, Kun Shan University, Taiwan Kuo-Sheng Cheng, National Cheng Kung University, Taiwan

**B02-01**, Paper ID.: ICGEC-2011-IS17-01 Paper Title: An Asymmetry Printed WLAN/WiMax Dipole Antenna Author(s): Churng-Jou Tsai, Wei-Chih Chen, Chia-Hsun Lin, Jinn-Kwei Guo, and Chun-Lin Lu Affiliation: Kun Shan University, Tainan, Taiwan

B02-02, Paper ID.: ICGEC-2011-IS17-03

 Paper Title: Design and Implementation of the Microcontroller Control System for Vertical garden Applications
 Author(s): Tzu-Ching Chia and Chun-Lin Lu
 Affiliation: Kun Shan University, Tainan, Taiwan

B02-03, Paper ID.: ICGEC-2011-IS17-05

Paper Title: The Daily Activity Analysis of Patient with Cardiovascular Diseases at Home Author(s): Chun-Han Yang, Kuo-Sheng Cheng, Jue-Long Wang, and Ko-Long Lin Affiliation: National Cheng Kung University, Tainan, Taiwan

B02-04, Paper ID.: ICGEC-2011-0083

Paper Title: Genetic Algorithms with Random Coordinates for Route Planning on a 3D Terrain Author(s): Ozer Ozdikis Affiliation: Middle East Technical University, Turkey

# Session B03 : Intelligent Office Automation Systems

Session Chair(s): Jiann-Gwo Doong, China University of Technology, Taiwan

**B03-01**, Paper ID.: ICGEC-2011-IS15-01 Paper Title: Assistive Technology for the Struggling Learner: Chinese PCS Editing Processor Author(s): Chi Nung Chu and Yu Ting Huang Affiliation: China University of Technology, Taiwan

**B03-02**, Paper ID.: ICGEC-2011-IS15-02 Paper Title: Step-Locked Data Transformation in Personal Filing Systems Author(s): Jiann-Gwo Doong, Affiliation: China University of Technology, Taiwan

**B03-03**, Paper ID.: ICGEC-2011-0057 Paper Title: Design and Implementation of Live SD Acquisition Tool in Android Smart Phone Author(s): Sheng-Wen Chen, Chung-Huang Yang amd Chien-Tsung Liu Affiliation: National Kaohsiung Normal University Kaohsiung, Taiwan

**B03-04**, Paper ID.: ICGEC-2011-0094 Paper Title: A Cross-Platform Mobile Learning System Using QT SDK Framework Author(s): Babatunde Akinkuolie and Shyan Ming Yuan Affiliation: National Chiao Tung University, Taiwan

#### Session B04 : Innovative Intelligent Multimedia Computing

Session Chair(s): Chih-Yang Lin, Asia University, Taiwan Chi-Shiang Chan, Asia University, Taiwan

B04-01, Paper ID.: ICGEC-2011-IS03-01
Paper Title: Comments on a Secret-key-privacy-preserving Authentication and Key Agreement Scheme
Author(s): Ya-Fen Chang, Jhih-Yi Lin, and Yuo-Ju Yen
Affiliation: National Taichung Institute of Technology, Taiwan

**B04-02**, Paper ID.: ICGEC-2011-IS03-02 Paper Title: A Novel Cluster-based Difference Expansion Transform for Lossless Data Hiding Author(s): Yuan-Yu Tsai and Chi-Shiang Chan Affiliation: Asia University, Taiwan

**B04-03**, Paper ID.: ICGEC-2011-IS03-03 Paper Title: Intelligent Projector System based on Computer Vision Author(s): Chih-Yang Lin, Wei-Wen Chang, and Yi-Hui Chen Affiliation: Asia University, Taiwan

**B04-04**, Paper ID.: ICGEC-2011-IS03-04 Paper Title: An Efficient V-Fairness (t, n) Threshold Secret Sharing Scheme Author(s): Jen-Ho Yang, Chin-Chen Chang, and Chih-Hung Wang Affiliation: Kainan University, Taiwan

**B04-05**, Paper ID.: ICGEC-2011-IS03-05 Paper Title: Detection System of Smoking Behavior Based on Face Analysis Author(s): Wen-Chuan Wu and Chun-Yang Chen Affiliation: Aletheia University, Taiwan

**B04-06**, Paper ID.: ICGEC-2011-IS03-06 Paper Title: Quantization- and Prediction-Based Image Authentication and Recovery Author(s): Wen-Chuan Wu and Yi-Pei Hsieh Affiliation: Aletheia University, Taiwan

**B04-07**, Paper ID.: ICGEC-2011-IS03-07 Paper Title: A Verifiable Visual Cryptography Scheme Author(s): Yi-Hui Chen, Ci-Wei Lan, and Chiao-Chih Huang Affiliation: Asia University, Taichung, Taiwan

# Session B05 : Ubiquitous Computing and Multimedia Applications

Session Chair(s): Cheng-Hsing Yang, National Pingtung University of Education, Taiwan Chin-Feng Lee, Chaoyang University of Technology, Taiwan

**B05-01**, Paper ID.: ICGEC-2011-IS04-01 Paper Title: A New Scheme for Data Hiding on Halftone Images Author(s): Hsin-Lung Wu, Jen-Chun Chang, Te-Chih Chou, and Wei-Ming Lai Affiliation: National Taipei University, Taiwan

**B05-02**, Paper ID.: ICGEC-2011-IS04-02 Paper Title: The First Robust Image Tamper Detection Scheme under Brightness Author(s): Jau-Ji Shen and Wei-Cheng Huang Affiliation: National Chung Hsing University, Taiwan

**B05-03**, Paper ID.: ICGEC-2011-IS04-03 Paper Title: Reversible Watermarking Scheme with Visibility Using Randomize Distance Author(s): Min-Hao Wu, Fu-Hau Hsu, Cheng-Hsing Yang, and Shiuh-Jeng Wang Affiliation: National Pingtung University of Education, Taiwan

**B05-04**, Paper ID.: ICGEC-2011- IS04-04 Paper Title: Reversible Data Hiding Based on VQ Compression Code Author(s): Chin-Feng Lee and Ming-Chi Shih Affiliation: Chaoyang University of Technology, Taiwan

**B05-05**, Paper ID.: ICGEC-2011-IS04-05 Paper Title: Hybrid Temporal Pattern Mining with Time Grain on Stock Index Author(s): Sheng Xiang Fan, Jieh-Shan Yeh, and Yaw-Ling Lin Affiliation: Providence University, Taiwan

**B05-06**, Paper ID.: ICGEC-2011-IS04-06

Paper Title: Classification Method Incorporating Decision Tree with Particle Swarm Optimization Author(s): Chien-Lung Chan, Cheng-Yang Lee, Nan-Ping Yang, and Sheng-Yuan Shen Affiliation: Yuan Ze University, Taiwan

**B05-07**, Paper ID.: ICGEC-2011-IS04-07 Paper Title: A Privacy Preserved Two-party Equality Testing Protocol Author(s): Shih-Fong Ciou and Raylin Tso Affiliation: National Chengchi University, Taiwan

## Session B06 : High Speed Computing Architecture and Application

Session Chair(s): Jim-Min Lin, Feng Chia University, Taiwan

**B06-01**, Paper ID.: ICGEC-2011-IS23-01 Paper Title: The Design and Evaluation of GPU based Memory Database Author(s): Chia-Feng Lin and Shyan-Ming Yuan Affiliation: National Chiao Tung University, Taiwan

**B06-02**, Paper ID.: ICGEC-2011-IS23-02

Paper Title: Speeding Up Subquadratic Finite Field Multiplier Over GF(2m) Generated By Trinomials Using Toeplitz Matrix-Vector With Inner Product Formula
Author(s): Chiou-Yng Lee
Affiliation: Lunghwa University of Science and Technology, Taiwan

**B06-03**, Paper ID.: ICGEC-2011-IS23-03 Paper Title: Novel Mastrovito multiplier over GF(2m) using trinomial Author(s): Che Wun Chiou, Chi Ting Ma, Jim-Min Lin, and Chiou-Yng Lee Affiliation: Ching Yuan University, Taiwan

**B06-04**, Paper ID.: ICGEC-2011-IS23-04 Paper Title: A Framework for the RFID Information Security and Privacy Protection Author(s): Chih-yung Chen Affiliation: St. John's University, Taiwan

**B06-05**, Paper ID.: ICGEC-2011-IS23-05 Paper Title: Event Mining and Indexing in Basketball video Author(s): Yung-Hui Chen, Lawrence Y. Deng Affiliation: St. John's University, Taiwan

# Session B07 : Multimedia Innovative Technology

Session Chair(s): Wu-Chih Hu, National Penghu University of Science and Technology, Taiwan Deng-Yuan Huang, Dayeh University, Taiwan

B07-01, Paper ID: ICGEC-2011-IS02-01
Paper Title: Eye Detection Based on Skin Color Analysis with Different Poses under Varying Illumination Environment
Author(s): Deng-Yuan Huang, Ta-Wei Lin, Wu-Chih Hu, and Mu-Song Chen
Affiliation: Dayeh University, Taiwan

B07-02, Paper ID: ICGEC-2011-IS02-02
Paper Title: VQ-Based Fuzzy Compression Systems Designs through Bacterial Foraging Particle Swarm Optimization Algorithm
Author(s): Hsuan-Ming Feng and Ji-Hwei Horng
Affiliation: National Quemoy University, Taiwan

B07-03, Paper ID: ICGEC-2011-IS02-03

Paper Title: Automatic Facial Skin Defectcs Detection and Recognition System

Author(s): Chuan-Yu Chang and Heng-Yi Liao

Affiliation: National Yunlin University of Science and Technology, Taiwan

B07-04, Paper ID: ICGEC-2011-0051

Paper Title: Probe Mastery Knowledge in E-learning model With Web Technology-The Effective factors by Flow theory
Author(s): Hui-To Lin, Su-Hwa Lin Huang
Affiliation: Cheng Shiu University, Taiwan

#### Session B08: Intelligent Applications for Home and Medical Treatment

Session Chair(s): Nai-Bin Hsu, Yuanpei University, Taiwan Jen-Chu Liu, , Yuanpei University, Taiwan

**B08-01**, Paper ID.: ICGEC-2011-IS20-01 Paper Title: A Mobile Phone Base Sensory Integration Training Software Author(s): Wen-Pinn Fang and Shun-Yi Pen Affiliation: Yuanpei University, Taiwan

**B08-02**, Paper ID.: ICGEC-2011-IS20-03 Paper Title: A Preoperative 3D Computer-aided Diagnosis System for Lung Tumor Author(s): You-Wei Wang and Chii-Jen Chen Affiliation: Yuanpei University, Taiwan

**B08-03**, Paper ID.: ICGEC-2011-0134 Paper Title: Immunity-inspired Host-based Intrusion Detection Systems Author(s): Chung-Ming Ou and C.R. Ou Affiliation: Kainan University, Taiwan

B08-04, Paper ID.: ICGEC-2011-0077
Paper Title: Application of Gravity Vectors and Moving Vectors for the Acceleration of both Differential Evolution and Interactive Differential Evolution
Author(s): Ryohei Funaki and Hideyuki Takagi
Affiliation: Kyushu University, Japan

# Session C01 : Distributed Internet Computing and Internet of Things

Session Chair(s): Guiran Chang, Northeastern University, China

**C01-01**, Paper ID: ICGEC-2011-IS14-01 Paper Title: Research on Architecture, Cross-layer MAC Protocol for Wireless Sensor Networks Author(s): Lizhong Jin, Jie Jia, Dong Chen, Fengyun Li, Zhicao Dong, and Xue Feng Affiliation: Northeastern University, China

# **C01-02**, Paper ID: ICGEC-2011-IS14-02

Paper Title: A Load Balanced Routing Protocol Based on Ant Colony Algorithm for Wireless Mesh Networks
Author(s): Chunxiao Liu, Guiran Chang, Jie Jia, Lizhong Jin, and Fengyun Li
Affiliation: Northeastern University, China

# **C01-03**, Paper ID: ICGEC-2011-IS14-03

Paper Title: Improved Particle Swarm Optimization for Fuzzy Neural Network Training Author(s): Chengjun Jin, Guiran Chang, Wei Cheng, and Huiyan Jiang Affiliation: Northeastern University, China

# **C01-04**, Paper ID: ICGEC-2011-IS14-04

Paper Title: Efficient Traffic Aware Multipath Routing Algorithm in Cognitive Networks Author(s): Jie Li, Xingwei Wang, Feng Li, and Jie Jia Affiliation: Northeastern University, China

# **C01-05**, Paper ID: ICGEC-2011-IS14-05

Paper Title: A Vertical Search Engine for Energy Conservation and Environmental Protection Author(s): Chuan Wang, Lizhong Jin, and Na Zhou Affiliation: Northeastern University, China

# C01-06, Paper ID: ICGEC-2011-IS14-06

Paper Title: A Novel Secure Architecture for the Internet of Things Author(s): Dong Chen, Guiran Chang, Lizhong Jin, Xiaodong Ren, and Fengyun Li Affiliation: Northeastern University, China

**C01-07**, Paper ID: ICGEC-2011-IS14-07

Paper Title: Composite Service Adaptation Supported Environmental Monitoring System Author(s): Fei Li, Bin Zhang, and Liang Ge Affiliation: Northeastern University, China

#### Session C02 : Computational Method Applications

Session Chair(s): Zhong Chen, Yangtze University, China Ming Zhao, Yangtze University, China

**C02-01**, Paper ID.: ICGEC-2011-IS18-01 Paper Title: Evaluation of Intrusion Detection System Based on Evaluation Model Author(s): Xianghui Zhou, Wei Wan, and Hengqing Tong Affiliation: Yangtze University, China

C02-02, Paper ID.: ICGEC-2011-IS18-02
Paper Title: A multi-objective Evolution Algorithm based Oil Field Stimulation Measure Programming
Author(s): Bixin Hu
Affiliation: Yangtze University, China

C02-03, Paper ID.: ICGEC-2011-IS18-03
Paper Title: An Improved Algorithm for the Numerical Filtering Algorithm of Inverse Laplace Transforms
Author(s): Zhen-ping Xu and Ming-Jiang Li
Affiliation: Yangtze University, China

**C02-04**, Paper ID.: ICGEC-2011-IS18-04 Paper Title: Application of Improved Apriori Algorithm on Educational Information Author(s): Qiang Yang and Yanghong Hu Affiliation: Yangtze University, China

C02-05, Paper ID.: ICGEC-2011-IS18-05
Paper Title: Applied Research on Discriminative-adaptive Neural Network Algorithm in Indoor Positioning System
Author(s): Youfu Du, Yanhong Hu, and Ming Zhao
Affiliation: Yangtze University, China

 C02-06, Paper ID.: ICGEC-2011-IS18-06
 Paper Title: Constrained CMA-Based Blind Multiuser Detection for DS-CDMA UWB in a Realistic Indoor Channel
 Author(s): Zhengqiang Wang and Ming Zhao
 Affiliation: Xiangfan University, China

**C02-07**, Paper ID.: ICGEC-2011-IS11-01 Paper Title: Novel Cooperation Mechanism to Enforce Security in Wireless Sensor Networks Author(s): Fengyun Li, Guiran Chang, Fuxiang Gao, and Lan Yao Affiliation: Northeastern University, China

#### Session C03 : Intelligent Control and Embedded Systems

Session Chair(s): Ming Zhao, Yangtze University, China Youfu Du, Yangtze University, China

**C03-01**, Paper ID.: ICGEC-2011-IS19-01 Paper Title: Symmetry Auto-detection based on Contour and Corner Models Author(s): Ming Zhao, Chih-Yu Hsu, Zhenyu Meng, Kuo-Kun Tseng, and Jeng-Shyang Pan Affiliation: Harbin Institute of Technology, China

**C03-02**, Paper ID.: ICGEC-2011-IS19-02 Paper Title: Research on The Properties of B-net and it's Application Author(s): Yuncai Zhou Affiliation: Yangtze University, China

**C03-03**, Paper ID.: ICGEC-2011-IS19-03 Paper Title: RCBA: An Efficient Annotation Tool for Community E-Learning Author(s): Feng Lu and Xin Li Affiliation: Yangtze University, China

C03-04, Paper ID.: ICGEC-2011-IS19-04
 Paper Title: Application of Information Fusion Method Based on Generalized Regression Neural Network in Hydrocarbon Reservoir Evaluation Studies
 Author(s): Hanyun Wen
 Affiliation: Yangtze University, China

**C03-05**, Paper ID.: ICGEC-2011-IS19-05 Paper Title: Evacuation Model based on Ellipse Sound Wave Diffusion Author(s): Yanrong Cui Affiliation: Yangtze University, China

C03-06, Paper ID.: ICGEC-2011-IS19-06
 Paper Title: Design of Remote Video Monitoring System Based On Arm-Linux Platform and HTTP Protocol
 Author(s): Jie Hu, Kai Wang, and Shengchao Wang
 Affiliation: Yangtze University, China

**C03-07**, Paper ID.: ICGEC-2011-IS19-07 Paper Title: Evolutionary Interval Fingerprint for Wireless Network Author(s): Kuo-Kun Tseng, Wei Wei, Jeng-Shyang Pan, Chih-Yu Hsu, Shuo-Tsung Chen and LingLing Tang Affiliation: Harbin Institute of Technology, China **C03-08**, Paper ID.: ICGEC-2011-IS19-08

Paper Title: Design on Wireless Access Control System based on Electrocardiogram Author(s): FuFu Zeng, Kuo-Kun Tseng, Ming Zhao, Jeng-Shyang Pan, Huang-Nan Huang, Chih-Yu Hsu, and Shuo-Tsung Chen Affiliation: Harbin Institute of Technology, China

#### Session C04 : Intelligent Management Engineering Applications

Chair(s): Junzo Watada, Waseda University, Japan

C04-01, Paper ID.: ICGEC-2011-IS21-01
Paper Title: Robust Color Image Segmentation by Karhunen-Loeve Transform based Otsu Multi-thresholding and K-means Clustering
Author(s): Chenxue Wang and Junzo Watada
Affiliation: Waseda University, Japan

**C04-02**, Paper ID.: ICGEC-2011-IS21-02 Paper Title: Fuzzy Game-based Real Option Analysis in Competitive Investment Situation Author(s): Tanatch Tangsajanaphakul and Junzo Watada Affiliation: Waseda University, Japan

**C04-03**, Paper ID.: ICGEC-2011-IS21-03 Paper Title: Height Estimation using Particle Filter in Human Tracking Author(s): Zhenyuan Xu and Junzo Watada Affiliation: Waseda University, Japan

C04-04, Paper ID.: ICGEC-2011-IS21-04
Paper Title: Building a Memetic Algorithm Based Support Vector Machine for Imbalaced Classification
Author(s): Wu Mingnan, Junzo Watada, Zuwarie Ibrahim, and Marzuki Khalid
Affiliation: Waseda University, Japan

**C04-05**, Paper ID.: ICGEC-2011-0145 Paper Title: TCP Connection Management Model in Complex Topology Network Author(s): Wu Zhigang Affiliation: Beijing University of Posts and Telecommunications, China

**C04-06**, Paper ID.: ICGEC-2011-0086 Paper Title: Application of ANN Technique for DC- motor Control by using FEL Approaches Author(s): Kamel Sabahi and Easa Narimani Affiliation: Islamic Azad University, Iran

**C04-07**, Paper ID.: ICGEC-2011-0090 Paper Title: Recurrent Fuzzy Neural Network for DC- motor control Author(s): Ahmad Faramarzi Affiliation: Islamic Azad University, Iran