

**International e-Conference  
on Computer Science  
01 - 08 July 2006**

**IeCCS-2006 FINAL PROGRAMME**

**International e-Conference on Computer Science 2006  
01 – 08 July 2006  
<http://live.ieccs.net>**

**Day 1 – Saturday 01/07/2006**

**Session 1: Papers by Amestoy; Z. Li; Zhou; Sotelo; Encheva; Gordonov; Juang;**

00:30 – 01:25 GMT: INVITED PAPER– Use of Scenarios for Generating Dynamic Execution Workflows over the Grid within the Grid-TLSE Project

*P. Amestoy, M. Dayde, R. Guivarch, C. Hamerling, M. Pantel and C. Puglisi*

01:30 – 02:25 GMT: Computability of Continuous and Discontinuous Real Recursive Functions

*Zhimin Li and Mariko Yasugi*

02:30 – 03:25 GMT: A Multidimensional Dynamic Evaluation Method on Credit?

*Zongfang Zhou, Chen Lin*

03:30 – 04:25 GMT: Vision-based Ego-motion Computing for Intelligent Vehicles

*M.A. Sotelo, R. Flores, D. Fernandez, I. Parra*

04:30 – 05:25 GMT: Towards Operational Content Infrastructure

*S. Encheva and S. Tumin*

05:30 – 06:25 GMT: Minimal Extension of a Communication Network to Meet an End to End Delay Constraint

*A. Gordonov, L. Petingi*

06:30 – 07:25 GMT: Improved Time-Varying Parametric Estimation by RGA

*Jih-Gau Juang and Li-Hsiang Chien*

**Day 2 – Sunday 02/07/2006**

**Session 2: Papers by Encheva; Zhang; Malcangi; Rivas; Korotov; Farias; Kim;**

00:30 – 01:25 GMT: Intelligent Tutoring Systems and Convex Geometries

*S. Encheva and S. Tumin*

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- 01:30 – 02:25 GMT: Reducing Multi-agent Planning Domains Using Domain Knowledge via Model Checking  
*Z. Zhang Y. Jiang*
- 02:30 – 03:25 GMT: Combining a Fuzzy Logic Engine and a Neural Network to Develop an Embedded Audio Synthesizer  
*M. Malcangi*
- 03:30 – 04:25 GMT: Bayesian Networks Applied to the Evaluation of Ceramic and Paper Quality of Kaolin  
*T. Rivas, J. M. Matias, J. Taboada, C. Ordonez*
- 04:30 – 05:25 GMT: A Posteriori Error Control in Terms of Linear Functionals with Applications to Fracture Mechanics  
*S. Korotov, M. Ruter and C. Steenbock*
- 05:30 – 06:25 GMT: A Computational Fusion of Wavelets and Neural Networks in a Classifier for Biomedical Applications  
*G. Farias, M. Santos*
- 06:30 – 07:25 GMT: Humanoid Robot Walking on a Slope and its Pattern Analysis Using Support Vector Machines  
*D. Kim and G.T. Park*

**Day 3 – Monday 03/07/2006**

**Session 3: Part of Prof. Daoliang Li Special Sessions**

- 00:30 – 00:55 GMT: A Prediction System of Plant Diseases and Insect Pests Based on WebGIS  
*Yan Wang, Gang Liu*
- 01:00 – 01:25 GMT: A Review of Testing Instrumentation for Soil Macronutrients  
*Lin Jianhan*
- 01:30 – 01:55 GMT: Development and Testing of Parallel Guidance Systems Based on DGPS for Agricultural Machinery  
*Zhijun Meng*
- 02:00 – 02:25 GMT: Environment Control System Design for Edible Fungus Growth in a Chamber  
*Yuan Junjie, Li Pingping*

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02:30 – 02:55 GMT: An Assistant-Decision Support System Using GPS and Video for Laser -Controlled Land Leveling  
*Yang Yunuo, Gang Liu*

03:00 – 03:25 GMT: Estimating Pig Weight Using Image Analysis Techniques  
*Y. Yang, Teng Guanghui*

03:30 – 03:55 GMT: Development of a Crop Growth Monitor Based on Optical Principle  
*Cui Di, Li Minzan*

**Session 4: Part of Prof. Daoliang Li Special Sessions**

05:00 – 05:25 GMT: Real-Time Analysis of Soil Parameters with NIR Spectra for the Grey-brown Alluvial Soil  
*Sun Jianying, Li Minzan*

05:30 – 05:55 GMT: Study on Quality Detection to Milk Powder Based on Support Vector Machines and Near Infrared Spectroscopy  
*Jingzhu Wu, Yiming Wang*

06:00 – 06:25 GMT: Locusts Detection from Images Using Pulse-Coupled Neural Network  
*Xuemei Xiong, Yiming Wang*

06:30 – 06:55 GMT: A Review of 3D GIS Modeling Technology  
*Meng Xiangjian, Liu Gang*

07:00 – 07:25 GMT: An Artificial Neural Network Model for Setting Target Cotton Yields  
*Jun Zhang, Yiming Wang*

07:30 – 07:55 GMT: Support Vector Regression and its Application to Predicting Soil Erosion Modulus of Small Watershed  
*Li Yunkai*

08:00 – 08:25 GMT: Yield mapping in the practice of precision agriculture  
*M. Zhang, Li Minzan*

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**Session 5: Part of Prof. Daoliang Li Special Sessions**

- 09:00 – 09:25 GMT: Virtual Instrumentation for Thermal Measurement System  
*Liu Yanzheng, Teng Guanghui*
- 09:30 – 09:55 GMT: An Expert System for Towed Water-saving Irrigation  
Mechanization Technology Knowledge via Model Checking  
*Jia Na, E. Zhuomao*
- 10:00 – 10:25 GMT: Research on Spray Control to Aim towards Crop-rows based on  
Machine Vision  
*Rao Honghui and Ji Changying*
- 10:30 – 10:55 GMT: Image Processing Algorithm for Cotton Recognition for Cotton  
Harvesting Robot  
*Wang Yong and Ji Changying*
- 11:00 – 11:25 GMT: Leaf Area Measurement based on Image Process  
*Li Zhichen and Ji Changying*
- 11:30 – 11:55 GMT: Optimization of Position of Reflective Board for Improving  
Light Intensity inside a Chinese Lean-to Greenhouse  
*Yun Kong, Shaohui Wang, Yuncong Yao, Chengwei Ma*
- 12:00 – 12:25 GMT: Modeling of Energy Consumption and Heat Transfer through  
Covering Layer of Greenhouse  
*Ma Chengwei, Zhang Yi, Zhang Junfang, Qin Midao, Liu  
Ruichun*

**Day 4 – Tuesday 04/07/2006**

**Session 6: Part of Prof. Daoliang Li Special Sessions**

- 00:30 – 00:55 GMT: An Empirical Model for Dry Matter Accumulation of Cucumber  
in Solar Greenhouse  
*Song Weitang, Qiao Xiaojun*
- 01:00 – 01:25 GMT: Study on Web-based Food Security Spatial Decision Support  
System  
*Yang Liu, Bin Liu, Xiaohua Yuan, Qingbo Zhou, Jia Liu*

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- 01:30 – 01:55 GMT: Tomato Functional-Structural Growth Simulation Combined with Radiation Transfer Model  
*Q.X. Dong, Y.M. Wang*
- 02:00 – 02:25 GMT: Research On Geo-referenced Spatial Multimedia Technology for Agricultural Resource Management  
*Hui Liu, Gang Liu, Zhijun Meng*
- 02:30 – 02:55 GMT: Predicting Grain Protein Content by *in situ* Reflected Spectrum in Winter Wheat  
*Wenjiang Huang*
- 03:00 – 03:25 GMT: Study on Greenhouse Temperature Adaptive Fuzzy Control  
*Weizhong Yang, Yiming Wang*
- 03:30 – 03:55 GMT: A Knowledge Management Framework for Development of an Agricultural Expert System  
*W.Z. Feng, Z.T. Fu, Y.Q. Duan*

**Session 7: Part of Prof. Daoliang Li Special Sessions**

- 05:00 – 05:25 GMT: Towards Measuring the Success of ICT Supported Knowledge Transfer Based on D&M-KT Model  
*W.Z. Feng, Y.Q. Duan, Z.T. Fu*
- 05:30 – 05:55 GMT: A Case for Web-Based Information and Knowledge Diffusion with Multi-Intermediary  
*W.Z. Feng, D.L. Li, Z.T. Fu*
- 06:00 – 06:25 GMT: Sorting Classifiers Design for Field Sample Pre-harvest Cottons with Bracteoles Based on Machine Vision  
*Wang Ling, Ji Changying*
- 06:30 – 06:55 GMT: Analysis and Prospect for Field Cotton-Harvest Robot  
*Wang Ling, Ji Changying*
- 07:00 – 07:25 GMT: Supplemental Lighting Effects of New LED Artificial Light Source for Horticultural Crop  
*Yongguang Hu, Pingping Li, Jiantao Zhao, Jianghai Jiang, Jintong Shi*
- 07:30 – 07:55 GMT: Development of the CFD Application into Greenhouse Environment Control  
*Yongguang Hu, Xiuhong Wang, Pingping Li*

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08:00 – 08:25 GMT: Research of Variable Rate Fertilizer Control System Based on CAN Bus  
*Wenqian Huang, Zhijun Meng, Liping Chen, Xiu Wang, Chunjiang Zhao*

**Day 5 – Wednesday 05/07/2006**

**Session 8: Part of Prof. Daoliang Li Special Sessions**

00:30 – 00:55 GMT: Application of Object- Oriented LOD in Embedded GIS  
*Guangqiang Yao, Chunjiang Zhao, Liping Chen, Zhijun Meng*

01:00 – 01:25 GMT: Detection of the Edges in Cropland Scenery by Using Wavelet Transform  
*Shen Mingxia, Ji Changying*

01:30 – 01:55 GMT: Calibration Techniques of Machine Vision System and their Application in Nondestructive Measurement of Plants  
*Ming Sun, Shuhuai Zhang, Hong Sun*

02:00 – 02:25 GMT: A Call Center-Based Consultant System for Fish Disease Diagnosis in China  
*Zhang Jie, Daoliang Li*

02:30 – 02:55 GMT: A Web-Based CBR System for Fish Disease Diagnosis  
*Daoliang Li*

03:00 – 03:25 GMT: DCDDS: A Dairy Cow Disease Diagnosis System for Dairy Farm in China  
*Ronglibin, Daoliang Li*

**Session 9: Part of Prof. Daoliang Li Special Sessions**

04:30 – 04:55 GMT: Application of Fluent in Studying Greenhouse Ventilation  
*Cuiping Hou, Chengwei Ma*

05:00 – 05:25 GMT: Towards Developing A Web-based Early Warning System for Cucumber Diseases in Greenhouse  
*M. Li, C.J. Zhao, D.L. Li, X.T. Yang, C.H. Sun, Y.A. Wang*

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05:30 – 05:55 GMT: Development and Application of an Expert System of Non-Pollution Feicheng Peach Production  
*M. Li , Y.A. Wang , S.Y. Liu , L.H. Wang , Z.Q. Yan , Q.Y. Yu*

06:00 – 06:25 GMT: Matrix-based Agricultural Ontology Merging Algorithm  
*Wang Bizuo, Tao Lan, Wang Qian*

06:30 – 06:55 GMT: Agricultural Ontology Construction with AGROVC  
*Wang Qian*

07:00 – 07:25 GMT: The Link between Attitude and Behaviour: A Study of Online Survey of E-Agribusiness in China  
*Y. Li, Z.T. Fu, H. Li*

**Day 6 – Thursday 06/07/2006**

**Session 10: Papers by Garcia; Yueming; Climent; Icardi; Mo; Nakamori;**

00:30 – 00:55 GMT: IP core OPB Ethernet v1.02.a for rewall Architectures  
*Federico Garcia, Antonio Mora, Angel Grediaga, Francisco Ibarra, Francisco Brotons*

01:00 – 01:25 GMT: Design and Implementation of a Secure Execution Environment for Mobile Agent  
*Lu Yueming, Ji Yuefeng, Wang Wenjie, Liu Aibo*

01:30 – 01:55 GMT: A Ghost Bit Based Finite Field Arithmetic for FPGAs  
*Joan-Josep Climent, Federico Garcia Crespi, Angel Grediaga*

02:00 – 02:25 GMT: Optimization of Energy Absorption and Dissipation of Composites  
*U. Icardi, L. Ferrero*

02:30 – 02:55 GMT: An Agent-based National Electricity Market Simulator as a long term Decision Support Tool  
*John P.T. Mo, George Grozev, Shanon McQuay*

03:00 – 03:25 GMT: Estimation of Signals from Non-linear uncertain Observations using Covariance Information  
*S. Nakamori, R. Caballero, A. Hermoso, J. Jimenez and J. Linares*

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03:30 – 03:55 GMT: Fixed-point Smoothing from uncertain observations via Mixtures Approximations  
*S. Nakamori, R. Caballero, A. Hermoso, J. Jimenez and J. Linares*

**Session 11: Papers by Shim; Yang; Benjumea; Armstrong; Widodo; Yan;**

05:00 – 05:25 GMT: An Architecture Design for Wireless Machine Condition Monitoring System  
*Min-Chan Shim, Bo-Suk Yang*

05:30 – 05:55 GMT: Integrated PDA-based Portable Diagnosis System for Elevators  
*Bo-Suk Yang, Seon-Sun Lee, Soo-Jong Lee*

06:00 – 06:25 GMT: A Computational Algorithm to Obtain the Law of the solvable Lie Algebra of  $n \times n$  Upper-Triangular Matrices  
*J.C. Benjumea, M.D. Morales, J. Nunez, A.F. Tenorio*

06:30 – 06:55 GMT: Towards Superlative H.264 Video Encoding Quality through Optimised Initial Rate Derivation  
*Andrew Armstrong, Steven Beesley, Christos Grecos*

07:00 – 07:25 GMT: Wavelet Support Vector Machine for Machine Faults Classification  
*Achmad Widodo, Bo-Suk Yang, Soo-Mok Lee*

07:30 – 07:55 GMT: Dynamic Production Scheduling and Control Based on MAS and System Development  
*Cao Yan, Yang Lina, Yang Yanli, Guo Yanjun*

08:00 – 08:25 GMT: Mechanical Product Design System based on Knowledge Fusion and Intelligent Navigation  
*Cao Yan, Yang Lina, Yang Yanli, Zhao Rujia*

**Session 12: Papers by Climent; Martin; Baek; Thapa; Lee; Lopez; Khairnar**

09:00 – 09:25 GMT: A Scalable Finite Field Multiplier with Interleaving Reduction  
*Joan-Josep Climent, Federico Garcia Crespo, Angel Grediaga*

09:30 – 09:55 GMT: Hidden Edges in Graph Colouring  
*Jose Antonio Martin H*

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- 10:00 – 10:25 GMT: A Hybrid Photoelastic Stress Analysis around Holes in Tensile-Loaded plates using Isochromatic data & Finite Element Method  
*Tae Hyun Baek, Henry Panganiban and Tae Jin Chung*
- 10:30 – 10:55 GMT: Software based Verification & Validation of IEC Standard Programmable Logic Controller  
*Devinder Thapa, Chang Mok Park, Suraj Dangol, Gi-Nam Wang*
- 11:00 – 11:25 GMT: SGNIDS (Signature-Graph based Network Intrusion Detection System) Design with NMS (Network Monitoring System) using SNMP  
*ByungKwan Lee, Tai-Chi Lee*
- 11:30 – 11:55 GMT: On the Hausdorff/fuzzy Quasi-metric & Computational Sciences  
*J. Rodriguez-Lopez, S. Romaguera and J. M. Sanchez-Alvarez*
- 12:00 – 12:25 GMT: Moving Target Indicator Using Neural Networks  
*D.G. Khairnar, S.N. Merchant and U. B. Desai*

**Day 7 – Friday 07/07/2006**

**Session 13: Papers by Ahn; Liao; Yoon; Chang; Vilanova; Shi; Luo; Martin**

- 00:30 – 00:55 GMT: Lightweight Fault-tolerant Message Passing System for Parallel and Distributed Applications  
*JinHo Ahn*
- 01:00 – 01:25 GMT: Qos-driven Selection of Web services  
*Guiping Liao, Jianqiang Hu*
- 01:30 – 01:55 GMT: A Packet-loss Endurable Authentication Mechanism for IPv6 Mobile Multicast Network  
*Miyoun Yoon, Yoojae Won, Jaeil Lee*
- 02:00 – 02:25 GMT: Integrity-Enhanced Improvements for ISO 9001 registered Organizations  
*Wen-Kui Chang, Jun-Yuan Chen and Fang-Yie Leu*
- 02:30 – 02:55 GMT: A Reliable Method for the Analysis of the Visual Perceptions induced by Stimulation of the Human Visual Cortex with Transcranial Magnetic Stimulation  
*H. Vilanova, E. Fernandez*

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03:00 – 03:25 GMT: Improved Synchronous Scheme Based on A Re-adaptive Audio Watermarking Scheme

*Huaji Shi, Shun Wang, Xingyi Li, Qiulin Ding*

03:30 – 03:55 GMT: Discovering Biological Associations between Genes in Bladder Cancer

*Tracy Luo , I-Jen Chiang, Wen-Wen Yang*

04:00 – 04:25 GMT: Orthogonal Variant Moments in Computer Vision

*José Antonio Martin H and Matilde Santos*

**Session 14: Papers by Beesley; Zin; Curran; Park; Han; Koh; Sadri; Kuan**

05:00 – 05:25 GMT: An Edge Enhanced Error Concealment Algorithm for H.264

*S.T.C. Beesley, A.J. Armsrong, C. Grecos*

05:30 – 05:55 GMT: Removal of Occlusion and Reflection using Adaptive Rank Filter for Robust Template Matching

*Thi Thi Zin, Sung Shik Koh, and Hiromitsu Hama*

06:00 – 06:25 GMT: A Visual Musical Structural Analysis System for Browsing Music Interactively

*Kevin Curran, Elaine Smyth, Frank Lyons*

06:30 – 06:55 GMT: An Incremental Log Analysis based on Recent Section

*Byung Joon Park, Si Eun Kim*

07:00 – 07:25 GMT: AhCon : An Automated HTML Converter Supporting Frames for the Wireless Internet

*Jin Seop Han, Byung Joon Park*

07:30 – 07:55 GMT: Noise Level Evaluation of 2-D Observation Matrix after Recovery of Missing Data

*Sung Shik Koh, Thi Thi Zin, and Hiromitsu Hama*

08:00 – 08:25 GMT: Information Exchange Amongst Abductive Logic-Based Agents

*F. Sadri and F. Toni*

08:30 – 08:55 GMT: An Intelligent Methodology to Predict Temperature Distribution of a Chip with Non-Uniform Power Sources

*Yean-Der Kuan, Hsin-Chung Lien, Chain-Lin Chen, Wen-P. Chen*

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**Day 8 – Saturday 08/07/2006**

**Session 15: Papers by Lee; Camacho; Moreno; Gros; Schaal; Ustymenko; Yang**

00:30 – 00:55 GMT: PEMS, a Periodic Multi-Step routing Algorithm for DS-TE  
*K. Lee, A. Toguyeni, A. Rahmani*

01:00 – 01:25 GMT: Web Data Extraction using Semantic Generators  
*David Camacho and Maria D.R-Moreno*

01:30 – 01:55 GMT: AI techniques for Automatic Learning Design  
*Maria D.R-Moreno and David Camacho*

02:00 – 02:25 GMT: A Speech-to-Speech Translation User Interface  
*J. Zganec Gros*

02:30 – 02:55 GMT: Numerical Simulation Of Metallic Deformation Processes:  
Stretching And Extrusion Including Friction  
*Ernesto Ponce Lopez*

03:00 – 03:25 GMT: A Bayesian Approach for Small Information Trust Updates  
*Markus Schaal*

03:30 – 03:55 GMT: Online Communities and Online Repositories: Improving  
Digital Libraries by Collaborative Ontology-Based Filtering  
*Stanislav Ustymenko, Daniel Schwartz*

04:00 – 04:25 GMT: Eye Feature Extraction Based on Gray Information and Harris  
Corner Detection  
*Chunfeng Yang, Gengtao Zhou, Yongzhao Zhan*

**Session 16: Papers by Pino; Young; Zhu; Moon;**

05:00 – 05:25 GMT: A Support Tool For Rapid Software Process Assessment  
*Francisco J. Pino, Felix Garcia, Mario Piattini*

05:30 – 05:55 GMT: Study of Parameter Identification using Hybrid Neural-Genetic  
Algorithm in Electro-Hydraulic Servo System  
*Moon Byung-Young*

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06:00 – 06:25 GMT: Feature Recognition Technique from 2D Ship Drawing Using Fuzzy Inference System  
*Moon Byung-Young*

06:30 – 06:55 GMT: Robust Output Feedback Controller of TCP/AQM Router Based on LMI  
*Ruijun Zhu and Cuiping Zhen*

07:00 – 07:25 GMT: Fuzzy PI Rate Controller for Streaming Media Traffic  
*Ruijun Zhu and Cuiping Zhen*

07:30 – 07:55 GMT: Redundancy Optimization of Group Peers in P2P Grid Computing  
*Yong-Hyuk Moon, Jae-Hoon Nah, Sung Won Sohn, Chan-Hyun Youn*

**Session 17: Papers by Washizaki; M.H. To; Lyras; Koumboulis; Herrera; Korenblit; Mellouk;**

08:30 – 08:55 GMT: Measuring Complexity of Remote Component-Based Software System toward Maintainability Estimation  
*Hironori Washizaki, Tomoki Nakagawa, Yuhki Saito and Yoshiaki Fukazawa*

09:00 – 09:25 GMT: Application of Advanced Filtering Algorithm for measuring Micro Burrs  
*Minh H. To, SungLim Ko*

09:30 – 09:55 GMT: Implementation of Iterative Recursion for the Data Retrieval from Directed Acyclic Word Graphs  
*Dimitrios P. Lyras, Kyriakos N. Sgarbas and Nikos D. Fakotakis*

10:00 – 10:25 GMT: A Structured Knowledge Environment for AKBMS  
*F.N. Koumboulis, M.P. Tzamtzi, N.B. Glezakos*

10:30 – 10:55 GMT: Image Recognition and Retrieval Using an Invariant Schema Based on Principal Component Vector Analysis  
*R. Herrera-Acuna, Diego Aracena-Pizarro*

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11:00 – 11:25 GMT: On the Number of Mincuts in Generalized Fibonacci Graphs of Degree 3

*M. Korenblit and V.E. Levit*

11:30 – 11:55 GMT: Improvement Probabilities in State Dependent Routing for Dynamic Irregular Traffic's Network

*Abdelhamid Mellouk, Said Hoceini, Samia Larynouna*

**Session 18: Special Session on Information Security by Dr N. Sklavos**

12:30 – 12:55 GMT: Full Exploitation of Partial Unrolling Technique for SHA-256 Hash Function

*G.A. Panagiotakopoulos et. all*

13:00 – 13:25 GMT: Hardware Design of Network Intrusion Detection System Based on Principal Component Analysis and Genetic Programming

*Z. Bankovic, S. Bojanic and O. Nieto-Taladriz*

13:30 – 13:55 GMT: Power aware security policy guidelines for WSN

*G. Asimakopoulos et. all*

***END of IeCCS-2006***

***Thank you***