



7th ACIS International Conference on Software Engineering Research, Management and Applications

## Technical Program

December 2 – 3, 2009

Golden Coast Lawton Hotel, Haidian Island, Haikou City, China

### Wednesday December, 2, 2009

7:00 - 8:00	<b>Registration</b> <i>Lobby, Golden Coast Lawton(GCL) Hotel</i>
8:00 – 8:30	<b>Opening Ceremony</b> <i>Conference Room 1, Building 5, China Reform Institute (57 Renmin Avenue, 30 meters away from GCL Hotel)</i>
8:30 – 9:20	<b>First Keynote Address</b> <i>Conference Room 1, Building 5, China Reform Institute</i> Session Chair: Simon Xu, Algoma University, Canada  "Some Aspects of OS Security" Professor Sihan Qing Department of Information Security Peking University, China
9:30 – 10:20	<b>Second Keynote Address</b> <i>Conference Room 1, Building 5, China Reform Institute</i> Session Chair: Petr Hnetyuka, Charles University, Czech Republic  "Software Development for u-Healthcare" Professor Haeng Kon Kim Department of Computer Information & Communication Engineering Catholic University of Daegu, Korea
10:20 – 11:00	<b>Coffee Break</b> <i>Foyer, 2<sup>nd</sup> floor, GCL Hotel</i>

<b>Session 1A</b> <b>11:00 – 12:30</b>	<b>Agent Technology</b> <span style="float: right;"><b>Macao Hall, 2<sup>nd</sup> floor, Golden Coast Lawton Hotel</b></span> <b>Session Chair: Soo Dong Kim, Soongsil University, Korea</b>
<p>A Lecture Allocation System based on Goal-Oriented Choice  <i>Yoshihito Saito, Takayuki Fujimoto and Tokuro Matsuo</i></p> <p>An Agent-Based Web Services Market  <i>Ali Durmus and Nadia Erdogan</i></p> <p>Synthesis Constraints Optimized Genetic Algorithm for Autonomous Task Planning and Allocating in MAS  <i>Kailong Zhang, Xingshe Zhou, Chongqing Zhao and Yuan Yao</i></p>	
<b>Session 1B</b> <b>11:00 – 12:30</b>	<b>Component-Based Software Engineering</b> <span style="float: right;"><b>Hong Kong Hall, 2<sup>nd</sup> floor, GCL Hotel</b></span> <b>Session Chair: Wencai Du, Hainan University, China</b>
<p>New Smith Predictor and Fuzzy Adaptive Control for WNCS  <i>Wencai Du</i></p> <p>Supporting Real-life Applications in Hierarchical Component Systems  <i>Pavel Jezek, Tomas Bures and Petr Hnetyнка</i></p> <p>The Extended Finite State Machine and Fault Tolerant Mechanism of Distributed Systems  <i>Shengfa Gao, Xin Li and Ruihua Zhang</i></p>	
<b>Session 1C</b> <b>11:00 – 12:30</b>	<b>Design Patterns, Frameworks, Software Architecture and Financial Systems</b> <b>Session Chair: Haeng-kon Kim, Catholic University of Daegu, Korea</b> <span style="float: right;"><b>Taiwan Hall, 2nd floor, GCL Hotel</b></span>
<p>Towards Unanticipated Adaptation: An Architecture-based Approach  <i>Bo Ding, Huaimin Wang, Dianxi Shi and Xiang Rao</i></p> <p>Workflow Change Patterns: Opportunities for Extension and Reuse  <i>Zahra Aghakasiri and Seyed Hassan Mirian-Hosseiniabadi</i></p> <p>Financial Options Pricing Using the MKPF Algorithm  <i>Yingbo Zhang, Fasheng Wang and Yuejin Lin</i></p>	

<b>12:40 – 2:00</b>	<b>Lunch (complimentary)</b>	<b>Dinner Hall, GCL Hotel</b>
<b>Session 2A 2:00 – 3:30</b>	<b>Case Studies</b> <b>Session Chair: Simon Xu, Algoma University, Canada</b>	<b>Macao Hall, 2<sup>nd</sup> floor, Golden Coast Lawton Hotel</b>
<p>A BnB Mobile Game Online Based on J2ME and J2EE <i>Quanyin Zhu, Lijuan Zhao, Suqun Cao, Jianchun Shen and Shuai Zhang</i></p> <p>Evaluation of Test-Driven Development in Academic Environment <i>Shaochun Xu</i></p> <p>Research of Hydropower Stations Optimal Operation Based on the Discrete Differential Dynamic Programming-- Progressive Optimization Algorithm Combination Method <i>Yingji Xuan, Jiangsong Xu and Yadong Mei</i></p>		
<b>Session 2B 2:00 – 3:30</b>	<b>Information Engineering and Information Management</b> <b>Session Chair: Petr Hnetynka, Charles University, Czech Republic</b>	<b>Hong Kong Hall, 2<sup>nd</sup> floor, GCL Hotel</b>
<p>Definition and Segmentation of Orchestra Companies <i>Michael Gall, Christian Sterba and Thomas Grechenig</i></p> <p>Temporal XML Indexing Based on Suffix Tree <i>Feng Zhang, Xinjun Wang and Shaolong Ma</i></p> <p>Data Warehouse-Based Personalized Information Service Scheme in E-Government <i>Xilin Liu and Dong Li</i></p>		
<b>Session 2C 2:00 – 3:30</b>	<b>Software Engineering</b> <b>Session Chair: Huaikao Miao, Shanghai University, China</b>	<b>Taiwan Hall, 2nd floor GCL Hotel</b>
<p>The Systemic Research on the Enterprise Production Planning with Guarantee Period Based on Wagner-Whitin Algorithm <i>Zhang Kun, Li Zhuang and Teng Guo Ku</i></p> <p>Design and Implementation of RTE Generator for Automotive Embedded Software <i>Shiquan Piao, Hyunchul Jo, Sungho Jin and Wooyoung Jung</i></p> <p>UML for XML-GL Query using Class Diagram and OCL <i>Bong-Jin Choi, Yan Ha and Yong-Sung Kim</i></p>		
<b>3:30 – 3:50</b>	<b>Coffee Break</b>	<b>Foyer, 2<sup>nd</sup> floor, GCL Hotel</b>

<b>Session 3A</b> <b>3:50 – 5:50</b>	<b>Software Testing Techniques</b> <b>Session Chair: Roger Lee, Central Michigan University, United States</b>	<b>Macao Hall, 2<sup>nd</sup> floor, GCL Hotel</b>
<p>A Cross Platform Test Management System for the SUDAAN Statistical Software Package  <i>Donghui Wang, Beth Barnwell and Michael Witt</i></p> <p>A State based Fitness Function for Evolutionary Testing of Object Oriented Programs  <i>Muhammad Bilal Bashir and Aamer Nadeem</i></p> <p>Intelligent e-Learning System for Chinese-English Bilingual Education  <i>Shaojing Fan, Zhongkun He, Yongping Zhang, Rina Su and Hongmei Zhang</i></p> <p>Towards a Hierarchical Testing and Evaluation Strategy for Web Services System  <i>Chengying Mao</i></p>		
<b>Session 3B</b> <b>3:50 – 5:50</b>	<b>Mobile Wireless Computing</b> <b>Session Chair: Gongzhu Hu, Central Michigan University, United States</b>	<b>Hong Kong Hall, 2<sup>nd</sup> floor, GCL Hotel</b>
<p>Linear Method for WLAN Positioning System  <i>Yu-hong Liu and Yao-kuan Wang</i></p> <p>Mining of Association Rules from Distributed Data Using Mobile Agents  <i>Gongzhu Hu and Shaozhen Ding</i></p> <p>Mobile Learning Applied Research Based on 3G Technology  <i>Li Zhuang, Chen Xiao Yan and Du Yan</i></p> <p>M-KAD: A scalable Peer-to-Peer system for Similarity Search in Metric Space  <i>Dafan Dong</i></p>		
<b>Session 3C</b> <b>3:50 – 5:50</b>	<b>Object-Oriented Technology and Reverse Engineering</b> <b>Session Chair: Yucong Duan, University of Bourgogne, France</b>	<b>Taiwan Hall, 2<sup>nd</sup> floor, GCL Hotel</b>
<p>Array Bounds Check Elimination for Java Based on Sparse Representation  <i>Keqiao Yang, Zeng Huang and Min Yang</i></p> <p>Syntactic and Semantic Prediction in Dynamic Languages  <i>Jakub Misek and Filip Zavoral</i></p> <p>Efficiency from Formalization: An Initial Case Study on Archi3D  <i>Yucong Duan</i></p> <p>An Empirical Study of Java System Evolution at the Method Level  <i>Emal Nasser and Steve Counsell</i></p>		

<b>6:00 - 7:30</b>	<b>Dinner hosted by Hainan University</b>	<b>Dinner Hall, Golden Coast Lawton Hotel</b>
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**Thursday December 3, 2009**

<b>7:00 - 8:00</b>	<b>Registration</b>	<b>Lobby, Golden Coast Lawton Hotel</b>
<b>Session 4A 8:00 – 10:00</b>	<b>Data Mining, Knowledge Discovery and Artificial Intelligence Macao Hall, 2<sup>nd</sup> floor, GCL Hotel</b> <b>Session Chair: Jixin Ma, University of Greenwich, United Kingdom</b>	
<p>A Novel Feature Selection Approach and Feature Weight Adjustment Technique in Text Classification <i>Yixing Liao and Xuezheng Pan</i></p> <p>A Novel MHC-inspired Approach for Malicious Code Detection <i>Yu Zhang and Lihua Wu</i></p> <p>A Personalized Intelligent Web Retrieval System Based on the Knowledge-base Concept and Latent Semantic Indexing <i>Lihua Wu and Jianping Feng</i></p> <p>A Robust Approach to Subsequence Matching <i>Aihua Zheng, Jixin Ma, Bin Luo, Miltos Petridis and Jin Tang</i></p>		
<b>Session 4B 8:00 – 10:00</b>	<b>Software Process Models and Other</b> <b>Session Chair: Wencai Du, Hainan University, China</b>	<b>Hong Kong Hall, 2<sup>nd</sup> floor, GCL Hotel</b>
<p>Adapting the NFR Framework to Aspectual Use-Case Driven Approach <i>Xiaomei Liu, Xiaojuan Zheng and Shulin Liu</i></p> <p>VRFPS: A Novel Virtual Machine-based Real-time File Protection System <i>Feng Zhao, Yali Jiang, Guofu Xiang, Hai Jin and Wenbin Jiang</i></p> <p>Defining and Implementing Software Subcontracting Management Processes in Small Enterprises <i>Ivan Garcia, Carla Pacheco, Pavel Sumano, and Jose Calvo-Manzano</i></p> <p>Error Estimation Model for Managing Embedded Software Development <i>Yoshiyuki Anan, Kazunori Iwata, Toyoshiro Nakashima and Naohiro Ishii</i></p>		
<b>10:00 – 10:20</b>	<b>Coffee Break</b>	<b>Foyer, 2<sup>nd</sup> floor, GCL Hotel</b>

<b>Session 5A</b> <b>10:20 – 12:20</b>	<b>Data Mining, Knowledge Discovery and Artificial Intelligence</b> Macao Hall, 2 <sup>nd</sup> floor, GCL Hotel <b>Session Chair: Jixin Ma, University of Greenwich, United Kingdom</b>	
<p>An efficient data mining system using multi-agent of e-commerce  <i>Qiang Wu</i></p> <p>Combined Algorithms for Classification of Conduct Disorder of Students in Thai Vocational School  <i>Sukontip Wongpan and Anongnart Srivihok</i></p> <p>MHC-inspired Antibody Clone Algorithm for Multimodal Function Optimization  <i>Yu Zhang, Lihua Wu and Feng Xia</i></p> <p>Predicting Code Change by Using Static Metrics  <i>Andreas Mauczka, Thomas Grechenig and Mario Bernhart</i></p>		
<b>Session 5B</b> <b>10:20 – 12:20</b>	<b>Software Process Models</b> <b>Session Chair: Yucong Duan, University of Bourgogne, France</b>	<b>Hong Kong Hall, 2<sup>nd</sup> floor, GCL Hotel</b>
<p>FRAME: A Generic Fractal Process Metamodel for Agile Methodologies  <i>Mahsa Hasani Sadi and Raman Ramsin</i></p> <p>Investigating Inconsistency Detection as a Validation Operation in Software product Line  <i>SAbdelrahman Osman, Somnuk Phon-Amnuaisuk and Chin Kuan Ho</i></p> <p>Modeling Variability in Software Product Line Using First Order Logic  <i>Abdelrahman Osman, Somnuk Phon-Amnuaisuk and Chin Kuan Ho</i></p> <p>Toward Automated Support for Software Process Improvement Initiatives in a Small Enterprise  <i>Ivan Garcia, Carla Pacheco, Pavel Sumano and Jose Calvo-Manzano</i></p>		
<b>12:20 – 1:20</b>	<b>Lunch (complimentary)</b>	<b>Dinner Hall, Golden Coast Lawton Hotel</b>
<b>Session 6A</b> <b>1:20 – 3:20</b>	<b>Data Mining, Knowledge Discovery and Artificial Intelligence</b> Macao Hall, 2 <sup>nd</sup> floor, GCL Hotel <b>Session Chair: Simon Xu, Algoma University, Canada</b>	
<p>Probabilistic Modeling of Streaming RFID Data Using Correlated Variable-duration HMMs  <i>Yanming Nie, Zhanhuai Li, Qun Chen and Shanglian Peng</i></p> <p>Propose Semantic Formalization for 3D Reconstruction of Architectural Objects  <i>Yucong Duan</i></p> <p>The study of Multidimensional-Data Flow of Fishbone Applied for Data Mining  <i>Zhang Yun, Li WeiHua and Chen Yang</i></p> <p>Inline Visualization of Concerns  <i>Nalin Saigal and Jay Ligatti</i></p>		

<b>Session 6B</b> <b>1:20 – 3:20</b>	<b>Software Reuse, Metrics and Other</b> <b>Session Chair: Soo Dong Kim, Soongsil University, Korea</b>	<b>Hong Kong Hall, 2<sup>nd</sup> floor, GCL Hotel</b>
<p>A Practical Approach to Developing Applications with Reusable Services <i>Hyun Jung LA, Jin Sun Her, Sang Hun Oh and Soo Dong Kim</i></p> <p>A Pragmatic Analysis Model for Software Reuse <i>Mihai Dinsoreanu and Iosif Ignat</i></p> <p>Using TTCN-3 in Performance Test for Service Application <i>Min Shan, Xianrong Wang, Lijun Zhao and Lili Guo</i></p> <p>A Quality Model for Evaluating Software-as-a-Service in Cloud Computing <i>Jae Yoo Lee, Jung Woo Lee, Du Wan Cheun and Soo Dong Kim</i></p>		
<b>3:20 – 3:40</b>	<b>Coffee Break</b>	<b>Foyer, 2<sup>nd</sup> floor, GCL Hotel</b>
<b>Session 7A</b> <b>3:40 – 5:40</b>	<b>Formal Methods and Tools</b> <b>Session Chair: Huaikou Miao, Shanghai University, China</b>	<b>Macao Hall, 2<sup>nd</sup> floor, GCL Hotel</b>
<p>A Formal Model for English Auction Protocol <i>Sadaf Manzoor, Aamer Nadeem and Munira Nabi</i></p> <p>An Abstract Approach to Describing Scenario-Based Specifications <i>Zhongyu Che and, Huaikou Miao</i></p> <p>Network Monitoring with Real-Time Properties: A Step Forward <i>Dario Vieira and Elisangela Rodrigues Vieira</i></p> <p>Towards Specifying Reactive Autonomic Systems by a Categorical Approach: A Case Study <i>Heng Kuang, Olga Ormandjieva, Stan Klasa, Noorulain Khurshid and Jamal Bentahar</i></p> <p>Patterns of Situational Method Engineering <i>Mohsen Asadi and Raman Ramsin</i></p> <p>Talent Database Architecture for Dynamic Refresh Web-Based Application <i>Lijuan Zhao, Quanyin Zhu, Suqun Cao, Tiantian Din and Ding Ding</i></p>		
<b>6:00 – 8:00</b>	<b>Dinner Banquet &amp; Award Presentation</b>	<b>Dinner Hall, GCL Hotel</b>

**Friday December 4, 2009**

<b>8:30</b>	<b>Depart Golden Coast Lawton Hotel to International Geological Park (free)</b>	<b>Lobby, GCL Hotel</b>
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<b>12:30 – 2:20</b>	<b>Lunch</b> <b>Xiang Jiang De Fu Restaurant</b>
<b>2:30</b>	<b>Depart Xiang Jiang De Fu Restaurant for GCL Hotel</b>