

2010 Second International Conference on Knowledge and Systems Engineering

(KSE 2010)

**Hanoi, Vietnam
7 – 9 October 2010**



**IEEE Catalog Number: CFP1003I-PRT
ISBN: 978-1-4244-8334-1**

2010 Second International Conference on Knowledge and Systems Engineering

KSE 2010

Table of Contents

Preface	viii
KSE 2010 Organization	ix
Invited Talks	xi

Bio-Medical Information Processing and Image Processing

A New Method for Splitting Clumped Cells in Red Blood Images	3
<i>Ngoc-Tung Nguyen, Anh-Duc Duong, and Hai-Quan Vu</i>	
A Novel Computational Approach for Fire Detection	9
<i>Ha Dai Duong and Dao Thanh Tinh</i>	
EM-Coffee: An Improvement of M-Coffee	14
<i>Nguyen Ha Anh Tuan, Ha Tuan Cuong, Nguyen Hoang Dung, Le Sy Vinh, and Tu Minh Phuong</i>	
Interactive Exploration of Hierarchical Density Clusters in Gene Expression Data	20
<i>Tran Van Long and Lars Linsen</i>	
Investigation of the Hemodynamic Response in Near Infrared Spectroscopy Data Analysis	28
<i>Le Hoa Nguyen and Keum-Shik Hong</i>	
SDA*: A Simple and Unifying Solution to Recent Bioinformatic Challenges for Conservation Genetics	33
<i>Bui Quang Minh, Steffen Klaere, and Arndt von Haeseler</i>	

Knowledge Engineering

An Effective Method for Ontology Integration by Propagating Inconsistency	41
<i>Trong Hai Duong, Sang-Jin Cha, and Geun Sik Jo</i>	

An Improvement of PIP for Time Series Dimensionality Reduction and Its Index Structure	47
<i>Nguyen Thanh Son and Duong Tuan Anh</i>	
Rule-Based Attribute-Oriented Induction for Knowledge Discovery	55
<i>Nguyen Duc Thanh, Ngo Tuan Phong, and Nguyen Kim Anh</i>	
Supervised Feature Evaluation by Consistency Analysis: Application to Measure Sets Used to Characterise Geographic Objects	63
<i>Patrick Taillandier and Alexis Drogoul</i>	
Supervised Learning of a Color-Based Active Basis Model for Object Recognition	69
<i>T.T. Quyen Bui and Keum-Shik Hong</i>	
Machine Learning	
A Computational Framework for Adaptation in Military Mission Planning	77
<i>Lam Thu Bui and Zbignew Michalewicz</i>	
Neural Networks Training Based on Sequential Extended Kalman Filtering for Single Trial EEG Classification	85
<i>Arjon Turnip, Keum-Shik Hong, Shuzhi Sam Ge, and Myung Yung Jeong</i>	
Predicting the Tide with Genetic Programming and Semantic-Based Crossovers	89
<i>Nguyen Quang Uy, Michael O'Neill, and Nguyen Xuan Hoai</i>	
Privacy Preserving Classification in Two-Dimension Distributed Data	96
<i>Luong The Dung, Ho Tu Bao, Nguyen The Binh, and Tuan-Hao Hoang</i>	
Smoothing Supervised Learning of Neural Networks for Function Approximation	104
<i>Thi T. Nguyen</i>	
Modeling and Optimisation	
Constructive Generation of 3-COL Instances Focusing on Vertex Connectivity of Minimal Unsolvable Structures	113
<i>Yoshitaka Nagasawa, Kazunori Mizuno, Hitoshi Sasaki, and Seiichi Nishihara</i>	
Integration of CAM Systems into Multi-axes Computerized Numerical Control Machines	119
<i>Chu Anh My</i>	
Simulated Annealing-Based Algorithm for a Real-World High School Timetabling Problem	125
<i>Khang Nguyen, Tung Pham, Nga Le, Nguyen Dang, and Nuong Tran</i>	
Simulation of Mixed Traffic Flow within Intersection	131
<i>Vo Hong Thanh and Tran Van Hoai</i>	

Natural Language Processing

A Semi-supervised Learning Method for Vietnamese Part-of-Speech Tagging	141
<i>Le Minh Nguyen, Bach Ngo Xuan, Cuong Nguyen Viet, Minh Pham Quang Nhat, and Akira Shimazu</i>	
Extracting Parallel Texts from the Web	147
<i>Le Quang Hung and Le Anh Cuong</i>	
Sentiment Analysis for Vietnamese	152
<i>Binh Thanh Kieu and Son Bao Pham</i>	

Software Engineering

A Runtime Approach to Verify Scenario in Multi-agent Systems	161
<i>Thanh-Binh Trinh, Quang-Thap Pham, Ninh-Thuan Truong, and Viet-Ha Nguyen</i>	
An Extension of Mazukiewicz Traces and their Applications in Specification of Real-Time Systems	167
<i>Do Van Chieu and Dang Van Hung</i>	
Assume-Guarantee Tools for Component-Based Software Verification	172
<i>Pham Ngoc Hung, Viet-Ha Nguyen, Toshiaki Aoki, and Takuya Katayama</i>	
Change Management Strategies for the Successful Implementation of Enterprise Resource Planning Systems	178
<i>Trieu Thi Van Hau and Jozse Kuzic</i>	
Extending CREST with Multiple SMT Solvers and Real Arithmetic	183
<i>Do Quoc Huy, Truong Anh Hoang, and Nguyen Ngoc Binh</i>	
Safe Typing for Transactional vs. Lock-Based Concurrency in Multi-threaded Java	188
<i>Thi Mai Thuong Tran, Olaf Owe, and Martin Steffen</i>	
Verifying Implementation of UML Sequence Diagrams Using Java PathFinder	194
<i>Dinh-Phuc Nguyen, Chung-Tuyen Luu, Anh-Hoang Truong, and Norbert Radics</i>	

Web Information Processing and Security

An Adaptive Ontology Based Hierarchical Browsing System for CiteSeerx	203
<i>Nanhong Ye, Susan Gauch, Qiang Wang, and Hiep Luong</i>	
An Efficient Identity-Based Broadcast Signcryption Scheme	209
<i>Dang Thu Hien, Trinh Nhat Tien, and Truong Thi Thu Hien</i>	
Crawl Topical Vietnamese Web Pages Using Genetic Algorithm	217
<i>Nguyen Quoc Nhan, Vu Tuan Son, Huynh Thi Thanh Binh, and Tran Duc Khanh</i>	
Spam Filter Based on Dynamic Sender Policy Framework	224
<i>Nguyen Tuan Anh, Tran Quang Anh, and Nguyen Xuen Thang</i>	

Author Index	229
---------------------------	-----