

# KSE2013 PROGRAM

Hanoi, October 17-19, 2013

## October 17, 2013 (Day 1)

| October 17, 2013 (Day 1) |  |   |   |                 |
|--------------------------|--|---|---|-----------------|
| 08:30 – 16:30            | Registration   |   |   | Conference Hall |
| 09:00 – 09:05            | Opening Speech by Conference Chairs<br><i>Ho Cam Ha, Hanoi National University of Education</i>  |   |   |                 |
| 09:05 – 09:15            | Welcome Speech by President of Hanoi National University of Education  |   |   |                 |
| 09:15 – 09:25            | Conference Summary by Program Chairs<br><i>Huynh Van Nam, Japan Advanced Institute of Science and Technology</i>   |   |   |                 |
| 09:25 – 10:25            | <b>Keynote Speech</b><br>What Ontological Engineering Can Do for Solving Real-World Problems<br><i>Riichiro Mizoguchi, Japan Advanced Institute of Science and Technology</i><br><br>Chair: Thierry Denoeux      Room: Conference Hall |   |   |                 |
| 10:25 – 10:50            | Coffee Break   |   |   |                 |
|                          | <b>Session 1: Natural Language Processing (1)</b><br>Chair: Phan Xuan Hieu      Room: <b>201</b>   | <b>Special Session: Fuzzy Clustering Algorithms: Recent Advances (1)</b><br>Chair: Sadaaki Miyamoto      Room: <b>202</b>                           | <b>Session 2: Knowledge Based Systems</b><br>Chair: Andrzej Szafas      Room: <b>203</b>  |                 |
| 10:50 – 11:15            | Word Confidence Estimation and its Integration in Sentence Quality Estimation for Machine Translation<br><i>Ngoc Quang Luong, Laurent Besacier and Benjamin Lecouteux</i>  | On Cluster Extraction from Relational Data Using Entropy Based Relational Crisp Possibilistic Clustering<br><i>Yukihiro Hamasuna, Yasunori Endo</i> | On Horn Knowledge Bases in Regular Description Logic with Inverse<br><i>Linh Anh Nguyen, Thi-Bich-Loc Nguyen and Andrzej Szafas</i> |                 |

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| 11:15 – 11:40 | Improving Moore's Sentence Alignment Method Using Bilingual Word Clustering<br><i>Hai-Long Trieu, Phuong-Thai Nguyen and Kim-Anh Nguyen</i>  | The Utilities of Imprecise Rules and Redundant Rules for Classifiers<br><i>Masahiro Inuiguchi, Takuya Hamakawa</i>                                       | On the Semantics of Defeasible Reasoning for Description Logic Ontologies<br><i>Viet-Hoai To, Bac Le and Mitsuru Ikeda</i>  |
| 11:40 – 12:05 | Using Unicode in encoding the Vietnamese ethnic minority languages, applying for the Ede language<br><i>Le Hoang Thi My, Khanh Phan Huy and Souksan Vilavong</i>                             | Relational Fuzzy c-Means and Kernel Fuzzy c-Means using a Quadratic Programming-based Object-wise $\beta$ -spread Transformation<br><i>Yuchi Kanzawa</i> | SudocAD: A Knowledge-Based System for the Author Linkage Problem<br><i>Michel Chein, Michel Leclère and Yann Nicolas</i>  |
| 12:05 – 12:30 | An improvement of prosodic characteristics in Vietnamese Text to Speech System<br><i>Thanh-Son Phan, Anh-Tuan Dinh, Tat-Thang Vu and Chi-Mai Luong</i>                                       | EM Algorithm for Uncertain Data<br><i>Naohiko Kinoshita, Yasunori Endo</i>   | Model-Based Systems Engineering: Back to the future?<br><i>Joseph Kasser</i>  |
| 12:30 – 13:30 | Lunch  |  |   |
| 13:30 – 14:30 | <b>Keynote Speech</b><br>Belief functions: Theory and some applications<br><i>Thierry Denoeux, Université de Technologie de Compiègne</i><br>Chair: Van-Nam Huynh      Room: Conference Hall |  |   |
| 14:30 – 14:50 | Coffee Break   |  |   |
|               | <b>Session 3: Image Processing</b><br>Chair: Nguyen Thanh Thuy      Room: <b>201</b>   | <b>Session 4: Software Engineering</b><br>Chair: Nguyen Truong Thang      Room: <b>202</b>   | <b>Special Session: Granular Computing for Knowledge Systems and Kansei / Affective Engineering</b><br>Chair: Yasuo Kudo      Room: <b>203</b>                                  |
| 14:50 – 15:15 | Local Descriptors Without Orientation Normalization to Enhance Landmark Recognition<br><i>Dai-Duong Truong, Chau-Sang Nguyen Ngoc, Vinh-Tiep Nguyen, Minh-Triet Tran and Anh-Duc Duong</i>   | Modeling and verifying imprecise requirements of systems using Event-B<br><i>Hong Anh Le, Thi Loan Dinh and Ninh Thuan Truong</i>                        | Recommendation of a Cloud Service Item Based on Service Utilization Patterns in Jyaguchi<br><i>Shree Krishna Shrestha, Yasuo Kudo, Bishnu Prasad Gautam and Dipesh Shrestha</i> |
| 15:15 – 15:40 | A hierarchical approach for high-quality and fast image completion<br><i>Dang Thanh Trung, Beghdadi Azeddine and Larabi</i>  | Localization and Velocity Estimation on Bus with Cell-ID<br><i>Hung Nguyen, Tho My Ho and Tien Ba Dinh</i>   | Heyting-Brouwer Rough Set Logic<br><i>Seiki Akama, Tetsuya Murai and Yasuo Kudo</i>   |

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|                                 | <i>Mohamed Chaker</i>  |  |   |
| 15:40 – 16:05                   | On Discriminant Orientation Extraction Using GridLDA of Line Orientation Maps for Palmprint Identification<br><i>Hoang Thien Van and Thai Hoang Le</i>                         | Finding round-off error using symbolic execution<br><i>Hoang Truong, Huy-Vu Tran and Bao-Ngoc Nguyen</i>   | Bicluster-network method and its application to movie recommendation<br><i>Tatsuya Saitoh and Yoshifumi Okada</i> |
| 16:05 – 16:30                   | Incomplete Encryption Based on Multi-channel AES Algorithm to Digital Rights Management<br><i>Ta Minh Thanh and Munetoshi Iwakiri</i>  | An online monitoring solution for complex distributed systems based on hierarchical monitoring agents<br><i>Phuc Tran Nguyen Hong and Son Le Van</i> | Item recommendation by query-based biclustering method<br><i>Naoya Yokoyama and Yoshifumi Okada</i>               |
| 16:30 – 17:30                   | <b>Panel discussion</b><br>Linking between science and industry (in Vietnamese)<br>Room: Conference Hall   |  |   |
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| <b>October 18, 2013 (Day 2)</b> |  |  |   |
| 08:30 – 16:30                   | Registration   |  |   |
| 09:00 – 10:00                   | <b>Keynote Speech</b><br>Argumentation for Practical Reasoning<br><i>Phan Minh Dung, Asian Institute of Technology</i><br>Chair: Riichiro Mizoguchi      Room: Conference Hall |  |   |
| 10:00 – 10:20                   | Coffee Break   |  |   |
|                                 | <b>Session 5: Natural Language Processing (2)</b><br>Chair: Pham Bao Son      Room: <b>201</b>   | <b>Session 6: Multidimensional Data Mining</b><br>Chair: Nguyen Duc Dung      Room: <b>202</b>   | <b>Session 7: Soft Computing</b><br>Chair: Ho Cam Ha      Room: <b>203</b>  |
| 10:20 – 10:45                   | News Aggregating System Supporting Semantic Processing Based on Ontology<br><i>Nhon Dovan, Vu Lamhan, Trung Lebao and Van Holong</i>   | iSPLOM: Interactive with Scatterplot Matrix for Exploring Multidimensional Data<br><i>Van Long Tran</i>  | New Composition of Intuitionistic Fuzzy Relations<br><i>Bui Cong Cuong and Pham Hong Phong</i>                    |
| 10:45 – 11:10                   | Enhance matching web service security policies   | Particulate Matter concentration Estimation from satellite aerosol and meteorological parameters,  | A Subgradient Method to Improve Approximation   |

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|               | with semantic<br><i>Tuan-Dung Cao and Nguyen-Ban Tran</i>  | data-driven approaches<br><i>Thi Nhat Thanh Nguyen, Viet Cuong Ta, Thanh Ha Le and Simone Mantovani</i>  | Ratio in the Minimum Latency Problem<br><i>Ban Ha Bang and Nguyen Duc Nghia</i>   |
| 11:10 – 11:35 | A New Improved Term Weighting Scheme for Text Categorization<br><i>Nguyen Pham Xuan and Hieu Le Quang</i>  | Secure Authentication For Mobile Devices Based On Acoustic Background Fingerprint<br><i>Quan Quach, Ngu Nguyen and Tien Dinh</i>                     | Resolution in Linguistic Propositional Logic based on Linear Symmetrical Hedge Algebra<br><i>Thi-Minh-Tam Nguyen, Viet-Trung Vu, The-Vinh Doan and Duc-Khanh Tran</i> |
| 11:35 – 12:00 | A Spatio-Temporal Profiling Model for Person Identification<br><i>Nghi Pham and Tru Cao</i>  | Text-Independent Phone Segmentation Method Using Gaussian Function<br><i>Dac-Thang Hoang and Hsiao-Chuan Wang</i>                                    | A Ray based Interactive method For Direction based Multi-Objective Evolutionary Algorithm<br><i>Long Nguyen and Lam Thu Bui</i>                                       |
| 12:00 – 13:30 | Lunch  |  |   |
| 13:30 – 14:30 | <b>Invited Speech</b><br>Fuzzy Clustering: An Introduction and Recent Topics<br><i>Sadaaki Miyamoto, University of Tsukuba</i><br>Chair: Phan Minh Dung                      Room: Conference Hall |  |   |
| 14:30 – 14:50 | Coffee Break   |  |   |
|               | Special Session: <b>Fuzzy Clustering Algorithms: Recent Advances (2)</b><br>Chair: Yasunori Endo                      Room: <b>201</b>   | Special Session: <b>Knowledge Discovery and Data Mining: Techniques and Applications</b><br>Chair: Le Hoai Bac                      Room: <b>202</b> | Session 8: <b>Knowledge Discovery</b><br>Chair: Mina Ryoke                      Room: <b>203</b>  |
| 14:50 – 15:15 | An Algorithm Combining Spectral Clustering and DBSCAN for Core Points<br><i>So Miyahara, Yoshiyuki Komazaki, Sadaaki Miyamoto</i>  | Maintenance of a Frequent-itemset Lattice Based on Pre-large Concept<br><i>Bay Vo, Tuong Le, Tzung-Pei Hong and Bac Le</i>                           | Frequent Temporal Inter-object Pattern Mining in Time Series<br><i>Thanh Vu Nguyen and Thi Ngoc Chau Vo</i>   |
| 15:15 – 15:40 | A Method of Two-Stage Clustering with Constraints Using Agglomerative Hierarchical Algorithm and One-Pass k-Means++<br><i>Yusuke Tamura, Nobuhiro Obara, Sadaaki Miyamoto</i>                      | Privacy Preserving Frequency-based Learning Algorithms in Two-Part Partitioned Record Model<br><i>The Dung Luong and Dang Hung Tran</i>              | An approach for mining association rules intersected with constraint itemsets<br><i>Anh Tran, Tin Truong and Bac Le</i>   |

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| 15:40 – 16:05                   | An Algorithm for Fuzzy Clustering based on Conformal Geometric Algebra<br><i>Minh Tuan Pham and Kanta Tachibana</i>  | SE-Stream: dimension projection for evolution-based clustering of high dimensional data streams<br><i>Rattapong Chairukwattana, Thanapat Kangkachit and Kitsana Waiyamai</i> | An Efficient Method for Discovering Motifs in Streaming Time Series Data<br><i>Truong Cao Duy and Anh Duong Tuan</i>  |
| 16:05 – 16:30                   |  | Mining Jumping Emerging Patterns by Streaming Feature Selection<br><i>Fatemeh Alavi and Sattar Hashemi</i>   | Mining Class-Association Rules with Constraints<br><i>Dang Nguyen and Bay Vo</i>                                      |
| 17:00                           | Move to Sen Tay Ho Restaurant  |  |   |
| 18:00 – 20:00                   | <b>Banquet</b><br>Sen Tay Ho Restaurant  |  |   |
| <b>October 19, 2013 (Day 3)</b> |  |  |   |
| 08:30 – 09:00                   | Registration   |  |   |
| 09:00 – 10:00                   | <b>Invited Speech</b><br>The Place of Causal Analysis in the Analysis of Simulation Data<br><i>Prof. Ladislav Hluchý, Slovak Academy of Sciences</i><br>Chair: Tran Quang Anh    Room: Conference Hall   |  |   |
| 10:00 – 10:10                   | Coffee Break   |  |   |
| 10:10 – 11:10                   | <b>Invited Speech</b><br>Legal Engineering and its Natural Language Processing<br><i>Prof. Akira Shimazu and Asso.Prof. Minh Le Nguyen, Japan Advanced Institute of Science and Technology</i><br>Chair: Anh Cuong Le    Room: Conference Hall |  |   |
| 11:10 – 11:20                   | Coffee Break   |  |   |
|                                 | Special Session: <b>Digital Knowledge Ecosystem and Severe Uncertainty in Systems</b><br>Chair: Marie-Hélène Abel    Room: <b>201</b>  | Session 9: <b>Bioinformatics/Machine Learning</b><br>Chair: Tu Minh Phuong    Room: <b>202</b>   | Workshop: <b>The 2013 Vietnam Workshop on Computation Intelligence (1)</b><br>Chair: Pham Bao Son    Room: <b>203</b> |

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| 11:20 – 11:45 | Mining frequent itemsets in evidential database<br><i>Ahmed Samet, Eric Lefèvre and Sadok Ben Yahia</i>  | The un-normalized graph p-Laplacian based semi-supervised learning method and protein function prediction problem<br><i>Loc Tran</i>                                 | Phishing Attacks Detection Using Genetic Programming<br><i>Tuan Anh Pham, Quang Uy Nguyen and Xuan Hoai Nguyen</i>                      |
| 11:45 – 12:10 | MOSS formalism for Multilingual Ontologies<br><i>Jean-Paul Barthès and Claude Moulin</i>   | Pomelo's Quality Classification based on Combination of Color Information and Gabor Filters<br><i>Huu Hung Huynh, Trong Nguyen Nguyen and Jean Meunier</i>           | Solving Fuzzy Job-Shop Scheduling Problems with a Multiobjective Optimizer<br><i>Thanh-Do Tran, Ramiro Varela, and El-Ghazali Talbi</i> |
| 12:10 – 12:35 | Integrating Social Network Data for Empowering Collaborative Systems<br><i>Xuan Truong Vu, Marie-Helene Abel and Pierre Morizet</i>  | Gender Prediction Using Browsing History<br><i>Do Viet Phuong and Phuong Tu</i>  |   |
| 12:35 – 13:30 | Lunch  |  |   |
| 13:30 – 14:30 | <b>Invited Speech</b><br>Evolutionary Computation in the Real World: Successes and Challenges<br><i>Graham Kendall , The University of Nottingham Malaysia Campus</i><br>Chair: Bui Thu Lam    Room: Conference Hall |  |   |
| 14:30 – 14:50 | Coffee Break   |  |   |
|               | Special Session: <b>Empirical Methods for Asian Language Processing</b><br>Chair: Nguyen Le Minh                      Room: <b>201</b>   | Special Session: <b>Multi-scale and multi-physical modeling and characterization of Biomechanics Systems</b><br>Chair: Marie-Christine Ho Ba Tho    Room: <b>202</b> | Workshop: <b>The 2013 Vietnam Workshop on Computation Intelligence (2)</b><br>Chair: Pham Bao Son                      Room: <b>203</b> |
| 14:50 – 15:15 | Reference Resolution in Japanese Legal Texts at Passage Levels<br><i>Oanh Thi Tran, Bach Xuan Ngo, Minh Le Nguyen and Akira Shimazu</i>  | Automatic evaluation of the elastic modulus of a capsule membrane<br><i>Thi-Xuan Chu, Anne-Virginie Salsac Eric Leclerc and Dominique Barthès-Biesel</i>             | Risk Minimization of Disjunctive Temporal Problem with Uncertainty<br><i>Hoong Chuin Lau and Tuan Anh Hoang</i>                         |
| 15:15 – 15:40 | Resolving Named Entity Unknown Word in Chinese-Vietnamese Machine Translation  | Estimation of Patient Specific Lumbar Spine Muscle Forces using Multi-Physical Musculoskeletal Model   | A Multi-Objective Approach for Vietnamese Spam Detection  |

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|               | <i>Phuoc Tran, Dien Dinh and Linh Tran</i>  | and Dynamic MRI<br><i>Tien-Tuan Dao, Philippe Pouletaut, Fabrice Charleux, Áron Lazáry, Peter Eltes, Peter Pal Varga and Marie-Christine Ho Ba Tho</i>   | <i>Vu Minh Tuan, Tran Quang Anh, Ha Quang Minh and Bui Thu Lam</i>   |
| 15:40 – 16:05 | Towards Vietnamese Entity Disambiguation<br><i>Long Truong Minh, Tru Cao Hoang and Dien Dinh</i>                    | Subject Specific Modeling of the Muscle Activation. Application to the Facial Mimics<br><i>Marie-Christine Ho Ba Tho, Tien-Tuan Dao, Sabine Bensamoun, Stéphanie Dakpe, Bernard Devauchelle and Mohamed Rachik</i> | A Cyber Swarm Algorithm for Constrained Program Module Allocation Problem<br><i>Peng-Yeng Yin and Pei-Pei Wang</i> |
| 16:05 – 16:30 | Part-of-Speech Induction for Vietnamese<br><i>Phuong Le-Hong and Thi Minh Huyen Nguyen</i>                          | Recovering the contralateral arm strength loss caused by an induced jaw imbalance<br><i>Van Hoa Nguyen, Minh Hoa Le, Thanh Hai Nguyen and Van Toi Vo</i>   |  |
| 16:30 – 16:55 | Paragraph alignment for English-Vietnamese parallel E-books<br><i>Quang-Hung Le, Anh-Cuong Le and Van-Nam Huynh</i> | Ultrasound wave propagation in a stochastic cortical bone plate<br><i>Salah Naili, Vu-Hieu Nguyen, Mai-Ba Vu, Christophe Desceliers and Christian Soize</i>  |  |
| 16:55 – 17:10 | Closing   |  |  |