

Detailed Session Program

DAY 2

Tuesday, 6 December

2:00pm – 3:30pm	Session A1 (Venue: Wellington Room) Big Data CPF: Concept Profiling Framework for recurring drifts in data streams <i>Robert Anderson, Yun Sing Koh and Gill Dobbile</i> Bayesian Grouped Horseshoe Regression with Application to Additive Models <i>Zemei Xu, Daniel F. Schmidt, Enes Makalic, Guoqi Qian and John L. Hopper</i> Meta-Mining Evaluation Framework : A large scale proof of concept on Meta-Learning <i>William Raynaut, Chantal Soulé-Dupuy and Nathalie Vallès</i>	Session B1 (Venue: Boardwalk Gallery) Constraint satisfaction, Search and Optimisation Local Search for Maximum Vertex Weight Clique on Large Sparse Graphs with Efficient Data Structures <i>Yi Fan, Chengqian Li, Zongjie Ma, Lian Wen and Kaile Su</i> Improving and Extending the HV4D Algorithm for Calculating Hypervolume Exactly <i>Wesley Cox and Lyndon While</i> An Online Competence-based Concept Drift Detection Algorithm <i>Anjin Liu, Guangquan Zhang, Jie Lu, Ning Lu and Chin-Teng Lin</i> Assignment Precipitation in Fail First Search (Short) <i>Majid Namazi, Nina Ghooshchi, M.A.Hakim Newton and Abdul Sattar</i>
4:00pm – 5:30pm	Session A2 (Venue: Wellington Room) Agent & MAS Corrupt Strategic Argumentation: The Ideal and the Naive <i>Michael Maher</i> Composability in Cognitive Hierarchies <i>David Rajaratnam, Bernhard Hengst, Maurice Pagnucco, Claude Sammut and Michael Thielscher</i> Lifted Backward Search for General Game Playing <i>Dave De Jonge and Dongmo Zhang</i> Adaptive Multi-agent Reinforcement Learning with Non-positive Regret <i>Duong Nguyen, Langford White and Hung Nguyen</i>	Session B2 (Venue: Boardwalk Gallery) Social intelligence Comprehensive Influence Propagation Modelling for Hybrid Social Network <i>Weihua Li, Quan Bai and Minjie Zhang</i> Proactive Skill Posting in Referral Networks <i>Ashiqur Khudabukhsh, Jaime Carbonell and Peter Jansen</i> Multi-agent planning with collaborative actions <i>Satyendra Singh Chouhan and Rajdeep Niyogi</i> Mining Context Specific Inter-Personalised Trust for Recommendation Generation in Preference Networks <i>Quan Bai, Weihua Li and Jing Jiang</i>

DAY 3

Wednesday, 7 December

10:30am – 12:00pm	Session A3 (Venue: Derwent Room 1) AI applications (1) Forecasting monthly rainfall up to 18-months in advance using artificial neural networks: Narragin, Merredin and Southern Cross in the Western Australian wheat-belt as a case study <i>John Abbot and Jennifer Marohasy</i> Forecasting Monthly Rainfall in the Bowen Basin of Queensland, Australia, using Neural Networks with Niño Indices for El Niño-Southern Oscillation <i>John Abbot and Jennifer Marohasy</i> A Generative Deep Learning for Generating Korean Abbreviations <i>Su Jeong Choi, Seong-Bae Park, A-Yeong Kim and Se-Young Park</i> Visual Odometry in Dynamic Environments with Geometric Multi-layer Optimisation (Short) <i>Haokun Geng, Hsiang-Jen Chien, Radu Nicolescu and Reinhard Klette</i>	Session B3 (Venue: Derwent Room 2) ML & DM (1) Optimization of Traffic Signals using Deep Learning Neural Networks <i>Saman Lawe and Ruili Wang</i> Smart Sampling: A Novel Unsupervised Boosting Approach for Outlier Detection <i>Mahsa Salehi, Xuyun Zhang, James Bezdek and Christopher Leckie</i> Visual Analytical Tool for Higher Order \$k\$-Means Clustering for Trajectory Data Mining <i>Ye Wang, Kyungmi Lee and Ickjai Lee</i> An Empirically-Sourced Heuristic for Predetermining the Size of the Hidden Layer of a Multi-Layer Perceptron for Large Datasets (Short) <i>Amanda Lunt and Shuxiang Xu</i>
2:00pm – 3:30pm	Session A4 (Venue: Derwent Room 1) Text Mining & NLP Predicting the Rank of Trending Topics <i>Dohyeong Kim, Soyeon Han, Sungyoung Lee and Byeong Kang</i> Open-domain Question Answering Framework using Wikipedia <i>Saleem Ameen, Hyunsuk Chung, Soyeon Han and Byeong Kang</i> A Topic Transition Map for Query Expansion: a Semantic Analysis of Click-through Data and Test Collections <i>Kyung-Min Kim, Yuchul Jung and Sung-Hyon Myaeng</i> Unsupervised Keyphrase Extraction: Introducing New Kinds of Words to Keyphrases (Short) <i>Tho Thi Ngoc Le</i>	Session B4 (Venue: Derwent Room 2) ML & DM (2) Transfer Learning in Probabilistic Logic Models <i>Pouya Ghiasnzhad Omran, Kewen Wang and Zhe Wang</i> Artificial Prediction Markets for Clustering <i>Sina Famouri, Sattar Hashemi and Mohammad Taheri</i> Co-clustering for Dual Topic Models <i>Santosh Kumar, Xiaoying Gao and Ian Welch</i> Artificial Neural Network: Deep or Broad? An Empirical Study (Short) <i>Nian Liu and Nayyar A. Zaidi</i>
4:00pm – 5:30pm	Session A5 (Venue: Derwent Room 1) AI applications (2) Enable Efficient Resource Deployment in Multiple Concurrent Emergency Events through a Decentralised MAS <i>Jihang Zhang, Minjie Zhang, Fenghui Ren and Jiakun Liu</i> Similarity Matching of Computer Science Unit Outlines in Higher Education <i>Gaurav Langan, James Montgomery and Saurabh Kumar Garg</i> A Cluster Analysis of Stock Market Data using Hierarchical SOMs <i>Cesar Astudillo, Jorge Poblete, Marina Marina Resta and John Oommen</i> Cascade Bayesian Optimization <i>Thanh Dai Nguyen, Sunil Gupta, Santu Rana, Vu Nguyen, Svetha Venkatesh, Kyle Deane and Paul Sanders</i>	Session B5 (Venue: Derwent Room 2) ML & DM (3) Bayesian Robust Regression with the Horseshoe+ Estimator <i>Enes Makalic, Daniel F. Schmidt and John L. Hopper</i> Exceptional Contrast Set Mining: Moving beyond the deluge of the obvious <i>Dang Nguyen, Wei Luo, Dinh Phung and Svetha Venkatesh</i> Concept Drift Detection using Online Histogram-based Bayesian Classifiers (Short) <i>Cesar Astudillo, Javier Gonzalez, John Oommen and Anis Yazidi</i> An empirical study of a simple naive Bayes classifier based on ranking functions (Short) <i>Kinzang Chhogyal and Abhaya Nayak</i>

DAY 4

Thursday, 8 December

10:30am – 12:00pm	Session A6 (Venue: Wellington Room) Knowledge representation Update Policies <i>Abhijeet Mohapatra, Sudhir Agarwal and Michael Genesereth</i> Domain Ontology Construction using Web Usage Data (Short) <i>Thi Thanh Sang Nguyen and Haiyan Lu</i> Learning Functional Argument Mappings for Hierarchical Tasks from Situation Specific Explanations (Short) <i>Gavin Suddrey, Markus Eich, Frederic Maire and Jonathan Roberts</i> Ontology Based Data Access with Referring Properties for Logics with the Tree Model Property (Short) <i>David Toman and Grant Weddell</i> A Multi-Linguistic-Valued TruthsModal Logic (Short) <i>Jinsheng Chen and Xudong Luo</i>	Session B6 (Venue: Boardwalk Gallery) ML & DM (4) Approximating Message Lengths of Hierarchical Bayesian Models Using Posterior Samples <i>Daniel Schmidt, Enes Makalic and John Hopper</i> High resolution Self-organizing Maps <i>Van Tuc Nguyen, Markus Hagenbuchner and Tsoi Ah Chung</i> Kernel Embeddings of Longitudinal Data <i>Darren Shen and Fabio Ramos</i> A Framework for Mining Semantic-Level Tourist Movement Behaviours from Geo-tagged Photos (Short) <i>Guochen Cai, Kyungmi Lee and Ickjai Lee</i>
1:00pm – 2:15pm	Session A7 (Venue: Wellington Room) AI applications (3) Parallel Late Acceptance Hill-Climbing Algorithm for the Google Machine Reassignment Problem <i>Ayad Turky, Nasser R. Sabar, Abdul Sattar and Andy Song</i> Deep Learning for Classification of Malware System Call Sequences <i>Bojan Kolosnjaji, Apostolis Zarras, George Webster and Claudia Eckert</i> High Resolution SOM Approach to Improving Anomaly Detection in Intrusion Detection Systems (Short) <i>Ayu Saraswati, Markus Hagenbuchner and Zhi Quan Zhou</i>	Session B7 (Venue: Boardwalk Gallery) ML & DM (5) Learning High-Level Navigation Strategies via Inverse Reinforcement Learning: A Comparative Analysis (Short) <i>Michael Herman, Tobias Gindele, Jörg Wagner, Felix Schmitt, Christophe Quignon and Wolfram Burgard</i> Restricted Echo State Networks (Short) <i>Aaron Stockdill and Kourosh Neshatian</i> Feature-Aware Factorized Collaborative Filtering (Short) <i>Farhad Zafari and Irene Moser</i> Distributed Genetic Algorithm in GraphX (Short) <i>Seemran Mishra, Young Choon Lee and Abhaya Nayak</i>
2:15pm – 3:30pm	Session A8 (Venue: Wellington Room) Experiential knowledge platform Utilization of DBpedia Mapping in Cross Lingual Wikipedia Infobox Completion <i>Megawati Megawati, Sammy Jang and Mun Yi</i> Medical Prognosis Generation from General Blood Test Results Using Knowledge-Based and Machine-Learning-Based Approaches <i>Youjin Kim, Jonghwan Hyeon, Kyo-Joong Oh and Ho-Jin Choi</i> Cognitive-Task-based Information Aid Design for Clinical Diagnosis (Short) <i>Dong-Gyun Ko, Youkyoung Park, Yoochan Kim, Juyoun Kim and Wan Chul Yoon</i>	