PROCEEDINGS OF

THE FOURTH SYMPOSIUM ON INFORMATION AND COMMUNICATION TECHNOLOGY

SolGT 2013

Da Nang, Vietnam December 5-6, 2013

ISBN: 978-1-4503-2454-0

Symposium on Information and Communication Technology 2013

SoICT 2013

Table of Contents

Organization Foreword Table of Contents		iv v	
Invited Talks			
1	Semantics-based Keyword Search over XML and Relational Databases Tok Wang Ling, Thuy Ngoc Le, Zhong Zeng, National University of Singapore (Singapore)	1	
2	The Dawn of Quantum Communication Pramode Verma, University of Oklahoma-Tulsa (USA)	6	
3	Data Mobile Cloud Technology: mVDI Eui-nam Huh, Kyunghee University (South Korea)	9	
4	Probabilistic Models for Uncertain Data Pierre Senellart, Telecom ParisTech (France)	10	
Co	mputing Algorithms and Paradigms		
5	Computer Simulation and Approximate Expression for The Mean Range of Reservoir Storage with GAR(1) Inflows Nguyen Van Hung, Tran Quoc Chien	11	
6	A Better Bit-Allocation Algorithm for H.264/SVC <i>Vo Phuong Binh, Shih-Hsuan Yang</i>	18	
7	Towards Tangent-linear GPU Programs Using OpenACC Bui Tat Minh, Michael Förster, Uwe Naumann	27	
8	An Implementation of Framework of Business Intelligence for Agent-based Simulation Thai Minh Truong, Frédéric Amblard, Benoit Gaudou, Christophe Sibertin-Blanc, Viet Xuan Truong, Alexis Drogoul, Hiep Xuan Huynh, Minh Ngoc Le	35	
9	Agent Based Model of Smart Grids for Ecodistricts Murat Ahat, Soufian Ben Amor, Marc Bui	45	

10	Initializing Reservoirs with Exhibitory and Inhibitory Signals Using Unsupervised Learning Techniques Sebastián Basterrech, Václav Snáel	53
11	Method Supporting Collaboration in Complex System Participatory Simulation Khanh Nguyen Trong, Nicolas Marilleau, Tuong Vinh Ho, Amal El Fallah Seghrouchni	61
12	Iterated Local Search in Nurse Rostering Problem Sen Ngoc Vu, Minh H.Nhat Nguyen, Le Minh Duc, Chantal Baril, Viviane Gascon, Tien Ba Dinh	71
Kno	owledge-based and Information Systems	
13	Automatic Feature Selection for Named Entity Recognition Using Genetic Algorithm Huong Thanh Le, Luan Van Tran	81
14	VNLP: An Open Source Framework for Vietnamese Natural Language Processing Ngoc Minh Le, Bich Ngoc Do, Vi Duong Nguyen, Thi Dam Nguyen	88
15	Document Classification Using Semi-supervived Mixture Model of von Mises-Fisher Distributions on Document Manifold Nguyen Kim Anh, Ngo Van Linh, Le Hong Ky, Tam Nguyen The	94
16	Demystifying Sparse Rectified Auto-Encoders Kien Tran, Bac Le	101
17	Time Series Symbolization and Search for Frequent Patterns Mai Van Hoan, Matthieu Exbrayat	108
18	Experiments With Query Translation and Re-ranking Methods In Vietnamese-English Bilingual Information Retrieval Lam Tung Giang, Vo Trung Hung, Huynh Cong Phap	118
19	Toward a Practical Visual Object Recognition System Mao Nguyen, Minh-Triet Tran	123
20	Document Clustering Using Dirichlet Process Mixture Model of von Mises- Fisher Distributions Nguyen Kim Anh, Nguyen The Tam, Ngo Van Linh	131
21	Extraction of Disease Events for Real-time Monitoring System Minh-Tien Nguyen, Tri-Thanh Nguyen	139
22	On the Efficiency of Query-Subquery Nets: An Experimental Point of View Son Thanh Cao	148
23	Hierarchical Emotion Classification Using Genetic Algorithms Ba-Vui Le, Jae Hun Bang, Sungyoung Lee	158