CISIM 2014

13th International Conference on Computer Information Systems and Industrial Management Applications

Ho Chi Minh City, Vietnam
November 5-7, 2014

Ton Duc Thang University

Preliminary Programme

CISIM 2014 – 1st day   **Wednesday, November 5, 2014**

8:00 - 9:00 Conference Registration
9:00 - 9:45 Conference Welcome
10:00 - 11:00 Keynote speech: prof. Jaroslav Pokorny
How to store and process Big Data: are today's databases sufficient?
11:00 - 11:20 Coffee Break
11:20 - 13:00 Algorithms
(Chair: Vaclav Snasel)

- Tien Lu, Bay Vo, Hien T. Nguyen, and Tzung-Pei Hong
  A New Method for Mining High Average Utility Itemsets
- Ivan Zelinka, Petr Saloun, and Roman Senkerik
  Chaos Powered Grammatical Evolution
- Ammlan Ghosh, Anubhab Sahin, Anirban Silsarma, and Rituparna Chaki
  A New Contention Management Technique for Obstruction Free Transactional Memory
- Dariusz Jankowski and Konrad Jackowski
  Evolutionary Algorithm for Decision Tree Induction
- Lukas Vojacek, Pavla Drazdilova, and Jiri Dvorsky
  Combination of Self Organizing Maps and Growing Neural Gas

13:00 - 14:30 Lunch
14:30 - 15:40 Data Analysis and Informational Retrieval I
(Chair: Ivan Zelinka)

- Alisa Babskova, Jan Martinovic, Pavla Drazdilova, and Katerina Slaninova
  Dynamic Centrality for Directed Co-Author Network with Context
- Mai Nhat Vinh, Nguyen Nhat Duy, Ho Thi Hoang Vy, and Le Nguyen Hoai Nam
  An Approach for Integrating Multidimensional Database into Context-Aware Recommender System
- Hong-Quan Hua, T. Hoang Ngan Le, and Bac Le
  An Effective Initialization for ASM-Based Methods
- Dariusz Rafal Augustyn
  Query Selectivity Estimation Based on Improved V-Optimal Histogram by Introducing Information about Distribution of Boundaries of Range Query Conditions
- Ryszard Tadeusiewicz and Adrian Horzyk

Man-Machine Interaction Improvement by Means of Automatic Human Personality Identification

15:40 - 15:50 Coffee Break

15:50 - 17:30 Modelling and Optimization
(Chair: Ngoc Thanh Nguyen)

* Huu-Thanh Duong and Bao-Quoc Ho
A Vietnamese Question Answering System in Vietnam's Legal Documents
* Tapalina Bhattasali, Khalid Saeed, Nabendu Chaki, and Rituparna Chaki
A Survey of Security and Privacy Issues for Biometrics based Remote Authentication in Cloud
* Worapot Jakkhupan and Supasit Kajkamhaeng
Movie Recommendation using OLAP and Multidimensional Data Model
* Thinh D. Bui, Son T. Nguyen, and Quoc B. Ho
Towards a Conceptual Search for Vietnamese Legal Text
* Ywen Huang, Zhua Jiang, Xde Xiang, Cneng He, Jfeng Liu, and Ying Huang *An Inner-Enterprise Wiki System (IWkS) Integrated with an Expert Finding Mechanism for Lesson-Learned Knowledge Accumulation in Product Design*

17:30 - 19:00 Welcome Drink and Poster Session

* Maciej Brzozowski and Andrzej Chmielewski
Hardware Approach for Generating B-Detectors by Immune-Based Algorithms
* Imed El Fray, Tomasz Hyla, and Wlodzimierz Chocianowicz
Protection Profile for secure sensitive information system on mobile devices
* Wladyslaw Homenda, Agnieszka Jastrzebska, and Witold Pedrycz
Joining Concept's Based Fuzzy Cognitive Map Model with Moving Window Technique for Time Series Modeling
* Wladyslaw Homenda, Agnieszka Jastrzebska, and Witold Pedrycz
Time Series Modeling with Fuzzy Cognitive Maps: Simplification Strategies
* Wladyslaw Homenda and Wojciech Lesinski: Decision Trees and Their Families in Imbalanced Pattern Recognition
Recognition with and without Rejection
* Malgorzata Lucinska and Slawomir T. Wierzchon
Spectral Clustering Based on Analysis of Eigenvector Properties
* Hieu Ngoc Duong, Quyen Thi Ngoc Nguyen, Long Ta Bui, Hien T. Nguyen, and Vaclav Snasel
Applying Recurrent Fuzzy Neural Network to Predict the Runoff of Srepok River
* Hien T. Nguyen, Phuc H. Duong, and Vinh T. Vo
Vietnamese Sentence Similarity Based on Concepts
* Stepan Ozana, Martin Pies, and Radovan Hajovsky
Computation of Swing-up Signal for Inverted Pendulum Using Dynamic Optimization
* Piotr Panasiuk, Marcin Dąbrowski, Khalid Saeed, and Katarzyna Bochenska-Wlostowska
On the Comparison of the Keystroke Dynamics Databases
* Anna Pieta, Michal Lupa, Monika Chuchro, Adam Piorkowski, and Andrzej Lesniak

A Model of a System for Stream Data Storage and Analysis Dedicated to Sensor Networks of Embankment Monitoring

- Emil Saeed, Anna Bartocha, Piotr Wachulec, and Khalid Saeed
  Influence of Eye Diseases on the Retina Pattern Recognition
- Paramita Sarkar and Ditipriya Sinha
  An Approach to Continuous Pervasive Care of Remote Patients based on Priority Based Assignment of Nurse
- Chien-Wen Shen and Chin-Jin Kuo
  Analysis of Social Influence and Information Dissemination in Social Media: The Case of Twitter
- Vaclav Svaton, Jan Martinovic, Katerina Slaninova, and Vaclav Snasel
  Improving Rule Selection from Robot Soccer Strategy with Substrategies
- Adam Szczepanski, Krzysztof Misztal, and Khalid Saeed
  Pupil and Iris Detection Algorithm for Near-Infrared Capture Devices
- Petr Saloun, Peter Drabik, Ivan Zelinka, and Jaroslav Bucko
  Big Data Spectra Analysis using Analytical Programming and Random Decision Forests
- Jakub Stolfa, Svatopluk Stolfa, Katerina Slaninova, Jan Martinovic, and Vaclav Snasel
  An Impact of the User and Time Parameters to Sequence Alignment Methods for Process Mining
- Muhammad Waseem Anwar and Farooque Azam
  Proposing a Novel Architecture of Script Component to Incorporate the Scripting Language Support in SCADA Systems
- Feng Xie, Yong Peng, Wei Zhao, Yang Gao, and Xuefeng Han
  Evaluating Industrial Control Devices Security: Standards, Technologies and Challenges

CISIM 2014 – 2nd day   Thursday, November 6, 2014

9:00 - 10:00 Keynote speech: prof. Ngoc Thanh Nguyen
Processing Collective Knowledge – Conflict Resolution and Integration Aspects

10:00 - 11:40 Industrial Management and Other Applications
(Chair: Jan Martinovic)

- Juan Carlos Figueroa-Garcia, Emanuel Jonathan Medina-Pinzon, and Jannan David Rubio-Espinosa
  Non-Cooperative Games Involving Type-2 Fuzzy Uncertainty: An approach
- Michal Pluhacek, Roman Senkerik, and Ivan Zelinka
  Chaos Driven Particle Swarm Optimization with Basic Particle Performance Evaluation - An Initial Study
- Phan T.H. Nguyen and Thang H. Bui
  A Multiple Refinement Approach in Abstraction Model Checking
- Roman Senkerik, Michal Pluhacek, Ivan Zelinka, Donald Davendra, and Zuzana Kominkova Oplatkova
  Comparison of Chaos Driven PSO and Differential Evolution on the Selected PID Tuning Problem
- Ripon Kumar Chakrabortty, Ruhul Amin Sarker, and Daryl Essam
  Event Based Approaches for Solving Multi-mode Resource Constraints Project Scheduling Problem

11:40 - 12:00 Coffee Break

12:00 - 13:40 Data Analysis and Informational Retrieval II
     (Chair: Vo Bay)
- Dusan Fedorcak, Tomas Kocyan, Martin Hajek, Daniela Szturcova, and Jan Martinovic: viaRODOS
  Monitoring and Visualisation of Current Traffic Situation on Highways
- Seiji Sugiyama, Daisuke Yokozawa, Atsushi Ikuta, Satoshi Hiratsuka, Susumu Saito, Miyuki Shibata, and Tohru Matsuura
  Abbreviation Method for Some Jointed Relations in Displaying Genealogy
- Antoni Portero, Stepan Kuchar, Radim Vavrik, Martin Golasowski, and Vit Vondrak
  System and Application Scenarios for Disaster Management Processes, the Rainfall-Runoff Model Case Study
- Adrija Bhattacharya, Avirup Das, Sankhayan Choudhury, and Nabendu Chaki
  Agent-Based Context Management for Service-Oriented Environments
- Santanu Roy, Ranak Ghosh, and Soumya Sen
  Materialized View Construction Based on Clustering

13:40 - 15:00 Lunch
15:00 - 16:00 Panel Discussion with Rectors
16:00 - 16:20 Coffee Break
16:20 - 18:00 Various Aspects of Computer Security
     (Chair: Katerina Slaninova)
- Tomasz Hyla, Witold Mackow, and Jerzy Pejas
  Implicit and Explicit Certificates-based Encryption Scheme
- Bartosz Jasiul, Marcin Szpyrka, and Joanna Sliwa
  Malware Behavior Modeling with Colored Petri Nets
- Loc Hoang Tran, Linh Hoang Tran, and Hoang Trang
  Novel Ranking Methods Applied to Complex Membership Determination Problems
- Nguyen Van Nhuong, Vo Thi Yen Nhi, Nguyen Tan Cam, Mai Xuan Phu, and Cao Dang Tan
  Semantic Set Analysis for Malware Detection
- Rafal Kozik, Michal Choras, Rafal Renk, and Witold Holubowicz
  A Proposal of Algorithm for Web Applications Cyber Attack Detection

19:00 - 22:00 Gala dinner

CISIM 2014 – 3rd day   **Friday, November 7, 2014**

9:00 - 10:00 Keynote speech: prof. Sushmita Mitra
     Soft Computing: Excursion through Fuzzy Sets, Neural Networks, Genetic Algorithms, and Rough Sets
10:00 - 11:40 Pattern Recognition and Image Processing
     (Chair: Nguyen Thanh Hien)
- Przemyslaw Spurek, Alena Chaikouskaya, Jacek Tabor, and Elzbieta Zajac
  A Local Gaussian Filter and Adaptive Morphology as Tools for Completing Partially Discontinuous Curves
- Nhat-Quan Huynh Nguyen and Thai Hoang Le
  Enhanced LBP-Based Face Recognition System Using a Heuristic Approach for Searching Weight Set

- Przemyslaw Spurek, Marek Smieja, and Krzysztof Misztal
  Subspaces Clustering Approach to Lossy Image Compression
- Puchong Subpratatsavee and Pramote Kuacharoen
  An Implementation of a Paper Based Authentication Using HC2D Barcode and Digital Signature
- Puchong Subpratatsavee and Suchai Tanaiadehawoot
  Grasping Action for Impaired Vision Action Using HC2D Barcode Technology

11:40 - 12:00 Coffee Break

12:00 - 13:40 Networking
  (Chair: Wladyslaw Homenda)
- Przemysław Berezinski, Marcin Szpyrka, Bartosz Jasiul, and Michal Mazur
  Network Anomaly Detection Using Parameterized Entropy
- Daniel Oliveira, Diana Oliveira, Nuno M. Garcia, and Graça Esgalhado
  An Off-the-Shelf Platform for Automatic and Interactive Text Messaging Using Short Message Service
- Vo Dang Khoa, Tran Vu Pham, Huynh Tuong Nguyen, and Tran Van Hoai
  Multi-Criteria Route Planning in Bus Network
- Jan Dvorak, Ondrej Berger, and Ondrej Krejcar
  Universal Central Control of Home Appliances as an Expanding Element of the Smart Home Concepts
- Stepan Ozana, Martin Pies, Radovan Hajovsky, Jiri Koziorek, and Ondrej Horacek
  Application of PIL approach for Automated Transportation Center

14:00 - 15:20 Lunch + Closing Ceremony

Post-Conference Event	**Saturday, November 8, 2014**

Trip/Excursion to Mekong Delta, Vietnam