

# **KES2008 – List of Accepted Papers and Talks**

## **Keynote Lectures**

Assisting Human Decision Making with Intelligent Technologies  
Gloria Phillips-Wren, Loyolla College in Maryland, Baltimore, USA

Driven by Compression Progress  
Jürgen Schmidhuber, IDSIA - Istituto Dalle Molle di Studi sull'Intelligenza Artificiale, Lugano, Switzerland

Evolvable Hardware Architectures and their Role in Fault Tolerant Computational Systems  
Andy Tyrrell, University of York, UK

Legal Issues for Military Intelligent Decision-making Technologies  
Anthony Finn, Defence Science and Technology Organisation, Department of Defence, Edinburgh, Australia

New Topics from Recent Interactive Evolutionary Computation Researches  
Hideyuki Takagi, Kyushu University, Japan

Virtual Humans, from Researcher's Fascination to Mass-market Technology  
Igor S. Pandzic, University of Zagreb, Croatia

## **I General Tracks**

### **Artificial Neural Networks and Connectionist Systems**

An Intelligent Traffic Light Control Based on Extension Neural Network  
Kuei-Hsiang Chao, Ren-Hao Lee and Meng-Hui Wang

Design of an Auto-associative Neural Network by using Design of Experiments Approach  
Božidar Bratina, Nenad Muškinja and Boris Tovornik

A New Implementation for High Speed Normalized Neural Networks in Frequency Space  
Hazem M. El-Bakry and Mohamed Hamada

A New SOM Initialization Algorithm for Nonvectorial Data  
Antonino Fiannaca, Riccardo Rizzo, Alfonso Urso and Salvatore Gaglio

Accelerated Gradient Learning Algorithm for Neural Network Weights Update  
Zeljko Hocenski, Mladen Antunovic and Damir Filko

Neural Model-based Segmentation of Image Motion  
Lucia Maddalena and Alfredo Petrosino

### **Fuzzy and Neuro-Fuzzy Systems**

Classification on Soft Labels is Robust against Label Noise  
Christian Thiel

Prediction of the collapse index by a Mamdani fuzzy inference system  
Kivanc Zorlu and Candan Gokceoglu

VLSI Implementation of MOS based Inference Circuits for Fuzzy Logic  
Amol Deshmukh, Preeti Bajaj and A. G. Keskar

## **Evolutionary Computation**

A Cross-Entropy Based Population Learning Algorithm for Discrete-Continuous Scheduling with Continuous Resource Discretisation

Piotr Jędrzejowicz and Aleksander Skakovski

Improving the Responsiveness of a GA in Dynamic Environments using an Adaptive Mutation Operator - A Case Study

Alvaro Gomes, C. Henggeler Antunes and A. Gomes Martins

## **Machine Learning and Classical AI**

Structural Analysis of Promoter Sequences Using Grammar Inference and Support Vector Machine

Robertas Damaševičius

A Metric to Discriminate the Selection of Algorithms for the General ATSP Problem

Jorge A. Ruiz-Vanoye, Ocotlán Diaz-Parra and Vanessa Landero N.

Classification Method Utilizing Reliably Labeled Data

Kouta Nakata, Shigeaki Sakurai and Ryohei Orihara

A Manifolded AdaBoost for Face Recognition

C. Lu, J. Jiang, G. Feng and C. Qing

On Lipschitz Embeddings of Graphs

Kaspar Riesen and Horst Bunke

An Experiment on Human Face Recognition Performance for Access Control

Marcus Butavicius, Chloë Mount, Veneta MacLeod, Robyn Vast, Ian Graves and Jadranka Sunde

## **Agent Systems**

A First Step towards Argument Mining and its Use in Arguing Agents and ITS

Safia Abbas and Hajime Sawamura

Optimizing Service Distributions Using a Genetic Algorithm

Kresimir Jurasovic and Mario Kusek

Agent-based User Personalization Using Context-Aware Semantic Reasoning

Fran Frkovic, Vedran Podobnik, Krunoslav Trzec and Gordan Jezic

Performance Evaluation of a Mobile Agent Network Using Network Calculus

Vjekoslav Sinkovic, Mario Kusek, Gordan Jezic and Ignac Lovrek

Using Generalized Learning Automata for State Space Aggregation in MAS

Yann-Michaël De Hauwere, Peter Vrancx and Ann Nowé

Recommendation of Multimedia Objects based on Similarity of Ontologies

Przemyslaw Kazienko, Katarzyna Musial and Krzysztof Juszczyszyn

Toward Emotional E-Commerce: The Customer Agent

Nicolae Jascanu, Veronica Jascanu and Severin Bumbaru

A Method for Integration of WordNet-based Ontologies Using Distance Measures

Trong Hai Duong, Ngoc Thanh Nguyen and Geun Sik Jo

The Multiagent System for Channel Selection and Topology Control on 802.11 based Mesh Networks

Ante Prodan, Vinod Mirchandani and John Debenham

EasyLife: A Location-aware Service Oriented Mobile Information System  
J. M. Shen, M. J. O'Grady and G. M. P. O'Hare

A New Concept of Trust Modeling and Management in Complex Networks  
Grzegorz Kolaczek

Extending Intelligent Tutoring Systems to Mobile Devices  
Vlado Glavinić, Marko Rosić and Marija Zelić

Integration of Knowledge in Disjunctive Structure on Semantic Level  
Trong Hieu Tran and Ngoc Thanh Nguyen

Three Parameters Refinement for Distributed 3D-Image Rendering  
Dariusz Król and Adam Bogdał

### **Knowledge Based and Expert Systems**

CBR to Explain Medical Model Exceptions  
Olga Vorobieva and Rainer Schmidt

Reasoning for Incomplete Authorization  
Yun Bai

A Place Judgment System Based on an Association Mechanism for Natural Language Interaction  
Seiji Tsuchiya, Eriko Yoshimura, Ren Fuji, Hirokazu Watabe and Tsukasa Kawaoka

Knowledge Maturity Based on Processing and Creation of Information  
Sabah S. Al-Fedaghi

On Attaining Higher Level of Certainty in Evaluation Processes  
Sylvia Encheva and Sharil Tumin

A User Interface for the User-Centred Knowledge Model (t-UCK)  
Anne Håkansson

Focus Support Interface Based on Collaborative Learning Activity  
Yuki Hayashi, Tomoko Kojiri and Toyohide Watanabe

Grammar-Based Argument Construction  
Jörn Sprado and Björn Gottfried

VLSI Smart Controller: A Design Approach  
Vaishali Raut, Amol Deshmukh, Preeti Bajaj and A. G. Keskar

Analysis of Japanese Folktales for the Purpose of Story Generation  
Takaaki Kato, Takenori Wama, Koji Miyazaki and Ryohei Nakatsu

Towards the Knowledge Capitalisation and Organisation in the Model of Conformity-Checking Process in Construction  
Anastasiya Yurchyshyna, Catherine Faron-Zucker, Nhan Le Thanh and Alain Zarli

A Web-Based Customer Support Knowledge Base System  
S. Wood and R.J. Howlett

Incremental Determinization of Finite Automata in Model-based Diagnosis of Active Systems  
Gianfranco Lamperti, Marina Zanella, Giovanni Chiodi and Lorenzo Chiodi

A Knowledge Based Approach for Capturing Rich Semantic Representations from Text  
Peter Z. Yeh, Daniel R. Farina and Alex Kass

Ontology-Based Design Pattern Recognition  
Damir Kirasić and Danko Basch

### **Intelligent Vision and Image Processing**

Cognitive Systems for Medical Pattern Understanding and Diagnosis  
Lidia Ogiela

Detection and Analysis of Cell Nuclear Phases  
Donggang Yu, Tuan D. Pham and Xiaobo Zhou

Simple Perceptually-inspired Methods for Blob Extraction  
Paolo Falcoz

A Study on Self Practice Navigation System for the "Kana" Strings  
Kenta Kouyama, Naoto Hara, Toshiaki Kuroiwa, Seiu Yamashita, Akiko Ono, Isao J. Ohsugi, Junichi Yoshino and Hiroshi Ichimura

A Fuzzy Thresholding Circuit for Image Segmentation  
Angel Barriga and Nashaat M Hussein

A Method for Reading a Resistor by Image Processing Techniques  
Yoshihiro Mitani, Yuuki Sugimura and Yoshihiko Hamamoto

Networked Virtual Marionette Theater  
Daisuke Ninomiya, Kohji Miyazaki and Ryohei Nakatsu

A Generic Methodology for Classification of Complex Data Structures in Automotive Industry  
Dymitr Ruta

### **Knowledge Management, Ontologies and Data Mining**

Uncovering the Deep Web: Transferring Relational Database Content and Metadata to OWL Ontologies  
Damir Jurić, Marko Banek and Zoran Skočir

Accessing the Distributed Learner Profile in the Semantic Web  
Mourad Ouziri

A New Travel Time Prediction Method for Intelligent Transportation Systems  
Hyunjo Lee, Nihad Karim Chowdhury and Jaewoo Chang

Measuring Sequence Similarity through Many-to-Many Frequent Correlations  
Gianluigi Greco and Giorgio Terracina

IRPS - An Efficient Test Data Generation Strategy for Pairwise Testing  
Mohammed I. Younis, Kamal Z. Zamli and Nor Ashidi Mat Isa

A Procedure Ontology for Advanced Diagnosis of Process Systems  
Katalin M. Hangos, Erzsébet Németh and Rozália Lakner

Congenital Heart Disease: An Ontology-based Approach for the Examination of the Cardiovascular System  
M. Esposito

ODDI: Ontology-Driven Data Integration  
Paolo Ceravolo, Zhan Cui, Ernesto Damiani, Alex Gusmini and Marcello Leida

Recommendations through an Innovative Mining Algorithm  
Alexis Lazanas and Nikos Karacapilidis

Using Sense Recognition to Resolve the Problem of Polysemy in Building a Taxonomic Hierarchy  
Lei Liu, Sen Zhang, Lu Hong Diao, Shu Ying Yan and Cun Gen Cao

A Framework for Context-Awareness in Artificial Systems  
Fulvio Mastrogiovanni, Antonio Sgorbissa and Renato Zaccaria

The Proposal of the Association Response Based on Commonsense in Conversation System  
Eriko Yoshimura, Seiji Tsuchiya, Hirokazu Watabe and Tsukasa Kawaoka

Ontological Knowledge Maintenance Methodology  
Rim Djedidi and Marie-Aude Aufaure

A Hybrid Approach for Data Preprocessing in the QSAR Problem  
Adina Cocu, Luminita Dumitriu, Marian Craciun and Cristina Segal

Modeling of the Students Scenario on a Learning Course  
Yuji Shinoda, Kenji Yoshida and Hirotaka Nakayama

Sensor Network-Based Nonlinear System Identification  
Giorgio Biagetti, Paolo Crippa, Francesco Gianfelici and Claudio Turchetti

### **Web Intelligence, Text and Multimedia Mining and Retrieval**

Automatic Generation of Computer Animation Conveying Impressions of News Articles  
Tadahiko Kumamoto, Akiyo Nadamoto and Katsumi Tanaka

Data Mining for Navigation Generating System with Unorganized Web Resources  
Diana Purwitasari, Yasuhisa Okazaki and Kenzi Watanabe

Exploring Robustness Enhancements for Logic-Based Passage Filtering  
Ingo Glöckner and Björn Pelzer

Comparing Document Classification Schemes Using K-means Clustering  
Artur Šilić, Marie-Francine Moens, Lovro Žmak and Bojana Dalbelo Bašić

Describing and Generating Web-based Affective Human-agent Interaction  
Xia Mao, Zheng Li and Haiyan Bao

An Unsupervised Hindi stemmer with Heuristic Improvements  
Amaresh Kumay Pandey and Tanvver J Siddiqui

Scalable Content-based Ranking in P2P Information Retrieval  
Maroje Puh, Toan Luu, Ivana Podnar Zarko and Martin Rajman

A New Algorithm for Community Identification in Linked Data  
Nacim Fateh Chikhi, Bernard Rothenburger and Nathalie Aussenac-Gilles

### **Intelligent Robotics and Control**

GrasSmart: An Intelligent Robotic System for Continuous Area Coverage  
Miri Weiss-Cohen, Igal Sirotin and Erez Rave

Stator Resistance Tuning based on a Neural Network in an Indirect Rotor Field Oriented Control System of an Induction Motor  
Dinko Vukadinovic, Mateo Basic and Ljubomir Kulisic

A Simple Goal Seeking Navigation Method for a Mobile Robot using Human Sense, Fuzzy Logic and Reinforcement Learning

Hamid Boubertakh, Mohamed Tadjine and Pierre-Yves Glorennec

Fuzzy Control of a Real Time Inverted Pendulum System

Selcuk Kizir, Zafer Bingul and Cuneyt Oysu

Construction and Evaluation of a Robot Dance System

Kuniya Shinozaki, Akitsugu Iwatani and Ryohei Nakatsu

Development and Evaluation of a Centaur Robot

Satoshi Tsuda, Kuniya Shinozaki and Ryohei Nakatsu

Collaboration Options for Small and Medium Size Enterprises

Sylvia Encheva and Sharil Tumin

Service Robot System Using Personal Attribute and Acquisition Preference Attribute with Networked Robots

Kota Nakamura, Yoshiharu Yoshida, Toru Yamaguchi and Eeri-Shimokawara-Sato

Self-Protecting Session Initiation Protocol Stack

Zoran Rusinovic and Nikola Bogunovic

Early Forest Fire Detection with Sensor Networks: Sliding Window Skylines Approach

Krešimir Pripužić, Hrvoje Belani and Marin Vuković

Analysing Flight Data using Clustering Methods

Christopher Jesse, Honghai Liu, Edward Smart and David Brown

Visual-based View-invariant Human Motion Analysis: A Review

Xiaofei Ji, Honghai Liu, Yibo Li and David Brown

Generalized Extreme Value for Smooth Component Analysis in Prediction Improvement

Ryszard Szupiluk, Piotr Wojewnik and Tomasz Żąbkowski

Context Cookies

Ramón Hervás, Gabriel Chavira, Salvador W. Nava, Vladimir Villarreal and José Bravo

Smart Environment Vectorization. An approach to Learning of User Lighting Preferences

Alejandro Fernández-Montes, Juan A. Ortega, Luis González, Juan A. Álvarez and Manuel D. Cruz

## **II Intelligence Everywhere**

### **Artificial Intelligence driven Engineering Design Optimization**

Design of Row-based Flexible Manufacturing System with Evolutionary Computation

Mirko Ficko and Joze Balic

Ant Colony System-Based Algorithm for Optimal Multi-Stage Planning of Distribution Transformer Sizing

Eleftherios I. Amoiralis, Pavlos S. Georgilakis, Marina A. Tsili and Antonios G. Kladas

On the Evolutionary-Fuzzy Control of WIP in Manufacturing Systems

Nikos C. Tsourveloudis

Numerical Study and Optimal Blade Design of a Centrifugal Pump by Evolutionary Algorithms

Vasilis Grapsas, Fotis Stamatelos, John Anagnostopoulos and Dimitris Papantonis

Groundwater Numerical Modeling and Environmental Design using Artificial Neural Networks and Differential Evolution

Ioannis K. Nikolos, Maria Stergiadi, Maria P. Papadopoulou and George P. Karatzas

### **Biomedical Informatics: Intelligent Information Management from Nanomedicine to Public Health**

Using Hierarchical Task Network Planning Techniques to Create Custom Web Search Services over Multiple Biomedical Databases

Miguel García-Remesal

Building an Index of Nanomedical Resources: an Automatic Approach based on Text Mining

Stefano Chiesa, Miguel García-Remesal, Guillermo de la Calle, Diana de la Iglesia, Vaida Bankauskaite and Víctor Maojo

Annotation of Colorectal Cancer Data using the UMLS Metathesaurus

Marcos Martínez, José M. Vázquez, Javier Pereira and Alejandro Pazos

A Primer in Knowledge Management for Nanoinformatics in Medicine

Fernando Martín-Sánchez, Victoria López-Alonso, Isabel Hermosilla-Gimeno and Guillermo Lopez-Campos

### **Communicative Intelligence**

Towards Natural Head Movement of Autonomous Speaker Agent

Marko Brkic, Karlo Smid, Tomislav Pejsa and Igor S. Pandzic

Automatic Translation in Two Phases: Recognition and Interpretation

Osvaldo Cairó and Silvia Guardati

Representation of Uncertain Knowledge in Probabilistic OLAP Model

Maciej Kiewra

Local Topology of Social Network Based on Motif Analysis

Przemysław Kazienko, Katarzyna Musiał and Krzysztof Juszczyszyn

A Semantic Language for Querying Anonymous Web Sources

François Pinet and Michel Schneider

CDNs with Global Adaptive Request Distribution

Leszek Borzemski and Krzysztof Zatwarnicki

### **Computational Intelligence for Image Processing and Pattern Recognition**

Digital Video Watermarking based on RGB Color Channels and Principal Components Analysis

Hanane Mirza, Hien Thai and Zensho Nakao

A Watermarking Approach for MIDI File based on Velocity and Duration Modulation

Alexander Adli, Hanane Mirza and Zensho Nakao

Application of Interactive Genetic Algorithms to Boid Model based Artificial Fish Schools

Yen-Wei Chen, Kanami Kobayashi, Hitoshi Kawabayashi and Xinyin Huang

Classification of High Resolution Satellite Images using Supervised Locality Preserving Projections

Yen-Wei Chen and Xian-Hua Han

## **Computational Intelligence in Human Cancer Research**

Downsizing Multigenic Predictors of the Response to Preoperative Chemotherapy in Breast Cancer  
René Natowitz, Roberto Incitti, Roman Rouzier, Arben Çela, Antonio Braga, Euler Horta, Thiago Rodriges and Marcelo Costa

Classification of Sporadic and BRCA1 Ovarian Cancer based on a Genome-wide Study of Copy Number Variations  
Anneleen Daemen, Olivier Gevaert, Karin Leunen, Vanessa Vanspauwen, Geneviève Michils, Eric Legius, Ignace Vergote and Bart De Moor

Rule-based Assistance to Brain Tumour Diagnosis using LR-FIR  
Àngela Nebot, Félix Castro, Alfredo Vellido, Margarida Julià-Sapé and Carles Arús

Are Model-based Clustering and Neural Clustering Consistent? A Case Study from Bioinformatics  
Davide Bacciu, Elia Biganzoli, Paulo J. G. Lisboa and Antonina Starita

Exploratory Characterization of Cutliers in a Multi-centre <sup>1</sup>H-MRS Brain Tumour Dataset  
Alfredo Vellido, Margarida Julià-Sapé, Enrique Romero and Carles Arús

Feature Selection in "in vivo" <sup>1</sup>H-MRS Single Voxel Spectra  
Félix F. González-Navarro and Lluís A. Belanche-Muñoz

Statistical Assessment of MSigDB Gene Sets in Colon Cancer  
Angela Distaso, Luca Abatangelo, Rosalia Maglietta, teresa Maria Creanza, Ada Piepoli, Massimo Carella, Annarita D'Addabbo, Sayan Mukherjee and Nicola Ancona

Stratification of Severity of Illness Indices: A Case Study for Breast Cancer Prognosis  
Terence A. Etchells, Ana S. Fernandes, Ian H. Jarman, José M. Fonseca and Paulo J.G. Lisboa

## **Computational Intelligence Techniques for Web Personalization**

Categorization of Web Users by Fuzzy Clustering  
Giovanna Castellano and Maria Alessandra Torsello

Fuzzy User Profiling in e-Learning Contexts  
Corrado Mencar, Ciro Castiello and Anna Maria Fanelli

Personalized Web Search by Constructing Semantic Clusters of User Profiles  
John Garofalakis, Theodoula Giannakoudi and Agoritsa Vopi

A Comparison of Different Rating Based Collaborative Filtering Algorithms  
Fabián P. Lousame and Eduardo Sánchez

## **Computational Intelligent Techniques for Bioprocess Modelling, Monitoring and Control**

Application of Agent-based System for Bioprocess Description and Process Improvement  
Ying Gao, Katie Kipling, Jarka Glassey, Mark Willis, Gary Montague, Yuhong Zhou and Nigel Titchener-Hooker

A Dynamic Bayesian Network to Represent a Ripening process of a Soft Mould Cheese  
Cédric Baudit, Pierre-Henri Wuillemin, Mariette Sicard and Nathalie Perrot

Nonlinear and Neural Networks Based Adaptive Control for a Wastewater Treatment Bioprocess  
Emil Petre, Dan Selişteanu, Dorin Şendrescu and Cosmin Ionete

Epileptic Seizure Classification Using Neural Networks with 14 Features  
Rui P. Costa, Pedro Oliveira, Guilherme Rodrigues, Bruno Leitão and António Dourado



## **Intelligent Computing for Grid**

Predicting Grid Performance based on Novel Reduct Algorithm  
Kun Gao

Discussing Redundancy Issues in Intelligent Agent-Based Non-traditional Grids  
Versavia Ancusa, Razvan Bogdan and Mircea Vladutiu

A Uniform Parallel Optimization Method for Knowledge Discovery Grid  
Kun Gao

E-service Delivery Pattern for Knowledge Discovery Grid  
Meiqun Liu

Design and Implementation to Intelligent Examination System for E-business Application Operation  
Xin Jin and YanLin Ma

Application Study in Decision Support with Fuzzy Cognitive Map  
He Yue

Combination Study of Multi Fuzzy Cognitive Map  
Lin Chun-Mei

A Hermeneutic Approach to the Notion of Information in IS  
Wang Su-Fen

## **Intelligent Security Techniques**

Access Control Labeling Scheme for Efficient Secure XML Query Processing  
Dong Chan An and Seog Park

A Secure Mediator for Integrating Multiple Access Control Policies  
Isabel F. Cruz, Rigel Gjomemo and Mirko Orsini

Domain Account Model  
Giulio Galiero, Paolo Roccetti and Andrea Turli

Impostor Users discovery using a Multimodal Biometric Continuous Authentication Fuzzy System  
Antonia Azzini and Stefania Marrara

## **Intelligent Utilization of Soft Computing Techniques**

Coordinated Exploration in Conflicting Multi-Stage Games  
Maarten Peeters, Katja Verbeeck and Ann Nowé

Incremental Learning Method of Simple-PCA  
Tadahiro Oyama, Stephen Karungaru, Satoru Tsuge, Yasue Mitsukura and Minoru Fukumi

Utilization of Soft Computing Techniques for Making Environmental Games More Exciting - Toward an Effective Utilization of the COMMONS GAME  
Norio Baba, Kenta Nagasawa and Hisashi Handa

Petri Net-based Simulation and Analysis of the Software Development Process  
Gordan Topic, Dragan Jevtic and Marijan Kunstic

Learning Grouping and Anti-Predator Behaviors for Multi-Agent Systems  
Koichiro Morihiro, Haruhiko Nishimura, Teijiro Isokawa and Nobuyuki Matsui

Network Simulations for Relationality Design - An Approach Toward Complex Systems -  
Katsunori Shimohara

Dynamical Effect on Tick-wise Price Predictions  
Mieko Tanaka-Yamawaki and Keita Awaji

Time-series Models of the EEG Wearing Overcorrected Glasses  
Yohei Tomita, Shin-ichi ITO, Yasue Mitsukura, Minoru Fukumi and Taketoshi Suzuki

Feature Extraction System for Age Estimation  
Hironobu Fukai, Hironori Takimoto, Yasue Mitsukura and Minoru Fukumi

### **Reasoning-Based Intelligent Systems**

Improving EEG Analysis by Using Paraconsistent Artificial Neural Networks  
Jair Minoro Abe, Helder F.S. Lopes and Kazumi Nakamatsu

Transitive Reasoning of Before-after Relation Based on Bf-EVALPSN  
Kazumi Nakamatsu, Jair Minoro Abe and Seiki Akama

A Conceptual Model for Guiding the Clustering Analysis  
Wagner F. Castilho, Gentil J. Lucena Filho, Hércules A. do Prado, Edilson Ferneda and Margarete Axt

An Image-Based Integration System for Real-Time Dispatching of Multi-Robots  
Li-Che Chen, Tien-Ruey Hsiang, Yu Fu and Sheng-Luen Chung

### **Relevant Reasoning for Discovery and Prediction**

A Fast Duplication Checking Algorithm for Forward Reasoning Engines  
Takahiro Koh, Yuichi Goto and Jingde Cheng

Formal definition of Relevant Logical Symbol Occurrence  
Noriaki Yoshiura

Deontic Relevant Logic as the Logical Basis for Representing, Reasoning about, and Ensuring Legal Knowledge  
in Legal Information Systems  
Jingde Cheng

A General Forward Reasoning Algorithm for Various Logic Systems with Different Formalizations  
Yuichi Goto, Takahiro Koh and Jingde Cheng

### **Spatio-temporal Database Concept Support for Organizing Virtual Earth**

Map-oriented Regional Information Management for Data Broadcasting Content  
Masahiro Ura, Takami Yasuda, Masashi Yamada, Mamoru Endo, Shinya Miyazaki and Koji Nakamura

Continuous Clustering of Moving Objects in Spatial Networks  
Wenting Liu, Zhijian Wang and Jun Feng

Index Method for Tracking Network-constrained Moving Objects  
Jun Feng, Jiamin Lu, Yuelong Zhu and Toyohide Watanabe

Adaptive Routing of Cruising Taxis by Mutual Exchange of Pathways  
Kosuke Yamamoto, Kentaro Uesugi, Watanabe Toyohide

Route Optimization using Q-Learning for On-demand Bus Systems  
Naoto Mukai, Toyohide Watanabe and Jun Feng

Sharing Event Information in Distributed Environment Based on Three-Layered Structure  
Masakazu Ikezaki, Toyohide Watanabe, Tomoko Kojiri and Taketoshi Ushiyama

### **III Knowledge Everywhere**

#### **Advanced Knowledge-Based Systems**

An Introduction to Authorization Conflict Problem in RDF Access Control  
Jaehoon Kim, Kangsoo Jung and Seog Park

Improving Text Summarization using Noun Retrieval Techniques  
Christos Bouras and Vassilis Tsogkas

Providing Flexible Queries over Autonomous Web Databases  
Xiangfu Meng, Z. M. Ma and Li Yan

Fast Cryptographic Privacy Preserving Association Rules Mining on Distributed Homogenous Data Base  
Mahmoud Hussein, Ashraf El-Sisi and Nabil Ismail

SD-Core: Generic Semantic Middleware Components for the Semantic Web  
Ismael Navas-Delgado and José F. Aldana-Montes

A Knowledge-Based Approach for Answering Fuzzy Queries over Relational Databases  
Z. M. Ma and Xiangfu Meng

An Algorithm for Discovering Ontology Mappings in P2P Systems  
Giuseppe Pirrò, Massimo Ruffolo and Domenico Talia

Privacy Risks in Trajectory Data Publishing: Reconstructing Private Trajectories from Continuous Properties  
Emre Kaplan, Thomas B. Pedersen Erkay Savaş and Yücel Saygin

A Novel Approach for Practical Semantic Web Data Management  
Giorgio Gianforme, Roberto De Virgilio, Stefano Paolozzi, Pierluigi Del Nostro and Danilo Avola

Distance-based Classification in OWL Ontologies  
Claudia d'Amato, Nicola Fanizzi and Floriana Esposito

Kernel Methods for Graphs: A Comprehensive Approach  
Francesco Camastra and Alfredo Petrosino

Event-based Compression and Mining of Data Streams  
Alfredo Cuzzocrea and Sharma Chakravarthy

Context Enabled Semantic Granularity  
Riccardo Albertoni, Elena Camossi, Monica De Martino, Franca Giannini and Marina Monti

Modeling Spatial Relations between Places to support Geographic Information Retrieval  
Alia I. Abdelmoty and Baher A. El-Geresy

Towards Relational Inconsistent Databases with Functional Dependencies  
Sergio Greco and Cristian Molinaro

## **Chance Discovery**

A Bank Run Model in Financial Crises

Katsutoshi Yada, Takashi Washio, Yasuharu Ukai and Hisao Nagaoka

Logic of Discovery and Knowledge. Decision Algorithm

Sergey Babenyshev and Vladimir Rybakov

Chance, Affordances, Niche Construction

Lorenzo Magnani

Free Association versus Recognition: Sensitivity for Chance Discovery in Cross-Cultural Color Design

Gyoung Soon Choi, Ruediger Oehlmann and David Cottingham

A Cross-cultural Study on Attitudes toward Risk, Safety and Security

Yumiko Nara

Insight or Try & Errors: Ambiguous Items as Clue to Discovering New Concepts in Constrained Environments

Jun Nakamura and Yukio Ohsawa

Exceptions as Chance for Computational Chance Discovery

Akinori Abe, Norihiro Hagita, Michiko Furutani, Yoshiyuki Furutani and Rumiko Matsuoka

Analyzing Behavior of Objective Rule Evaluation Indices based on a Correlation Coefficient

Hidenao Abe and Shusaku Tsumoto

## **Innovation-oriented Knowledge Management Platform**

Face Image Annotation based on Latent Semantic Space and Rules

Hideaki Ito, Yuji Kawai and Hiroyasu Koshimizu

A Spam Filtering Method Learning from Web Browsing Behavior

Taiki Takashita, Tsuyoshi Itokawa, Teruaki Kitasuka and Masayoshi Aritsugi

A Method of Graphic Composition using Differential SVG Documents

Motohiro Matsuda, Kazunari Ito, Martin j. Dürst and Kôiti Hasida

Externalization Support of Key Phrase Channel in Presentation Preparation

Koichi Hanaue and Toyohide Watanabe

X-Web: A Data Model for Managing Personal Contents Based on User Experiences

Taketoshi Ushiyama and Toyohide Watanabe

## **Knowledge-Based Creativity Support Systems**

Understanding Creativity-technique based Problem Solving Processes

Florian Forster and Michele Brocco

A Visualisation Tool for Cooperative Relations and its Verification with a Case Study

Takanori Ugai and Kouji Aoyama

Participatory Workshop as a Creativity Support System

Kosuke Numa, Kiyoko Toriumi, Katsuaki Tanaka, Mina Akaishi and Koichi Hori

Readable Representations for Large-Scale Bipartite Graphs

Shuji Sato, Kazuo Misue and Jiro Tanaka

Evaluation of a Prototype of the Mimamori-care System for Persons with Dementia  
Taro Sugihara, Kenichi Nakagawa, Tsutomu Fujinami and Ryozo Takatsuka

Aware Group Home Enhanced by RFID Technology  
Motoki Miura, Sadanori Ito, Ryozo Takatsuka and Susumu Kunifuji

A Tabletop Interface using Controllable Transparency Glass for Collaborative Card-based Creative Activity  
Motoki Miura and Susumu Kunifuji

Random Display of Hints and its Effect on Generating Ideas in Brain-writing Groupware  
Ujjwal Neupane, Kazushi Nishimoto, Motoki Miura and Susumu Kunifuji

Visual Analysis Tool for Bipartite Networks  
Kazuo Misue

### **Knowledge-Based Interface Systems [I]**

A Model for Measuring Cognitive Complexity of Software  
Sanjay Misra and Ibrahim Akman

Efficient Tracking with AdaBoost and Particle Filter under Complicated Background  
Yuji Iwahori, Naoki Enda, Shinji Fukui, Haruki Kawanaka, Robert J. Woodham and Yoshinori Adachi

Analog VLSI Layout Design and the Circuit Board Manufacture of Advanced Image Processing for Artificial Vision Model  
Masashi Kawaguchi, Takashi Jimbo and Naohiro Ishii

Classification of Local Surface Using Neural Network and Object Rotation of Two Degrees of Freedom  
Takashi Kojima, Yuji Iwahori, Tsuyoshi Nakamura, Shinji Fukui, Robert J. Woodham and Hidenori Itoh

Control of Hypothesis Space using Meta-knowledge in Inductive Learning  
Nobuhiro Inuzuka, Hiroyuki Ishida and Tomofumi Nakano

### **Knowledge-Based Interface Systems [II]**

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