AISTA'04 Final Program

full papers

MO1.1: Security - Cryptography

Random generation of balanced Boolean functions with very high nonlinearity
Anna GROCHOLEWSKA - CZURYLO

Cryptography with hyperbolic cellular automata
Francine HERRMANN and Yann LANUEL

An Automatic Stereoscopic Video Objects Multiresolution Cryptographic Scheme Based on Chaos
Klimis S. NTALIANIS and Stefanos D. KOLLIAS

MO1.2: Artificial Neural Networks

Resource Discovery in P2P Networks Using Evolutionary Neural Network
Mikko A. VAPA, Niko P. KOTILAINEN, Annemari K. AUVINEN, Heikki M. KAINULAINEN, and Jarkko T. VUORI

Combinative and Modular Single Layer RBF NN classifier for large scale learning problems
Gao Daqi, Wang Zheng, Li Changwu

Utilizing Feature Extraction in Classifying Control Chart Patterns: A Synergistic Neural Networks Approach
Kittichai LAVANGNANANDA and Apivadee PIYATUMRONG

Rewarded multi-modal neuronal self-organization: Example of the arm reaching movement
Olivier Ménard and Hervé Frezza-Buet

MO1.3: Data Mining & Information Retrieval

An SQL-like Interface to Retrieve Associative Patterns from Neural Skeletons
Christoph Schommer

Natural Language Queries for Information Retrieval in Structured Documents
Xavier Tannier, Jean-Jacques Girardot and Mihaela Mathieu
Experiments with different proximity based information retrieval models
Michel Beigbeder and Annabelle Mercier

MO1.4: Control & Automation

Coordinated Control of a Particle Group with a Leader
Shumei MU, Tianguang CHU, and Long WANG
"Recognition of scenarii by an ”uncertain” token inside a graph of states
Sophie Loriette-Rougegrez
Building Safe Plans in Un-guaranteed Dynamic Environment for Real-time Control
Tariq A. OMAR, Ana SIMONET and Michel SIMONET
Robust Hinf control : deterministic and stochastic approaches
M. Zasadzinski, S. Halabi, H. Souley Ali, H. Rafaralahy and M. Darouach
First Approach to the Implementation of an Automatic Pilot to Make Perfect Longitudinal Loops Varying only Gflyup
José B. FONSECA

MO2.1: Security - Authentication & Services

A Secure Management for Service Gateways in Home Service Environment
Jong-Hoon Lee , Ho Jin Park
CDMA: Coordinated Distributed Multiple Denial of Service Attack Detection
Srinivas Mukkamala and Andrew H. Sung
Searching for the best nonlinearity of homogeneous Boolean functions by using simple genetic algorithm
Mohannad NAJJAR

MO2.2: Advanced Applications & Techniques

Pattern Recognition for Conductive Buried Tag Identification
Adel ZITOUNI, Larbi BEHEIM, and Fabien BELLOIR
Fuzzy linguistic rules identification system for wood quality
E. SCHMITT, C. MAZAUD, V. BOMBARDIER, P. LHOSTE, P. CHARPENTIER and R. VOGRIG
Simulation and testing of RF Transceiver suitable for wireless short

range applications
ARSHAK, E. JAFER, and D. MCDONAGH

MO2.3: Security - Authentication & Services

A Multilevel Secure Bitemporal Database System
Worawit MEANRACH, and Suphamit CHITTAYASOTHORN
Securing Information on Compact Discs The Forbidden Access Approach
Jayesh SESHADRI and Niraj P. BOTHRA,
An Image Watermarking Technique using Overlap-block
Somkiat WANGSIRIPITAK, Sorakit MORASILPIN, and Kritawan SIRIBOON
Secure and Intelligent Approach for Web applications
Momouh Khadraoui and Beat Hirsbruner

MO2.4: Markov Models

Sensitivity Properties of Markovian Models
Theodore Charitos and Linda C. van der Gaag
Cooperation through communication in decentralized Markov games
Raghav Aras, Alain Dutech, François Charpillet

MO3.1: Data Mining & Information Retrieval

A decision support system for data miners
Edwige Fangseu Badjio, François Poulet
Understanding data by their context using RDF
Karsten TOLLE, Johann Wolfgang

MO3.2: Advanced Applications & Techniques

Research of Traffic Flow Modeling Using Support Vector Machines Regression
Ding-cheng Wang, Ding-cai Chen
Application of Recurrent Support Vector Machines in Reliability Forecasting
Ping-Feng Pai, Wei-Chiang Hong
Process Surveillance and State Sensing with Generic Model Parameter Estimation
D. J. B. S. SAMPAIO, D. ZETTEL, N. LINK, M. PESCHL and L.

MO3.3: Fuzzy Logic and Systems

Fast factorization by similarity in formal concept analysis
Radim Belohlavek, Jiri Dvorak, Jan Outrata
Identification of Elasto-Plastic Material Parameters from Indentation Testing using Numerical Optimization and Finite Element Modelling
G. Rauchs
Multi-Agent Planning and Control in a Demand-Responsive Passenger Transportation Service
Claudio CUBILLOS, Franco GUIDI-POLANCO and Claudio DEMARTINI

MO3.4: Algorithms & Modelling

On Time Series Forecasting Methods of Linear Complexity Utilizing Wavelets
Bartosz Kozlowski
Capacity Expansion in Semiconductor Manufacturing
Feng Pan and Xing-san Qian
Adaptive Business Process Improvement Using Multi-Objective Genetic Algorithms
Cornelia Richter-von Hagen and Dietmar Ratz
A Minimal Fragmentation Algorithm for Task Allocation in Mesh-Connected Multicomputers
T. Srinivasan, J. Seshadri, A. Chandrasekhar, J. B. Siddharth Jonathan
A state estimation algorithm for nonlinear systems subject to bounded disturbances
Y. Becis-Aubry,, M. Boutayeb, M. Darouach

TU1.1: Ontology and Semantic Web

Extracting Events From Web Pages
Masaki MORI, Takao MIURA, Isamu SHIOYA
Process Ontologies for IT Services
Holger BROCKS, Christian BEGGER and Thomas KAMPS
A Bayesian Approach to Uncertainty Modeling in OWL Ontology
Z. Ding, Y. Peng, R. Pan
An Abstract Intelligent Machine for the Semantic Web
Yannick NAUDET, Patrick PLICHART, Simon RENAULT, Thibaud LATOUR
A Simple and Intuitive Method for Cooperative Ontology Construction Based on a P2P Network of Personal Desktop Management Tools

Jean-Sébastien BRUNNER, Alain VAGNER, Thibaud LATOUR, Yannick NAUDET

TU1.2: Decision Making

Using Intelligent Agent based Decision Support for Knowledge Management Integration
N. HOUARI, B.H. FAR

A Framework for Decision-making based on Learning in a QoS Management System
Patrice Vienne and Jean-Louis Sourrouille

Adaptive Firms
Lilia Rejeb and Zahia Guessoum

Describing evolving systems by uncertain default transition rules
Florence Dupin de Saint-Cyr and Henri Prade

TU1.3: Intelligent Space Applications

A Causality Computation Method using a Vector Space Model and its Application to Aerospace Engineering
Taizo Zushi, Kosuke Takano and Yasushi Kiyoki

Nonlinear Fault Diagnosis and Recovery for Satellites Using Parameter Estimation Techniques
Tao Jiang, K. Khorasani and S. Tafazoli

Mixed H2 - Hinf Observer-based Control for a Space Application
H. Souley Ali, M. Zasadzinski and M. Darouach

TU1.4: Clustering, Classification & Knowledge Acquisition

Block Clustering for large continuous data sets
M. Nadif, Francois-Xavier Jollois and Gérard Govaert

An Optimized Neural System for Predicting Surface Finish of Machined Surfaces
Z. W. ZHONG, L. P. KHOO and S. T. HAN

A Clustering Algorithm using Cellular Learning Automata based Evolutionary Algorithm
R. RASTEGAR, M. RAHMATI, and M. R. MEYBODI

A New Approach to Feature Selection Based on Multi-Criteria in Text Categization
Son Doan and Susumu Horiguchi

TU2.2: Trust & Security

From Ontologies to Trust through Entropy
Anusch Daemi and Jacques Calmet
Trust Arrays: Allowing P2P nodes to “personally” evaluate trustworthiness of potential partners
Mauro Stocco, Thomas Engel, Uwe Roth

TU2.3: Clustering, Classification & Knowledge Acquisition

MCLA: Multi-label classification learning algorithm
F. THABTAH, P. COWLING and Y. PENG
Modeling Landuse Changes Using Bayesian Classifiers
Salem BENFERHAT, Marie-Aline CAVARROC, Robert JEANSOULIN
Efficient version of EM for Gaussian mixture model
Francois-Xavier Jollois and Mohamed Nadif
Dynamic Construction of Context Free Grammar from Sample for On-line Thai Handwriting Recognition
B. Kruatrachue, P. Polsuntiku, K. Siriboon

TU2.4: Clustering, Classification & Knowledge Acquisition

Optimizing Feature Selection for Naive Bayes Text Classifiers
Karl-Michael Schneider
Clustering Time Series Data from Retail Industry for Analysis of Buying Patterns
Durga TOSHNIWAL and R. C. JOSHI
The Bayesian Decision Tree Technique with a Sweeping Strategy
Vitaly SCHETININ, Jonathan E. FIELDSEND, Derek PARTRIDGE, Wojtek J.KRZANOWSKI, Richard M. EVERSON, Trevor C. BAILEY, and Adolfo HERNANDEZ
Prototype-based Classifier Using Density Technique
Thanawat PHATTARAWORAMET, Boontee KRUATRACHUE, and Kreangsak TAMEE

WE1.1: Intelligent Modeling and Monitoring Resources on the WEB I

PAWebSearch: An Intelligent Agent for Web Information Retrieval
R. Arezki, P. Poncelet, G. Dray, D. W. Pearson
Data Driven Case-Based Reasoning Approach: A Continuous Maintenance Strategy

M. Malek, R. Kanawati
A Distributed Network Management Framework Using Web Services And Mobile Agents
N. H. Pham, V. Limpoka, S. Ohara
Using Reinforcement Learning to Generate Adaptive Web Recommendations
M. Preda, D. Popescu

WE1.2: MAS - Conflict & Negotiation

On the search of a consensus between autonomous agents
L. Amgoud, S. Belabbes, H. Prade
Three different kinds of negotiation applications achieved with GeNCA
P. Mathieu, M.-H. Verrons
Graphical Multiagent Decision Model with Conflicting Information
Y.-F. Zeng, K.-L. Poh

WE1.4: Intelligent Information Systems

An Intelligent Framework for Predicting Shifts in the Workloads of Autonomic Database Management Systems
S. S. Elnaffar, P. T. Martin
Knowledge-Based XML Information Retrieval
M. Karimzadegan, J. Habibi, F. Oroumchian
Human Plausible Reasoning for Question Answering Systems
E. Darrudi, M. Rahgozar, F. Oroumchian
Semantic Annotation of Relational Databases in order to Facilitate their Mediation
M. Schneider, O. Nodin
Towards coordination-ready information systems: the IS component approach
T. Le Dinh, M. Leonard
Institutional Information Systems Alignment on Laws
A. Khadraoui, S. Turki, C. Aïdonidis, M. Léonard

WE2.1: Intelligent Modeling and Monitoring Resources on the WEB II

Web Service Adaptive Agent Architecture for Supply Chain Management
U. Hassan, B. Soh
Context Meets Web Services: Towards a Web Service Description Language Based on Context

S. Kouadri Mostéfaoui

TAO, a collaborative distributed computer-based assessment framework built on Semantic Web standard

P. Plichart, R. Jadoul, L. Vandenabeele, T. Latour

WE2.2: Advanced Applications and techniques

Continuous monitoring of dynamic systems: Application to monitoring of dialyzed patients

L. Jean-Pierre, F. Charpillet

Object recognition by model based focus vision

F. Chausse, N. Trujillo, R. Chapuis, M. Naranjo

A Self-adaptive multi-agent system for automatic 3D scene reconstruction

S. Mazouzi, M. C. Batouche, Z. Guessoum

Making cortically-inspired sensorimotor control realistic for robotics:Design of an extended parallel cellular programming model

O. Menard, S. Vialle, H. Frezza-Buet

WE2.3: Navigation of Advanced Robotics Systems

Implementation of a vision-based navigation framework on a house mobile robot prototype

G. Blanc, T. Chateau, Y. Mezouar, O. A. Aïder, P. Martinet, L. Eck, V. Moreau, A. Nadim

A Colony Included Cellular Automata for Revolving the Concave Obstacles in Pathplanning of Mobile Robots

A. Akbari, C. Lucas, S. Kia

Assumption-based Planning

D. Pellier, H. Fiorino

TH1.1: Agent & MAS - Modelling & Optimization

Collaborative JADE Agents Enabling the Configuration of Metaheuristic Algorithms

D. Monett-Díaz

A Multi-agents Approach to resolve a Constraint Satisfaction Problem

H. Ounnas, M. Babes

Agent-based optimization of business functions using coevolutionary algorithms: the distributed warehouse management case study

G. Danoy, P. Bouvry, F. Seredynski

A Generic Component-based Methodology for Extensible Mobile Agents Design

N. Amara

Developing Cooperative Information Agent-Based Systems with the AMCIS Methodology

D. Benmerzoug, M. Boufaida, Z. Boufaida

TH1.2: MAS - Coordination, Cooperation & Interaction

Using Generic Interaction Protocols to Develop Multi-Agent Systems

T. Jarraya, Z. Guessoum, E. Desjardin

Resource Load Predictable Coordination in Multi Agent Filtering Framework

S. Albayrak, D. Milosevic

Coordination of a Group of Mobile Autonomous Agents

H. Shi, L. Wang, T. Chu, W. Zhang

TH1.3: Networks Security - Intrusion Detection Systems

High Performance Intrusion Detection using Traffic Classification

T. Abbes, A. Haloi, M. Rusinowitch

A Neural Network Based System for Intrusion Detection and Classification of Attacks

M. Moradi, M. Zulkernine

Wireless Security on the Physical Layer with Code-Hopping CDMA (CH-CDMA)

F. Hermanns

Modeling of User Network Behavior for Complex Network Attacks

O. Belakhdar

TH1.4: Fuzzy Logic and Systems

Fuzzy MVC Pattern for Fuzzy Graphical User Interface

R. Karimi, C. Lucas

Power Swing Blocking For Distance Protection Using Fuzzy-Neuro Scheme

H. Khorashadi-Zadeh, H. Daneshi

Design an Expert System for Arabic Language Processing

S. Mouti, F. Sukkar

Implications from data with fuzzy attributes

R. Belohlávek, M. Chlupová, V. Vychodil

TH2.2: MAS - Applications & Platforms

Building User Interfaces thanks to Eco-Reslution
D. Julien, Z. Guessoum, M. Ziane

DimaX: A Fault-Tolerant Multi-Agent Platform
N. Faci, Z. Guessoum, O. Marin, M. T. Laskri

Task Competition Reactive Multi-agent Architecture for Customer Satisfaction in Global Transportation Systems
O. Belakhdar

TH2.3: Artificial Neural Networks

An Artificial Neural Network for Electron Identification with CDF
Y. Kemp, H. Stadie

Transmission Lines Protection Using Wavelet Transform and Artificial Neural Network
H. Khorashadi-Zadeh, H. Daneshi

An ANN Based Busbar Protection Technique with Stability Current Transformer Saturation
H. Khorashadi-Zadeh, H. Daneshi

TH2.4: Networks & Telecom Technology

An Evolutionary Approach to Network Redesigns
S. J. Habib

New photonic technology for optical signal processing
A. Boudrioua, N. Boudrioua, A. Dandache

TH3.1: Agent & MAS - Modelling & Optimization

Multi-Agent Workflow Management Architecture
N. Khalilifar, M. Rahgozar, F. Oroumchian

Collective Motion in A Group of Mobile Autonomous Agents
B. Liu, T. Chu, L. Wang

A Platform for the analysis of artificial self-organized systems
C. Bourjot, V. Chevrier

TH3.2: MAS - Applications & Platforms

A Model for the tsetse flies distribution in a heterogeneous

environment based on Massive Multi-Agent System
G. Mbatchou, L. P. Fotso, J.-P. Gouteux, I. Bakam, A. Cardon
Multiagent as systematic approach for integration based multiple models
A. Zakari
Intelligent Genetic Algorithm Based on Autonomous Agent Chromosomes
S. Koubaa, S. Hammadi
User-based Decision Support System
A. Anli, C. Petit-Rozé, E. Grislin-Le Strugeon

TH3.3: Advanced Expert Systems

Semantic Layer Architecture for an Educational Expert System in Computer History
S. Linckels, C. Meinel
A Fuzzy Expert System Estimating Scenarios for Internet Business
I. Younas, P. Doran