

CONFERENCE AGENDA

September 4, 2012

Time	FSTUB, Floor 2, Hall 3
9:00 AM – 06:00 PM	IEEE SUMMER SCHOOL Chair: Plamen Angelov (UK)

September 5, 2012

Time	FSTUB, Floor 2, Hall 3	FSTUB, Floor 2, Hall 1
04:00 PM – 05:30 PM	LECTURER: Arthur Kordon (USA) Chair: Vladimir Jotsov (BG)	
05:45 PM –		EARLY BIRDS

September 6, 2012

No	Time	Hall A	Hall B	Hall C	Poster
1.	09:00 AM – 09:30 AM	OPEN Chair: Vassil Sgurev (BG)			
2.	09:30 AM – 11:10 AM	PL1 Chair: Janusz Kacprzyk (PL)			
Coffee Break 10:10 AM – 10:30 AM					
3.	11:20 AM – 01:00 PM	FL Janusz Kacprzyk (PL)	IM 1 Lyubka Doukovska (BG)	APP 1 Arthur Kordon (USA)	
Lunch 01:00 PM – 01:50 PM					
4.	02:00 PM – 02:40 PM		KEY Vladimir Jotsov (BG)		
5.	02:45 PM – 04:25 PM	APP 2 Frank Schneider (DE)	TUT 1 Hironori Fujii (JP)	IS 1 Maciej Krawczak (PL)	
6.	04:00 PM – 04:40 PM				P 1 Petia Koprinkova (BG)
Coffee Break 04:20 PM – 04:40 PM					
7.	04:35 PM – 06:05 PM		TUT 2 Veljko Milutinovic (RS)		

8.	04:40 PM – 05:40 PM			MAS 1 František Čapkovič (SK)	
9.	04:40 PM – 06:20 PM	BIO Plamen Angelov (UK)			
10.	05:45 PM – 08:05 PM			IS 2 Rangasamy Parvathi (IN)	
11.	06:10 PM – 07:30 PM		KM 1 Panagiotis Chountas (UK)		
12.	06:25 PM – 08:05 PM	SA Harish Bhaskar (UAE)			

September 7, 2012

No	Time	Hall A	Hall B	Hall C	Poster
1.	09:00 AM – 11:30 AM	PL 2 Ronald Yager (USA)			
Coffee Break 10:20 AM – 10:50 AM					
2.	11:40 AM – 01:20 PM	ANN Nikola Kasabov (NZ)	KDD Patricia Besson (FR)	IS 3 Beloslav Riečan (SK)	
Lunch 01:20 PM – 02:10 PM					
3.	02:00 PM – 02:40 PM				P 2 Stefka Fidanova (BG)
4.	02:30 PM – 04:10 PM	AI Gancho Vachkov (JP)	IM 2 Michael Flynn (USA)	IS 4 Eulalia Szmidski (PL)	
5.	02:30 PM – 05:10 PM				
6.	04:00 PM – 04:40 PM				P 3 Lyudmila Mihaylova (UK)
Coffee Break 04:10 PM – 04:30 PM					
7.	04:30 PM – 06:30 PM	IISS Murat Mala (TR)	MAS 2 Vassil Sgurev (BG)		

8.	05:20 PM – 06:40 PM			KM 2 Alexander Gegov (UK)	
Cocktail 07:00 PM –					

September 8, 2012

№	Time	Hall A	Hall B	Hall C	Poster
1.	09:00 AM – 09:40 AM	PL 3 Nikola Kasabov (NZ)			
Coffee Break 09:40 AM – 10:00 AM					
2.	10:00 AM – 11:40 AM	KM 3 Ivan Popchev (BG), Gozde Ulutagay (TR)	APP 3 Mincho Hadjiski (BG)	IS 5 Dilek Tukel (TR), Tatjana Kolemishevsk- Gugulovska (MK)	
3.	11:45 AM – 01:45 PM	IC Essameddin Badreddin (DE), Kazuyuki Ito (JP)	APP 4 Marco Dorigo (BE), Ichiro Kataoka (JP)	IS 6 Tatjana Kolemishevsk- Gugulovska (MK), Dilek Tukel (TR)	
4.	01:45 PM – 01:55 PM	CLOSE Vassil Sgurev (BG)			
Lunch 01:55 PM – 02:30 PM					
Excursions					

PROGRAMME OF THE CONFERENCE

Tuesday, September 4

9:00 AM - 06:00 PM

IEEE SUMMER SCHOOL

Place: FSTUB, Floor 2, Hall 3

Chair: Plamen Angelov (Lancaster University, United Kingdom)

9:00 AM – 9:30 AM

Opening of the Summer School

Plamen Angelov, EIS TC Chair

9:30 AM – 10:30 AM

Talk 1

Evolving neural networks and applications in Bioinformatics and Neuroinformatics

Nikola Kasabov (Auckland University of Technology, New Zealand)

10:30 AM - 11:00 AM

Coffee break

11:00 AM – 12:00 AM

Talk 2

Evolving Intelligence by Autonomous Learning Machines

Plamen Angelov (Lancaster University, United Kingdom)

12:00 AM - 01:00 PM

Lunch

01:00 PM – 02:00 PM

Talk 3

How to Apply Evolving Intelligent Systems in Industry?

Arthur Kordon (Dow Chemical Company, USA)

02:00 PM – 02:30 PM

Coffee break

02:30 PM – 03:30 PM

Talk 4

Evolving systems and emergent properties: a complexity theory perspective

Janusz Kacprzyk, Academician, D.Sc.

03:30 PM - 04:30 PM

Coffee break

04:30 PM – 05:30 PM

Talk 5

Fuzzy Rule-based Networks: Theory and Applications

Alexander Gegov (University of Portsmouth, United Kingdom)

05:30 PM – 06:00 PM

Closing Session

Plamen Angelov, EIS TC Chair

Wednesday, September 5

04:00 PM - 05:30 PM

Place: FSTUB, Floor 2, Hall 3

Chair: Vladimir Jotsov (SULSIT-University in Sofia, Bulgaria)

How Advanced Analytics can help resolving business problems?

Arthur Kordon (Dow Chemical Company, USA)

05:45 PM -

Place: FSTUB, Floor 2, Hall 1

EARLY BIRDS

Thursday, September 6

9:00 AM - 9:30 AM

OPEN: Opening Ceremony

Room: Hall A

Chair: Vassil Sgurev (FSTUB - Sofia, Bulgaria)

9:30 AM - 11:10 AM

PL 1: Plenary 1

Room: Hall A

Chair: Janusz Kacprzyk (Polish Academy of Sciences, Poland)

Prioritized Aggregation Operators and Their Applications

Ronald R Yager (Iona College, USA)

10:10 AM - 10:30 AM

Coffee break

Applying Intelligent Systems in Industry

Arthur Kordon (Dow Chemical Company, USA)

11:20 AM - 1:00 PM

FL: Fuzzy Sets and Logics, and Their Applications

Room: Hall A

Chair: Janusz Kacprzyk (Polish Academy of Sciences, Poland)

Battery Aging Detection Based on Sequential Clustering and Similarity Analysis

Gancho Vachkov (Yamaguchi University & Faculty of Physics and Information Sciences, Japan); Stefan Bytner (Halmstad University, Sweden); Magnus Svensson (Volvo Technology, Sweden)

Recognition of Old Cyrillic Slavic Letters: Decision Tree Versus Fuzzy Classifier Experiments

Cveta Martinovska (University Goce Delcev & Computer Science Faculty, Macedonia, the former Yugoslav Republic of); Mimoza Klekovska (University St. Kliment Ohridski, Macedonia, the former Yugoslav Republic of); Igor Nedelkovski (University St. Kliment Ohridski, Macedonia, the former Yugoslav Republic of); Dragan Kaevski (University St. Cyril and Methodius, Macedonia, the former Yugoslav Republic of)

H-FQL: A New Reinforcement Learning Method for Automatic Hierarchization of Fuzzy Systems

Kais Dai (National Engineering School of Sfax & REGIM Lab., Tunisia); Habib Kammoun (University of Sfax & REGIM: Research Group on Intelligent Machines, Tunisia); Adel Alimi (University of Sfax, National Engineering School of Sfax, Tunisia)

Speckle Noise Reduction Using an Interval Type-2 Fuzzy Sets Filter

Andre Bigand (Universite du Littoral (ULCO), France), Olivier Colot (Université de Lille1, France)

A No-reference Computer-Generated Images Quality Metric and Its Application to Denoising

Samuel Delepouille (Université Lille Nord-de-France, France), Andre Bigand (Université Lille Nord-de-France, France), Christophe Renaud (Université Lille Nord-de-France, France)

IM 1: Intelligent Measurement and Data Fusion 1

Room: Hall B

Chair: Lyubka Doukova (Institute of Information and Communication Technologies-Bulgarian Academy of Sciences, Bulgaria)

Potential Field Based Formation Control in Trajectory Tracking and Obstacle Avoidance Tasks

Diana Tsankova (Technical University - Sofia, Plovdiv Branch, Bulgaria); Nayden Isapov (Technical University - Sofia, Plovdiv Branch, Bulgaria)

Improving the Grain Quality Assessment Fusing Data From Image and Spectra Analyses

Miroљub Mladenov (University of Ruse, Bulgaria); Stanislav Penchev (University of Ruse, Bulgaria); Tsvetelina Draganova (University of Ruse, Bulgaria)

Hybrid Bayesian Fusion of Range-based and Sourceless Location Estimates Under Varying Observability

Nagesh Yadav (University College Dublin & UCD Complex and Adaptive Systems Laboratory, Ireland); Chris Bleakley (University College Dublin, Ireland)

Extended Object Tracking with Convolution Particle Filtering

Donka Angelova (Bulgarian Academy of Sciences, Bulgaria); Lyudmila Mihaylova (Lancaster University, United Kingdom); Nikolay Petrov (Lancaster University, United Kingdom); Amadou Gning (Lancaster University, United Kingdom)

Reducing Speech Recognition Costs by Compressing the Input Data

Ramin Halavati (Sharif University of Technology, Iran); Saeed Shouraki (Sharif University of Technology, Iran)

APP 1: Intelligent Applications 1

Room: Hall C

Chair: Arthur Kordon (Dow Chemical Company, USA)

Trajectory Control of Manipulators Using Type-2 Fuzzy Neural Friction and Disturbance Compensator

Kostadin Shiev (Technical University Sofia, Campus Plovdiv, Bulgaria); Nikola Shakev (Technical University Sofia, Campus Plovdiv, Bulgaria); Andon Topalov (Technical University Sofia, campus Plovdiv, Bulgaria); Sevil Ahmed (Technical University Sofia, Bulgaria)

Neural Network-Based Models for a Vibration Suppression System Equipped with MR Brake

Witold Pawlus (University of Agder, Norway); Hamid Karimi (University of Agder, Norway)

Hybrid Approaches to Mutation in Genetic Search Algorithms

Drazen Draskovic (University of Belgrade, Serbia); Veljko Milutinovic (University of Belgrade, School of Electrical Engineering, Serbia)

Intelligent Diagnostic on Mill Fan System

Mincho Hadjiski (Bulgarian Academy of Sciences, Bulgaria); Lyubka Doukovska (Institute of Information and Communication Technologies-Bulgarian Academy of Sciences, Bulgaria); Petia Koprinkova-Hristova (Institute of Information and Communication Technologies-Bulgarian Academy of Sciences, Bulgaria)

Meta-RaPS with Path Relinking for the 0-1 Multidimensional Knapsack Problem

Arif Arin (Old Dominion University, USA); Ghaith Rabadi (Old Dominion University, USA)

01:00 PM - 01:50 PM

Lunch

2:00 PM - 2:40 PM

KEY: Keynote Speaker Lecture

Room: Hall B

Chair: Vladimir S Jotsov (SULSIT-University in Sofia, Bulgaria)

Intelligent Computing: A Basis for Intelligent Systems

Michael Flynn (Stanford University, USA)

2:45 PM - 4:25 PM

APP 2: Intelligent Applications 2

Room: Hall A

Chair: Frank E Schneider (Fraunhofer FKIE, Germany)

Image Texture Analysis Using Geostatistical Information Entropy

Tuan Pham (The University of Aizu, Japan)

Interference-Constrained Spectrum Allocation Model for Cognitive Radio Networks

Mohammad Yousefvand (Amirkabir University of Technology, Iran); Siavash Khorsandi (University, Iran); Abbas Mohammadi (Amirkabir University of Technology, Iran)

Signal Filtering for a Nuclear Reactor Restarting

Augustin Gese (Slovak University of Technology, Slovakia); Michal Kopcek (Slovak University of Technology & Faculty of Materials Science and Technology, Slovakia); Alojz

Meszaros (Slovak University of Technology, Slovakia)

A Family of Generalized Entropies and Its Application to Software Fault Localization

Shounak Roychowdhury (University of Texas at Austin, USA); Sarfraz Khurshid (University of Texas at Austin, USA)

Brain Machine Interface - IEETA Case Study

Petia Georgieva (University of Aveiro, Portugal); Filipe Silva (University of Aveiro, Portugal); Nuno Figueiredo (University of Aveiro, Portugal)

2:50 PM - 4:20 PM

TUT 1: Tutorial 1

Room: Hall B

Chair: Hironori Fujii (Kanagava Institute of Technology, Japan)

Space Elevator Challenges: DataMining and SuperComputing

Hiro Fujii (Tokyo, Japan); Oskar Mencer (London, United Kingdom); Dragan Bojic and Veljko Milutinovic (Belgrade, Serbia); Goran Rakocevic (Belgrade, Serbia); Miroslav Bojovic (Zabljak, Montenegro); Sasa Stojanovic (Foca, Bosnia)

IS 1: Invited Session Intuitionistic Fuzzy Set Applications in Intelligent Systems 1

Room: Hall C

Chair: Maciej Krawczak (Polservice, Poland)

A Modified Weighted Hausdorff Distance Between Intuitionistic Fuzzy Sets

Evgeniy Marinov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Eulalia Szmids (Systems Research Institute, Polish Academy of Sciences, Poland); Janusz Kacprzyk (Polish Academy of Sciences, Poland); Radoslav Tsvetkov (Technical University of Sofia, Bulgaria)

A New Point of View to the Inclusion-Exclusion Principle

Lavinia Ciungu (University of Central Oklahoma, USA); Jana Kelemenova (Matej Bel University, Faculty of Natural Sciences, Slovakia); Beloslav Riečan (Matej Bel University, Faculty of Natural Sciences, Slovakia)

Intuitionistic Fuzzy Sets with Membership and Non-membership Functions of Exponential Type

Peter Vassilev (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria)

Intuitionistic Fuzzy Statistical Tools for Filters in Image Processing

Rangasamy Parvathi (Vellalar College for Women, Erode, India); Vassia Atanassova (Institute of Information Technologies, Bulgarian Academy of Sciences, Bulgaria)

Inverse Problem Resolution for Min-Probabilistic Sum Fuzzy Relational Equations – Method and Algorithm

Ketty Peeva (Technical University of Sofia, Bulgaria)

4:00 PM - 4:40 PM

P 1: Poster 1

Room: Poster*

Chair: Petia Koprinkova-Hristova (Bulgarian Academy of Sciences, Bulgaria)

Text Mining of English Guidebooks for Hokuriku Region in Japan

Hiromi Ban (Fukui University of Technology, Japan); Takashi Oyabu (Kanazawa Seiryō University, Ishikawa, Japan)

Segmentation of Historical Lanna Handwritten Manuscripts

Sakkayaphop Pravesjit (Faculty of Information Technology, King Mongkut's Institute of Technology Ladkrabang, Thailand); Arit Thammano (King Mongkut's Institute of Technology Ladkrabang, Thailand)

A Modified Marriage in Honey-Bee Optimization for Multiobjective Optimization Problems

Patcharawadee Poolsamran (King Mongkut's Institute of Technology Ladkrabang, Thailand); Arit Thammano (King Mongkut's Institute of Technology Ladkrabang, Thailand)

Fingerprint Image Enhancement Based on Elliptical Shape Gabor Filter

Zhang Yuanyuan (Beijing University of Posts and Telecommunications, China)

Non-contact ECG Signal Processing

Lukas Smolarik (Slovak University of Technology, Slovakia); Adriana Libosvarova (Slovak University of Technology, Slovakia); Dusan Mudroncik (Slovak University of Technology, Slovakia); Peter Schreiber (Slovak University of Technology, Slovakia)

Medical Diagnostics in DentExp

Iaroslav Kardash (Lviv University, Ukraine)

04:20 PM - 04:40 PM

Coffee break

4:40 PM - 6:20 PM

BIO: Bioinformatics, Medical Applications and Computational Biology

Room: Hall A

Chair: Plamen Angelov (Lancaster University, United Kingdom)

An Integrative DTW-based Imputation Method for Gene Expression Time Series Data

Elena Kostadinova (Technical University of Sofia, Branch Plovdiv, Bulgaria); Veselka Boeva (Technical University of Sofia-branch Plovdiv, Bulgaria); Liliana Boneva (Technical University - Sofia, Bulgaria); Elena Tsiporkova (The Collective Center for the Belgian Technological Industry, Belgium)

Verification of Clinical Guidelines Encoded Into Knowledge-Based DSSs

Eugenio Cesario (ICAR-CNR & ICAR CNR, Italy); Massimo Esposito (ICAR-CNR, Italy); Giuseppe De Pietro (ICAR CNR, Italy); Domenico Talia (Universita della Calabria, Italy)

AI-Based Prediction and Diagnostic on Bioethanol Production

Svetla Vassileva (ISER–Bulgarian Academy of Sciences, Bulgaria); Lyubka Doukovska (Institute of Information and Communication Technologies-Bulgarian Academy of Sciences, Bulgaria); Silvia Mileva (Institute of Cryobiology and Food Technologies, Agricultural Academy, Bulgaria)

Modelling Techniques for Analysis of Human Activity Patterns

Philip Holloway (Northumbria University, United Kingdom); Alan Gibson (Northumbria University, United Kingdom); Maia Angelova (Northumbria University, United Kingdom); Sara Lombardo (Northumbria University, United Kingdom); David Lee (Newcastle University, United Kingdom); Jason Ellis (Northumbria University, United Kingdom); Estelle Lambert (University of Cape Town, South Africa); Laurie Rauch (University of Cape Town, South Africa)

An Audit Method Suited for Decision Support Systems for Clinical Environment

Javier Vicente (Universitat Politecnica de Valencia, Spain); Salvador Tortajada (Universitat Politecnica de Valencia, Spain); Elies Fuster-Garcia (Universitat Politecnica de Valencia,

Spain); Juan Garcia-Gomez (Universitat Politecnica de Valencia, Spain); Montserrat Robles (Universitat Politecnica de Valencia, Spain)

4:35 PM - 6:05 PM

TUT 2: Tutorial 2

Room: Hall B

Chair: Veljko Milutinovic (University of Belgrade, School of Electrical Engineering, Serbia)

Datamining in Wireless Sensor Networks

Zoran Babovic; Milica Knezevic; Nemanja Kojic; Dragan Milicev; Goran Dimic; Milica Pejanovic; Veljko Milutinovic; Nenad Mitic; Zoran Ognjanovic; Bozidar Radenkovic; Goran Rakocevic; Stasa Stankovic; Zoran Ognjanovic; Vladimir Filipovic; Zhilbert Tafa; Marija Milanovic; Ivan Vukasinovic; Serbia

4:40 PM - 5:40 PM

MAS 1: Multi-Agent Systems and Agent Applications 1

Room: Hall C

Chair: František Čapkovič (Institute of Informatics, Slovak Academy of Sciences, Slovakia)

On the Measurement of Semantic Reasoners in Ambient Assisted Living Environments

David Ausín (University of Deusto, Spain); Federico Castanedo (University of Deusto, Spain); Diego López-de-Ipiña (University of Deusto, Spain)

Utilising a Multi-Agent System to Support the Deployment of Contextualised mLearning Services

Damien Meere (University of Limerick, Ireland); Ivan Ganchev (University of Limerick & Telecommunications Research Centre, Ireland); Mairtin O'Droma (University of Limerick & Telecommunications research Centre, UL (Director), Ireland)

A Multi-Agent System Based Approach to Emergency Management

Murat Mala (Turkish Land Force Command, Turkey)

6:25 PM - 8:05 PM

SA: Combining Statistical and Logical Applications

Room: Hall A

Chair: Harish Bhaskar (Khalifa University of Science Technology and Research, UAE)

Cognitive Workload and Affective State: a Computational Study Using Bayesian Networks

Patricia Besson (Aix Marseille Universite, France); Christophe Maiano (University of Quebec in Outaouais, Canada); Lionel Bringoux (Aix Marseille Universite, France); Tanguy Marqueste (Aix Marseille Universite, France); Daniel Mestre (Aix Marseille Universite, France); Christophe Bourdin (Aix Marseille Universite, France); Erick Dousset (Aix Marseille Universite, France); Mathilde Durand (Aix Marseille Universite, France); Jean-Louis Vercher (Aix Marseille Universite, France)

A TSK-based Fuzzy System for Telecommunications Time-Series Forecasting

Paris Mastorocostas (Technological Educational Institute of Serres, Greece); Constantinos Hilas (TEI of Serres, Greece); Stergiani Dova (Technological Educational Institute of Serres, Greece); Dimitris Varsamis (Technological Educational Institute of Serres, Greece)

Isolated Handwriting Recognition Via Multi-Stage Support Vector Machines

Nadine Hajj (AUB, Lebanon); Mariette Awad (AUB, Lebanon)

Mean Variance Mapping Optimization for the Identification of Gaussian Mixture Model: Test Case
Francisco Gonzalez-Longatt (Coventry University & Venezuelan Wind Energy Association, United Kingdom); José Rueda (Institute of Electrical Power Systems, University Duisburg-Essen, Germany); István Erlich (Institute of Electrical Power Systems, University Duisburg-Essen, Germany); Walter Villa (Institute of Electrical Power Systems, University Duisburg-Essen, Germany); Dimitar Bogdanov (Technical University of Sofia, Bulgaria)

An Adaptable Architecture for Blind Modulations Classification in Variable SNR Environments
Hamidreza Hosseinzadeh (Islamic Azad University, Science and Research Branch, Iran); Farbod Razzazi (Islamic Azad University, Science and Research Branch, Iran); Afrooz Haghbin (Tarbiat Modarres University, Iran)

6:10 PM - 7:30 PM

KM 1: Enhanced Knowledge Management 1

Room: Hall B

Chair: Panos Chountas (University of Westminster, United Kingdom)

Enhanced Knowledge Management of an Interoperability Service Utility

Irene Matzakou (National Technical University of Athens, Greece); Dimitris Askounis (National Technical University of Athens, Greece); Joao Sarraipa (UNINOVA - Instituto de Novas Tecnologias, Portugal); Ricardo Goncalves (Universidade Nova de Lisboa, Portugal)

Knowledge Extraction Methods for Complex Processes Operating Under Uncertainty

Boriana Vatchova (Institute of Information and Communication Technologies-Bulgarian Academy of Sciences, Bulgaria); Alexander Gegov (University of Portsmouth, United Kingdom)

A Survey of Intelligent Question Routing Systems

Bojan Furlan (University of Belgrade, School of Electrical Engineering, Serbia); Bosko Nikolic (University of Belgrade, School of Electrical Engineering, Serbia); Veljko Milutinovic (University of Belgrade, School of Electrical Engineering, Serbia)

Towards a New Model for Context-Aware Recommendation

Mohamed Ramzi Haddad (Laboratoire Riadi-Gdl, Ecole Nationale des Sciences de l'Informatique, Tunisia); Hajer Baazaoui (Laboratoire Riadi-Gdl, Ecole Nationale des Sciences de l'Informatique, Tunisia); Djemel Ziou (Universite de Sherbrooke, Canada); Henda Ghezala (RIADI Laboratory, Tunisia)

5:45 PM - 8:05 PM

IS 2: Invited Session Intuitionistic Fuzzy Set Applications in Intelligent Systems 2

Room: Hall C

Chair: Rangasamy Parvathi (Vellalar College for Women, Erode, India)

The Minimal Solution of a Problem in Generalized Nets

Vassia Atanassova (Institute of Information Technologies, Bulgarian Academy of Sciences, Bulgaria)

Practical Approach to Designing Processes with Generalized Nets and Linked Data Tokens

Pavel Tcheshmedjiev (Bulgarian Academy of Sciences, Bulgaria)

On the Representation of Kahn Process Networks by a Generalized Net

Dimitar Dimitrov (Sofia University, Bulgaria); Marin Marinov (Technical University - Sofia, Bulgaria)

- Generalized Net Model for Parallel Optimization of Multilayer Neural Network with Time Limit
Maciej Krawczak (Polish Academy of Sciences, Poland); Sotir Sotirov (Asen Zlatarov University, Burgas, Bulgaria); Evdokia Sotirova (Asen Zlatarov University, Burgas, Bulgaria)
- Description of Simple Genetic Algorithm Modifications Using Generalized Nets
Olympia Roeva (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Anthony Shannon (University of Technology, Sydney, Australia); Tania Pencheva (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria)
- Generalized Net Model of the Procedures of IV Curve Tracer
Lenko Erbakanov (Asen Zlatarov University, Burgas, Bulgaria); Sotir Sotirov (Asen Zlatarov University, Burgas, Bulgaria)
- Modeling of the Hotspot Load Traffic for Crossbar Switch Node by Means of Generalized Nets
Tasho Tashev (Institute of Information and Communication Technologies & Bulgarian Academy of Sciences, Bulgaria); Vladimir Monov (Institute of Information and Communication Technologies & Bulgarian Academy of Sciences, Bulgaria)

Friday, September 7

9:00 AM - 11:30 AM

PL 2: Plenary 2

Room: Hall A

Chair: Ronald R Yager (Iona College, USA)

Bipolarity in Preferences and Intentions for More Human Consistent Decision Analysis and Database Querying

Janusz Kacprzyk (Polish Academy of Sciences, Poland), Slawomir Zadrozny (Polish Academy of Sciences, Poland)

Evolving Spiking Neural Networks for Spatio- and Spectro-Temporal Pattern Recognition

Nikola Kasabov (Auckland University of Technology, New Zealand)

10:20 AM - 10:50 AM

Coffee break

Advances in Fuzzy Systems and Networks

Alexander Gegov (University of Portsmouth, United Kingdom)

11:40 AM - 1:20 PM

ANN: Artificial Neural Networks and Neuro-Fuzzy Systems

Room: Hall A

Chair: Nikola Kasabov (Auckland University of Technology, New Zealand)

A Double Neural Network for Interpretation of the Frequency Response in the Electrical Equipments

Francesco Grasso (University of Florence, Italy); Antonio Luchetta (University of Florence, Italy); Stefano Manetti (University of Florence, Italy); Maria Piccirilli (University of Florence, Italy)

An I-Term Direct Adaptive Neural Control of a Nonlinear Oscillatory Plant

Ieroham Baruch (CINVESTAV-National Polytechnical Institute, Mexico); Sergio Hernandez-Manzano (CINVESTAV-National Polytechnical Institute, Mexico); Jacob Moreno-Cruz (CINVESTAV-IPN, Mexico)

Power Load Forecasting Using Adaptive Fuzzy Inference Neural Networks

Vassilis Kodogiannis (University of Westminster, United Kingdom); Ilias Petrounias (University of Manchester, United Kingdom)

Neural Identification and Indirect Control of a Nonlinear Mechanical Oscillatory Plant

Ieroham Baruch (CINVESTAV-National Polytechnical Institute, Mexico); Sergio Hernandez (CINVESTAV-National Polytechnical Institute, Mexico)

Similarity Measurement in Convolutional Space

Hosseinali Ghiassirad (Islamic Azad University Science and Research Branch, Iran); Mohammad Teshnehlab (Islamic Azad University Science and research camps, Iran)

KDD: Data/Web Mining and Knowledge Discovery

Room: Hall B

Chair: Patricia Besson (Aix Marseille Universite, France)

Periodicity Data Mining in Time Series Using Suffix Arrays

Konstantinos Xylogiannopoulos (Hellenic American University, USA); Panagiotis Karampelas (Hellenic American University, USA); Reda Alhajj (University of Calgary, Canada)

Nominal Time Series Representation for the Clustering Problem

Maciej Krawczak (Polish Academy of Sciences, Poland); Grayna Szkatuła (Polish Academy of Sciences, Poland)

Structure-oriented Clustering of XML Documents: A Transactional Approach

Gianni Costa (ICAR-CNR, Italy); Riccardo Ortale (ICAR-CNR, Italy)

GENETIC FUZZIMETRIC TECHNIQUE (GFT): A New Optimization Methodology Using the Concept of Fuzzimetric Arcs

Issam Kouatli (Lebanese American University, Lebanon)

IS 3: Invited Session Intelligent Applications of Generalized Nets 1

Room: Hall C

Chair: Beloslav Riečan (Matej Bel University, Slovakia)

Advances in Principal Component Analysis for Intuitionistic Fuzzy Data Sets

Eulalia Szmidt (Systems Research Institute, Polish Academy of Sciences, Poland); Janusz Kacprzyk (Systems Research Institute, Polish Academy of Sciences, Poland); Paweł Bujnowski (Systems Research Institute, Polish Academy of Sciences, Poland)

Approximate XML Query Matching and Rewriting Using Intuitionistic Fuzzy Trees

Mohammedsharaf Alzebedi (Westminster University, United Kingdom); Panagiotis Chountas (University of Westminster, United Kingdom); Krassimir Atanassov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria)

Intuitionistic Fuzzy Estimations of Purposeful Model Parameters Genesis

Maria Angelova (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Krassimir Atanassov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Tania Pencheva (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria)

Application of Intuitionistic Fuzzy Sets for More Objective Comparison of Kaplan-Meier Curves

Ludmila Todorova (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy

of Sciences, Bulgaria); Peter Vassilev (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Peter Hadjistoykov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Jivko Surchev (Medical University - Sofia, Bulgaria)

On the Game Method for the Forest Fire Spread Modelling with Considering the Wind Effect
Emiliya Velizarova (Bulgarian Academy of Sciences, Bulgaria); Evdokia Sotirova (Asen Zlatarov University, Burgas, Bulgaria); Krassimir Atanassov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Peter Vassilev (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Stefka Fidanova (Institute of Information and Communication Technologies, Bulgarian Academy of Sciences, Bulgaria)

01:20 PM - 02:10 PM

Lunch

2:00 PM - 2:40 PM

P 2: Poster 2

Room: Poster*

Chair: Stefka Fidanova (Institute of Information and Communication Technologies, Bulgaria)

An Efficient Population Diversity Measure for Improved Particle Swarm Optimization Algorithm
Yuhong Chi (Tsinghua University, China); Fuchun Sun (Tsinghua University, China);
Langfan Jiang (Unit 65053, China); Chunming Yu (Unit 65053, China)

Predicting the Future State of a Vehicle in a Stop&Go Behavior Based on ANFIS Models Design
Ali Ghaffari (K. N. Toosi University of Technology, Iran); Alireza Khodayari (K. N. Toosi
University of Technology, Iran); Fatemeh Alimardanii (K. N. Toosi University of
Technology, Iran)

Neural-Network Based Modeling for Stop&Go Behavior in Real Traffic Flow
Ali Ghaffari (K. N. Toosi University of Technology, Iran); Alireza Khodayari (K. N. Toosi
University of Technology, Iran); Ali Panahi (Islamic Azad University, South Tehran Branch,
Iran); Fatemeh Alimardani (K. N. Toosi University of Technology, Iran)

Multi-Area Power Systems H^∞/μ Robust Load Frequency Control

Ali Husain Ahmed (University of Mosul, Iraq); Firas Aldurze (University of Mosul, Iraq)

HMM Based Classification of Sports Videos Using Color Feature

Josh Hanna (University of Arkansas at Little Rock, AR, USA); Fatma Patlar (Istanbul Kultur
University, Turkey); Akhan Akbulut (Istanbul Kultur University, Turkey); Engin Mendi
(University of Arkansas at Little Rock, USA); Coskun Bayrak (University of Arkansas at
Little Rock, AR, USA)

2:30 PM - 4:10 PM

AI: Artificial Intelligence

Room: Hall A

Chair: Gancho Vachkov (Yamaguchi University & Faculty of Physics and Information Sciences,
Japan)

Simultaneous Discovery of Multiple Alternative Optimal Policies by Reinforcement Learning

Petar Kormushev (Italian Institute of Technology, Italy); Darwin Caldwell (Istituto Italiano di Tecnologia, Italy)

Specifics of Transitions in Binary Markov Logic

Vassil Sgurev (FSTUB - Sofia, Bulgaria); Vladimir S Jotsov (SULSIT- University in Sofia, Bulgaria)

Improving Efficiency in Any-Angle Path-Planning Algorithms

Pablo Muñoz (Universidad de Alcalá & Grupo de Sistemas Inteligentes, Spain); Maria Rodriguez-Moreno (Universidad de Alcala, Spain)

OWA Aggregation Based CxK-Nearest Neighbor Classification Algorithm

Gozde Ulutagay (Izmir University, Turkey); Efendi Nasibov (Dokuz Eylul University, Turkey)

IM 2: Intelligent Measurement and Data Fusion 2

Room: Hall B

Chair: Michael Flynn (Stanford University, USA)

On the Behavior of Dempster's Rule of Combination and the Foundations of Dempster-Shafer Theory

Albena Tchamova (Bulgarian Academy of Sciences, Institute for Information and Communication Technologies, Bulgaria); Jean Dezert (ONERA, France)

Human Integration of Motion and Texture Information in Visual Slant Estimation

Albena Tchamova (Bulgarian Academy of Sciences, Institute for Information and Communication Technologies, Bulgaria); Jean Dezert (Onera, France); Nadejda Bocheva (Bulgarian Academy of Sciences, Institute of Neurobiology, Bulgaria); Pavlina Konstantinova (Bulgarian Academy of Sciences, Bulgaria)

Intelligent Alarm Classification Based on DS_mT

Albena Tchamova (Bulgarian Academy of Sciences, Institute for Information and Communication Technologies, Bulgaria); Jean Dezert (Onera, France)

A PCA-based Technique for Compensating the Effect of Sensor Position Changes in Motion Data

Roya Haratian (Queen Mary University of London, United Kingdom); Chris Phillips (Queen Mary University of London, United Kingdom); Tijana Timotijevic (Queen Mary University of London, United Kingdom)

Distance Measure Adaptation Based on Local Feature Weighting

Mohammad Moosavi (Shiraz University, Iran); Zahra Yeganehfard (Shiraz University, Iran); Alireza Kazemi (University of Shiraz, Iran); Mohammad Sadreddini (Shiraz University, Iran); Mansoor Jahromi (Shiraz University, Iran)

2:30 PM - 5:10 PM

IS 4: Invited Session Intelligent Applications of Generalized Nets 2

Room: Hall C

Chair: Eulalia Szmids (Systems Research Institute, Polish Academy of Sciences, Poland)

Generalized Net Model for Telehealth Services

Velin Andonov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Maria Stefanova-Pavlova (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Todor Stoyanov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Maia Angelova (Northumbria University, United Kingdom); Glenda Cook (Northumbria University, United Kingdom); Barbara Klein (Fachhochschule Frankfurt am Main, Germany);

Krassimir Atanassov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Peter Vassilev (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria)

Concurrent Algorithm for Learning of Neural Networks

Anton Antonov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Stefan Hadjitodorov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria)

Generalized Net Model of the Upper Limb Vascular System

Simeon Ribagin (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Vihren Chakarov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Krassimir Atanassov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria)

Generalized Net Model of the Process of Selection and Usage of an Intelligent e-Learning System

Anthony Shannon (Univ. of Technology Sydney, Australia); Krassimir Atanassov (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Beloslav Riečan (Matej Bel University, Slovakia); Maciej Krawczak (Polish Academy of Sciences, Poland); Daniela Orozova (Computer science and engineering science center, Bulgaria); Pedro Melo-Pinto (CITAB-UTAD, Portugal); Evdokia Sotirova (Asen Zlatarov University, Burgas, Bulgaria); Rangasamy Parvathi (Vellalar College for Women, Erode, India); Taekyun Kim (Kwangwoon University, Korea)

Generalized Net Model of the *Lac* Operon in Bacterium *E. Coli*

Kalin Kosev (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria); Pedro Melo-Pinto (CITAB-UTAD, Portugal); Olympia Roeva (Institute of Biophysics and Biomedical Engineering, Bulgarian Academy of Sciences, Bulgaria)

Calculation of Estimations of Messages by Generalized Nets and Intuitionistic Fuzzy Truth Values

Ivelina Vardeva (Generalized Nets, IFS, Bulgaria); Valery Gochev (College of Telecommunication and Post, Sofia, Bulgaria)

Methodological Aspects of an Approach for Verification of Object-Oriented Programs

Magdalina Todorova (Sofia University, Bulgaria)

4:00 PM - 4:40 PM

P 3: Poster 3

Room: Poster*

Chair: Lyudmila Mihaylova (Lancaster University, United Kingdom)

Platform Description and System Modelling for Control of an Unmanned Helicopter

Markus Koslowski (University of Heidelberg & Institute for Computer Engineering, Germany); Amr Kandil (Institute for Computer Engineering, University of Heidelberg, Germany); Essameddin Badreddin (Institute for Computer Engineering, University of Heidelberg, Germany)

Adaptive Switching Control of Fuzzy Dynamical Systems Based on Hybrid T-S Multiple Models

Nikolaos Sofianos (Democritus University of Thrace, Greece); Yiannis Boutalis (Democritus University of Thrace, Greece); Basil Mertzios (Democritus University, Greece); Olga Kosmidou (Democritus University of Thrace, Greece)

Identity Protection Accessing e-Government Through the Biometric Authentication Methods

Milena Stefanova (University of Veliko Tarnovo & St. Cyril and St. Methodius University of V. Tarnovo, Bulgaria); Stefan Stefanov (University of Veliko Tarnovo, Bulgaria); Oleg Asenov (University of Veliko Tarnovo, Bulgaria)

Multi-robot Heuristic Goods Transportation

Z. Yan (Paris 8 University & Advanced Computing Laboratory of Saint-Denis (LIASD), France); Nicolas Jouandeau (LIASD - Paris8 University, France); Arab Ali-Chérif (University of Paris 8 SAINT-DENIS, France)

An Integrated Distributed Monitoring for Mission-Based Systems

Leila Zouaghi (Institute for Computer Engineering, Automation Laboratory & University of Heidelberg, Germany); Alexander Alexopolous (Institute for Computer Engineering, University of Heidelberg, Germany); Markus Koslowski (University of Heidelberg & Institute for Computer Engineering, Germany); Amr Kandil (Institute for Computer Engineering, University of Heidelberg, Germany); Essameddin Badreddin (Institute for Computer Engineering, University of Heidelberg, Germany)

04:10 PM - 04:30 PM

Coffee break

4:30 PM - 6:30 PM

IISS: Intelligent Information Security Systems

Room: Hall A

Chair: Murat Mala (Turkish Land Force Command, Turkey)

ARTOT: Autonomous Real-Time Object Detection and Tracking by a Moving Camera

Plamen Angelov (Lancaster University, United Kingdom); Chirag Gude (Lancaster University, United Kingdom); Pouria Sadeghi-Tehran (Lancaster University, United Kingdom); Tsvetan Ivanov (Technical University, Sofia, Bulgaria)

Minimal Dataset for Network Intrusion Detection Systems Via MID-PCA: A Hybrid Approach

Jean-Pierre Nziga (Nova Southeastern University, USA); James Cannady (Nova Southeastern University, USA)

FADS: Flocking Anomalies in Data Streams

Agostino Forestiero (CNR-ICAR, Italy)

Integrated Human Target Detection, Identification and Tracking for Surveillance Applications

Harish Bhaskar (Khalifa University of Science Technology and Research, UAE)

Trust-enhanced Intelligent Security Model

Vladimir Oleshchuk (University of Agder, Norway)

Applications of Puzzle Method for Intrusion Detection in ATMs

Vladimir Jotsov (SULSIT- University in Sofia, Bulgaria); Vassil Sgurev (FSTUB - Sofia, Bulgaria)

4:30 PM - 6:30 PM

MAS 2: Multi-Agent Systems and Agent Applications 2

Room: Hall B

Chair: Vassil Sgurev (FSTUB - Sofia, Bulgaria)

Agent Based Approach to Modelling ATM Network

František Čapkovič (Institute of Informatics, Slovak Academy of Sciences, Slovakia)

Kudu Herd Optimization

Julien Boelaert (Université Paris 1 Panthéon-Sorbonne, France)

Abstraction of State-Action Space Utilizing Properties of the Body and the Environment

Kazuyuki Ito (Hosei University, Tokyo, Japan); So Kuroe (Hosei University, Tokyo, Japan);
Toshiharu Kobayashi (Mitsubishi Chemical Corp., Tokyo, Japan)

An Experimental System for Real-time Interaction Between Humans and Hybrid AI Agents

John Pendlebury (Dublin City University, Ireland); Mark Humphrys (Dublin City University,
Ireland); Ray Walshe (Dublin City University, Ireland)

Trust-Based Ant Recommender (T-BAR)

Abdelghani Bellaachia (George Washington University, USA); Deema Alathel (George
Washington University, USA)

5:20 PM - 6:40 PM

KM 2: Enhanced Knowledge Management 2

Room: Hall C

Chair: Alexander Gegov (University of Portsmouth, United Kingdom)

Knowledge Elicitation and Representation in a Normative Approach-a Case Study in Diagnosis of
Plant Diseases in Egypt

Nevien Moawad (University of Reading, United Kingdom); Kecheng Liu (University of
Reading, United Kingdom); Mohammad El-Helly (Central Lab. For Agriculture Expert
Systems, Egypt)

A Use Case Diagrams Ontology That Can Be Used as Common Reference for Software
Engineering Education

Maria Bagiampou (University of Patras, Greece); Achilles Kameas (Hellenic Open University
& Computer Technology Institute, Greece)

Decision Support Systems Based on a UML Description Approach

Spiros Vasilakos (TEI of Epirus, Greece); Giorgio Iacobellis (Technological Educational
Institute of Epirus & Politecnico di Bari, Greece); Chrysostomos Stylios (TEI of Epirus,
Greece); Maria Fanti (Politecnico di Bari, Italy)

Experimental Research of System of Telecontrol by Manipulator

Alexey Katsurin (Institute of Automation and Control Processes & Far Eastern Federal
University, Russia); Vladimir Filaretov (Institute of Automation and Control Processes,
Russia)

07:00 PM -

Cocktail

Saturday, September 8

9:00 AM - 9:40 AM

PL 3: Plenary 3

Room: Hall A

Chair: Nikola Kasabov (Auckland University of Technology, New Zealand)

Swarm Intelligence

Marco Dorigo (IRIDIA - Universite Libre del Bruxelles, Belgium)

09:40 AM - 10:00 AM

Coffee break

10:00 AM - 11:40 AM

KM 3: Enhanced Knowledge Management 3

Room: Hall A

Chairs: Ivan Popchev (Bulgarian Academy of Science, Bulgaria), Gozde Ulutagay (Izmir University, Turkey)

Measuring Expertise Similarity in Expert Networks

Veselka Boeva (Technical University of Sofia-branch Plovdiv, Bulgaria); Maria Krusheva (Technical University of Sofia-branch Plovdiv, Bulgaria); Elena Tsiporkova (The Collective Center for the Belgian Technological Industry, Belgium)

Technologies for Semantic Analysis of Scientific Publications

Gennady Osipov (Institute for Systems Analysis RAS, Russia); Ivan Smirnov (Institute for Systems Analysis RAS, Russia); Ilya Tikhomirov (Institute for Systems Analysis, Russian Academy of Sciences, Russia); Olga Vybornova (Université catholique de Louvain, Belgium)

Development of Support System for Providing Knowledge From Displayed Documents

Ichiro Kataoka (Hitachi, Ltd., Japan); Yuki Shimizu (Hitachi, Ltd., Japan); Masayuki Hariya (Hitachi, Ltd., Japan)

Pattern Graphs: A Knowledge-Based Tool for Multivariate Temporal Pattern Retrieval

Sebastian Peter (University of Konstanz, Germany); Frank Höppner (Ostfalia University of Applied Sciences, Germany); Michael Berthold (University of Konstanz, Germany)

Intelligent Tutor Design for a 3D Virtual Campus

Patrick Person (University of Le Havre, France); Thierry Galinho (University of Le Havre, France); Florence Lecroq (University of Le Havre, France); Hadhoum Boukachour (University of Le Havre, France); Jean Grieu (University of Le Havre, France)

APP 3: Intelligent Applications 3

Room: Hall B

Chair: Mincho Hadjiski (UCTM, Bulgaria)

Hybrid Map-Building and Localization for Unstructured and Moderately Dynamic Environments

Sherine Rady (University of Heidelberg & Ain Shams University, Germany); Essameddin Badreddin (University of Mannheim, Germany)

Acoustic and Device Feature Fusion for Load Recognition

Ahmed Zoha (University of Surrey, United Kingdom); Alexander Gluhak (The University of Surrey, United Kingdom); Michele Nati (University of Surrey, Guildford & University of Rome "La Sapienza", United Kingdom); Muhammad Ali Imran (University of Surrey, United Kingdom); Sutharshan Rajasegarar (University of Melbourne, Australia)

Robust Fuzzy Decision Support System for Manual Room Ventilations in Preventive Conservation

Christian Arnold (University of Applied Sciences Fulda, Germany); Steven Lambeck (University of Applied Sciences Fulda, Germany); Christoph Ament (University of Ilmenau, Germany)

Professional Ground Robotic Competitions From an Educational Perspective

Frank E Schneider (Fraunhofer FKIE, Germany); Dennis Wildermuth (Fraunhofer FKIE, Germany); Hans-Ludwig Wolf (Fraunhofer FKIE, Germany)

Exploiting Machine Learning for Intelligent Room Lighting Applications

Aravind Gopalakrishna (Eindhoven University of Technology, India); Tanir Özçelebi

(Eindhoven University of Technology, The Netherlands); Antonio Liotta (Eindhoven University of Technology, The Netherlands); Johan Lukkien (Eindhoven University of Technology, The Netherlands)

IS 5: Invited Session Hybrid Intelligent Controls 1

Room: Hall C

Chairs: Dilek Tukul (Dogus University, Turkey), Tatjana Kolemishvska-Gugulovska (Eng. and Information Tech., SS Cyril and Methodius University, Macedonia, the former Yugoslav Republic of)

- Recent Advances in Analysis and Control Design for Switched Fuzzy Systems: A Review
Vesna Ojleska (Ss. Cyril and Methodius University in Skopje, Macedonia, the former Yugoslav Republic of); Tatjana Kolemishvska-Gugulovska (Eng. and Information Tech., SS Cyril and Methodius Univer., Macedonia, the former Yugoslav Republic of); Gyorgyi Dymirkovsky (Skopje University, Macedonia, the former Yugoslav Republic of)
- A Two-layer Multiple Lyapunov Functions Based Stabilization Control of Switched Fuzzy Systems
Gyorgyi Dymirkovsky (Skopje University, Macedonia, the former Yugoslav Republic of); Jinming Luo (State Key Laboratory of Synthetic Automation for Process Industries, China)
- A Robust Output Feedback Control Design for Uncertain Switched Fuzzy Systems
Vesna Ojleska (Ss. Cyril and Methodius University in Skopje, Macedonia, the former Yugoslav Republic of); Tatjana Kolemishvska-Gugulovska (Eng. and Information Tech., SS Cyril and Methodius Univer., Macedonia, the former Yugoslav Republic of); Imre Rudas (Óbuda University, Hungary)
- Pusher Reheating Furnace Control Via Fuzzy-Neural Model Predictive Control Synthesis
Goran Stojanovski (Ss. Cyril and Methodius University in Skopje & Faculty of Electrical Engineering and IT, Macedonia, the former Yugoslav Republic of); Mile Stankovski (Ss Cyril and Methodius University - Skopje, Macedonia, the former Yugoslav Republic of); Imre Rudas (Óbuda University, Hungary); Juanwei Jing (Northeastern University, China)
- Intelligent System for Freeway Ramp Metering Control
Kostandina Veljanovska (University St. Clement Ohridski Bitola, Macedonia, the former Yugoslav Republic of); Zoran Gacovski (FON University Skopje, Macedonia, the former Yugoslav Republic of); Stojce Deskovski (University St. Clement Ohridski Bitola, Macedonia, the former Yugoslav Republic of)

11:45 AM - 1:45 PM

IC: Intelligent Control

Room: Hall A

Chairs: Essameddin Badreddin (Institute for Computer Engineering, University of Heidelberg, Germany), Kazuyuki Ito (Hosei University, Japan)

- Fuzzy Hybrid Systems Modeling with Application in Decision Making and Control
Yiannis Boutalis (Democritus University of Thrace, Greece); Thomas Moor (University Erlangen-Nuernberg, Germany); Klaus Schmidt (Cankaya University, Turkey)
- Optimal Tuning of Sliding Mode Controller Parameters Using LQR Input Trend
Reza Azad (Sharif University of Technology, Iran); Afshin Banazadeh (Sharif University of Technology, Iran); Amirhosein Ahadi (Ryerson University, Canada)
- Iterative Learning-based Air-Fuel Control of Gasoline Engines with Unknown Off-set
Tomohiro Hara (Sophia University, Japan); Tielong Shen (Sophia University & Japan, Japan); Yasuhiko Mutoh (Sophia University, Japan)

Implementation of Microcontroller Based Fuzzy Controller

Tarik Uzunovic (University of Sarajevo, Faculty of Electrical Engineering, Bosnia and Herzegovina); Irfan Turkovic (University of Sarajevo, Faculty of Electrical Engineering, Bosnia and Herzegovina)

Implementations of a Hammerstein Fuzzy-Neural Model for Predictive Control of a Lyophilization Plant

Yancho Todorov (Institute of Cryobiology and Food Technologies & Agricultural Academy, Bulgaria); Sevil Ahmed (Technical University Sofia, Bulgaria); Michail Petrov (Technical University Sofia, branch Plovdiv, Bulgaria); Vasiliiy Chitanov (Central Laboratory of Applied Physics, Bulgarian Academy of Sciences, Bulgaria)

APP 4: Intelligent Applications 4

Room: Hall B

Chairs: Marco Dorigo (IRIDIA - Universite Libre del Bruxelles, Belgium), Ichiro Kataoka (Hitachi, Ltd., Japan)

An Ordinal Optimization Like GA for Improved OFDMA System Carrier Allocations

Nader El-Zarif (American University of Beirut, Lebanon); Mariette Awad (AUB, Lebanon)

Wireless Sensor Positioning Algorithm

Miroslav Shindarov (Institute of Information and Communication Technologies, Bulgaria); Stefka Fidanova (Institute of Information and Communication Technologies, Bulgaria); Pencho Marinov (Institute of Information and Communication Technologies, Bulgaria)

Free Search of Global Value

Vesela Vasileva (Southampton Solent University, United Kingdom); Kalin Penev (Southampton Solent University, United Kingdom)

Computational Intelligence Based Algorithm for Node Localization in Wireless Sensor Networks

Anil Kumar (Panipat Institute of Technology, Panipat, India); Arun Khosla (National Institute of Technology, India); Jasbir Saini (DCR University of Science and Technology, India); Satvir Singh (SBS Institute of Engineering and Technology, India)

An Iterative Based Approach for Hysteresis Parameters Estimation in Magnetorheological Dampers

Yousef Iskandarani (University of Agder, Norway); Hamid Karimi (University of Agder, Norway); Michael Hansen (University of Agder, Norway)

11:45 AM - 1:45 PM**IS 6: Invited Session Hybrid Intelligent Controls 2**

Room: Hall C

Chairs: Tatjana Kolemishvska-Gugulovska (Eng. and Information Tech., SS Cyril and Methodius University, Macedonia, the former Yugoslav Republic of), Dilek Tukul (Dogus University, Turkey)

An Intelligent Fuzzy-Petri Reasoning Supervisory Control for FMS Manufacturing Plants

Goran Vladev (Ss. Cyril and Methodius University in Skopje, Macedonia, the former Yugoslav Republic of); Tatjana Kolemishvska-Gugulovska (Eng. and Information Tech., SS Cyril and Methodius Univer., Macedonia, the former Yugoslav Republic of); Dilek Tukul (Dogus University, Turkey)

FMS Intelligent Supervision and Control 2: Communications Among Machines Under FPSC

Goran Vladev (Ss. Cyril and Methodius University in Skopje, Macedonia, the former Yugoslav Republic of); Vesna Ojleska (Ss. Cyril and Methodius University in Skopje, Macedonia, the former Yugoslav Republic of); Tatjana Kolemishvska-Gugulovska (Eng. and Information Tech., SS Cyril and Methodius Univer., Macedonia, the former Yugoslav Republic of); Dilek Tukul (Dogus University, Turkey)

A Robust Quadratic Stabilization Synthesis for Uncertain Systems Based on T-S Fuzzy Model

Mile Stankovski (Ss Cyril and Methodius University - Skopje, Macedonia, the former Yugoslav Republic of); Goran Stojanovski (Ss. Cyril and Methodius University in Skopje & Faculty of Electrical Engineering and IT, Macedonia, the former Yugoslav Republic of); Gorjan Nadzinski (Ss Cyril and Methodius University - Skopje, Macedonia, the former Yugoslav Republic of); Zhaona Chen (Northeastern University, China)

A Min-Max Control Synthesis for Uncertain Nonlinear Systems Based on Fuzzy T-S Model

Tatjana Kolemishvska-Gugulovska (Eng. and Information Tech., SS Cyril and Methodius Univer., Macedonia, the former Yugoslav Republic of); Mile Stankovski (Ss Cyril and Methodius University - Skopje, Macedonia, the former Yugoslav Republic of); Imre Rudas (Óbuda University, Hungary); Nan Jiang (NEU College of Information Science & Engineering, Liaoning, Shenyang, China); Juanwei Jing (Northeastern University, China)

A Tracking Control Synthesis for Uncertain Delay Nonlinear Systems Based on T-S Fuzzy Model

Goran Stojanovski (Ss. Cyril and Methodius University in Skopje & Faculty of Electrical Engineering and IT, Macedonia, the former Yugoslav Republic of); Gorjan Nadzinski (Ss Cyril and Methodius University - Skopje, Macedonia, the former Yugoslav Republic of); Mile Stankovski (Ss Cyril and Methodius University - Skopje, Macedonia, the former Yugoslav Republic of); Xin-Wei Jiang (Northeastern University, China)

A Design of Discrete-time SMC for Nonlinear Systems Based on Fuzzy T-S Model

Gorjan Nadzinski (Ss Cyril and Methodius University - Skopje, Macedonia, the former Yugoslav Republic of); Goran Vladev (Ss. Cyril and Methodius University in Skopje, Macedonia, the former Yugoslav Republic of); Yan Zheng (Northeastern University, Shenyang, China)

1:45 PM - 1:55 PM

CLOSE: Closing Ceremony

Room: Hall A

Chair: Vassil Sgurev (FSTUB - Sofia, Bulgaria)

01:55 PM - 02:30 PM

Lunch

Excursions