



HIS 2018 – SoCPaR 2018 - IAS 2018

Technical Program Schedule

December 13, 2018

=====

08:00 - 09:00 Registration

09:00 - 10:00 Parallel Session: HIS01 - Intelligent Decision Making Systems (Act Room)

Chair: Ivo Pereira

Co-chair: Ladislav Zjavka

- 2 A Machine Learning Approach to Contact Databases Importation for Spam Prevention
Duarte Coelho, Ana Madureira, Ivo Pereira and Bruno Cunha
- 6 Post-processing of Wind-speed Forecasts Using the extended Perfect Prog method with
Polynomial Neural Networks to elicit PDE models
Ladislav Zjavka, Stanislav Misák and Lukás Prokop
- 10 Hybrid instrumental means of predictive analysis of the dynamics of natural and economic
processes
Elena Popova, Luís de Sousa Costa and Alfira Kumratova

**09:00 - 10:00 Parallel Session: IAS01 - Electronic Data Interchange For Information Assurance
(Meeting Room)**

Chair: Mário Antunes

Co-chair: Miguel Frade

- 3 An Efficient and Secure Forward Error Correcting Scheme for DNA Data Storage
Anouar Yatribi, Mostafa Belkasmi and Fouad Ayoub
- 4 A Blockchain-based Scheme for Access Control in e-Health Scenarios
João Pedro Dias, Hugo Sereno Ferreira and Angelo Martins
- 5 Blockchain-based PKI for Crowdsourced IoT Sensor Information
Guilherme Pinto, João Pedro Dias and Hugo Ferreira
- 10 Privacy Enhancement of Telecom Processes Interacting with Charging Data Records
Siham Arfaoui, Abdelhamid Belmekki and Abdellatif Mezrioui

10:00 - 10:20 Coffee break

10:20 - 10:30 Conference Opening Session

10:30 - 11:30 Plenary 1 – “Deep learning in brain imaging” (Act Room)

by Petia Georgieva, University of Aveiro, Portugal

11:30 - 13:00 Parallel Session: HIS02 – Intelligent Decision Making Systems 2 (Act Room)

Chair: Ana Madureira

Co-chair: André Santos

- 15 Modelling and Predicting Individual Salaries in United Kingdom with Graph Convolutional Network
Long Chen, Piyushimita Thakuriah and Yeran Sun
- 20 Real-Time Monitoring System for Boiler Tube Leakage Detection
Min-Gi Choi, Jaeyoung Kim, In-Kyu Jeong, Yu-Hyun Kim and Jong-Myon Kim
- 39 Hybridizing S-Metric Selection and Support Vector Decoder for Constrained Multi-Objective Energy Management
Jörg Bremer and Sebastian Lehnhoff
- 26 An Intelligent Data Acquisition and Control System for Pipeline Leakage Detection Simulation
Jaeho Jeong, In-Kyu Jeong, Duck-Chan Jeon and Jong-Myon Kim

11:30 - 13:00 Parallel Session: SoCPaR01 - Intelligent Systems (Meeting Room)

Chair: Petia Georgieva

Co-chair: Aldina Correia

- 2 Shaping the Music Perception of an Automatic Music Composition: An Empirical Approach for modelling Music Expressiveness
Michel Della Ventura
- 11 Diverse Ranking Approach in MCDM based on Trapezoidal Intuitionistic Fuzzy Numbers
Zamali Tarmudi and Norzanah Abd Rahman
- 12 Decision Tree and MCDA under Fuzziness to Support E-Customer Satisfaction Survey
Houda Zaim, Mohammed Ramdani and Adil Haddi
- 13 Search Convenience and Access Convenience: The Difference Between Website Shopping and Mobile Shopping
Ibrahim Almarashdeh

- 14 Automatic Classification and Segmentation of Low-Grade Gliomas in Magnetic Resonance Imaging
Luis Pinto-Coelho, Marta Barbosa, Pedro Moreira and Rogério Ribeiro
- 16 Enhancing Ensemble Prediction Accuracy of Breast Cancer Survivability and Diabetes Diagnostic using optimized EKF-RBFN trained prototypes
Vincent Adegoke, Daqing Chen, Ebad Banissi and Safia Barikzai

13:00 - 14:00 Lunch

14:00 - 15:00 Plenary 2 – “Security in IoT: new domains, old problems”

by Henrique M. Dinis Santos, University of Minho, Portugal

15:00 - 16:00 Parallel Session: HIS03 – Intelligent Decision Making Systems 3 (Act Room)

Chair: Luis Coelho

Co-chair: Ramiro Barbosa

- 29 User Modeling on Twitter with Exploiting Explicit Relationships for Personalized Recommendations
Abdullah Alshammari, Stelios Kapetanakis, Roger Evans, Nikolaos Polatidis and Gharbi Alshammari
- 30 Hybrid Approaches for Time Series Prediction
Xavier Fontes and Daniel Castro Silva
- 31 Clustering Approaches for an Aggregator in a Smart Grid Context
Catia Silva, Pedro Faria and Zita Vale
- 32 Economic Impact of an Optimization-Based SCADA Model for an Office Building
Mahsa Khorram,
Pedro Faria, Omid Abrishambaf and Zita Vale

15:00 - 16:00 Parallel Session: IAS02 – Cybernetics and Security (Meeting Room)

Chair: Ajith Abraham

Co-chair: Faouzi Jaidi

- 11 Warning of Affected Users About an Identity Leak
Timo Malderle, Matthias Wübbeling, Sven Knauer and Michael Meier
- 14 Network Security Evaluation and Training Based on Real World Scenarios of Vulnerabilities Detected in Portuguese Municipalities? Network Devices

Daniel Franco, Rui Miguel Silva, Abdullah Muhammed, Omar Khasro Akram and Andreia Graca

15 A Novel Concept of Firewall-Filtering Service Based on Rules Trust-Risk Assessment
Faouzi Jaidi

16 A survey of blockchain frameworks and applications
Bruno Tavares, Filipe Figueiredo Correia, André Restivo, João Pascoal Faria and Ademar Aguiar

16:00 - 16:20 Coffee break

16:20 - 18:00 Parallel Session: HIS04 – Hybrid Intelligent Systems (Act Room)

Chair: Eduardo Solteiro Pires

Co-chair: Davide Carneiro

33 Kernel based Chaotic Firefly Algorithm for Diagnosing Parkinson's Disease
Sujata Dash, Ajith Abraham and Atta-Ur Rehman

35 A Hybrid EDA/Nelder-Mead for Concurrent Robot Optimization
S. I Ivan Valdez P., Eusebio Hernandez and Sajjad Keshtkar

38 PSO Evolution based on a Entropy Metric
Eduardo Solteiro Pires, Jose Tenreiro Machado and Paulo Moura Oliveira

40 A Hybrid Recommendation Algorithm to address the Cold Start Problem
Licínio Castanheira and Fátima Rodrigues

41 A Decision-Support System for preventive maintenance in street lighting networks
Davide Carneiro, Diogo Nunes and Cristóvão Sousa

45 Development of an Intelligent Diagnosis System for Detecting Leakage of Circulating Fluidized Bed Boiler Tube
Yu-Hyun Kim, In-Kyu Jeong, Jae-Young Kim, Jae-Kyo Ban and Jong-Myon Kim

16:20 - 18:00: Parallel Session: SoCPaR 02 – Pattern recognition in social networks 1 (Meeting Room)

Chair: Catarina Silva

17 Improving audiovisual content annotation through a semi-automated process based on Deep Learning
Luis Vilaça, Paula Viana, Pedro Carvalho and Teresa Andrade

- 18 Subject Identification Based on Gait Using a RGB-D Camera
Ana Patrícia Rocha, José Maria Fernandes, Hugo Miguel Pereira Choupina, Maria Do Carmo Vilas-Boas and João Paulo Silva Cunha
- 19 Leakage Detection of a Boiler Tube using a Genetic Algorithm-like Method and Support Vector Machines
Young-Hun Kim, Jaeyoung Kim and Jong-Myon Kim
- 24 A genetic algorithm for Superior Solution Set Search Problem
Ryu Fukushima, Kenichi Tamura, Junichi Tsuchiya and Keiichiro Yasuda
- 25 An intelligent tool for detection of phishing messages
Marcos Pires and Petia Georgieva
- 27 Discrete Wavelet Transform Application in Variable Displacement Pumps Condition Monitoring
Molham Chikhalsouk

18:00 - Cultural moment – Act Room

18:30 - 22:00: Gala Dinner

December 14, 2018

=====

09:00 - 10:00: Parallel Session: HIS05 – Optimization, Statistical and Computational Intelligence 1 (Act Room)

Chair: Telmo Matos

Co-chair: Ameni Azzouz

- 14 Extending Flow Graphs for Handling Continuous-valued Attributes
Emilio Carlos Rodrigues and Maria Do Carmo Nicoletti
- 46 Optimizing Dispatching Rules for Stochastic Job Shop Scheduling
Cristiane Ferreira, Gonçalo Figueira and Pedro Amorim
- 48 A simple Dual-RAMP algorithm for the Uncapacitated Multiple Allocation Hub Location Problem
Telmo Matos, Fábio Maia and Dorabela Gamboa
- 49 Solving Flexible Job Shop scheduling Problem using Hybrid Bilevel optimization model
Hajer Ben Younes, Ameni Azzouz and Meriem Ennigrou

09:00 - 10:00: Parallel Session: SoCPaR03 – Machine Learning Applications (Meeting Room)

Chair: Molham Chikhalsouk

- 28 Characterizing Parkinson's Disease from Speech Samples Using Deep Structured Learning
Ligia Sousa, Diogo Braga, Ana Madureira, Luis Coelho and Francesco Renna
- 29 Combinatorial Optimization Method Considering Distance in Scheduling Problem
Yuta Obinata, Kenichi Tamura, Junichi Tsuchiya and Keiichiro Yasuda
- 30 An improved gas classification technique using new features and support vector machines
Se-Jong Kang, Jae-Young Kim, In-Kyu Jeong, M M Manjurul Islam, Kichang Im and Jong-Myon Kim
- 31 Superior Relation Based Firefly Algorithm in Superior Solution Set Search
Hongran Wang, Kenichi Tamura, Junichi Tsuchiya and Keiichiro Yasuda

10:00 - 10:20 - Coffee break

10:20 - 11:20 - Plenary session 3 – “Fractional Calculus: The Perspective of Complex Systems”

By J. A. Tenreiro Machado, Polytechnic of Porto, Portugal

11:20 - 13:00 - Parallel Session: HIS06 - Intelligent Decision Making Systems 2 (Act Room)

Chair: Bruno Cunha

- 50 Deep Reinforcement Learning as a Job Shop Scheduling Solver: A Literature Review
Bruno Cunha, Ana Madureira, Benjamim Fonseca and Duarte Coelho
- 53 Adaptive Sequence-based Heuristic for the Two-Dimensional Non-Guillotine Bin Packing Problem
Óscar Oliveira and Dorabela Gamboa
- 54 Hybrid Multi-Agent Approach to solve the Multi-Depot Heterogeneous Fleet Vehicle Routing Problem with Time Window (MDHFVRPTW)
Marwa Ben Abdallah and Meriem Ennigrou
- 55 Hybrid System for Simultaneous Job Shop Scheduling and Layout Optimization based on Multi-agents and Genetic Algorithm
Filipe Alves, Leonilde Varela, Ana Rocha, Ana Pereira, José Barbosa and Paulo Leitão
- 56 Application of the simulated annealing algorithm to minimize the makespan on the unrelated parallel machine scheduling problem with setup times

Gabriela Amaral, Lino Costa, Ana Rocha, Leonilde Varela and Ana Madureira

- 57 Ontology-based Meta-model for Hybrid Collaborative Scheduling
Leonilde Varela, Goran Putnik, Vijaya Manupati, Ana Madureira, André Santos, Gabriela Amaral and Luís Ferreirinha
- 59 Fuzzy Algorithms for Fractional PID Control Systems
Ramiro Barbosa and Isabel Jesus

11:20 - 13:00: Parallel Session: IAS03 - Digital Forensics (Meeting Room)

Chair: Mário Antunes

Co-chair: Kazuhiro Kono

- 17 Filtering Email Addresses, Credit Card Numbers and searching for Bitcoin Artifacts with the Autopsy Digital Forensics Software
Patricio Domingues, Miguel Frade and João Mota
- 18 A survey on the use of data points in IDS research
Heini Ahde, Sampsa Rauti and Ville Leppänen
- 19 Cybersecurity and digital forensics ? course development in a higher education institution
Mário Antunes and Carlos Rabadão
- 21 Model Driven Architectural Design of Information Security System
Ivan Gaidarski, Zlatogor Minchev and Rumen Andreev
- 22 An Automated System for Criminal Police Reports Analysis
Gonçalo Carnaz, Vitor Nogueira, Mário Antunes and Nuno Ferreira
- 23 Detecting Internet-Scale Traffic Redirection Attacks using Latent Class Models
Ana Subtil, M. Rosário Oliveira, Rui Valadas, Antonio Pacheco and Paulo Salvador
- 25 Passive Video Forgery Detection Considering Spatio-Temporal Consistency
Kazuhiro Kono, Takaaki Yoshida, Shoken Ohshiro and Noboru Babaguchi

13:00 - 14:00: Lunch

14:00 - 17:00: Parallel Session: HIS07 – Hybrid Systems (Act Room)

Chair: Leonilde Varela

Co-chair: André Santos

- 36 A Hybrid Multiobjective Optimization Approach for Dynamic Problems: Evolutionary

- Algorithm using Hypervolume Indicator
Meriem Ben Ouada, Imen Boudali and Moncef Tagina
- 58 Decision support tool to dynamic scheduling
Luís Ferreira, André Santos, Ana Madureira, Leonilde Varela and João Bastos
- 60 A semanticWeb architecture for competency-based lifelong learning support systems
Kalthoum Rezgui and Hédia Mhiri
- 61 Modified and Hybridized Monarch Butterfly Algorithms for Multi-Objective Optimization
Ivana Strumberger, Eva Tuba, Nebojsa Bacanin, Marko Beko and Milan Tuba
- 62 Usage of Textual and Visual Analysis to Automatically Detect Cyberbullying in Online Social Networks
Carlos Silva, Ricardo Santos and Ricardo Barbosa
- 63 A proposal for avoiding compensatory effects while using ELECTRE TRI with multiple evaluators
Helder Costa, Lívia Dias De Oliveira Nepomuceno and Valdecy Pereira
- 64 A hybrid Variable Neighborhood Tabu Search for the Long-term Car Pooling Problem
Imen Mlayah, Imen Boudali and Moncef Tagina
- 66 Early Diagnose of Autism Spectrum Disorder Using Machine Learning Based on Simple Upper Limb Movements
Adel Al-Jumaily and Mohammad Wedyan
- 67 Orientation Sensitive Fuzzy C Means Based Fast Level Set Evolution for Segmentation of Histopathological Images to Detect Skin Cancer
Adel Al-Jumaily and Ammara Masood
- 68 Electrogastrogram based medical applications an overview and processing frame work
Adel Al-Jumaily and Ahmad A. Al-Tae

14:00 - 15:15 Parallel Session: HIS08 - Optimization, Statistical and Computational Intelligence 2 (Meeting Room)

Chair: M. Filomena Teodoro

Co-chair: Aldina Correia

- 70 A Novel MAC Scheme for Reliable Safety Messages Dissemination in Vehicular Networks
Muhammad Alam, João Rufino, Kok-Hoe Wong and Joaquim Ferreira
- 71 DSS-based ontology alignment in solid reference system configuration

Nuno Silva, Paulo Maio, Alexandre Gouveia and Rui Lopes

- 72 Clustering of PP Nanocomposites Flow Curves under Different Extrusion Conditions
Fátima De Almeida, Eliana Costa E Silva and Aldina Correia
- 73 Building a decision support system to handle teams in emergency case - a preliminary approach
M. Filomena Teodoro
- 76 Automatic Clinic Measures and Comparison of Heads using Point Clouds
Pedro Oliveira, Ângelo Pinto, Antonio Vieira de Castro, Fátima Rodrigues, João Vilaça, Paulo Morais and Fernando Veloso

15:15 - 17:00: Parallel Session: SoCPaR 04 – Pattern recognition in social networks 2 (Meeting Room)

Chair: Catarina Silva

Co-chair: Joana Costa

- 32 Learning in Twitter streams with 280 character tweets
Joana Costa, Catarina Silva and Bernardete Ribeiro
- 33 Retweet Predictive Model for Predicting the Popularity of Tweets
Nelson Oliveira, Joana Costa, Catarina Silva and Bernardete Ribeiro
- 34 Handcrafted Descriptors-Based Effective Framework for Off-line Text-independent Writer Identification
Abderrazak Chahi, Youssef El Merabet, Yassine Ruichek and Raja Touahni
- 37 Server load prediction on Wikipedia traffic
Cláudio A. D. Silva, Carlos Grilo and Catarina Silva
- 38 Evolutionary genes algorithm to path planning problems
Paulo Alexandre Salgado and Paulo Afonso

17:00 - 17:20: Coffee break

17:20: Closing ceremony

HIS – Virtual Presentations

=====

- 9 Classifying and Grouping Narratives with Convolutional Neural Networks, PCA and t-SNE
Manoela Kohler, Leonardo Forero, Leonardo Sondermann and Marco Aurelio Pacheco

- 11 Optimizing Routes for Medicine Distribution Using Team Ant Colony System
Renan C. Alencar, Clodomir J. Santana Jr. and Carmelo J. A. Bastos Filho

- 17 Predicting the Degree of Collaboration of Researchers on Co-authorship Social Networks
Doaa Hassan

- 18 Deterministic Parameter Selection of Artificial Bee Colony based on Diagonalization
Marco A. Florenzano Mollinetti, Mario Tasso Ribeiro Serra Neto and Takahito Kuno

- 19 An Ensemble of Deep Auto-encoders for Healthcare Monitoring
Ons Aouedi, Mohamed Anis Bach Tobji and Abraham Ajith

- 27 Assessing Ant Colony Optimization Using Adapted Networks Science Metrics
Sérgio F. Ribeiro and Carmelo J. A. Bastos Filho

- 34 Hybridization of Migrating Birds Optimization with Simulated Annealing
Ramazan Algin, Ali Fuat Alkaya and Vural Aksakalli

- 37 Coarse Grained Parallel Quantum Genetic Algorithm For Reconfiguration Of Electric Power
Networks
Ahmed Hieba and Nabil Abbai

- 42 Improving the research strategy in the problem of intervention planning by the use of
symmetries
Mounir Ketata, Zied Loukil and Faiez Gargouri

- 43 Towards a Hybrid System for the Identification of Arabic and Latin Scripts in Printed and
Handwritten Natures
Karim Baati and Slim Kanou

- 44 Social Media Chatbot System - beekeeping case study
Zine Eddine Latioui, Lamine Bougueroua and Alain Moretto

- 51 Improving Nearest Neighbor Partitioning Neural Network Classifier Using Multi-layer
Particle Swarm Optimization
Xuehui Zhu, He Zhang, Lin Wang, Bo Yang, Jin Zhou and Zhenxiang Chen

- 77 Structural and Statistical feature extraction methodology for the recognition of handwritten Arabic words
Marwa Amara, Kamel Zidi and Khaled Ghedira

IAS - Virtual Presentations

=====

- 8 The Design of a Cloud Forensics Middleware System Base on Memory Analysis
Shumian Yang

SoCPaR – Virtual Presentations

=====

- 20 Sentiment Analysis on Tweets for Trains using Machine Learning
Sachin Kumar and Marina Nezhurina