

16th International Conference on Hybrid  
Intelligent Systems  
**(HIS 2016)**

**&**

8th World Congress on Nature and  
Biologically Inspired Computing  
**(NaBIC 2016)**

**November 21-23, 2016**  
**Marrakech, Morocco**

**Technical Programme**

## **Day 1: November 21, 2016**

**08:00 – 09:00: Registration**

09:00-09:30: Opening ceremony

09:30-10:30: Plenary Talk I: Nature-Inspired Optimization of Type-2 Fuzzy Logic Controllers  
**Oscar Castillo, Tijuana Institute of Technology, Tijuana, Mexico**

10:30-11:00: Coffee Break

11:00-13:00: Session 1 (Room A): **HIS 01**  
**Chair: Ghita Mezzour**

***Mohamed Nabil, Abdelmajid Hajami and Abdelkrim Haqiq***

A Stable Route and the Remaining Time Prediction to send a data packet in Highway Environment

***Frumen Olivas, Fevrier Valdez and Oscar Castillo***

Fuzzy logic dynamic parameter adaptation in the Gravitational Search Algorithm

***Peng Cao, Xiaoli Liu, Dazhe Zhao and Osmar Zaiane***

Sparse learning and hybrid probabilistic oversampling for Alzheimers Disease diagnosis

***Abdesselem Dakhli, Wajdi Bellil and Chokri Benamar***

DNA Sequence Classification using Power Spectrum and Wavelet neural network

***Mohamed El Fissaoui, Abderrahim Beni-Hssane and Mostafa Saadi***

Energy aware hybrid scheme of client-server and mobile agent models for data aggregation in wireless sensor networks

***Feriel Romdhane, Faouzi Benzarti and Hamid Amiri***

3D CT Denoising by New Combination between NI-Mean Filter and Diffusion Tensor

***Peng Cao, Xiaoli Liu, Dazhe Zhao and Osmar Zaiane***

Sparse learning and hybrid probabilistic oversampling for Alzheimers Disease diagnosis

***Sana Khamekhem, Yousri Kessentini and Slim Kanoun***

Benchmarking Post-Processing Techniques for Offline Arabic Text Recognition System

13:00 – 14:30: Lunch

14:30 – 16: 30: Session 2 (Room A): HIS 02

**Chair: Layth Sliman**

***Mehdi El Krari, Belaïd Ahiod and Bouazza El Benani***

An Empirical Study of The Multi-Fragment Tour Construction Algorithm for The Travelling Salesman Problem

***Hlel Emna, Jamoussi Salma, Ben Hamadou Abdelmajid and Turki Mohamed***

Building probabilistic ontologies based on meta-model PODM

***Iman El Mir, Abdelkrim Haqiq and Dong Seong Kim***

Performance Analysis and Security based on Intrusion Detection and Prevention Systems in Cloud Data Centers

***Ahmed Cheikh Rouhou, Zeineb Abdelhedi and Yousri Kessentini***

A HMM-Based Arabic/Latin Handwritten/Printed Identification System

***Lamyaa Sadouk, Taoufiq Gadi and El Hassan Essoufi***

A novel approach of deep convolutional neural networks for sketch recognition

***Mustapha Jamma, Mohamed Barara, Abderrahim Bennassar and Mohammed Akherraz***

Intelligent control strategy of a three-phase PWM rectifier based on artificial neural networks approach and fuzzy logic controller

***Haifeng Wang, Bin Yang and Jiaguo Lv***

Complex-Valued Neural Network Model and Its Application to Stock Prediction

***Mubashiora Zaman, Soweba Rahman, Tooba Rafique, Filza Ali and Muhammad Usman Akram***

Hand Gesture Recognition using Color Markers

***Alaeddine Dronga, Lobna Hsairi and Khaled Ghedira.***

Integration of game theory in R<sup>2</sup>-IBN framework for conflict resolution in a Multi-agents model of an extended enterprise

**16:30 – 16:50: Coffee Break**

**16:50 - 18:30: Session 3 (Room A): NaBIC 01**

**Chair: Oscar Castillo**

***Abdelali Touil and Fattehallah Ghadi***

Distributed Clustering Scheme to relieving Broadcast storms in Vehicular Ad-hoc Networks

***Sana Khalfa, Nizar Rokbeni and Achref Telmoudi***

PSO-VG for Job-Shop Scheduling with Multiple Operating Sequences Problem

***Sonia Kefi, Nizar Rokbani and Adel Alimi***

Impact of Ant Size on Ant Supervised by PSO, AS-PSO, Performances

**Session 4 (Room A): HIS 04**

***Anum Mehmood, Muhammad Usman Akram, Mahmood Akhtar and Anam Usman***

Separation of Vertebrae Regions from Cervical Radiographs using Inter-Vertebra Distance and Orientation

***Sumaiyya Farooq, Shoab Khan and Muhammad Usman Akram***

1D Signal Processing for Improvement of People Counting Estimation Results

***Sajid Gul Khawaja, Amna Tehreem, Muhammad Usman Akram and Shoab Khan***

Multicore Framework for finding frequent item-sets using TDS

**Hamdi Yahia, Chaabouni Ayman, Boubaker Houcine and Alimi Adel**

Hybrid neural network and genetic algorithm for online off-lexicon Arabic Handwriting Recognition

**Olfa Ben Said, Ali Wali and Adel M. Alimi**

An Adapted Entity Summarization service for an enhancement video system

**Marwa Ammar, Bouaziz Souhir, Adel Alimi and Ajith Abraham**

Recurrent flexible neural tree model for time series prediction

**Amira Hamdi, Nicolas Monmarché, Mohamed Slimane and Adel M Alimi**

Intelligent hybrid algorithm for unsupervised data clustering problem

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## Day 2: November 22, 2016

**8:30-9:30: Plenary Talk II: IoT analytics: from Big data to Fast and Smart Data**

Layth Sliman, EFREI, France

09:30-10:00: Coffee Break

10:00-13:00: Session 4 (Room A): **HIS 05**

**Chair: Ghita Mezzour**

**Mohammed Javed, P Nagabhushan and Bidyut Chaudhuri**

Automatic Extraction of Text and Non-Text Information Directly from Compressed Document Images

**Wedad Al-Sorori and Abdulqader Mohsen**

Multi-Population Discrete Bat Algorithm with Crossover to Solve TSP

**Hedi Cherif and Talel Ladhari**

A new hybrid multi-criteria ABC inventory classification model based on Differential Evolution and Topsis

**Nacer Heithem and Mazouzi Mohamed**

A Scheduling Algorithm for Beacon Message in Vehicular Ad Hoc Networks

**Bassem Hadjkacem, Walid Ayedi and Mohamed Abid**

Multi-shot Human Re-identification via Gabor-LBP based Video Covariance Descriptor

**Hachemi Nabil Dellys, Layth Sliman, Saliha Artabaz, Karima Benatchba and Mouloud Koudil**

Chaff-Points Generation Using Knapsack problem resolution in Fingerprint Fuzzy Vault

**Taher Labidi, Achraf Mtibaa, Walid Gaaloul and Faiez Gargouri**

Toward Context-Aware SLA for Cloud Computing

**Iman El Mir, Abdelkrim Haqiq and Dong Seong Kim**

Performance Analysis and Security based on Intrusion Detection and Prevention Systems in Cloud Data Centers

***Mahmoud Ltaief, Hala Bezine and Adel M. Alimi***

A spiking neural network model with fuzzy learning rate Application for complex handwriting movements generation

***Sonia Kefi, Nizar Rokbani and Adel M. Alimi***

Solving the Traveling Salesman Problem using Ant Colony Metaheuristic, a Review

***Fatma Mallouli and Mohamed Abid***

Iris Localization Using Mixture of Probability Distributions in the Segmentation Process

**13:00 – 14:30: Lunch**

**14:30 – 16: 30: Session 5 (Room A): HIS 06**

**Chair: Layth Sliman**

***Nesrine Atitallah, Kais Loukil, Hela Hakim, Abdulfattah Obeid and Mohamed Abid***

Adaptive WSNs Based on HW/SW Implementation of Selective Relaying Communication Technique

***Hedi Cherif and Talel Ladhari***

Multiple criteria inventory classification approach based on Differential Evolution and Electre III

***Kolawole John Adebayo, Luigi Di Caro and Guido Boella***

Text Segmentation with Topic Modeling and Entity Coherence

***Hicham Ben Alla, Said Ben Alla, Abdellah Ezzati and Abdellah Touhafi***

An Efficient Dynamic Priority-Queue Algorithm based on AHP and PSO for Task Scheduling in Cloud Computing

***Fethi Fkih and Mohamed Nazih Omri***

Hybridization of an Index Based on Concept Lattice with a Terminology Extraction Model for Semantic Information Retrieval Guided by WordNet

***Olfa Chebbi, Ezzeddine Fatnassi and Hadhami Kaabi***

On integrating simulated annealing within parallel genetic algorithm: An on-demand transportation case application

***Amira Ben Rabeh***

Diagnosis of Alzheimer disease From MRI Images of the Brain Throughout Time

***Alaeddine Dronga, Lobna Hsairi and Khaled Ghedira***

Integration of game theory in R<sup>2</sup>-IBN framework for conflict resolution in a Multi-agents model of an extended enterprise

**16:30 – 17:30: Coffee Break and Poster Session**

**Session: Poster Papers – HIS - NaBIC**

**Ramzi Zouari, Houcine Boubaker and Monji Kherallah**

Hybrid TDNN-SVM algorithm for Online Arabic Handwriting Recognition

**Asma Baghdadi, Yassine Aribi and Adel M. Alimi**

A survey of methods and performances for EEG-based Emotion Recognition

**Wassila Jerbi, Afef Ben Brahim and Nadia Essoussi**

A Hybrid Embedded-Filter Method For Improving Feature Selection Stability Of Random Forests

**Wedad Al-Sorori and Abdulqader Mohsen**

Multi-Population Discrete Bat Algorithm with Crossover to Solve TSP

**Sumaiyya Farooq, Shoab Khan and Muhammad Usman Akram**

1D Signal Processing for Improvement of People Counting Estimation Results

**Marouane Birjali, Abderrahim Beni-Hssane and Mohammed Erritali**

A method proposed for estimating Depressed feeling tendencies of Social Media users utilizing their Data

**Lin Wang, Bo Yang and Zhenxiang Chen**

Improving Particle Swarm Optimization using Co-optimization of Particles and Acceleration Constants

**Meera Ramadas, Ajtth Abraham and Sushil Kumar**

Using data clustering on ssFPA/DE- a search strategy Flower Pollination Algorithm with Differential Evolution

**Satrya Fajri Pratama, Azah Kamilah Muda, Yun-Huoy Choo and Ajith Abraham**

3D Geometric Moment Invariants for ATS Drugs Identification: A More Precise Approximation

**17:30: 17:45:** Closing Ceremony