

University of Science and Technology Houari Boumediene
Faculty of Computer Science
Department of Artificial Intelligence and Data Science
Laboratory of Research in Artificial Intelligence

AID'2022

5th Artificial Intelligence Doctoral symposium

Under the patronage of the the Thematic Agency for
Research in Science and Technology -ATRST-

PROGRAM



USTHB, LRIA,
September 18-19, 2022
Algiers, Algeria.



Conference Day 1

08:00 - 08:30 Registration
08:30 - 09:00 Opening session

September 18, 2022: 09:00 - 10:00

Keynote speaker 1: Prof. Houari SAHRAOUI

Session Chair: *Prof. Malika BOUKALA*

09:00 - 10:00 **Learning software artefacts from examples using genetic programming.**
Prof. Houari SAHRAOUI, Montréal University, Canada.

Coffee

Break

September 18, 2022: 10:30 - 11:50

Session 1: Data Mining

Session Chairs: *Prof. Houari SAHRAOUI and Prof. Nadjat KAMEL*

10:30 - 10:50 **Firefly optimization based adaptive clustering for coverage improvement and load balance in wireless sensor networks.**
Mohamed Sahraoui and Abd Elmalik Taleb-Ahmed. ~Mohamed Boudiaf University, M'Sila & Hauts de France Polytechnic University, France.

10:50 - 11:10 **Classification of obstructive sleep apnea based on entropy and bispectral entropy features.**
Hadj Abdelkader Benghenia and Zine Eddine Hadj Slimane. ~Abou Bakr Belkaid University, Tlemcen.

- 11:10 - 11:30** **Clustering for the optimization of emotional information retrieval systems.**
Islam Sadat and Samir Kechid. ~USTHB, Algiers.
- 11:30 - 11:50** **Weather forecasting and prediction in smart cities using machine learning algorithm.**
Kamel Maaloul and Brahim Lejdel. ~Hamma Lakhdar University, Eloued.

Lunch

Break

September 18, 2022: 13:40 - 14:40

Keynote speaker 2: Prof. Farouk YALAOUI

Session Chair: *Prof. Habiba DRIAS*

- 13:40 - 14:40** **Decision-making support of industries in the world of data and transitions.**
Prof. Farouk YALAOUI, Troyes University, France.

Short

Break

September 18, 2022: 14:50 - 15:50

Session 2: Metaheuristics and Swarm Intelligence

Session Chairs: *Prof. Farouk YALAOUI* and *Prof. Dalila BOUGHACI*

- 14:50 - 15:10** **A survey on using evolutionary approaches-based HUIs minings.**
Abderrahim Boukhalat, KamelEddine Heraguemi, Mouhamed Benouis, Samir Akhrouf and Brahim Bouderah ~Mohamed Boudiaf University, M'Sila.
- 15:10 - 15:30** **An optimized home-vaccination based on a novel swarm intelligence algorithm.**
Lydia Bendimerad, Habiba Drias, Maya Houacine and Lydia Messaoudene. ~USTHB, Algiers.
- 15:30 - 15:50** **Mushroom-like structure design using particle swarm optimization algorithm to improve the performance of a microstrip antenna.**
Abdelmalek Louaifi, Zineb Laieb and Youssef Lamhene. ~USTHB, Algiers.

Coffee

Break

September 18, 2022: 16:20 - 18:00

Session 3: Computer Vision

Session Chairs: *Prof. Slimane LARABI* and *Prof. Saliha AOUAT*

- 16:20 - 16:40** **Object detection on thermal images using an optimized deep neural network and a strong feature extraction strategy.**
Naoual El-Djouher Mebtouche, Nadia Baha, Nassim Kaddouri, Abderrahim Zaghdar and Abou Bakr Essadiq Redjil. ~USTHB, Algiers.
- 16:40 - 17:00** **Detection and feature extraction in bio-image processing.**
Abdellatif Bouzid-Daho, Patrick Siarry and Moussa Diaf. ~Mouloud Mammeri University, Tizi-Ouzou. & Paris-Est Creteil University, France.
- 17:00 - 17:20** **Swin transformer with dynamic head-based multi-scale blood cell detection for counting application.**
Mohamed Ait Mehdi, Khadidja Belattar and Ferial Souami. ~USTHB, Algiers & Univ Alger 1, Algiers.
- 17:20 - 17:40** **Visual content aided CNN model for object recognition.**
Brahim Remmouche, Salah-Eddine Maoudj and Mokhtar Taffar. ~Mohamed Seddik Benyahia University, Jijel.
- 17:40 - 18:00** **Development of a haptic device-based serious game for cognitive rehabilitation.**
Litissia Medgueb, Amel Smaili, Noura Achour, Abddelghani Daoudi, Mohamed Amrani and Selmane Derder. ~USTHB, Algiers.

Note: *Authors who have presented their paper can collect their certificate at the end of the session.*

Conference Day 2

September 19, 2022: 08:30 - 09:30

Keynote speaker 3: Prof. Allel HADJ-ALI

Session Chair: *Prof. Fayçal BOUYAKOUB*

08:30 - 09:30

On Intelligent Combinatorial Decision Making.
Prof. Allel HADJ-ALI, ENSMA Poitiers, France.

Coffee

Break

September 19, 2022: 10:00 - 12:00

Session 4: Artificial Intelligence Applications

Session Chairs: *Prof. Allel HADJ-ALI* and *Prof. Hamid AZZOUNE*

10:00 - 10:20

A novel ECG-based biometric identification system using statistical features and support vector machine.
Amel Benabdallah and Abdelghani Djebbari. ~Abou Bakr Belkaid University, Tlemcen.

10:20 - 10:40

DISS : a discrete input-space sampling path planning and obstacle avoidance strategy for swarm robotics.
Naila Aziza Houacine and Habiba Drias. ~USTHB, Algiers.

10:40 - 11:00

Recent and future trends on digital soil mapping methods - a review.
Widad Belkadi, Yassine Drias and Habiba Drias. ~USTHB, Algiers & Univ Alger 1.

- 11:00 - 11:20** **Online book selling Dapp based on smart contracts.**
Hanane Echchaoui and Rachid Boudour. ~Badji Mokhtar university, Annaba.
- 11:20 - 11:40** **A Survey on recent optimization models and trends in emergency transportation.**
Celia Khelfa, Ilyes Khennak and Habiba Drias. ~USTHB, Algiers.
- 11:40 - 12:00** **Deep Learning assisted resonant inverter control for temperature regulation in rubber manufacturing.**
Abdelkader Yahy and Houcin Zeroug. ~USTHB, Algiers.

Lunch

Break

September 19, 2022: 13:30 - 14:30

Session 5: Machine and Deep Learning 1

Session Chairs: *Prof. Faiza KHELLAF* and *Prof. Riadh BABA-ALI*

- 13:30 - 13:50** **An Evidential System for the VeRification of the Authenticity of Information.**
Hamza Tarik Sadouk, Faouzi Sebbak, Walid Cherifi, Hichem Abdallah Ouldmezzaoud and Mohamed Amine Chouarfia. ~EMP, Algiers.
- 13:50 - 14:10** **Sewer Systems Control using Internet of Things and eXplainable Artificial Intelligence.**
Mohamed Zakaria Bourahla and Mustapha Bourahla. ~Mohamed Boudiaf University, M'Sila.
- 14:10 - 14:30** **Road accident occurrence prediction : A Machine Learning based approach.**
Aymene Krioudj, Zakaria Abdelmoumen Kermouche and Amina Selma Haichour. ~ESI, Algiers.

Short

Break

September 19, 2022: 14:40 - 16:00

Session 6: Machine and Deep Learning 2

Session Chairs: *Prof. Feryel SOUAMI* and *Prof. Nadia BAHA-TOUZÈNE*

- 14:40 - 15:00** **A Comparison Between Convolutional Neural Network and Convolutional Autoencoder as Feature Extractors for Extreme Learning Machine.**
Selma Kali Ali and Dalila Boughaci. ~USTHB, Algiers.
- 15:00 - 15:20** **A predictive model for effect austerity policies on road safety: A Case study of Algeria.**
Billal Soulmana and Salim Boukebbab. ~Frères Mentouri University, Constantine 1.
- 15:20 - 15:40** **Reinforcement learning on controller placement problem.**
Abderrezak Djouabri and Lamri Sayad. ~Mohamed Boudiaf University, M'Sila.
- 15:40 - 16:00** **Advanced fixing of lost migrated data in microarray using advanced regression.**
Adarsh Saraswat, Meenesh Solanki and Jimil Shah. ~ITM University, Vadodara, India.

Coffee

Break

September 19, 2022: 16:30 - 17:30

Session 7: Text Mining and NLP

Session Chairs: *Prof. Samir KECHID* and *Prof. Djaafar ZOUACHE*

- 16:30 - 16:50** **Emotional Sentiment Analysis of Twitter posts.**
Ferdaous Benrouba and Rachid Boudour. ~Badji Mokhtar university, Annaba.
- 16:50 - 17:10** **SocialNER: a training dataset for named entity recognition in short social media texts.**
Adel Belbekri and Fouzia Benchikha. ~Abdelhamid MEHRI University, Constantine 2

17:10 - 17:30

Integrating semantic relations into a recommender system.

Fatiha Sadouki and Samir Kechid. ~Yahia Farès University, Médéa & USTHB, Algiers.

September 19, 2022: 17:30 - 18:00
Closing Session

17:30 - 17:50

Best Papers Awards

17:50 - 18:00

Closing session

Note: *Authors who have presented their paper can collect their certificate at the end of the session.*

Thanks to our sponsors:



Contact:

Address: BP 32 Bab Ezzouar, 16111 - Algiers, Algeria.

Email: aid2022@usthb.dz or aid2022.usthb@gmail.com

Website: <https://lira.usthb.dz/AID2022/>