Third International Conference on Theoretical and Applicative Aspects of Computer Science (ICTAACS'23)

05-06/12/2023

20 Août 1955-Skikda University

ICTAACS

Like previous editions (ICTAACS'21, ICTAACS'19, CTAACS'13 and CTAACS'12), the upcoming ICTAACS'23 conference will cover theoretical and practical aspects within the field of Computer Science. Its primary goal is to provide researchers with a platform to discuss and exchange innovative ideas, research findings, and experiences related to various Computer Science research topics.

The 2023 edition of ICTAACS will take place on the 5th and 6th of December in Skikda, Algeria. The conference is co-organized by several higher institutions and research labs, including the Computer Science department of the 20 Août 1955-Skikda University, the LICUS (Laboratoire d'Informatique et de Communication de l'Université 20 Août 1955-Skikda), the MISC (laboratory of Modélisation et d'Implémentation de Systèmes Complexes, Abdelhamid Mehri-Constantine 2 University), the GLIA team of the LIRE (Laboratoire d'Informatique REpartie, Abdelhamid Mehri-Constantine 2 University), and the LINFI (Laboratoire d'INFormatique Intelligente, Mohamed Khider-Biskra University).

The conference welcomes academic staff, researchers and postgraduate students to submit their original works of either practical or theoretical nature within the field of computer science. The participants will have the opportunity to present and discuss their research work with a group of international researchers and build a network within the IT community.

TOPICS

The preferred topics of the conference are:

- Software Engineering
- Artificial Intelligence
- Pattern Recognition
- Self-Adaptive Systems
- Computer Networks, Distributed, and Complex Systems

SUBMISSION INSTRUCTIONS

All submissions must present original and unpublished work that is not currently under consideration elsewhere. Submissions can have up to 10 pages formatted according to the standard IEEE template. Please submit your papers electronically in PDF format using the ICTAACS'23 conference management system: https://easychair.org/conferences/?conf=ictaacs23. At least one author of each accepted paper is expected to attend the conference.

PUBLICATION AND POLICIES

The proceedings of the ICTAACS'23 conference will be submitted for indexing in IEEE Xplore Digital Library.
As per the standard IEEE policies, all submissions should be original, i.e., they should not have been previously published in any conference proceedings, book, or journal and should not currently be under consideration elsewhere. We would like to also highlight IEEE's policies regarding plagiarism and self-plagiarism: (https://www.ieee.org/publications/rights/plagiarism/id-plagiarism.html).

REVIEW CRITERIA

Papers should present new ideas related to the topics described in this call for papers, motivated by problems from current practice or applied research. Both theoretical and applicative contributions should be highlighted, substantiated by formal analysis, simulation, experimental evaluations, or comparative studies, etc. All submissions must be anonymous and will be rigorously and anonymously peer reviewed and evaluated based on their quality, originality, soundness, significance, presentation, and understanding of the state of the art.

IMPORTANT DATES

- **Submission deadline** August 30th, 2023
- **Notification of acceptance** September 30th, 2023
- **Camera Ready Papers** October 30th, 2023
- **Conference dates** December 05th and 06th, 2023

Contact

Should you require any information, please to contact us on:

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KEYNOTE SPEAKERS

Pr Allel HADJALI

Title: On Multisensor Data Fusion for Machine Learning

Short Description: It is well known that the performance of machine learning algorithms depends to a large extent on the quality of data available for training. When data are coming from various sensors, data fusion allows to create a higher quality model training. This preprocessing step will produce fused data sets of higher quality in terms of uncertainty, consistency, compactness and accuracy. Multisensor data fusion is the process of combining observations from a number of different sensors to provide a robust and complete description of an environment or process of interest. Multisensor data fusion finds wide application in many areas, such as Robotics (object recognition, environment mapping, and localization), Satellite and aerial imaging, Medical imaging, Sonar and radar and imaging for aerospace applications, IoT platforms and Artificial Intelligence. As sensors are most often used under conditions that induce difficulties at different levels (- measurements may be imprecise, erroneous, incomplete, or ill suited to the problem - prior knowledge be incomplete, poorly defined, and may not fit any more with the reality encountered, especially when the context is evolving - observations may be ambiguous, either in space or in time), it is therefore necessary to define formalisms that are sufficiently general to represent and combine all types of information that may be encountered. In this talk, we present the foundations of Dempster-Shafer theory (named also belief functions or evidence theory) for data fusion purpose. It represents a general formalism in the sense that (i) it allows modeling both uncertainty and imprecision; (ii) it is a generalization of both Bayesian and Possibilistic models. We discuss the different evidential combination rules both from the semantic and computational sides. The important issues related to managing the level of conflict of the sources and to scalability are addressed as well.
Keywords: Machine Learning, Data fusion, Multisensor data, Dempster-Shafer theory, Belief functions, Uncertainty, Ambiguity, Combination rules, Degree of conflict, Decision making.

To be Announced

Title: To be Announced