

**Special Session**  
**on**  
**Emerging AI based Decision Making Trends and Applications (EDMTA22)**  
**at**  
**13th International Conference on Innovations in Bio-Inspired Computing and Applications**  
**(IBICA'22)**  
**Online, 15-17 December, 2022**  
<http://www.mirlabs.net/ibica22/>

### **Objectives and Scope**

Intelligent Decision Making is a promising research field of emergent artificial/computational intelligence concerned with the development of the next generation of intelligent systems.

Therefore, this special session intends to bring together researchers worldwide to provide a contribution for solving artificial/computational problems in the context of Hybrid Intelligent Decision Making Systems, providing a contribution for solving real world complex problems, for instance involving Big Data, Security, Imprecision, Uncertainty and Vagueness.

Through this special session the organizers intend to promote theoretical and empirical research, and invite researchers to contribute with original research articles as well as surveys and case study papers, for instance in the scope of the following main topics. We invite high quality contributions from all research areas that address the emerging data challenges in these streams.

### **Subtopics**

The topics include, but are not limited to:

- Intelligent optimization using global optimization techniques
- Big Data and Data Science
- Hybrid computing using neural networks - fuzzy systems - evolutionary algorithms
- Hybrid optimization techniques (Swarm Intelligence, Evolutionary Algorithms, Meta-Heuristics)
- Hybrid of soft computing and statistical learning techniques
- Human-Computer Interaction for Interactive Systems
- Intelligent User Interfaces
- User Modeling preferences
- Natural interfaces and ambiguity solving techniques
- Bio-Inspired Computation, Evolutionary Computing, Evolutionary Programming and Evolutionary Strategies, Meta-Heuristics: Theory and Foundations.

## **Paper Publications**

- Proceedings will be published in Lecture Notes in Networks and Systems, Springer (Indexed in SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago)  
<https://www.springer.com/series/15179>
- Papers maximum length is 10 pages
- Papers must be formatted according to Springer format (Latex/word) available at:  
<https://www.springer.com/de/authors-editors/book-authors-editors/manuscript-preparation/5636#c3324>

## **Important Dates**

Paper submission due: September 30, 2022

Notification of paper acceptance: October 31, 2022

Registration and Final manuscript due: November 15, 2022

Conference: December 16-18, 2022

## **Special Session Chairs**

- Ana Maria Madureira - Interdisciplinary Studies Research Center (ISRC) - Institute of Engineering of Porto – Polytechnic of Porto (ISEP/P.PORTO)
- André Santos - Interdisciplinary Studies Research Center (ISRC) - Institute of Engineering of Porto – Polytechnic of Porto (ISEP/P.PORTO)
- Bruno Cunha - Polytechnic of Porto (P.PORTO)
- Ivo Pereira - Interdisciplinary Studies Research Center (ISRC) - Fernando Pessoa University
- Alzira Mota - Interdisciplinary Studies Research Center (ISRC) - Institute of Engineering of Porto – Polytechnic of Porto (ISEP/P.PORTO)

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