Special Session on
Real world applications of Nature-inspired computing: evolutionary and swarm intelligence algorithms
at
14th World Congress on Nature and Biologically Inspired Computing (NaBIC 2022)
on
World Wide Web
December 15-16, 2022

http://www.mirlabs.org/nabic22

Objectives and Scope

Natural and Biologically Inspired Computing (NaBIC) is a powerful interdisciplinary field in which computational approaches to solving complex problems are biologically inspired. Research interest in these topics has grown significantly: Swarm intelligence, multi-agent systems, evolutionary algorithms, artificial neural networks are just a few examples. These strategies are drastically important for the future of computational intelligence and nowadays many different, and often extremely distant, disciplines study methods and real-life applications of multidisciplinary techniques until the emergence of hybrid approaches. Recently, the field of application has expanded rapidly and this Special Session aims to bring together researchers from these different fields to discuss both the current state of the art and the future vision for biologically-inspired solution techniques applied to real world scenarios.

Subtopics
The topics include, but are not limited to:

- Swarm Intelligence for real world applications
- Swarm robotics for real world applications
- Multi-agents Systems for real world applications
- Artificial Neural Networks for real world applications
- Evolutionary Algorithms for real world applications
- Genetic Algorithms for real world applications
- Emergent Systems for real world applications
- Cognitive Modeling and Architecture for real world applications
- Hybrid Approaches to collaborative robots for real world applications

- Distributed Decision making for real world applications

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 10, 2022
Conference: December 15-16, 2022

Session Chairs

- Alessandra Vitanza, Institute of Cognitive Sciences and Technologies (ISTC- CNR)
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