evoapplications*

26th European Conference on the Applications of Evolutionary and bio-inspired Computation

part of **evo* 2023**
www.evostar.org

Brno, Czech Republic
12 — 14 April 2023

evoapps*

special session on

Applications of Bioinspired techniques on Social Networks

evo* 2023

Social networks are models describing complex, networked phenomena that emerge in various fields such as social sciences, digital communication platforms, economics, business, environmental sciences, and medicine. Social networks model interactions and information spread on online platforms such as Facebook or Twitter, the spreading of infectious illnesses (such as the recent COVID-19) in the physical world, the adoption of new goods on the market, the correlation between purchases on e-commerce platforms, or the interaction between humans and the infrastructure in an urban environment.

Due to their increasingly large scale and heavy dynamics, social networks pose a number of difficult computational challenges, such as community detection, clustering, influence maximization, or diffusion control, just to name a few. Recent advances in soft computing, especially evolutionary computation and large-scale numerical optimization techniques, have shown that these methods are effective tools for tackling these challenges. However, there are still several open issues, for instance as to what concerns the applicability of the proposed solutions to real-world scenarios and the scalability of these methods to very large networks with complex topologies.

In this Special Session we seek contributions where soft computing techniques, for instance new bio-inspired or physics-inspired metaheuristic designs, are applied to solve social network problems or to learn new social network models. Experimental studies over real-world network data, new metaheuristics, as well as scalability studies are welcome. We encourage contributions related to COVID-19 data or models, and contributions from the Operational Research and Complex Networks / Statistical Physics perspectives based on bio-inspired or physics-inspired principles.

Topics of interest include, but are not limited to:

* Influence maximization
* Vaccination optimization
* Virus diffusion control
* Sentinel optimal placement for event detection
* Community detection
* Network clustering
* Models of influence spread
* Models of network dynamics

Submission deadline: 1 November 2022

Organizers
Giovanni Iacca, Universitá di Trento (IT)
Doina Bucur, University of Twente (NL)

More info at:
www.evostar.org/2023/evoapps/biosocnet