

Tentative Outline

Open Environmental Research Journal

Title of thematic issue: *Hydroenvironmental Modeling using Emerging Soft Computing Techniques*

Guest Editors: *Ali Danandeh Mehr*

Aims & Scope:

Soft computing (SC) is a group of techniques and methodologies applied to solve a wide range of problems spread in several areas of science. The aim is to exploit tolerance for imprecision, uncertainty and partial truth to achieve tractability, robustness and low solution cost. Some of the well-established methodologies include Neural Networks, Evolutionary Computing, Fuzzy Logic, Rough Sets, Decision Trees, etc. The focus of this special issue is to bring forward thorough, in-depth, well-focused, and comprehensive applications of the current state-of-the-art SC techniques in variety of hydroenvironmental problems. The ultimate objective is to introduce and discuss capabilities of emerging SC techniques that create a tapestry of modern SC design and application practices in hydrology and environmental science.

Keywords: *Soft computing, data mining, artificial intelligence, evolutionary models, earth science, environment, climate*

Subtopics:

The subtopics to be covered within this issue are listed below:

Topics of this special issue include (but not limited to) the implementation, development, or review of following techniques in earth science, particularly hydroenvironmental processes.

Artificial Neural Networks and Deep Learning Techniques

Fuzzy Logic and Fuzzy Systems

Support Vector and Extreme Learning Machines

Evolutionary Computation, Genetic programming

Evolutionary Algorithms, Genetic Algorithms

Metaheuristic and Swarm Intelligence

Bio-inspired Optimization techniques

Differential Evolution and Probabilistic Reasoning

Ensemble data-driven and hybrid expert systems

Decision tree and Random Forest

Chaos Theory

Schedule:

- ✧ Manuscript submission deadline: *March 31, 2021.*
- ✧ Peer Review Due: *April 30, 2021*
- ✧ Revision Due: *May 31, 2021*
- ✧ Announcement of acceptance by the Guest Editors: *June 30, 2021*
- ✧ Final manuscripts due: *July 30, 2021*

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Electronic Submission:

Electronic submissions are to be made through the editorial system, see

<https://bentham.manuscriptpoint.com/index.php/journals/toecolj>