

## **Call for Papers**

### **Special Issue on “Nature Inspired Computing for Wireless Networks Applications”**

Nature inspired computing (NIC) is a computing paradigm inspired by the attractive behavior of nature. NIC has influenced the researchers to perform optimization in many approaches using physics/chemistry-based algorithms and biology-based algorithms. Physics/chemistry-based algorithms include the water cycle, a galaxy base, or gravitational-based algorithms. Biology-based algorithms, namely bio-inspired and swarm intelligence-related algorithms are discussed with their importance in the field of wireless networks. A wireless network such as MANET's, VANET, AdHoc, and IoT are playing a vital role in all sectors. Some of the issues such as finding the optimal path in routing, clustering, dynamic allocation of motes, energy and lifetime of the network pertaining to a wireless network can be solved using an NIC approach.

Computer science engineering demands techniques of synchronization, parallelization, distributiveness, redundancy, scalability, robustness, cooperation, adaptability, manageability and coordination for solving large complex problems. Nature uses many techniques such as parallel processing, asynchronous, decentralized and collective behavior for solving the nature problems. These techniques from the nature can be imbibed for solving the complex engineering problems. Recently NIC is being used as major tools in several areas of research such as MANET, VANET, AdHoc network, WSN, Congestion control in Internet, IoT, ubiquitous computing, image processing, semantic webs, big data analysis and cloud computing.

This special issue aims to provide an open, multidisciplinary forum for recent advances in Nature Inspired Computing for Wireless Networks Applications in areas such as parallel processing, asynchronous, decentralized and collective behavior for solving the nature problems. We are soliciting original contributions that have not been published and are not currently under consideration by any other journals. Both theoretical studies and state-of-the-art practical applications are welcome for submission. All submitted papers will be peer-reviewed and selected on the basis of both their quality and their relevance to the theme of this special issue.

#### **Topics**

Topics of interest include, but are not limited to, the following scope:

- Artificial Intelligence
- Fussy based AI Algorithms
- Artificial Intelligence Tools & Applications
- Automatic Control
- Heuristic and AI Planning Strategies and Tools
- Hybrid Intelligent Systems
- Parallel Processing
- Autonomic and Adaptive Distributed Computing
- Distributed Frameworks and Middleware for the Internet of Things
- Intelligence in Mobile, Ubiquitous and Pervasive Computing
- Intelligence in Peer-To-Peer Systems
- Intelligent Cloud Infrastructures
- Intelligent High-Performance Architectures
- Intelligent Integration of Data and Processes
- Intelligent Service Composition and Orchestration

- Intelligent Service-Oriented Distributed Systems
- Multi-Agent Approaches to Distributed Computing
- Design and analysis of mobile and wireless networks
- New mobile and wireless applications and network services
- Multimedia over mobile and wireless networks
- New trends on data gathering, processing, and communications
- New trends on malicious behavior detection and analysis
- QoS and QoE issues
- Robustness and fault tolerance
- Algorithms and techniques for efficient communications
- Routing and data transport
- Modeling and performance evaluation
- Communications Software
- High Performance Networks and Protocols
- Human Computer Interaction and Interface
- Optical Networks and Systems
- RFID Networks and Protocols
- Sensor Networks and Embedded Systems
- Smart Spaces and Personal Area Networks
- Vehicular, Underground and Underwater Networks

#### **Important Dates**

Submission Deadline: July 30, 2019

Acceptance Notification: November 2019

Publication: TBD

#### **Submission Guidelines**

All the submissions should original research articles and do not submit to anywhere

All the submissions should in scope of the special issue topic

All submitted papers will be peer-reviewed and selected on the basis of both their quality and their relevance to the theme of this special issue

All authors should read 'Instructions for Authors' before submitting a manuscript at:  
<https://link.springer.com/journal/11277>

Submissions should be through the Wireless Personal Communications journal website:  
<https://www.editorialmanager.com/wire/default.aspx>

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