Special Issue on
Metaheuristic Algorithms for Big Data Analytics

CALL FOR PAPERS

Metaheuristic algorithms have proven to be effective, robust, and efficient in solving real world optimization, clustering, forecasting, classification, and other engineering problems. The emergence of extraordinary very large scale data being generated from various sources such as the web, sensors, and social media has led the world to the era of big data. The big data poses a new challenge to the metaheuristic algorithms. Despite the progress recorded on the applicability of metaheuristic algorithms in the big data analytics, the progress is still in its infancy stage pleading for novel metaheuristic based analytical methodology. The big data analytics require novel analytics approaches to process the big data in order to make it valuable to inform decision making.

This special issue aims to address the challenges of metaheuristic algorithms approaches within the context of big data analytics and serve as a platform for dissemination as well as sharing of the latest scientific contributions from metaheuristic algorithms for big data.

The special issue welcomes submissions of high-quality original works, review articles, extended papers with at least 50% new materials, and industrial experiences that described significant scientific contributions.

Potential topics include but are not limited to the following:

- Swarm intelligence and deep learning within the context of big data, Internet of Things (IoT), cloud computing, and fog computing

- Evolutionary algorithms training of spiking neural network, echo state network, recurrent network for big data Internet support healthcare, and medical system in smart cities

- Parallelizing metaheuristic algorithms on Hadoop/MapReduce for big data processing

- Swarm intelligence algorithms for security challenges in big data

- Bioinspired algorithms in green computing for big data

- Clustering in big data analytics using metaheuristic techniques

- Variants of cuckoo search algorithms and flower pollination algorithm for fog-to-cloud computing, IoT, and smart home environment

- Swarm intelligence algorithms for optimizing fog, IoT, and cloud computing protocols in the context of big data

- Novel methodology based on metaheuristic algorithms for energy efficiency in fog, cloud, and IoT in the context of big data

- Swarm intelligence based intrusion detection system for cyber-physical security of fog, cloud, and IoT devices within the context of big data

- Bioinspired ontology-based big data and big open data for sustainable development

- Metaheuristic framework for big data simulation in smart cities and smart city big data governance

- Bioinspired system architecture and infrastructure of big data and ubiquitous computing

- Hybrid of swarm intelligence for urban computing in the context of big data

Authors can submit their manuscripts through the Manuscript Tracking System at https://mts.hindawi.com/submit/journals/jopti/mamb/.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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Submission Deadline
Friday, 2 November 2018

Publication Date
March 2019