

# CALL FOR PAPERS

SUBMISSION DUE DATE: [December 15<sup>th</sup>, 2018]

SPECIAL SESSION ON **Trends in soft and evolutionary computing for big data analytics and IoT applications**  
**INTERNATIONAL CONFERENCE ON INNOVATIVE COMPUTING AND COMMUNICATION (ICICC-2019)**

**Guest Editors:**

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## INTRODUCTION

The proliferation of the Internet of things or machine type communication embedded with sensors and actuators has enabled exchange of massive data which reduce the gap between the physical world and computer-based systems. Such massive applications need emerging computing technologies to analyze such diverse forms of massive data to extract the right value at the right time arriving at high frequency. Future computing technologies can play a key role to handle the challenges of big data owing to ever-increasing applications. Recent trends in soft and evolutionary computing and its applications to Fog computing, Edge computing, Big data-oriented computing, Machine learning based computing, Parallel computing, Cognitive computing, service computing and so on is the key goal of the special session. This special session envisions us to compile creative ideas and methodologies to address such complex issues and act as an international forum of worldwide researchers and engineers from industries and academia to exchange their latest innovative ideas and findings. Topics of this special session include but are not limited to the following.

**1. Single and Mutli-Objective Versions of the Evolutionary Algorithms are as follows:**

Particle Swarm Optimization, Ant Colony Optimization, Elephant Harding optimization, Monarch Butterfly Optimization, Firefly Algorithm, Eagle Search , Clonal Selection Algorithm Negative Selection, Gravitational Search Algorithm, Genetic Algorithm, Versions of NSGA, Cultural Algorithms, Cat Swarm Optimization, Grey Wolf Optimization among others.

**2. Machine and Deep learning Techniques**

Support Vector Machine, Decision tree, Bayesian Belief Networks, Naive Bayes Classifier, Fuzzy Decision Tree, Multi Layer Perceptron, Boltzmann machine, Probabilistic Neural networks, Convolutional Neural Network, Representation Learning, Monte Carlo Methods, Combining Inductive and Analytical learning, Fuzzy Decision Tree, Reinforcement Learning, K-Nearest Neighbour Classifier among others.

**3. Cloud/Fog/Edge Computing and Optimization**

Edge/fog caching for big data, Energy management of fog/edge infrastructure, Big data analytics in edge/fog environment, Edge/fog based data analytics, caching services, Edge computing for IoT, Fog computing architectures and solution design patterns, Quality of service for fog/edge computing, Cyber-physical system forensics in edge/fog computing, e-government in Cloud/fog computing, Pervasive computing in edge/fog computing, Energy Optimization in edge/fog computing among others.

**4. Cognitive Computing**

Natural language processing, Cognitive big data analytics, Brain-Machine Interface, Cognitive computing applications, Internet of cognitive things, Cognitive agents and robots among others.

**5. Internet of Things**

Real-time analytics of IoT data, Parallel computing of IoT data, Big data for IoT, IoT programming models, middleware and system architecture, Context aware computing of IoT applications, Context aware models for IoT applications, IoT based robots, Artificial intelligence of IoT, Enhancing data centre networks for big data analysis among others.

**6. Services Computing**

Service-Oriented Architectures, Case Studies in Services-Centric Applications, Service Lifecycle Management, Service security and privacy, Service-based Grid/Cloud/Autonomic Computing, High assurance of service computing, Modeling of services systems

## SUBMISSION PROCEDURE

Researchers and practitioners are invited to submit papers for this specially themed session on **insert Trends in soft and evolutionary computing for big data analytics and IoT applications on or before Dec 15,2018**. All submissions must be original and must not be under review elsewhere. INTERESTED AUTHORS SHOULD CONSULT THE CONFERENCE GUIDELINES FOR MANUSCRIPT SUBMISSIONS at [http://icicc-conf.com/paper\\_submission.html](http://icicc-conf.com/paper_submission.html). All submitted papers will be reviewed on a double-blind, peer review basis.

**NOTE:** While submitting paper in this special session, please specify **Trends in soft and evolutionary computing for big data analytics and IoT** at the top (above paper title) of the first page of your paper.

All inquires should be directed to the attention of:

**Diptendu Sinha Roy**

Guest Editor

**Trends in soft and evolutionary computing for big data analytics and IoT applications**

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