

# Concurrent Engineering: Research and Applications (CERA)– An international Journal: Special issue on “Computational Intelligence and Machine Learning Techniques for IOT”

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The Internet of Things has been widely acknowledged as a worldwide network, used for interconnecting people with RFIDs (Radio Frequency Identification), sensors, actuators, Smart phones, computers, buildings, home / work equipment, vehicles, and any other device with the objective of creating actionable intelligence to speed up decision-making. It is changing the way we track, comprehend and regulate the physical world. IOT connects the physical world to the Internet and generates large quantities of information; this information is further analyzed by processing large data and is used to make smart choices with the help of machine learning. By combining the powers of data analytics and computational intelligence, more effective algorithms can be used to identify the best suited way to solve a problem using IOT. Using heuristic methods to solve advanced optimization problems (which have multi dimensions or many local optimal solutions) we can create improve the overall functioning of IOT devices.

Continuous information generation from various sources and their analysis using computational intelligence has developed countless possible applications of IOT in various fields including agriculture, education, media, retail, advertising, finance and travel where previously the incumbents had been relying on standardized data to form decisions. With the growing popularity of intelligence in Computational Techniques, behavioral data has begun to replace the dependence on unreliable demographic data.

The ideas, technologies and findings discussed in the papers to be novel and illustrative.

## Potential topics include, but are not limited to, the following:

- Wearable Fuzzy Systems for IOT Devices
- Optimization Algorithm and Computational Techniques for IOT
- Humanized Computation for IOT Software modeling
- Numerical Analysis and Applications for IOT
- Big data analysis for IOT
- Smart Applications of Number Theory in IoT Algorithms
- Intelligent Pattern Recognition
- Ubiquitous Computing for IoT Devices
- IoT Controls using Ensemble Neural Networks
- Intelligence in IoT based Virtual Worlds
- Service-oriented computing and networking systems analysis
- Streaming and query processing techniques for IoT
- Machine learning algorithms for IoT Big Data
- Data visualization and interpretation techniques for IoT
- Security and privacy in Internet of Things

## Guest Editors:

1. **Dr. K. Vijayakumar (Lead Guest Editor)**, St. Joseph’s Institute of Technology, *India*, vijay@stjosephstechnology.ac.in
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CERA call for papers <http://journals.sagepub.com/home/cer>

A committee will review papers in order to select papers for publication in the special issue. Submitted papers will go through a set of 'double-blind review' process evaluating their significance, originality, contribution, quality, and clarity.

Please submit papers online according to the procedure and the form of CERA journal: <http://cer.sagepub.com>

(Twenty (20) pages of double-spacing manuscript, (8.5"\*11" paper; font size: times new roman; point: 11) are free to authors. If the accepted papers exceed 20 manuscript pages (each figure or a table is counted as a single page), an extra-page surcharge would be leveled to the authors of over 20-pages paper. Rates are published officially on the SAGE web site.)

### **IMPORTANT DATES**

- Full papers due: May 31, 2020
- Notification of acceptance to authors: August 15, 2020
- Revised manuscript submission: September 15, 2020
- Final decision: October 15, 2020
- Final manuscripts: November 15, 2020

For submission instructions, please visit

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