# Special issue on 'Managing Complex Computational Challenges' in Journal of Computational Methods in Sciences and Engineering

(http://dirf.org/cfpmccc.html)

#### **CALLFOR PAPERS**

# **Managing Complex Computational Challenges**

A huge body of methods for making large-scale simulations and analyses are produced, which are more computationally efficient, enabling a wide range of research to be less time- and memory-intensive. The proposed methods and systems can synthesize domains that integrate many concepts from deep learning, machine learning, AI and other computational techniques. Keeping the scientific value while designing computational approaches that leverage increased computational power is essential. Developing one system identifies a few significant features or facets. However, generating a large model uses innumerable parameters and infinite indicators to bring broad models that analyse multidimensional patterns and function as generic with permissible customization. The future computational system can build newer interfaces with computers on one side, people, technologies, and domains on the other, and produce modalities. Robust techniques with insights create solution spaces with fewer computational complexities.

Advanced big data analytics offer solutions to research questions in many different disciplines. Computational techniques coupled with intelligence are more successful for complex processes in many domains, and the refining activities lead to domain precision. In recent years efficient machine learning models have been recorded that solve many complex issues in other fields.

Many approaches in research currently warrant intensive computational methods and have become more inevitable to solve research questions. Research can generate unique and highly objective scalable solutions to the complexity and understanding of how the different propositions can help product possible systems to solve the tasks with domain knowledge.

Complexity reduction leads to robustness, structured results, higher accuracy, and resolved issues and is mainly achieved by applying computational methods. The proposed special issue will address many agendas codified in the above description and, more specifically, but not limited to the below themes.

Neural models

Spatio-temporal data modelling

DL approaches to analyse patterns

Convolutional Long Short-Term Memory network

Data Transfer Framework

Data security

Data correlational dependencies

Knowledge-driven machine learning

Information and Systems Intelligence

Computational Modelling

Intelligent agent-supported processing

Intelligent control systems

Domain-specific smart models and architectures

Complex data and sparse modelling

Semantics-induced segmentation and clustering

# Edge Intelligence

# The important dates

Submission of Papers: May 31, 2023

Acceptance/Rejection Notification: June 30, 2023

Revised version: August 15, 2023

Issue Publication: (will be notified later)

## **Special Issue Editors**

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For Author guidelines, please visit before submission- https://www.iospress.com/catalog/journals/journal-of-computational-methods-in-sciences-and-engineering

Submission of papers https://www.socio.org.uk/SIMCCC/openconf/openconf.php

# Third International Conference on Digital Data Processing

University of Bedfordshire Luton. UK November 27-29, 2023 www.socio.org.uk/ddp

(IEEE Xplore. Papers should follow the IEEE template)

Data grows voluminously and exponentially with heterogeneity and complexity. A single organization or industry processes more than a few million transactions hourly and stores several petabytes of data. We live in a world of tremendous pressure to analyze and process data more efficiently where the

Data analytics can reflect hidden patterns, incomprehensible relationships, intrinsic information relations, and segmentation. The data applications have introduced cutting-edge possibilities in every activity in our life. Thus, studying data and its underlying structure, dynamics of data relations, and newer data technologies are a never-ending process. The literature and research on data management are enormous; they do not sufficiently solve the data processing requirements.

Currently, the use of technology and interrelations among information pieces generate gargantuan amounts of data. Many studies tend to develop models and systems to analyze voluminous datasets. Analyzing the impact of data leads to application domains on decisions that have a systematic influence. Knowledge generated from the data analysis can enable the production of critical information for several domains.

Hence this conference reviews and discusses the recent trends, opportunities, and pitfalls of data management and how it has impacted organizations to create successful business and technology strategies and remain updated in data technology. This conference also highlights the current open research directions of data analytics that require further consideration.

The proposed conference will discuss topics not limited to

## Data applications in various domains and activities

Data in cloud

Real-world data processing

Data inaccuracy and reliability issues

Data Ecosystem

**Business Analytics** 

New data analytics techniques

Physical and management challenges

Privacy and Security

Crowdsourcing and Sensing

Data modelling

Deep learning techniques

Data fusion

Descriptive analytics, Diagnostic analytics, Predictive Analytics, and Prescriptive analytics

Machine learning

Network optimization

Data in Biomedical Engineering

Data in Materials science and mechanics

Data handling and applications in domains

Wireless Networking Data Management

Data of Electronic & Embedded Systems

Multi-media Systems Data

Artificial intelligence Models and Systems Data

E-Computing Data

Renewable Energies Data

**Publications** 

DDP will be published by Conference Publishing Services (CPS)". The DDP papers will be submitted for publication and indexing in IEEE Xplore. Besides, modified versions of the papers will appear in the following journals.

Journal on Data Semantics

Technologies

Data Technologies and Applications

Webology

Journal of Digital Information Management

International Journal of Computational Linguistics

Journal of Optimization

International Journal of Distributed Systems and Technologies

Important Dates

Full Paper Submission:

Notification of Acceptance/Rejection:

Registration Due:

Camera Ready Due:

Workshops/Tutorials/Demos:

Main conference:

Post-conference proceedings:

September 10, 2023

October 10, 2023

November 10, 2023

November 10, 2023

November 28, 2023

November 27-29, 2023

December 20, 2023

## **Program Committee**

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Paper Submission: http://socio.org.uk/ddp/paper-submission/

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