

Special Session on
Fusion of High-performance Computing and AI for Smart Applications
at
14th International Conference on Soft Computing and Pattern Recognition
(SoCPaR 2022)
on
World Wide Web
December 14-16, 2022

<http://www.mirlabs.org/socpar22/>

Objectives and Scope

Over the last decade, the internet and communication have changed dramatically. The speed and architecture of processors have increased. Every computer becomes a parallel computer as a result of this. It will become widespread by linking such computers into a cluster and connecting the cluster to the internet. Cloud computing, fog computing, and edge computing are all terms used to describe various distributed architectures and technologies that have emerged over time. Each architecture has its own set of problems and opportunities. These architectures will make it easier for AI applications to execute and take use of parallelism.

In this special issue, we invite original and unpublished submissions discussing the latest research advancements, developments in the applications of high-performance computing (HPC) and AI. This includes adapting open-source tools, commercial tools simulation tools, developing hybrid environments for high performance computing. Case studies, demonstration of applications, benefits, opportunities and challenges and analysis of various HPC architectures will also be given consideration for publication. Computing aspects should be specifically addressed in the paper to be aligned with the scope of this special issue.

Subtopics

The topics include, but are not limited to:

- Artificial Intelligence and Data Science
- Recent Trends in Software Engineering
- Computing Architectures for AI Applications.
- Cloud, Fog and Edge architectures.
- Advances in Information Security and Networking
- Intelligent Health Informatics
- HPC for Autonomous Vehicles.
- HPC for Explainable AI.
- HPC and AI for Healthcare.
- Evolutionary Intelligence for AR/VR Applications.
- Emerging Technologies in Education
- Security in cloud, Fog and Edge computing.

- Real-time operation and planning of smart systems.
- Applications of computing platforms (shared memory, distributed memory, cloud computing, etc.) in smart applications.
- Role of visualization in converting large data to information.

Paper Publications

- Proceedings will be published in Lecture Notes in Networks and Systems, Springer (Indexed in SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago)
<https://www.springer.com/series/15179>
- Papers maximum length is 10 pages

Papers must be formatted according to Springer format (Latex/word) available at: <https://www.springer.com/de/authors-editors/book-authors-editors/manuscript-preparation/5636#c3324>

Important Dates

Paper submission due: September 30, 2022

Notification of paper acceptance: October 31, 2022

Registration and Final manuscript due: November 10, 2022

Conference: December 14-16, 2022

Special Session Chairs

- Rajanikanth Aluvalu, Chaitanya Bharathi Institute of Technology, Hyderabad, India
- Radhika K, Chaitanya Bharathi Institute of Technology, Hyderabad, India
- Uma maheswari V, K.G. Reddy college of Engineering, Hyderabad, India

Information Contact: Rajanikanth Aluvalu < rajanikanth.aluvalu@ieee.org >