Special Session on
Big Visual Data computing
at
14th International Conference on Soft Computing and Pattern Recognition
(SoCPaR 2022)
on
World Wide Web
December 14-16, 2021
https://www.mirlabs.net/socpar22/

Objectives and Scope

The main aim of this special session is to invites research in the areas of big visual data computing and emerging trends in AI research. The visual data has been generated in many areas including medical image processing and visualization, industrial quality control, robotics, multimedia systems, virtual heritage, special effects in movies and television, and computer games. However, the exclusive and different visual application situations, such as social media, auto driving, remote sensing and so on, generates visual data, which are inefficient to be processed and analyzed. We encourage submissions on interdisciplinary methods that contribute to the next generation of visual computing solutions for medicine, industry, healthcare, and the biotechnology sector by integrating elements from visualization, visual analytics, computer graphics, image processing, computer vision, and human-computer interfaces, guided by domain expertise. This special section will not only focus on the theoretical challenge of related technical problems, but will also pay special attention on the practical effectiveness in real world applications. It will provide a platform to get together researchers not from academia only but from industry too to exchange their ideas and to submit their contributions on Big Visual Data. It will deliver a forum for presenting research development in multi modal-type visual applications in academic as well as in industry.

All submissions must clearly articulate the novelty of the work.

Subtopics

The topics include, but are not limited to:

- Visual Recognition
- Medical Image Analysis
- Computer vision and Pattern recognition
- AI, ML and DL Applications in image processing
- Healthcare applications using machine learning or deep learning techniques
- Visualization of patterns in data

- Image and video retrieval
- Interpretation and Understanding
- Synthesis, Rendering, and Visualization
- Detection, Recognition, and Classification
- Interpolation, Super-resolution, and Mosaicking
- Uses of virtual reality and augmented reality in Visual big data.
- Visualization approaches for big visual data from real-time imaging
- Document Analysis and Processing
- Computational techniques for Images and Video
- Multi-view, and 3D Processing
- Compression techniques for image and videos
- Cloud-based Image/Video Processing, Format Conversion, Content Protection
- Trust and Security in Visual Computing on the Cloud
- Visual computing solutions for applications that support medical, remote sensing, industry, etc.

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

- Deepika Koundal, University of Petroleum & Energy Studies, Dehradun, India
- Atef Zaguia, Department of computer science, College of Computers and Information Technology, Taif University, Saudi Arabia

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