Special Session on
Metaheuristics algorithms for Computer Vision : Methods, tools and Applications
at
21ˢᵗ International Conference on Intelligent Systems Design and Its Applications (ISDA)

on
World Wide Web
December 13-15, 2021

http://www.mirlabs.net/isda21/

Objectives and Scope

Recent years have seen computer vision gain significant importance in every aspect of dealing with videos and digital images using computer algorithms. There is an ongoing evolution of this field due to the fact that all real-life information is digitized in the form of images and videos. Keeping abreast of the most recent developments in computer vision is very important to promote further research and to apply new innovations to practical situations. In recent years, metaheuristic algorithms have gained popularity due to their flexibility and easy implementation. Metaheuristic algorithms are useful for solving complex problems by exploring and analyzing the search space and figuring out the best solution. Various metaheuristic algorithms are used to explore different areas of computer vision from image segmentation to object recognition using complex methods, tools and implementation strategies.

Subtopics

High quality papers on methods and tools that are required in order to implement metaheuristics algorithms for computer vision applications are invited. The topics include, but are not limited to:

- Metaheuristic algorithms
- Evolutionary Computation Algorithms
- Swarm Optimization
- Computational methods
- Multi-objective optimization
- Architectures and algorithms
- Learning theory (supervised/ unsupervised/ reinforcement learning)

- Feature selection
- Feature extraction
- Texture analysis
- Multimedia signal processing
- Shape processing
- Image and video retrieval   Image and video compression
- Image segmentation
- Video processing
- Motion Detection

- Pattern Recognition
- Deep learning algorithms
- Image Synthesis
- Computer vision tools
- Neural networks

- Image thresholding
- Meta heuristic applications
- Tools for metaheuristic algorithm implementation

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, 2021
Notification of paper acceptance: October 31, 2021
Registration and Final manuscript due: November 15, 2021
Conference: December 13-15, 2021

Special Session Chair
- Dr. R. Devi Priya, Department of Information Technology, Kongu Engineering College, TamilNadu, India
- Prof. Oscar Castillo, Research Chair of Graduate Studies, Tijuana Institute Technology, Tijuana, Mexico
- Dr. Amiya Kumar Tripathy, Department of Computer Engineering, Don Bosco Institute of Technology, Mumbai, India

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