

CALL for Papers for Special Session on

Deep Learning for Computer Vision

(From Autonomous Vehicle, Remote Sensing, Bioinformatics, to Biodiversity)

ICO 2021

Special Session Organizer:

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Aims and Scope

Computer Vision serves as a pivot in most of the research domains. Coupled with advancements in Machine Learning and Deep Learning algorithms, computer vision has gained huge acceptances in autonomous vehicles, remote sensing applications, bio-informatics, and biodiversity, to name a few. A huge coverage of the medical diagnoses is dependent on image processing. Satellite images serve immensely on remote sensing applications. Image processing applications form the foundation for computer vision. Computer vision majorly comprises of Image Classification, Object Detection, Object Tracking, Semantic Segmentation, and Instance Segmentation. Learning algorithms (mainly Deep Learning) enhance the capabilities for all the Computer Vision techniques. Techniques based on Convolutional Neural Networks, Recurrent Neural Networks, Deep Reinforcement Learning, Auto-encoders, and Boltzmann Family has already exhibited huge opportunities in Computer Vision research and applications.

This Special Session invites merit based research outcomes in the domain of Computer Vision and Deep Learning, starting from algorithms, applications, to optimization techniques. Cutting edge research papers are invited in this session which reflects the present study and scope of Computer Vision as well as future advancement options including new algorithms and frameworks.

The theme for the session includes (but not limited to):

- Computer Vision
- Deep Learning
- Computer Vision for Remote Sensing
- Computer Vision for Bio-Informatics
- Computer Vision for Biodiversity
- Computer Vision for Autonomous Vehicles
- Computer Vision / Deep Learning in Ophthalmology
- Computer Vision / Deep Learning in Cancer Detection / Prediction
- Computer Vision / Deep Learning in Dentistry
- Computer Vision / Deep Learning in Wild-live Applications
- Computer Vision / Deep Learning in Botanical Applications
- Computer Vision / Deep Learning in Weather forecasting

- Image / Video Processing
- Sentiment Analysis from Image / Video

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Dr. Diganta Sengupta, B.Tech (2004) Electronics and Instrumentation Engineering from University of Kalyani, WB, IN, M.Tech (2010) CSE from Jadavpur University, WB, IN, Ph.D. (Engg.) (2016) from Jadavpur University, WB, IN. He is a member of IEEE (M'16), ACM (M'17), Life member of Computer Society of India (LM'18) and The Institution of Engineers (India) (M'16). He is also a member of IEEE Computational Intelligence Society. He has served as the State Student Coordinator for West Bengal, India for Computer Society of India. Dr. Diganta Sengupta is presently working in the capacity of Associate Professor in the Dept. of CSE, Meghnad Saha Institute of Technology, Kolkata, IN. Formerly he was associated with Techno International Batanagar, Kolkata, India, the School of Computer Engineering (SCOPE), VIT University, Vellore, India and also with Future Institute of Engineering and Management, Kolkata, IN. His research interests include Decimal Numeric processors, Quantum Computing, Machine Learning, Computer Vision and Taxonomy Generation Process. He has served as a reviewer for IEEE Access, JIKM (World Scientific), IJSAEM (Springer), IJBDCN (IGI-Global), ISSE (Springer) to name a few. He is currently editing a Special Issue in IET Quantum Communication as the lead editor. He has been associated with multiple International Conferences of IEEE and Springer in various roles.