ICONIP 2022
November 22-26, 2022, New Delhi, India

CALL FOR PAPERS

The 29th International Conference on Neural Information Processing (ICONIP 2022)
New Delhi, India, November 22 - 26, 2022 http://iconip2022.apnns.org/

Special Session on Deep Learning and Security Techniques for Secure Video Processing

Deep learning (DL) has recently achieved promising results in various areas such as computer vision, speech recognition, and natural language processing. It aims to learn hierarchical representations of data by using deep architecture models. In addition, DL has also been successfully applied to communication signals. DL is used widely in image classification, speech recognition, regression problem, pattern recognition, and text sentiment analysis and classification. Apart from these, one more fascinating data modality is video data. However, video data is also interesting for research from its large size and dimension on different platforms like Twitter, YouTube, and Facebook.

Millions of video data are uploaded every day on YouTube; thus, it has become a rich repository and empowered Artificial Intelligence (AI) research. However, video data is challenging to analyze and process because of its large file sizes and complexity despite having rich data. For example, we can track an object through an optical flow of the sequence of images and predict its subsequent action. Therefore, in the context of computer vision, digital video processing is the ability to automatically analyze video, frame by frame or shot by shot, to detect and determine temporal and spatial features. Research on video processing using AI gained popularity after many DL algorithms were developed for video processing for various applications. Moreover, video data has another concern of security in an unsecured environment.

Video data needs a secure channel while transmitted over an unsecured network and even becomes a more significant concern when the data is stored with a third party. Therefore, securing such video content is highly required.

This special session aims to gather novel contributions (either academicians or industry professionals) on deep learning and security techniques applied to make more secure video processing that advance the field across a diverse cross-section of application domains.

Topics of interest include but are not limited to:

- Video Enhancement/ Abnormal/ Video-based Human Activity Recognition
- Adversarial techniques for anomaly detection
- Biometrics/ Visual Cryptography
- Security techniques/protocols for video
- Secure video transmission/storage
- Gait Analysis, Fall Detection/ Video-based Covid Patient monitoring
- Video keyframe/ event detection and summarization
- Video Captioning/ Deep learning architecture for video stabilization
- High-performance computing for deep learning-based video processing
- Deep learning in video interpretation/Video classification/target recognition
- Healthcare application of Deep Learning and Video Processing

Important Dates:

Submission of papers: 11:59pm (AoE), June 15, 2022 Acceptance notification: 11:59pm (AoE), August 15, 2022 Camera ready: 11:59pm (AoE), August 31, 2022 Conference date: 11:59pm (AoE), November 22-26, 2022	Online Submission through EasyChair: https://easychair.org/conferences/?conf=iconip2022 Contact iconip.2022@gmail.com for any query

Guest Editors:

 Dr. Krishan Kumar
Assistant Professor
Department of Computer Science and Engineering
National Institute of Technology, Uttarakhand
Srinagar Garhwal, Uttarakhand-246174, India
kkberwal@nituk.ac.in

 Dr. Maheshkumar H. Kolekar
Associate Professor
Department of Electrical Engineering
Indian Institute of Technology Patna
Kanpa Road, Bihta, Bihar-801106, India, mahesh@iitp.ac.in

 Dr. Navjot Singh
Assistant Professor
Department of Information Technology
Indian Institute of Information Technology, Allahabad
Devghat, Prayagraj, Uttar Pradesh-211015, India
navjot@iiita.ac.in

 Dr. Dilip K. Prasad
Associate Professor
Department of Computer Science
UiT The Arctic University of Norway
Hansine Hansens Veg 18, Tromso 9019, Norway
dilip.prasad@uit.no

PC Members:

- Prof. Narendra S. Chaudhari, IIT Indore
- Prof. Matthew Dwyer, University of Virginia
- Prof. Kevin Sullivan, Unversity of Virginia
- Dr. Puneet Goyal, IIT Ropar
- Dr. Satish Kumar, IIIT Allahabad
- Dr. Rohit Agarwal, UiT The Arctic University of Norway
- Dr. Ayush Somani, UiT The Arctic University of Norway
- Dr. Abhinanda Punnakkal, UiT The Arctic University of Norway
- Dr. Himanshu Buckchas, UiT The Arctic University of Norway
- Dr. Antonio Filieri, Imperial College of London
- Dr. Deepti D. Shrimankar, VNIT Nagpur
- Dr. Parveen Kumar, VNIT Nagpur
- Dr. Dilip Sisodiya, NIT Raipur
- Dr. Mohit Dua, NIT Kurukshetra