Title:

Video Processing Opportunities and Challenges

Abstract:

We organize a new challenge in conjunction with the 6th International Conference on Artificial Intelligence and Security (ICAIS 2020).
Video surveillance is at the core of many computer vision problems such as image classification, action recognition, and image/video retrieval. This rapidly developing field is concerned with questions surrounding how we can best seek meaningful and useful object. In the past two decades we have witnessed remarkable progress in video analytics and processing, starting from non-learning approaches entering the scene and evolving to deep learning based ones dominating the computer vision field today. However, it is a common belief that existing deep learning based methods often relies on computationally expensive deep models, which are very slow for numerous applications.
With the prevalence of social media networks and portable/wearable devices which have limited computational capabilities and storage space, thus there is a growing need for video processing and analytics that can greatly improve the efficiency and reduce the costs, which has broad research significance and application prospect.
The aim of this workshop is to stimulate researchers from the fields of computer vision (including algorithms and applications, systems design techniques and tools) to present high quality work and to provide a cross-fertilization ground for stimulating discussions on the next steps in this important research area.

Scope and Topics:

This is an open call for papers, soliciting original contributions considering recent findings in theory, methodologies, and applications in the field of pattern recognition and computer vision. Potential topics include, but are not limited to:

- ✧ Image Matching and Fusion
- ✧ Object Segmentation
- ✧ Object Detection and Tracking
- ✧ Speech, Image and Video Processing
- ✧ Multimodal Transferring Learning
- ✧ Design of Deep Learning Architectures for Video Processing
- ✧ Adversarial Learning and Its Applications
- ✧ Multimedia information processing, indexing and retrieval
- ✧ Affective computing

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Guojun Lu is a professor in the School of Engineering and Information Technology, Federation University Australia. He is he Director of Centre for Multimedia Computing, Communications, and Artificial Intelligence Research (MCCAIR), and is working on an ARC DP project and supervising an ARC DECRA project. uojun has held positions at Loughborough University, National University of Singapore, Deakin University and Monash University, after he obtained his PhD in 1990 from Loughborough University and BEngin 1984 from Nanjing Institute of Technology (now South East University, China). Guojun's main research interests are in multimedia information processing, indexing and retrieval. He has published over180 refereed journal and conference papers in these areas and wrote two books Communication and Computing for Distributed Multimedia Systems (Artech House 1996), and Multimedia Database Management Systems (Artech House 1999).

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