VI'REO @ Video Browser Showdown 2019

**SPEAKER**  Mr NGUYEN, Phuong Anh  
PhD Student  
Department of Computer Science  
City University of Hong Kong  
Hong Kong

**DATE**  19 July 2019 (Friday)  
**TIME**  12:30 pm - 1:00 pm  
**VENUE**  CS Seminar Room, Y6405  
6th Floor, Yellow Zone  
Yeung Kin Man Academic Building  
City University of Hong Kong  
83 Tat Chee Avenue  
Kowloon Tong

**ABSTRACT**

In this seminar, the VIREO team video retrieval tool that participated in the Video Browser Showdown (VBS) 2019 is described in details. As learned from VBS 2018, the visualization of video frames is a critical need to improve the browsing effectiveness. Based on this observation, a hierarchical structure that represents the video frame clusters has been built automatically using k-means and self-organizing-map and used for visualization. Also, the relevance feedback module which relies on real-time support-vector-machine classification becomes unfeasible with the large dataset provided in VBS 2019 and has been replaced by a browsing module with pre-calculated nearest neighbors. The preliminary user study results on IACC.3 dataset show that these modules are able to improve the retrieval accuracy and efficiency in real-time video search system. Finally, a brief analysis of the performance of all the participants in VBS 2019 is presented providing an overview and some insights on the most recent interactive video search system.

The Video Browser Showdown is an international video content search competition that evaluates the state-of-the-art of interactive video retrieval systems. It is performed annually as a special event at the International Conference on MultiMedia Modeling (MMM) since 2012. It aims at pushing research on large-scale video retrieval systems that are effective, fast, and easy to use for content search scenarios that are truly relevant in practice (e.g., known-item search in an ever-increasing video archive, as nowadays ubiquitous in many domains of our digital world).

This paper and the proposed video search system were presented in the 25th International Conference on Multimedia Modeling (MMM-2019), 8-11 January 2019, Thessaloniki, Greece.

Supervisor: Prof. Ngo Chong-Wah

Research interests: video retrieval, interactive video search

All are welcome!

In case of questions, please contact Prof NGO Chong Wah at Tel: 3442 4390, E-mail: cscwngo@cityu.edu.hk, or visit the CS Departmental Seminar Web at [http://www.cs.cityu.edu.hk/news/seminars/seminars.html](http://www.cs.cityu.edu.hk/news/seminars/seminars.html).