TPA 2: Inane video analysis: classification, Similarity measure

Problem Statement: Inane videos are those where there is no specific start or end of any action. It may also contain multiple video shots. This project is aiming at classifying those shots and finding similar shots from a collection of videos given a query video.

Input:

- A collection of inane videos

Expected Output:

- Automatic categorization of videos.

Dataset and Sample Code

- http://www.di.ens.fr/ laptev/actions/hollywood2/
  (Classes to be considered: DriveCar, Eat, HandShake, Run, SitDown, SitUp, and StandUp)

Hint for excellence: *Special Credit will be given if the designed system could able to categorize and retrieve similar videos from the database.*

References

1. Project Page: http://www.di.ens.fr/ laptev/download.html

2. Project Page: http://www.di.ens.fr/ laptev/actions/hollywood2/

3. H. Wang, M. M. Ullah, A. Kläser, I. Laptev and C. Schmid, Space-Time Interest Points (STIP), BMVC 2009

4. Simon Hadfield Richard Bowden, Hollywood 3D: Recognizing Actions in 3D Natural Scenes, CVPR 2013

5. Juan Carlos Niebles, Hongcheng Wang and Li Fei-Fei,Unsupervised Learning of Human Action Categories Using Spatial-Temporal Words, IJCV 2008.

6. Yicong Tian, Rahul Sukthankar, Mubarak Shah, Spatiotemporal Deformable Part Models for Action Detection, CVPR, June 2013

7. Michalis Raptis and Leonid Sigal, Poselet Key-framing: A Model for Human Activity Recognition, CVPR 2013