TPA 4: Automatic Video Shot Classification using Visual Features

Problem Statement: This project is aiming at classifying video shots into different groups based on its visual content. The classification (or grouping) has to be done automatically using visual features only.

Input:

- A collection of video shots belonging to different categories e.g. cartoon, news videos, sports videos etc (moving and static camera video shots).

Expected Output:

- Automatically group the video shots into different categories
- Given a query video shot determine the class label of that shot

Hint for excellence: Special Credit will be given if the designed system could able to handle videos with multiple objects.

Dataset and Sample Source Code

- http://home.iitj.ac.in/arunbalajeev/
- http://www.cse.yorku.ca/vision/research/dynamic-scenes/

References

1. Vasudevan, AB and Muralidharan, Srikanth and Chintapalli, Shiva Pratheek and Raman, Shanmuganathan, Dynamic Scene Classification using Spatial and Temporal Cues ICCV Workshop, 2013


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

7. Du, Youtian and Chen, Feng and Xu, Wenli and Qian, Xueming, Video content categorization using the double decomposition, Multimedia Tools and Applications, 2012