Abstract

Videos are a powerful and communicative media that can capture and present information. In recent times, large video databases are created because of the advancements in many video acquiring devices and Internet. A reliable system is needed to automate the process of this large amount of data. Content-based video retrieval has attracted extensive research during the decades. There are various models used for video retrieval. Content Based Video Retrieval is one model for retrieval of videos. Different users have different results in their minds. These lead to the process of selecting, indexing and ranking the database according to the human visual perception. This paper reviews the recent research in content based video retrieval system. Also the paper focus on video structure analysis, like, frame extraction from video, key frame extraction, feature extraction using SURF, similarity measure, video indexing, and video browsing. This system retrieves similar videos based on local feature detector and descriptor called SURF (Speeded-Up Robust Feature). For image convolution SURF relies on integral images. In SURF we use Hessian matrix-based measure for the detector and a distribution-based descriptor. SURF can be computed and compared much faster with respect to repeatability, uniqueness and robustness. SURF is better than previous proposed methods as SIFT, PCA-SIFT, GLOH, etc. Finally the future scope in this system is specified.


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Content based Video Retrieval using Enhance Feature Extraction

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Index Terms

Computer Science  Image Processing

Keywords

Frame extraction  Video retrieval  Feature extraction  Feature matching  SURF  C-SURF

Video browsing.