Abstract

Huge amount of video data is being generated every day, with enormous growth of security and surveillance system. It is immensely challengeable for researcher to search and retrieve accurate human face of interest from video with utmost speed. The proposed work is stimulated from the same concern. It would be the future demand for searching, browsing, and retrieving human face of interest from video database for several applications. This paper proposes the
novel methodology for human face retrieval from video database based on holistic approach. The Viola and Jones frontal face detector detect the face region and it is converted into 3-D ellipsoid model as a query to video database. At the same time, all the faces from video are detected and converted into 3-D model. The recognition is performed by using chamfer distance for each frame sequence. 3-D ellipsoid model has an advantage over face angle and facial expression variation. The performance evolution discusses the advantages of part-based approach.

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Methodology for Human Face retrieval from video sequences based on holistic approach


Index Terms

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Keywords

Face detection  face recognition  tracking  3-D ellipsoid