Abstract

Video processing is an interesting research zone in image processing. Face tracking is part of video processing, where the face regions need to be detected and tracked. In this paper, we present a survey of some of the familiar algorithms that are used for tracking the face(s) in different background challenging video sequences. Mean-Shift is an important algorithm that is based on the displacement of points. Improvisation of Mean-Shift lead to the development of CAMSHIFT; the latter is one of the robust chromatic tracking approach developed till date. KLT is an efficient point tracking algorithm. This paper also includes a survey of different motion estimation algorithms, which are classified as either pixel based or feature based. At the end, recent developments help in knowing the relevant works that are being carried out now a days.

References


23. Ranganatha S and Y P Gowramma, “A Novel Fused Algorithm for Human Face Tracking in Video Sequences”, in Proc. of IEEE International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS), pp.1-6, October 2016. DOI: 10.1109/CSITSS.2016.7779430


32. Yongkang Wong, Shaokang Chen, Sandra Mau, Conrad Sanderson, and Brian C. Lovell, “Patch-Based Probabilistic Image Quality Assessment for Face Selection and Improved Video-Based Face Recognition”, in proc. of IEEE Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), pp.74-81, June 2011. DOI: 10.1109/CVPRW.2011.5981881

33. Ivan Laptev, Marcin Marszalek, Cordelia Schmid, and Benjamin Rozenfeld, “Learning Realistic Human Actions from Movies”, in Proc. of IEEE Conference on Computer Vision and
A Comprehensive Survey of Algorithms for Face Tracking in different Background Video Sequence

Pattern Recognition (CVPR), pp.1-8, June 2008. DOI: 10.1109/CVPR.2008.4587756


Index Terms

Computer Science  Algorithms

Keywords

Face Tracking, Survey, Algorithms, Different Background, Video Sequence, Mean-Shift, CAMSHIFT, KLT, Motion Estimation, Recent Developments.