Extracting Driver's Facial Features During Driving

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Abstract

Abstract—In this paper, a vision system for monitoring driver's facial features is presented. To begin, the driver's face is first located in the input video sequence. It is then tracked over the subsequent images. The facial features of eyes, mouth and head are kept detecting in the course of face tracking. Feature detection and tracking are performed in parall so that the precise can be improved. A number of video sequences with the drivers of different ages and genders under various illumination and road conditions were employed to demonstrate the performance of the proposed system. Future work is on how to extend the system to determine the level of vigilance of the driver.

Keyword：Adaboost detection, mean shift, particle filter, drowsiness determination