

Recognition of sound and warning lights of relief machines by using of audio and digital image processing

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Abstract: Due to the machinations of life in megacities, and the importance of time for rescue vehicles, including ambulances, fire trucks and police cars, the time waiting at traffic lights at intersections less time to reach for the wounded and other victims also will be reduced. The usual way to get attention this type of vehicles using sirens that other drivers are aware of the presence they open the way for their passage out that this approach is not always effective. In this thesis, we have tried to create an intelligent system that detects the status of a four-way line, the time spent police and emergency vehicles to reduce. In this study, the system is divided into two parts. First looking for picture and sound characteristics of the database is available. Video and audio can be extracted for each different characteristic. In the next step can be accessed using optimization algorithms, to those features that have the highest resolution between vehicles. . For the separation between vehicles different Classification can be used in the research of support vector classification (SVM) is used. The vectors can be receive images and sound in the classification of the training and testing. To also best feature is ed genetic algorithm. This algorithm can be used to check the cost of each of the answers that the objective here is to video and audio features.

Keywords : Keywords: genetic algorithms, support vector, audio and video features

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