World Academy of Science, Engineering and Technology
International Journal of Mathematical and Computational Sciences
Vol:14, No:12, 2020

Face Recognition Using Eigen Faces Algorithm

Authors : Shweta Pinjarkar, Shrutika Yawale, Mayuri Patil, Reshma Adagale

Abstract : Face recognition is the technique which can be applied to the wide variety of problems like image and film processing, human computer interaction, criminal identification etc. This has motivated researchers to develop computational models to identify the faces, which are easy and simple to implement. In this, demonstrates the face recognition system in android device using eigenface. The system can be used as the base for the development of the recognition of human identity. Test images and training images are taken directly with the camera in android device.The test results showed that the system produces high accuracy. The goal is to implement model for particular face and distinguish it with large number of stored faces. face recognition system detects the faces in picture taken by web camera or digital camera and these images then checked with training images dataset based on descriptive features. Further this algorithm can be extended to recognize the facial expressions of a person.recognition could be carried out under widely varying conditions like frontal view,scaled frontal view subjects with spectacles. The algorithm models the real time varying lightning conditions. The implemented system is able to perform real-time face detection, face recognition and can give feedback giving a window with the subject's info from database and sending an e-mail notification to interested institutions using android application. Face recognition is the technique which can be applied to the wide variety of problems like image and film processing, human computer interaction, criminal identification etc. This has motivated researchers to develop computational models to identify the faces, which are easy and simple to implement. In this , demonstrates the face recognition system in android device using eigenface. The system can be used as the base for the development of the recognition of human identity. Test images and training images are taken directly with the camera in android device.The test results showed that the system produces high accuracy. The goal is to implement model for particular face and distinguish it with large number of stored faces. face recognition system detects the faces in picture taken by web camera or digital camera and these images then checked with training images dataset based on descriptive features. Further this algorithm can be extended to recognize the facial expressions of a person.recognition could be carried out under widely varying conditions like frontal view,scaled frontal view subjects with spectacles. The algorithm models the real time varying lightning conditions. The implemented system is able to perform real-time face detection, face recognition and can give feedback giving a window with the subject's info from database and sending an e-mail notification to interested institutions using android application.

Keywords : face detection, face recognition, eigen faces, algorithm
Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development
Conference Location : Chicago, United States
Conference Dates : December 12-13, 2020