4th Kuala Lumpur International Conference on Biomedical Engineering, vol. 21(1), 2008, pages 575-578

Image segmentation using watershed transformation for facial expression recognition

Abstract

Facial expression recognition plays an important role in various applications. The most lenient way in expressing emotion is by facial expression. There are several facial features that are affected namely the eyes, eyebrows and mouth. Hence, this paper will highlight the segmentation process to obtain the regions of interest. First and foremost, the face localization is done to obtain the face region. In this phase, the background of the image will be eliminated and certain hair is removed. Then, the image will undergo the watershed transformation. In this paper, the Japanese Female Facial Expression (JAFFE) database is used for experimental purposes.

Keywords — Distance transform, linear hough transform, watershed transformation