World Academy of Science, Engineering and Technology
International Journal of Computer and Systems Engineering
Vol:10, No:12, 2016

A Fast, Reliable Technique for Face Recognition Based on Hidden Markov Model

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Abstract : Due to the development in the digital image processing, its wide use in many applications such as medical, security, and others, the need for more accurate techniques that are reliable, fast and robust is vehemently demanded. In the field of security, in particular, speed is of the essence. In this paper, a pattern recognition technique that is based on the use of Hidden Markov Model (HMM), K-means and the Sobel operator method is developed. The proposed technique is proved to be fast with respect to some other techniques that are investigated for comparison. Moreover, it shows its capability of recognizing the normal face (center part) as well as face boundary.

Keywords : HMM, K-Means, Sobel, accuracy, face recognition
Conference Title : ICIPR 2016 : International Conference on Image and Pattern Recognition
Conference Location : Istanbul, Türkiye
Conference Dates : December 19-20, 2016