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A new approach of facial features' localization using a morphological operation in still and sequence images

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Branislav Vuksanovic; Jianhong Zhou; Antanas Verikas
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Abstract [References](#)

abstract

Facial features' localization is a crucial step for many systems of face detection and facial expression recognition. It plays an essential role in human face analysis especially in searching for facial features (mouth, nose and eyes) when the face region is included within the image. The fundamental technique used in facial analysis is to detect the face and subsequently the associated salient features. In this paper, a new Algorithm is based on morphological properties of the face region for the extraction of salient features is proposed. A morphological operation is used to locate the pupils of the eyes and estimate the mouth position according to them. The boundaries of the allocated features are computed as a result when the features are allocated. This algorithm is applied to individual images subsequently application to video sequences. The experimental results achieved from this work indicate that the algorithm has been very successful in recognizing different types of facial expressions. © (2013) COPYRIGHT Society of Photo-Optical Instrumentation Engineers (SPIE). Downloading of the abstract is permitted for personal use only.

Topics

Eye ; Facial recognition systems ; Mouth ; Nose ; Video

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