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Object Recognition Approach Based on Generalized Hough Transform and Color Distribution Serving in Generating Arabic Sentences

Authors : Nada Farhani, Naim Terbeh, Mounir Zrigui

Abstract : The recognition of the objects contained in images has always presented a challenge in the field of research because of several difficulties that the researcher can envisage because of the variability of shape, position, contrast of objects, etc. In this paper, we will be interested in the recognition of objects. The classical Hough Transform (HT) presented a tool for detecting straight line segments in images. The technique of HT has been generalized (GHT) for the detection of arbitrary forms. With GHT, the forms sought are not necessarily defined analytically but rather by a particular silhouette. For more precision, we proposed to combine the results from the GHT with the results from a calculation of similarity between the histograms and the spatiograms of the images. The main purpose of our work is to use the concepts from recognition to generate sentences in Arabic that summarize the content of the image.

Keywords : recognition of shape, generalized hough transformation, histogram, spatiogram, learning
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