



TEMPLATE MATCHING USING COLOR AND TEXTURE FEATURES

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Abstract

Nowadays, Template Retrieval plays an important role in an extraordinary number of multimedia applications which serve human society. In this manner template matching is a fundamental ingredient for image retrieval. This paper investigates to deal with such problems and focuses first: To extract object from an image and next is how to implement the object matching algorithm effectively, logically and accurately. It begins with the innovative concept of initial low level segmentation of input image, which are used to construct different region merging models on the basis of connected regions. We propose a template matching algorithm that is based on spatially adaptive color and texture. The features are first developed independently and then combined to obtain an overall matching. It is also shown that if we use combination of low level features, matching approach achieves high retrieval accuracy where as matching approach achieves low retrieval accuracy if we use individual features. The proposed method is tested on the dataset Caltech_256 which consists of 256 different image categories. Object matching is an important application in our society such as traffic, surveillance, license plate recognition, Biometric applications.

Keywords and phrases: low level segmentation, similarity measures, region merging, and template matching.

