An Implementation of Effective Logo Matching and Detection using Multiple Descriptors to Enhance the Resolution

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Abstract

In current trends the logos are playing a vital role in industrial and all commercial applications. Fundamentally the logo is defined as it's a graphic entity which contains colors textures, shapes and text etc., which is organized in some special visible format. But unfortunately it is very difficult thing to save their brand logos from duplicates. In practical world there are several systems available for logo reorganization and detection with different kinds of requirements. In some partial occlusions it should be robust to transfer the large range of photometric and geometric features of a logo which they are not captured in isolation. Two dimensional global descriptors are used for logo matching and reorganization. The concept of Shape descriptors based on Shape context and the global descriptors are based on the logo contours. There is an algorithm which is implemented for logo detection is based on partial spatial context and spatial spectral saliency (SSS). The SSS is able to keep away from the confusion effect of background and also speed up the process of logo detection. All such methods are useful only when the logo is visible completely without noise and not subjected to change. These types of methods
are not suitable for practical images where insufficient resolution is the drawback of these methods. To overcome these drawbacks we proposed a multiple descriptors method along with context dependent similarity concept. The multiple descriptors are scale invariant feature transform (SIFT), Speeded up robust feature (SURF), histogram oriented gradient (HOG) and Gradient location and orientation histogram (GLOH). By using this method we assure high resolution and great accuracy.

References

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Index Terms

Computer Science | Image Processing

Keywords

Logo Matching and Recognition, Context Dependent Similarity, Scale Invariant Feature Transform (SIFT), Speeded Up Robust Feature (SURF), Histogram Oriented Gradient (HOG) and Gradient Location and Orientation Histogram (GLOH).