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PROJECT REPORT ON

"DOCUMENT IMAGE RETRIEVAL BASED ON SIGNATURE"

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ABSTRACT

Signature-based Image Retrieval considers retrieval of visually similar images to a given query image from a database of images. In machine readable documents searching, the query consists of a collection of words and it retrieves documents according to user query. The searching can also be performed by graphical objects such as logo, seal, signature, etc., which may enhance the capability of browsing documents from a collection. Often searching a particular signature is important for document interpretation. Signature which has been using as the only identification mark in document is often examined by forensic document analysis, the banking and the finance industry to restrict frauds. As unique and evidentiary entities in this wide range of business and forensic applications, signatures provide an important form of indexing that enables effective exploration of large heterogeneous document image collections. Undoubtedly, automatic signature detection and recognition is an important stage to follow this approach. But, detection of signature from a document page involves difficult challenges due to its free-flow nature of handwriting. The segmentation of signature is not easy sometimes due to its overlapping/touching with other content information (text, graphical lines, etc.) in the document. It is to be noted that the signature strokes are overlapped/touched with handwritten characters in many places. An overlapped region is marked by a rectangular box in the zoomed version. Due to the fact that, signature contains similar feature as of handwritten text, it is difficult to detect signature portions from such documents. Moreover, if signature touches/overlaps the handwritten part of the document image, it is very difficult to segment signature by matching only handwritten strokes information. Thus, signature based document retrieval from a heterogeneous collection is not easy. In this project we focus on the spotting of a query signature in a document by examining the features computed from background zones. Given a single instance of a signature queried by the user, the system has to return a ranked list of document images from the database.