

# Word Segmentation Method for Handwritten Documents based on Structured Learning

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**Abstract** - *In this paper we find out the writer with help of handwriting text document. It is very difficult task because of features of handwritten document based on variation and dissimilarity depend on person. so we have to proposed a new system using algorithm SIFT to identify person based on handwriting.*

**Key Words** : Handwritten text image, MYSQL Database , structured SVM.

## 1.INTRODUCTION:

Segmentation of handwritten document into its basic entities like line, words, curve is consider to be a crucial task in the field of handwriting document identification. different types of task are segmentation of line and segmentation of word procedure. the using SIFT based proposed algorithm is help us to solved the problem of writer identification to use of minimum steps and time to find out writer.

### 1.1 Proposed System:

The proposed method learns the local spatial relationship between text-lines and applies an effective strategy to predict the graph structure for partitioning. For the word segmentation document images are first segmented into text-lines, Then, the word segmentation algorithm (for a single text-line) is applied to individual text-lines. Although the characteristics of inter-word gaps are changing across (and even in) documents, there are strong correlations (e.g., scale) between them in a text-line.

### 1.2 Existing system

handwritten text recognition, larg contributed works to the related issues of classification of character, over transformation, model of language, evaluation of path and search, and estimation of parameter. For over segmentation, connected component analysis has been adopted widely, After candidate generating character patterns by combining consecutive primitive segments, each candidate pattern is classified using a classifier to assign match-unmatch scores to some character classes classification of character involves normalization of character, feature extraction, and design of classifier. Chinese characters classification of classes with large number, the most popularly used classifiers are the modified quadratic Discriminate function (MQDF) and the nearest prototype classifier (NPC).

## 2. SYSTEM DESIGN

In this system we are implement some modules for User.

### 2.1Module

1. Writer Registration and Login:

Every writer first register her information name, mobile no, password, reppassword, email add. Then all information of writer are save. Then writer login in this system.

2. Training the system:

In second module we train the system. we follow different steps like ostus binary image, connected component, isotropic LOG filter, threshold obtain ostus , remove blur and finally stored feature of text image document into a database.

3. Testing the document:

After the training we focused on testing. in this phase matching of feature of input text of database and extracted output text are match. The SIFT algorithm is used to match the feature then writer are identified.

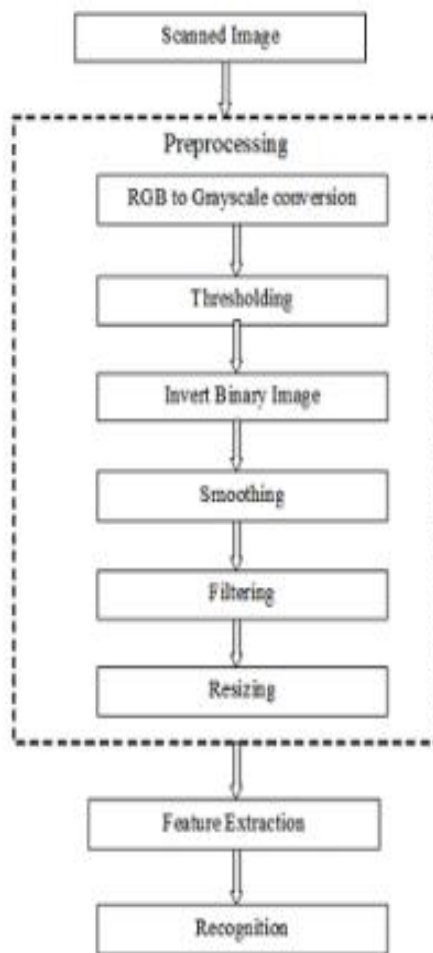


Fig -1: System Architecture

3. CONCLUSIONS

problem as a binary quadratic programming and estimated the parameters with the structured learning method. Due to the proposed formulation, we could take into account the pair wise similarities between word-separators as well as unary properties in the word segmentation. Also, due to the Structured SVM, all parameters are estimated in a principled way and it is believed that our method can be easily extended to other databases.

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