***Character segmentation and recognition of indian devanagari script using matlab***

**Abstract**

Handwriting Recognition has been one of the most challenging research areas in field of image processing and pattern recognition in the recent years. Handwriting recognition principally entails optical character recognition. Recognizing Handwritten Hindi Characters is complex task as characters are written in different curves and style. This Paper describes the implementation of one such Devanagari Character Recognition System comprising stages as Preprocessing, Feature Extraction and Classification. This model achieves the accuracy rate of recognition which ranges from70 % to 80 %. Index Terms – Devanagari Character Recognition, Off-line

Handwriting Recognition, Segmentation, Feature Extraction,

HDCR.

**INTRODUCTION**

Handwritten character recognition assumes considerable importance because of its applicability to pen-based interfaces and recognition of handwriting on scanned documents. There are two paradigms of handwritten character recognition, known as Offline and Online Recognition System. Off-line handwriting recognition involves the automatic conversion of text in an image into letter codes which are usable within computer and text-processing applications. Online recognition involves the use of pen based input devices to capture the sequence of co-ordinate points as the characters are written. This kind of data is known as digital ink and can be regarded as a digital representation of handwriting. This paper presents a system…