

A Stable Pre-processing Method for the Handwritten Recognition System

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ARTICLE INFO

Article History:

Received January 1, 2019

Revised January 31, 2019

Accepted July 12, 2019

Keywords:

TTS, AADMF, CCBE, MFCM-EM.

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ABSTRACT

Pre - processing stage in an Optical Character Recognition (OCR) device ought to be extremely effective versus noise as well as other undesired distortions. A comprehensive preprocessing technique is proposed in this paper, which employs many processes to improve and segment characters such as handwritten Hindi words. Word samples are improved first with an adaptive anisotropic diffusion median filter, which is then filtered with Unsharp Masking (USM) and adaptive histogram equalisation (AHE). Modified Fuzzy C-Means clustering with Expectation Maximization (MFCM-EM) and adaptive thresholding are used to segment the enhanced word into characters. The Peak Signal to Noise Ratio (PSNR) is used to examine enhanced word pictures both subjectively and objectively.

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