UNIFIED CHARACTER RECOGNITION SYSTEM

A project report submitted in partial fulfilment

of the requirements for the degree of

Bachelor of Computer Engineering

Under the guidance of

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##### CERTIFICATE

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**ABSTRACT**

One of the classical applications of Artificial Neural Network is Noisy Character Recognition. Character Recognition finds its applications in a number of areas, such as in banking, security products, hospitals, evaluations of examination papers, answer sheets and even in robotics.

In this project we aim to design and implement a neural network for performing character recognition. Because of the great flexibility in MATLAB’s Neural Network Toolbox, we will be using it for the whole implementation. We mainly focus on the recognition of printed as well as handwritten English alphabets and digits. Also we are focussing on barcode and optical mark recognition. Recognition system recognizes the characters and converts it into typewritten text.

Character recognition involves the automatic conversion of text in an image into letter codes which are usable within computer and text-processing applications. The data obtained by this form is regarded as a static representation. There are many fields that are concerned with recognizing handwritten or printed characters, for example recognizing checks in banks, or to simplify the recognition of hand filled forms in various institutions.

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