

HANDWRITTEN NUMBER RECOGNITION USING ARTIFICIAL NEURAL NETWORKS

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Handwritten number recognition is a mechanism used for converting hand written numbers/digits to computer text codes. It can be a very useful tool in any situation where direct entry of data into a computer is difficult; for example postal codes, bank account numbers and car number plates.

In this study a system is developed to read and recognize series of handwritten numbers such as customer's account numbers and deposit amount written on bank deposit slips.

Reading the digit patterns from the slip and recognizing them as numerical values is addressed through several phases. Reading the digits process mainly involves rotating the slip to get the image scanned into a proper orientation and segmentation which separate each digit image. Recognizing the segmented digital images process follows skeletonization, resizing and feature extraction as well the use of back propagation Artificial Neural Network to classify digits.

The results show that the approximately 90% of accuracy level could be achieved using the above technique.