Handwritten bank check recognition of courtesy amounts

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Abstract— In recent years, a number of large–scale applications continue to rely heavily on the use of paper as the dominant medium, either on intra-organization basis or on inter-organization basis, including paper intensive applications in the check processing application. In many countries, the value of each check is read by human eyes before the check is physically transported, in stages, from the point it was presented to the location of the branch of the bank which issued the blank check to the concerned account holder. Such process of manual reading of each check involves significant time and cost. In this research, a new approach is introduced to read the numerical amount field on the check; also known as the courtesy amount field. In the case of check processing, the segmentation of unconstrained strings into individual digits is a challenging task because one needs to accommodate special cases involving: connected or overlapping digits, broken digits, and digits physically connected to a piece of stroke that belongs to a neighboring digit. The system described in this paper involves three stages: segmentation, normalization, and the recognition of each character using a neural network classifier, with results better than many ley methods in the literarature

Index Terms—

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