**ABSTRACT**

**Optical Character Recognition (OCR)** is used when a scanned document or photo is taken and converted into text. It is widely used as a form of data entry from printed paper records whether passport documents, invoices, bank statements, computerized receipts, business cards, mail, or any suitable computerized printouts of data. OCR is a field of research in pattern recognition, artificial intelligence and computer vision.

Early versions needed to be trained with images of each character, and worked on one font at a time. Advanced systems capable of producing a high degree of recognition accuracy for most fonts are now common, and with support for a variety of digital image file format inputs. Some systems are capable of reproducing formatted output that closely approximates the original page including images, columns, and other non-textual components.

In this project work, our use case is payment card recognition and its owner details retrieval, where given an input image, we wish detect the location of the credit card in the image, localize the four groupings of four digits, pertaining to the sixteen digits on the credit card, Apply OCR to recognize the sixteen digits on the credit card, Recognize the type of credit card (i.e., Visa, MasterCard, American Express, etc.), Retrieval of owner details.

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