LITERATURE SURVEY

S.NO	PAPER TITLE	TECHNOLOGIES USED	DESCRIPTION
1.	Handwritten digit recognition is a translational problem of human writings into machine editable text format. Author – Ganesh Khekare Year-2021.	Convoluted Neural Network Algorithm.	In this paper, Convolutional Neural Networks (CNN) is presented for handwritten digit recognition. Edges of the extracted graph were categorized into shape types and vertices were extracted from each of the edges and their layer wise evaluation using deep learning
2.	Handwritten Digit Recognition using Machine Learning . Author – Nazmule Siddique Year – 2021.	Multilayer Perceptron, Support Vector Machine, Naïve Bayes, Bayes Net, Random Forest, J48 and Random Tree have been used for the recognition of digits using WEKA.	Handwritten character recognition is one of the practically important issues in pattern recognition applications. In SVM it's better to scale the data always; because it will extremely improve the results. Therefore be cautious with big datasets, as it may lead to an increase in the training time.
3.	A progressive learning approach for low resource handwritten text recognition. Author- Mohamed Ali Souibgui Year-2022	Multidimensional Long ShortTerm Memory (MDLSTM)	Handwritten text recognition in low resource scenarios, such as manuscripts with rare alphabets, is a challenging problem. We propose a few-shot learning-based handwriting recognition approach that significantly reduces the human annotation process, by requiring only a few images of each alphabet symbol.
4.	Recognition of Handwritten Digit using Convolutional Neural Network in Python with Tensorflow and Comparison of Performance for Various Hidden Layers Year-2019	Convolutional Neural Network (CNN), Deep learning, MNIST dataset, Epochs, Hidden Layers, Stochastic Gradient Descent, Backpropagation	CNN is used to classify handwritten digits using various numbers of hidden layers and epochs and to make the comparison between the accuracies.For this performance evaluation of CNN, we performed our experiment using Modified National Institute of Standards and Technology (MNIST) dataset. Further, the network is trained using stochastic gradient descent

			and the backpropagation algorithm
5.	Handwriting Recognition using Artificial Intelligence Neural Network and Image Processing. Year-2020	Support vector machine, neural network.	Support Vector Machine, which is a discriminative classifier, is considered as one of the models that can be effective in developing handwriting recognition systems .Unlike neural networks, SVM approach relies on learning examples and structural behavior]. Has better generalization due to structural risk minimization
6.	Handwritten Digit Recognition using CNN Year-2019	K-Nearest neighbor(KNN), Support Vector Machine(SVM), Random Forest Classifier(RFC) and Convoluted Neural Network(CNN)	In this paper, the most widely used Machine learning algorithms, KNN, SVM, RFC and CNN have been trained and tested on the same data in order to acquire the comparison between the classifiers.
7.	Review on Deep Learning Handwritten Digit Recognition using Convolutional Neural Network. Year-2021	Object Character Recognition (OCR),K - nearest neighbors(KNN)	In this paper, Object Character Recognition (OCR) is used on printed or documented letters to convert them into text. The database has a training image database of 60,000 images and a testing image database of 10,000 images. The KNN algorithm describes categorical value by making use of the majority of votes of K - nearest neighbors, the K value used to differ here.