S.NO	TITLE OF THE PAPER	AUTHORS	PROBLEMS ADDRESSED BY THE PAPER	CONCEPT USED	LIMITATIONS OF THE SYSTEM	REFERENCEE
1	A method for handwritten recognition using Deep Learning	Rohini.M , Dr.D.Surendran	In this paper, the author compares the results of some of the most widelyused Machine Learning Algorithms like CNN- convolution neural networks and with Deep Learning algorithm like multilayer CNN using Keras with Theano and Tensorflow.	CNN MultilayerPerceptron	The complexity of the code and the process is bit more ascompared to normal Machine Learning algorithms	http://troindia.in/journal/ijcesr/vol6iss6part2/32-36.pdf
2	A novel method for Handwritten Digit Recognition with Neural Networks	MALOTHU NAGU, N VIJAY SHANKAR, K.ANNAPURNA	Two techniques researchedin this paper are Pattern Recognition and Artificial Neural Network (ANN). Both techniques are defined and different methods for each techniqueis also discussed.	Bayesian Decision theory Nearest Neighbor rule Linear Classification	The system had more trouble identifying numeral —5. This maybecaused by the fact that the digit is running together or maybe it is not fully connected. The system was not stable.	http://ijcsit.com/docs/Volume%202/vol2issue4/ijcsit2011020463.pdf
3	Improved handwritten digit recognition using convolutional neural networks (cnn)	Savita Ahlawat, Amit Choudhary	To explore the various design options like number of layers, stride size, receptive field, kernel size, padding and dilution for CNN-based handwritten digit recognition.In addition, the paper aims to evaluate various SGD optimization algorithms in improving the performance of handwritten digit recognition.	Determine accuracy and efficiency using Convoltional neuralnetwork with two layers on with 32 images and another with 64 images withsome neurons on each layer.	After completion of training with dataset The accuracy of neural network was found tobe 92.6% for training set and for test set it was 90.1% which was a little lower than the previous papers.	https://www.mdpi.com/1424-8220/20/12/3344/pdf
4	HandwrittenDigit RecognitionUsing CNN	Mayank Jain, Gagandeep Kaur, Muhammad Parvez Quamar	This paper thinks about theexhibition of ConvolutionalNeural Network (CCN). Results demonstrate that CNN classifier beat over Neural Network with criticalimproved computational effectiveness without relinquishing execution.	Author has focused mainly on neural network approaches. Three approaches comparedand evaluated for their accuracy and efficiency. Author concluded with moreefficient approach as CNN.	cross breed CNN, viz., CNN-RNN and CNN-HMM models, and space explicitacknowledgment frameworks, are not researched.	https://ieeexplore.ieee.org/document/9388351

5	Handwritten Digit Recognition using Convolutional Neural Networks and Gabor filters	Andr´es Calder´on, SergioRoa and Jorge Victorino	A novel type of convolutionalnetwork was implemented using Gabor filters as feature extractors at the first layer. A backpropagation algorithm specifically adapted to the problem was used in the training phase for the rest of layers.	A boosting method wasapplied to improve the results by using expertsthat learn different distributions of the training set and combining its results	network pruning and variations in connection and feature mapping policies were not involved. Furthermore, modification of Gabor filters parameters, improvements of committee machines and development of better learning algorithms and network topologies are notstudied.	https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.133.6559&rep=rep1&type=pdf