**Literature Survey:**

Prepare below table after reading and analysing IEEE Papers:

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| **Sr. No** | **Title of Paper** | **Name of Authors** | **Published Year** | **Remarks** |
| 1. | Handwritten Digit Recognition using Machine Learning Algorithms | S M Shamim, Mohammad Badrul Alam Miah, Angona Sarker, Masud Rana. | 2018 | Here, they used Waikato Environment for Knowledge Analysis (WEKA) is a prominent suite of machine learning which is written in Java |
| 2. | Handwritten Digit Recognition of MNIST dataset using Deep Learning state-of-the-art Artificial Neural Network (ANN) and Convolutional Neural Network (CNN) | Drishti Beohar, Akhtar Rasool. | 2021 | Convolutional Neural Network and Artificial Neural Network are trained and tested with the MNIST dataset. The models used the ReLU activation function and SoftMax activation function. The ADAM optimizer was used for decreasing the loss. |
| 3. | Handwritten Digit Recognition Using Various Machine Learning Algorithms and Models | Pranit Patil, Bhupinder Kaur. | 2020 | Here, they did a research survey and they have founded that by using Convolutional neural network (CNN) accuracy increase to the 99.89%. Similarly, Double Q learning algorithm also given high accuracy only in MATLAB dataset. |
| 4. | Handwritten Digit Recognition using Machine and  Deep Learning Algorithms | Ritik Dixit,  Rishika Kushwah,  Samay Pashine. | 2021 | Here, handwritten digit recognition using MNIST datasets, based on deep and machine learning algorithms. Convolutional neural network (CNN) deep learning algorithm is used. |
| 5. | Handwritten digit recognition using OpenCV and CNN | Swetha, Hithaishi,  Tejaswini, Parthasaradhi, Venkateswara Rao. | 2021 | Here, they used conventional neural network (CNN) and OpenCV, a machine learning library for HDR. |

**(Remarks: It will include all the points that you understand from the paper. Such as methodology, algorithms, advantages, disadvantages, applications, etc.)**

**Recent 3 years…..**