

S.No	Title	Author name	Year of Publication	Objective Pros & Cons
1	Improving Offline Handwritten Text Recognition with Hybrid HMM/ANN Models	Salvador Espan˜a-Boquera, Maria Jose Castro-Bleda, Jorge Gorbe-Moya, and Francisco Zamora-Martinez	2011	The use of hybrid Hidden Markov Model (HMM)/Artificial Neural Network (ANN). PROS: It also presents new techniques to remove slope and slant from handwritten text and to normalize the size of text images with supervised learning methods. CONS: The recognition is based on hybrid optical HMM/ANN models, where an MLP is used to estimate the emission probabilities.
2	Online Handwriting Recognition for Tamil	K.H. Aparna, Vidhya Subramanian, M. Kasirajan, G. Vijay Prakash, V.S. Chakravarthy, Sriganesh Madhvanath, Hewlett-Packard	2004	A handwritten character is constructed by executing a sequence of strokes. PROS: A structure- or shape-based representation of a stroke is used in which a stroke is represented as a string of shape features. CONS: Some of the manual analyses used in the present work can be partly automated. For example, stroke labeling for a given script could be done directly by clustering strokes and giving them machine-generated labels.
3	A Genetic Algorithm Based Feature Selection for Handwritten Digit Recognition	<a href="#">Savita Ahlawat</a> and <a href="#">Rahul Rishi</a>	2019	This paper gives emphasis on the feature selection process and proposed a genetic algorithm based feature selection technique for handwritten digit recognition. PROS: The method utilizes a genetic algorithm based feature selection for selecting best distinguishable features and k-nearest neighbour for evaluating the fitness of features of handwritten digit dataset.  CONS: The experiment results show the effectiveness of the proposed approach.
4	HANDWRITTEN NUMERIC RECOGNITION USING SUPPORT VECTOR MACHINE TECHNIQUE IN MACHINE LEARNING.	K.V.K.SASIKANTH,Y.VINEETHA, P.SUPRAJA, K.V.MOHAN KRISHNA, SAGAR MANDAL.	2019	Handwritten Numeral recognition plays a vital role in postal automation services. This is an important but very hard practical problem. Digit recognition is used in post offices, in banks for reading cheques, for license plate recognition, for street number recognition. PROS: Many applications use SVM for solving the classification problem, especially those for handwritten digit recognition. The SVM is

				used to improve classification accuracy. CONS: In the existing system, spatial information is lost which is important for classification. Using, Support Vector Machine, we overcome this problem which provides best classification.
5	Devnagari numeral recognition by combining decision of multiple connectionist classifiers.	REENA BAJAJ , LIPIKA DEY and SANTANU CHAUDHURY.	2002	This paper is concerned with recognition of handwritten Devnagari numerals. The basic objective of the present work is to provide an efficient and reliable technique for recognition of handwritten numerals. PROS: A multi-classifier connectionist architecture has been proposed for increasing reliability of the recognition results. Experimental results show that the technique is effective and reliable. CONS: Use of multiple classifiers using the meta-pi network is another significant feature of this work. A complete hierarchical recognition architecture has been suggested in this work. This architecture is applicable for any character recognition problem.
6	Fuzzy model based recognition of handwritten numerals	M.Hanmandlu,O.V.Ramana Murthy.	2007	This paper presents the recognition of handwritten Hindi and English numerals by representing them in the form of exponential membership functions which serve as a fuzzy model. PROS: The recognition is carried out by modifying the exponential membership functions fitted to the fuzzy sets. These fuzzy sets are derived from features consisting of normalized distances obtained using the Box approach. CONS: The membership function is modified by two structural parameters that are estimated by optimizing the entropy subject to the attainment of membership function to unity. The overall recognition rate is found to be 95% for Hindi numerals and 98.4% for English numerals.