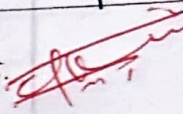
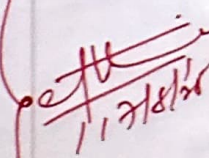
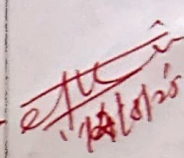
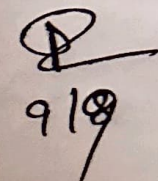
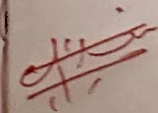
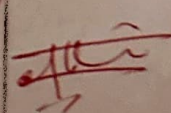
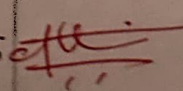
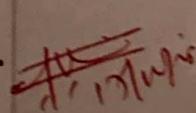
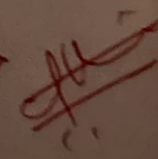


Serial. No.	Topic.	Date.	Signature
1/	Exploring the Deep Learning Platforms & Frameworks	31/07/2025.	
2/	Implement a Classifier using an open-source dataset	7/8/2025	
3/	Study of Classifiers with respect to Statistical Parameter	7/8/2025	
4/	Build a simple feed forward network to recognize handwritten character	14/8/2025	
5/	Study of Activation Functions and its role	9/9/2025	
6/	Implement gradient descent and backpropagation in deep neural network.	13/9/2025	
7/	Build a CNN model to classify Cat & dog image	13/9/2025	
8/	Experiment using LSTM	13/9/2025	
9/	Build a Recurrent Neural Network	13/9/2025.	
10/	Perform compression on MNIST	02/11/25	
11/	Experiment using VAE		
12/	Implement a DCGAN		
13/	Understand pre-trained model		
14/	Transfer Learning		
15/	YOLO Model		

Completed



## Exp-14 - Transfer Learning

Aim:

To implement a pre-trained CNN model (Resnet18) as a feature extractor using transfer learning.

Objective:

To use learned features from a pre-trained model to train a classifier on a new dataset efficiently.

Algorithm:-

- 1) Import required libraries.
- 2) Load a pre-trained CNN
- 3) Freeze convolutional layers.
- 4) Replace the final classification layer.
- 5) Train the new layer on small dataset.
- 6) Evaluate the model.

Observation:-

The model converges faster and achieves higher accuracy using pre-trained features.

Result:

The experiment was carried out successfully.

Model ready on: cpu

Training Accuracy: 92.4%

Validation Accuracy: 90.8%

Loss: 0.24