Department of Artificial Intelligence & Machine Learning Engineering

Mid Semester Examination – April 2025

Subject: Computer Vision (IPCC)   **Sub. Code: AM3002-1**

Semester: VI

PART A

1. Write a program in python to perform various basic image processing operations: Reading image, writing image, conversion of images, and complement of an image using OpenCV.

2. Write a program in python to read and display the videos using OpenCV.

3. Write a program in python to resize, crop and rotate an image using OpenCV.

4. Write a program in python to implement the various image filtering mechanisms using OpenCV

5. Write a program in python to demonstrate Bitwise Operations on Binary Images using OpenCV.

6. Write a program in python to Draw different geometric shapes and to write text on images using OpenCV.

7. Write a program in python to perform different Morphological operations on images based on OpenCV

8. Implement different Thresholding techniques on images using openCV.

9. Implement Edge detection and Contour detection on images using openCV.

PART B

1. Write a program in python to demonstrate image enhancement using contrast adjustment and histogram equalization using OpenCV.

2. Demonstrate Haar feature-based cascade classifiers for Face and Eye Detection on images.

3. Write a program in python to demonstrate Handwritten Digit Recognition on MNIST dataset.

4. Develop a classification model using YOLO object detection algorithm using OpenCV.

5. Write a Python program to demonstrate image data augmentation techniques.

6. Write a Python Program to demonstrate feature extraction and t-SNE Visualization.

7. Write a Python Program to implement reverse image search engine using keras.

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