

# Mechatronics Engineering and Automation Program

CSE480: Machine Vision

Lab Assignment #03



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## Task 1:

transform a portrait or landscape image into an artistic sketch-style version using edge detection and image enhancement techniques. You will begin by enhancing the image contrast through histogram equalization, then extract edges using both the Laplacian and Canny operators to observe their visual differences. Finally, you will create an artistic effect by blending the detected edges with the original image to produce a soft, sketch-like result that highlights the scene's structural details.

## Task 2:

Enhance and detect the face region using only image processing and feature extraction techniques without relying on pretrained classifiers (e.g., Haar cascades). Keep the detected face area sharp while blurring the background.