

**Computer Vision (AI319)**

**Assignment No. 2nd**

**Problem Statement:** Given the provided code for canny edge detector. You are requested to complete the following tasks:

* Plot the images of after each step and briefly explain what you have observed. For instance, After the Smoothing step what is the effect of smoothing on the input image?

You can get some inspiration from this github repo:

<https://github.com/Digital-Image-Processing-kosta/Canny-edge-detection-algorithm>

* Experiment with different parameters of the algorithm (One attempt for each of the following):
  + Use any other smoothing filter and briefly explain its effect on the input as compared to the gaussian filter.
  + Use alternative to sobel operators and briefly explain its effect as compared to the default sobel operator seen in the class. You can check the alternative operators here: <https://en.wikipedia.org/wiki/Sobel_operator>
  + Experiment with the threshold values and check what are the optimal values for almost perfect edge detection and compare your final edge detections with opencv canny algorithm.
* The code can be found here:

<https://colab.research.google.com/drive/1vtIk47_AiLwFGbFNCeDaSPSAPZ3BC57?usp=sharing>