**DS-328 Computer Vision**

Assignment # 1 Hand in date: 19/6/23

Spring 2023 Hand out date: 25/6/23

Individual assignment

**Topic: Image Filtering**

* Write detailed note on image filtering techniques with examples including definition, filter or kernel description and filtering process.
* Write python code to implement the following three linear filters and one non-linear filter in without using built-in functions. Use at least 5 different images form five different categories for example buildings, people, vehicles, mountains and trees etc.
* Observe differences in results and write comparative note based on your observations e.g., what type of filter is best for which image category and why.
  + Linear filters
    - *Box filter*
    - *Gaussian filter*
    - *Sobel filter*
  + Non-linear filter
    - *Median filter*
* Submission: Soft form submission on 25/6/23, Sunday

Hard form submission on 26/6/23, Monday