

CSC 3141 - IMAGE PROCESSING LABORATORY (2022/2023)
Assignment 04 – Intensity Transformations

Due date: March 26th 2024, 11.59 pm

This assignment requires you to practice using arithmetic & logical operations and the intensity transformations on digital images using OpenCV-Python library.

You are required to submit the python script and the screenshots. DO NOT submit the answers using a zip file. Directly upload the files into your submission thread.

1. Extract only the Orion constellation from the given image, **orion_spinelli_c1.jpg** (See the Figure 1). You may use one or more blur functions (**cv2.blur** | **cv2.medianBlur** | **cv2.GaussianBlur**), arithmetic & logical operations and necessary thresholding techniques.



Figure 1: Extracted Orion Constellation

2. Find out all the numbers (there is a hidden number in the image which cannot be seen with the naked eye) included in the image by using a suitable thresholding method. Visualize the output image, in which all the numbers are visible, using Matplotlib.

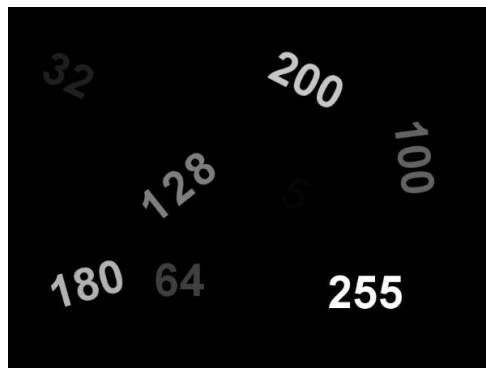


Figure 2: Numbers Image