CS 314 - IMAGE PROCESSING PRACTICAL (2020/2021)
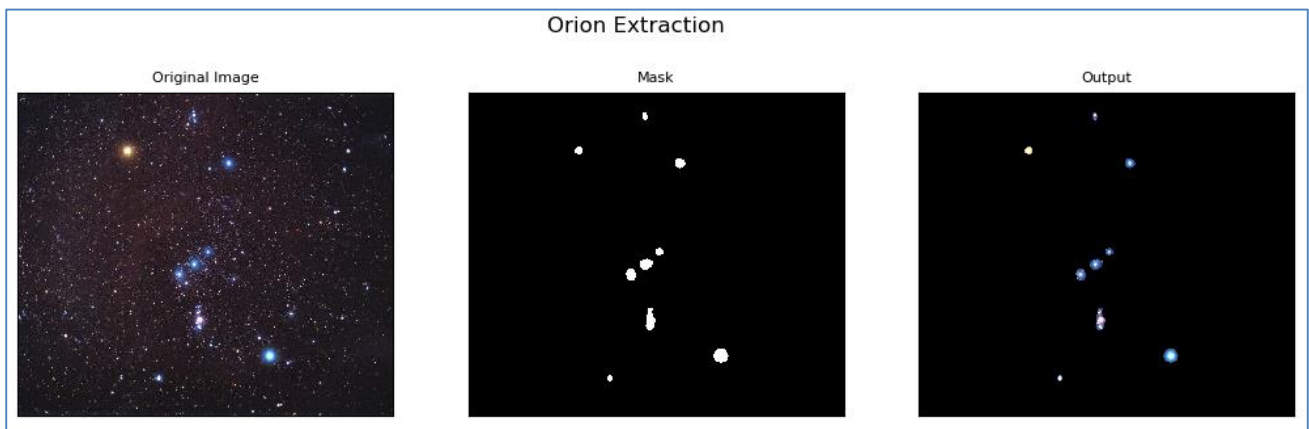## Assignment 04 – Intensity Transformations

Due date: August 2nd 2022, 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.
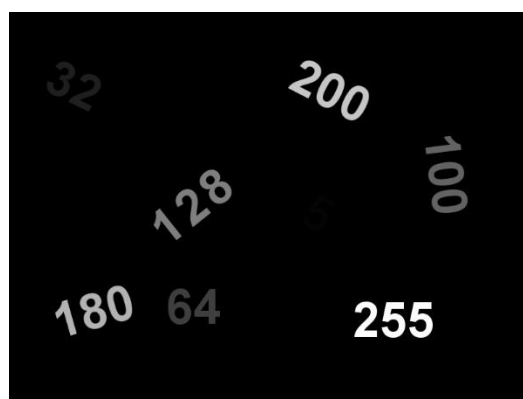
1. Extract only the Orion constellation from the given image, **orion_spinelli_c1.jpg** (See the Figure 1). You may use one or more blur functions (`cv2.blur | cv2.medianBlur | cv2.GaussianBlur),` arithmetic & logical operations and necessary thresholding techniques.

Figure 1: Extracted Orion Constellation

2. Apply all 11 thresholding types discussed, on the given image (Figure 2) and visualize the resulting all 12 images using a single pyplot figure.
As the next step, find out all the numbers included in the image. You may proceed with trial and error technique to determine the suitable global threshold value in order to observe all the numbers.

Figure 2: Numbers Image