ECE 551
H/W-2 (30 points)
Due: Monday, Sept. 25 before class

HW2 Assignment – Center Operation

Let's do some further works with the following CSUN logo image shown in Fig1. The goal is placing the school logo at the center as shown in Fig2.

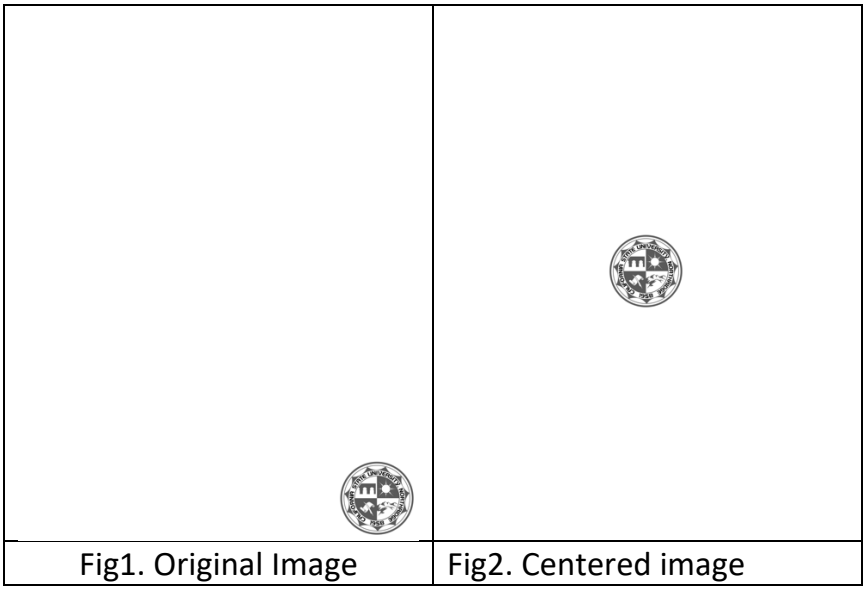

Fig1. Original Image | Fig2. Centered image

In this HW assignment, we will continue to practice working with images in MATLAB by writing a code. Our task for this assignment is to implement the center operation on 8-bit grayscale image. The center operation involves several steps:

1. Assume that the background intensity value is the same as the intensity value of the upper-left pixel.
2. Detect a bounding box of the non-background pixels to define the foreground of the image, i.e., CSUN logo.
3. Translate the foreground pixels to the center of the image.

To ensure clarity and completeness in your code, make sure to include the following comments:

- Your name, date, and HW number, i.e., HW2, at the top of your code
- Comments throughout your code to explain the major blocks of logic.
- Comments that describe the purpose and usage of variables

By documenting your code thoroughly and following the guidelines, you will be more likely receive full credit for this assignment.

Upload your MATLAB code with your outcome, i.e., the centered logo image on Canvas.

If you can’t complete the task, please upload what you have. According to your completeness, I will give you a partial credit.