

# Assignment Alpha-trimmed mean filter

## Model Answer

The student should deliver a method of representing an image Using Alpha-trimmed mean filter equation

Deliverables:

1. The code should be readable, easy to understand and not copied or download from the internet and no use of ready-made function. (3 marks).
2. Algorithm for an alpha-trimmed mean filter: Pick up the neighborhood place a window over them, Organize the pixels remove the elements at the start and the end of the ordered set (D), Make an average by adding together the remaining components and dividing the result by the total number of components. (3 marks)

**Note:** Different approaches that are logically correct are accepted.

3. The code should output the original noisy image and apply the following equation to obtain the output image with different D values. (2 marks)

### Alpha-trimmed mean filter

$$\hat{f}(x, y) = \frac{1}{mn - d} \sum_{(s,t) \in S_{xy}} \{g_r(s, t)\}$$

4. The output of this process should be correct and as demonstrated in the lecture and lab. (2 mark)

(Total marks 10 marks)

Output example.

with different D values

