

## *Assignment 2*

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### Answer to Question 2

$J, T = \text{histeq}(I)$

1) 1.jpg

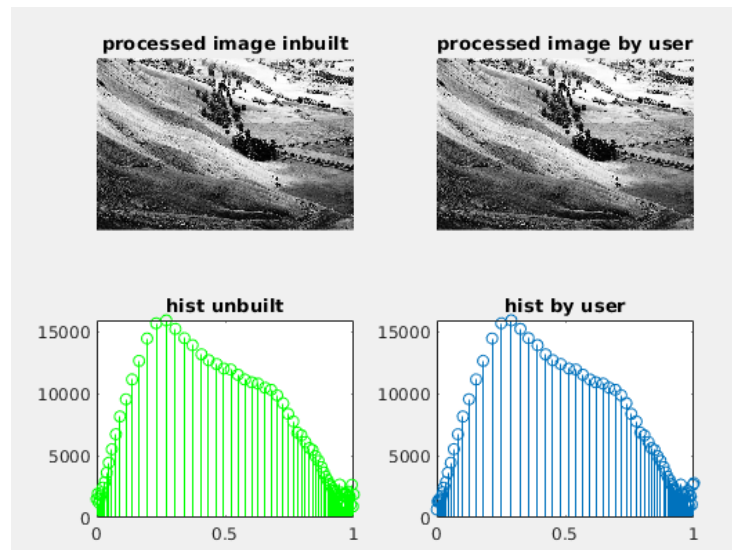


Fig 1-Processed image by inbuilt and user-defined function with histograms

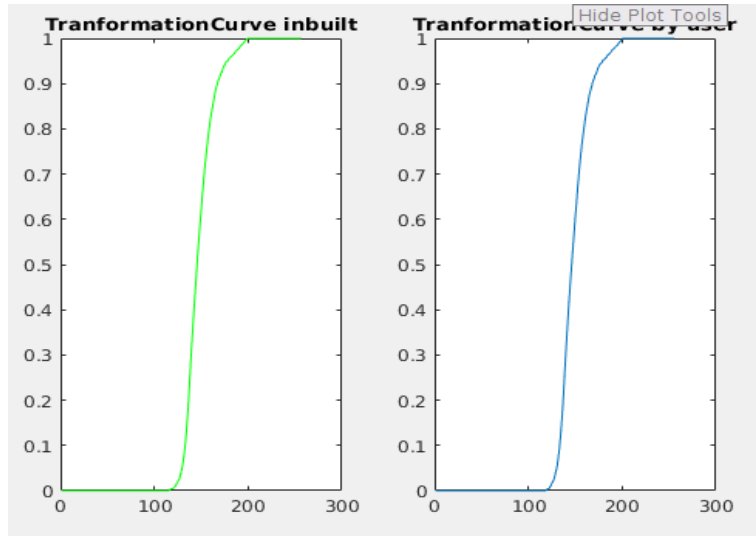


Fig 2- T vector curves obtained by inbuilt and user defined function

*Comments:*From fig 1 we can say that both the processed images obtained after applying inbuilt and user defined function are sam.Also, the histograms are same. Similarly, from fig 2 Transformation vectors are also same.

b) cameraman.tif

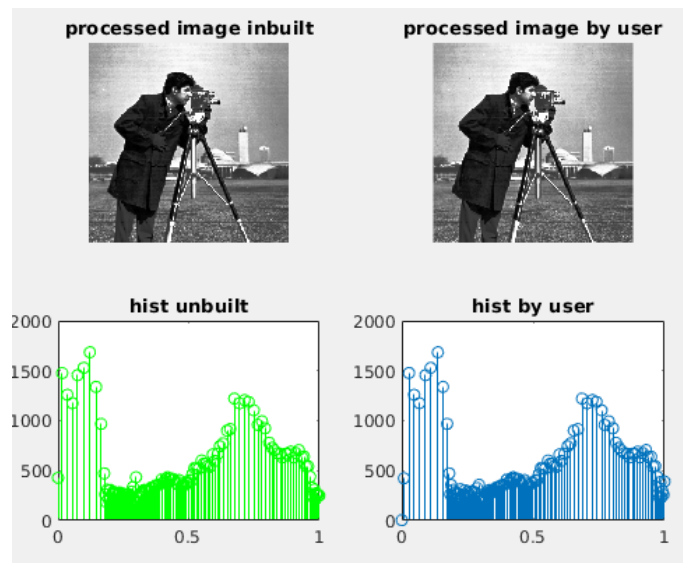


Fig 3-Processed image by inbuilt and user-defined function with histograms

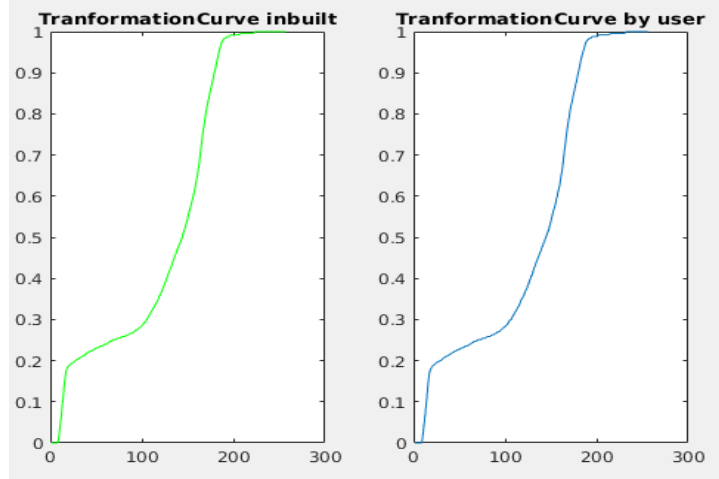


Fig 4- T vector curves obtained by inbuilt and user defined function

*Comments:* From fig 3 we can say that both the processed images obtained after applying inbuilt and user defined function are same. Also, the histograms are same. Similarly, from fig 4 Transformation vectors are also same.

2)  $J = \text{histeq}(I, n)$

1) 1.jpg

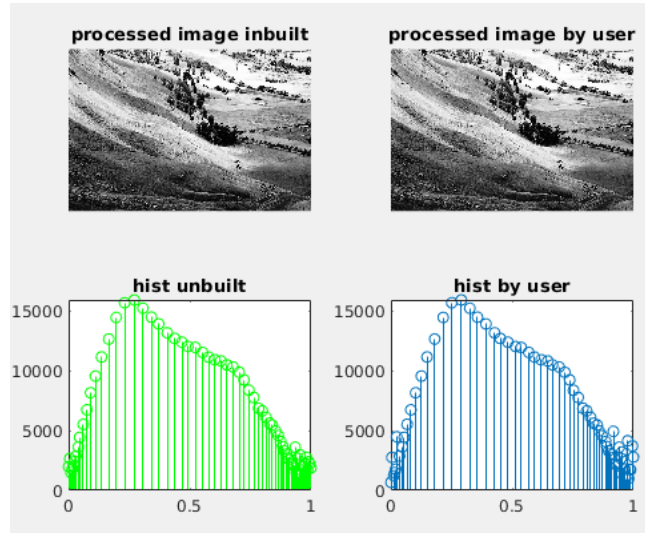


Fig 5-Processed image by inbuilt and user-defined function with histograms with 200 bins

*Comments:*From fig 5 we can say that both the processed images obtained after applying inbuilt and user defined function are same for number of bins provided.

b) pout.tif

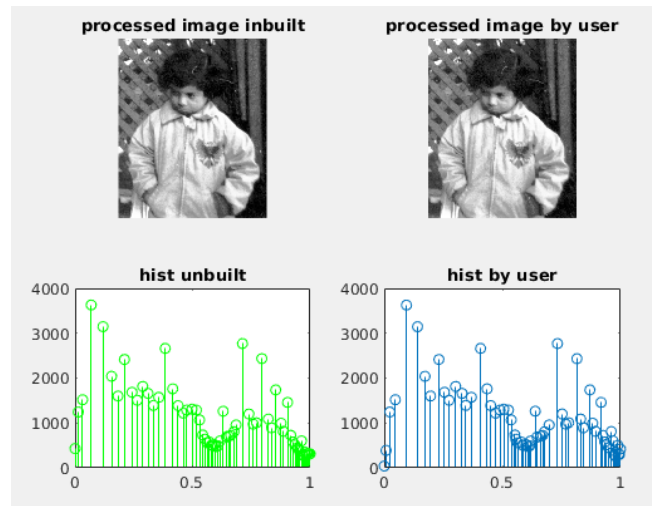


Fig 6-Processed image by inbuilt and user-defined function with histograms with 220 bins

*Comments:*From fig 6 we can say that both the processed images obtained after applying inbuilt and user defined function are same for number of bins provided.

c) cameraman.tif

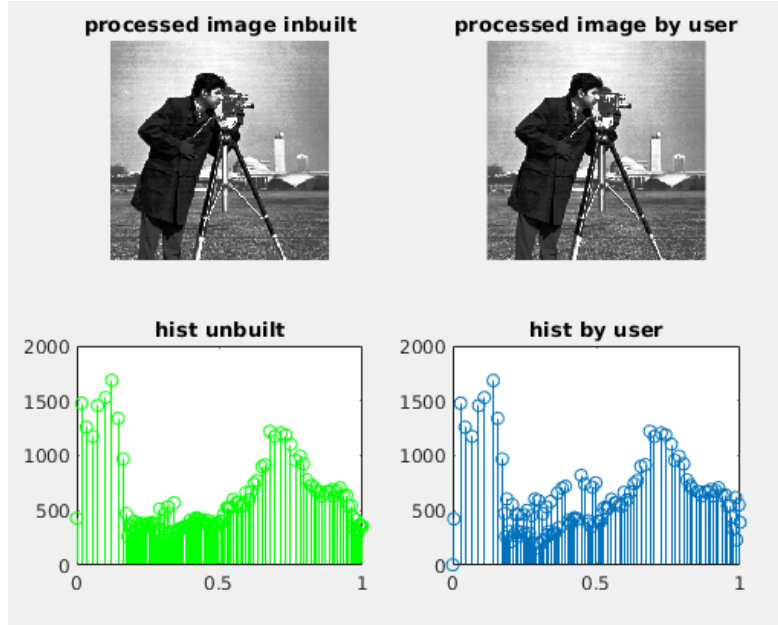


Fig 7-Processed image by inbuilt and user-defined function with histograms with 180 bins

*Comments:* From fig 7 we can say that both the processed images obtained after applying inbuilt and user defined function are same for number of bins provided.

3)  $J = \text{histeq}(I, I1, \text{verbose\_fig})$

1) Source image histogram= pout.tif, target image histogram=cameraman.tif

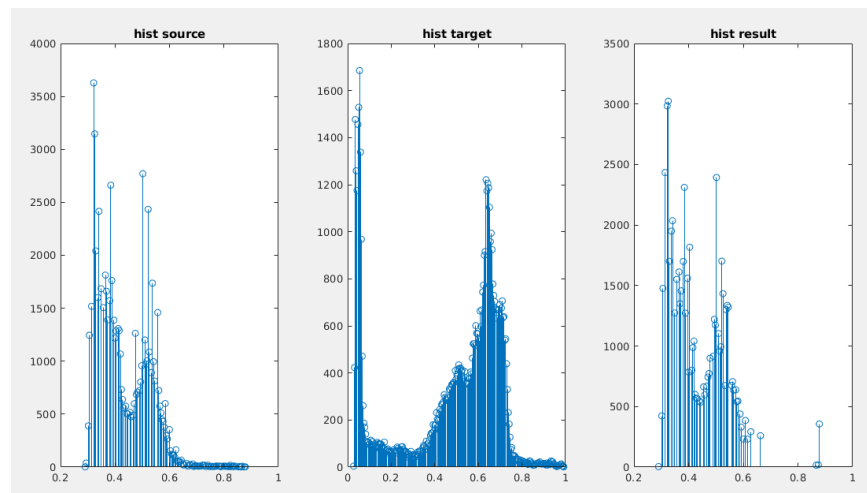


Fig 8- Histograms of the source image, target image and the resultant image

*Comments:*From fig., we can say that the source image has roughly matched to the target image.

b) Source image histogram= cameraman.tif, target image histogram=1.jpg

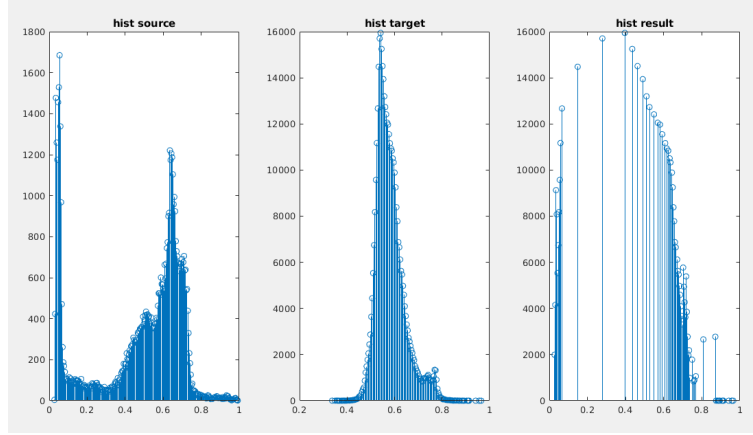


Fig 9- Histograms of the source image, target image and the resultant image

*Comments:*From fig., we can say that the source image has roughly matched to the target image.

c) Source image histogram= pout.tif, target image histogram=1.jpg

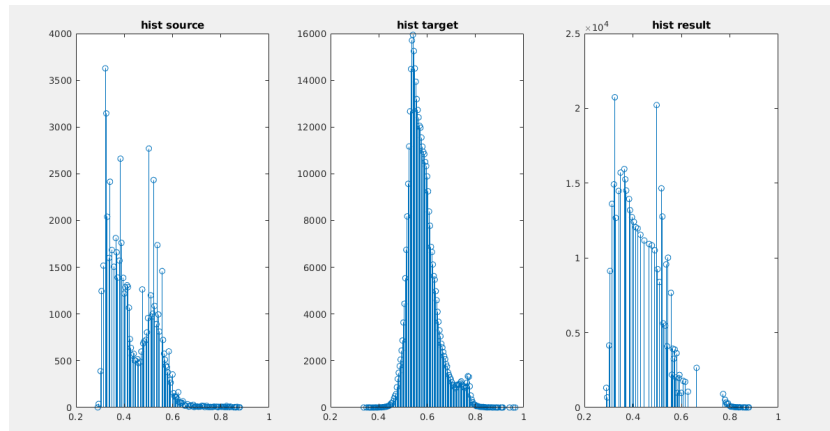


Fig 10- Histograms of the source image, target image and the resultant image

*Comments:* From fig., we can say that the source image has roughly matched to the target image.

4) `J=histeq(I,hgram)`  
a) `cameraman.tif`

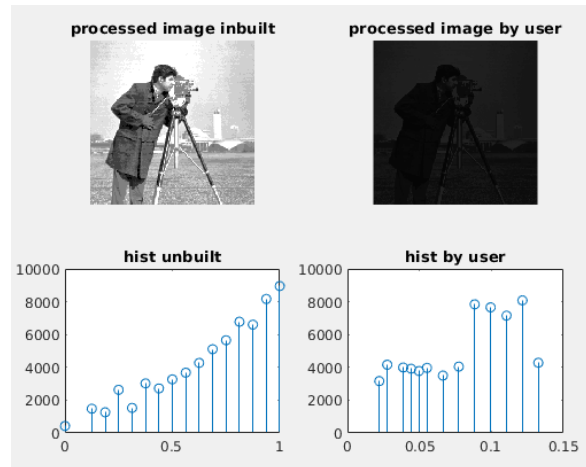


Fig 11- Processed image and their histograms by inbuilt and user defined functions

*Comments:* The histograms of both the images is very slightly matching.

b) 1.jpg

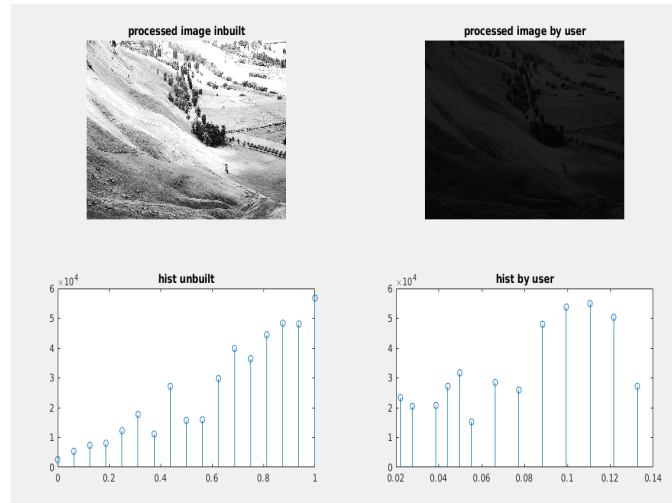


Fig 12- Processed image and their histograms by inbuilt and user defined functions

*Comments:* The histograms of both the images is very slightly matching.