

Appendix A

Example of the image segmentation and classification

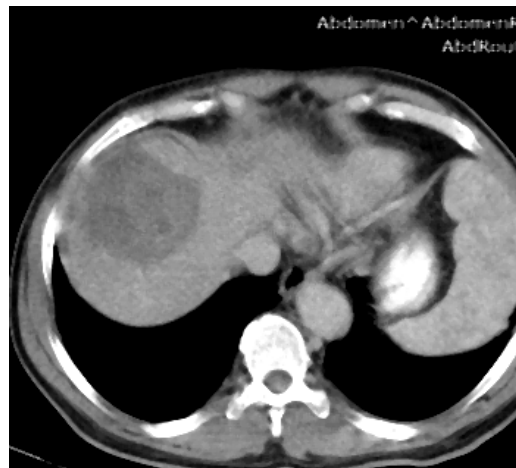


Figure 1-A original CT image

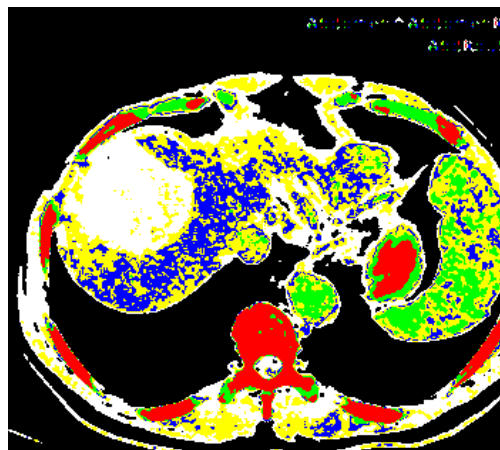


Figure 1-B a classification map for the image shown in Figure 1-A using pixel classification

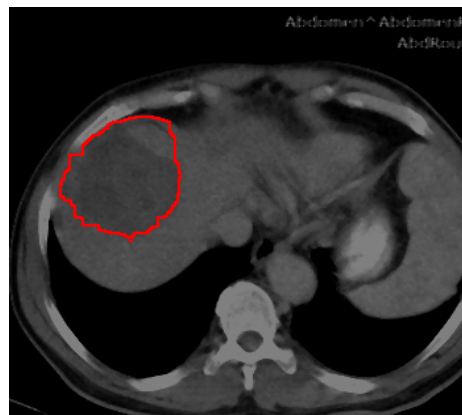


Figure 1-C original CT image in Figure 1-A with demarcation of liver outline using region growing

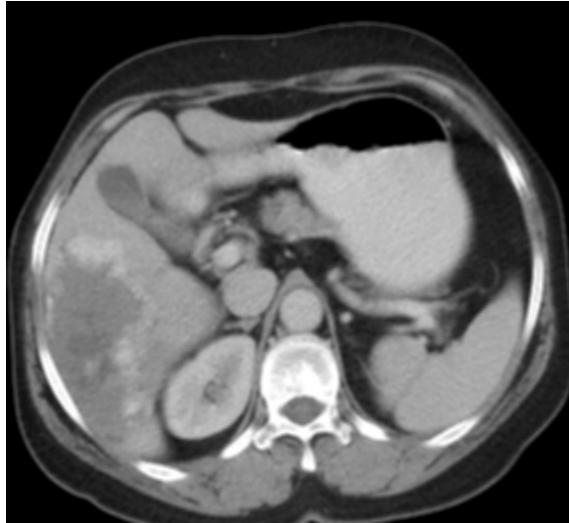


Figure 2-A original CT image

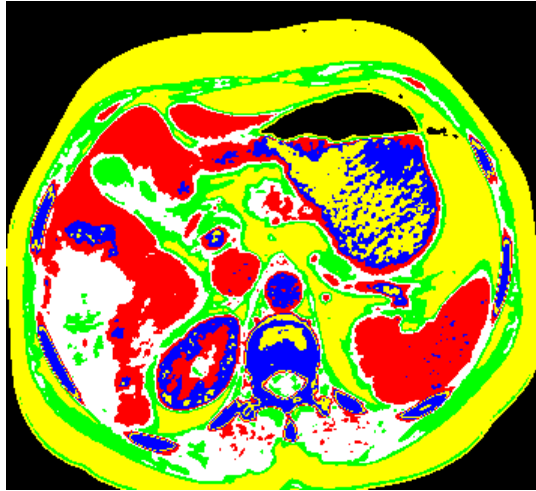


Figure 2-B a classification map for the image shown in Figure A-1 using pixel classification

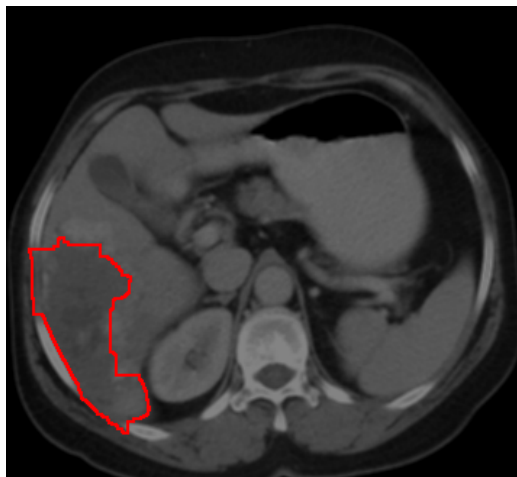
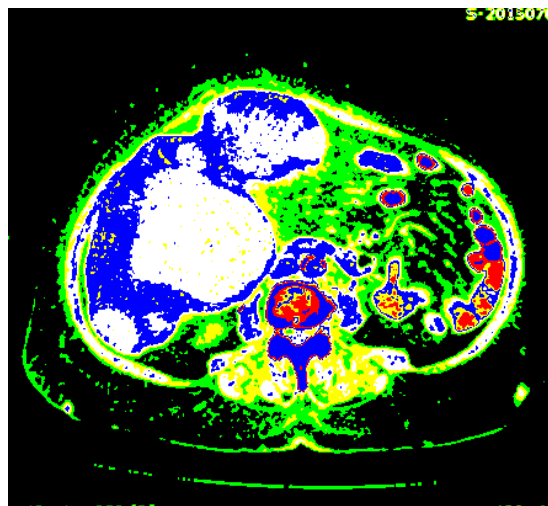


Figure 2-C original CT image in Figure 1-A with demarcation of liver outline using region growing



(A)

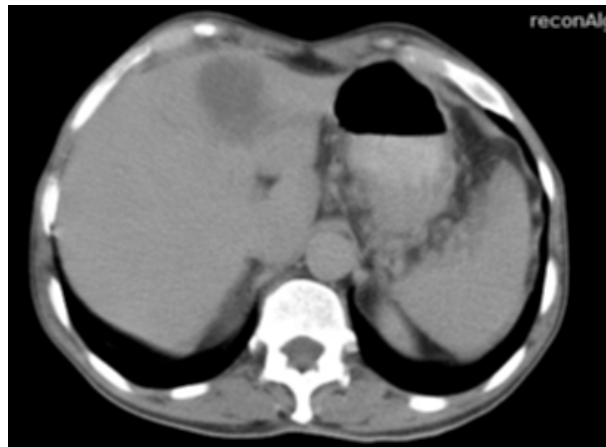


(B)

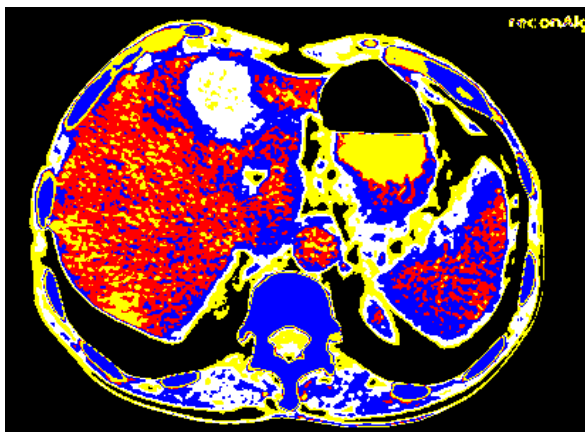


(C)

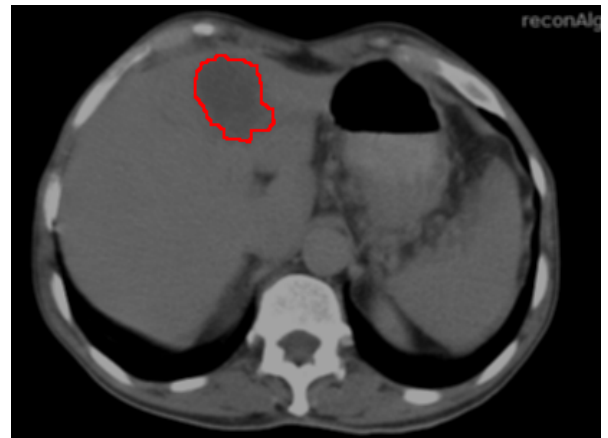
Figure 3-A original CT image ,B classification map for the image using pixel classification and C original CT image with demarcation of liver outline using region growing



(A)



(B)

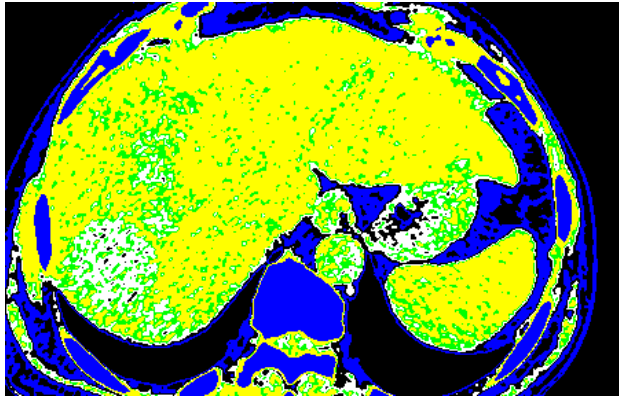


(C)

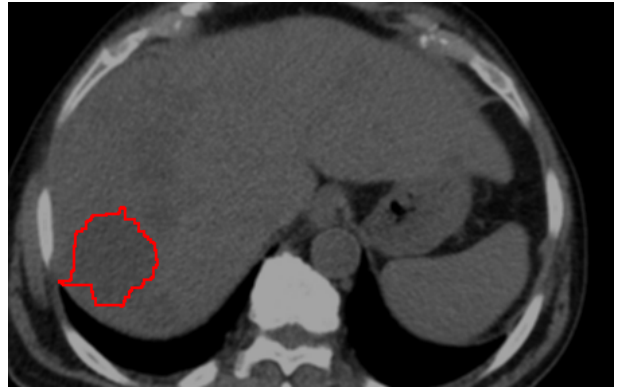
Figure 4-A original CT image ,B classification map for the image using pixel classification and C original CT image with demarcation of liver outline using region growing



(A)



(B)

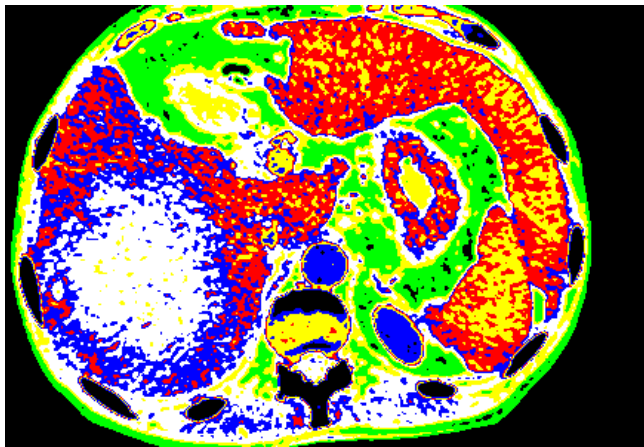


(C)

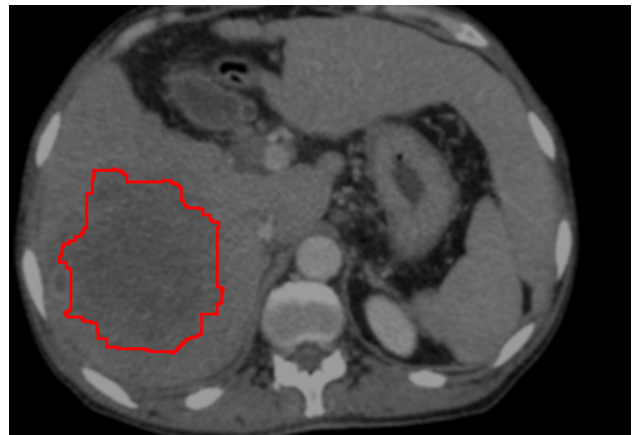
Figure 5-A original CT image ,B classification map for the image using pixel classification and C original CT image with demarcation of liver outline using region growing



(A)

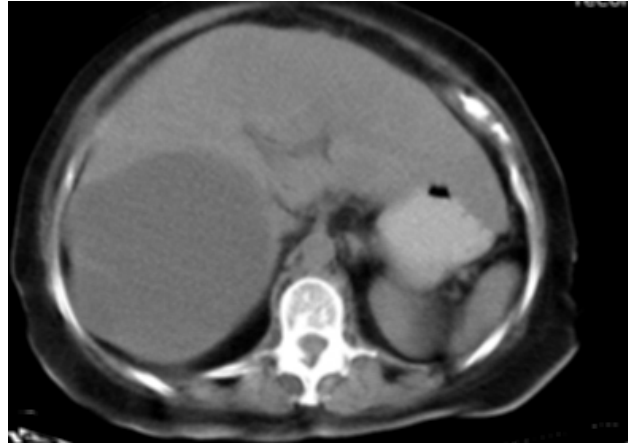


(B)

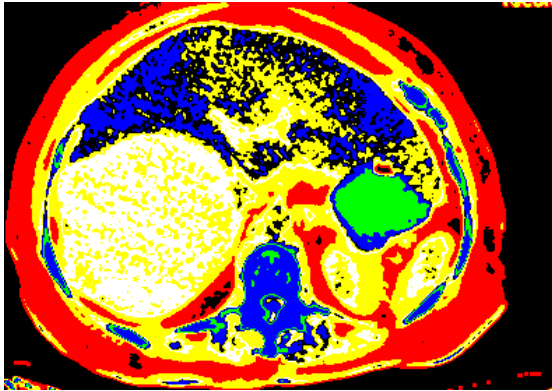


(C)

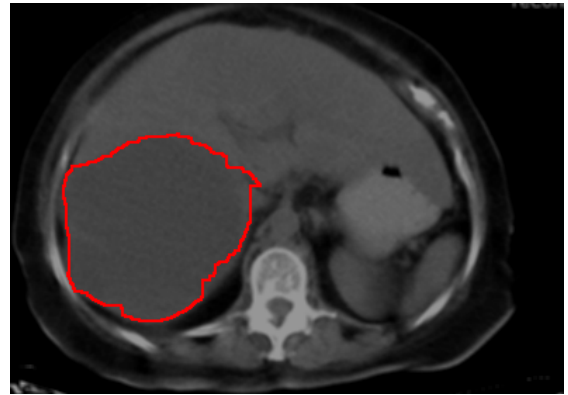
Figure 6 -A original CT image ,B classification map for the image using pixel classification and C original CT image with demarcation of liver outline using region growing



(A)

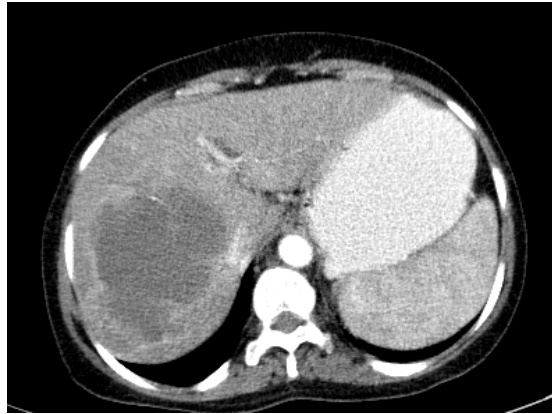


(B)

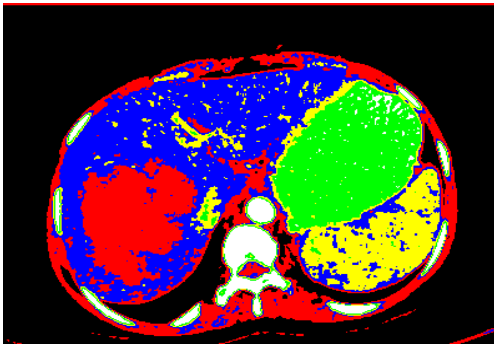


(C)

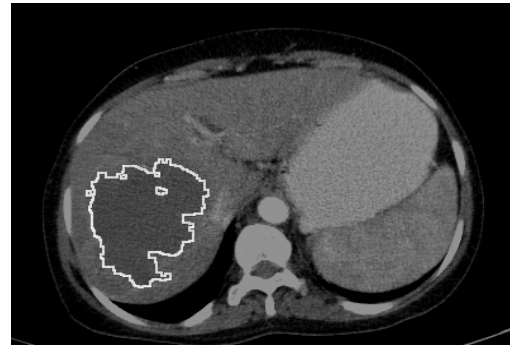
Figure 7-A original CT image ,B classification map for the image using pixel classification and C original CT image with demarcation of liver outline using region growing



(A)



(B)



(C)

Figure (8) A ,B and C illustrate the sequences of HCC delineations then the extraction followed by classification of the liver using Euclidian distance and linear discriminate analysis respectively .

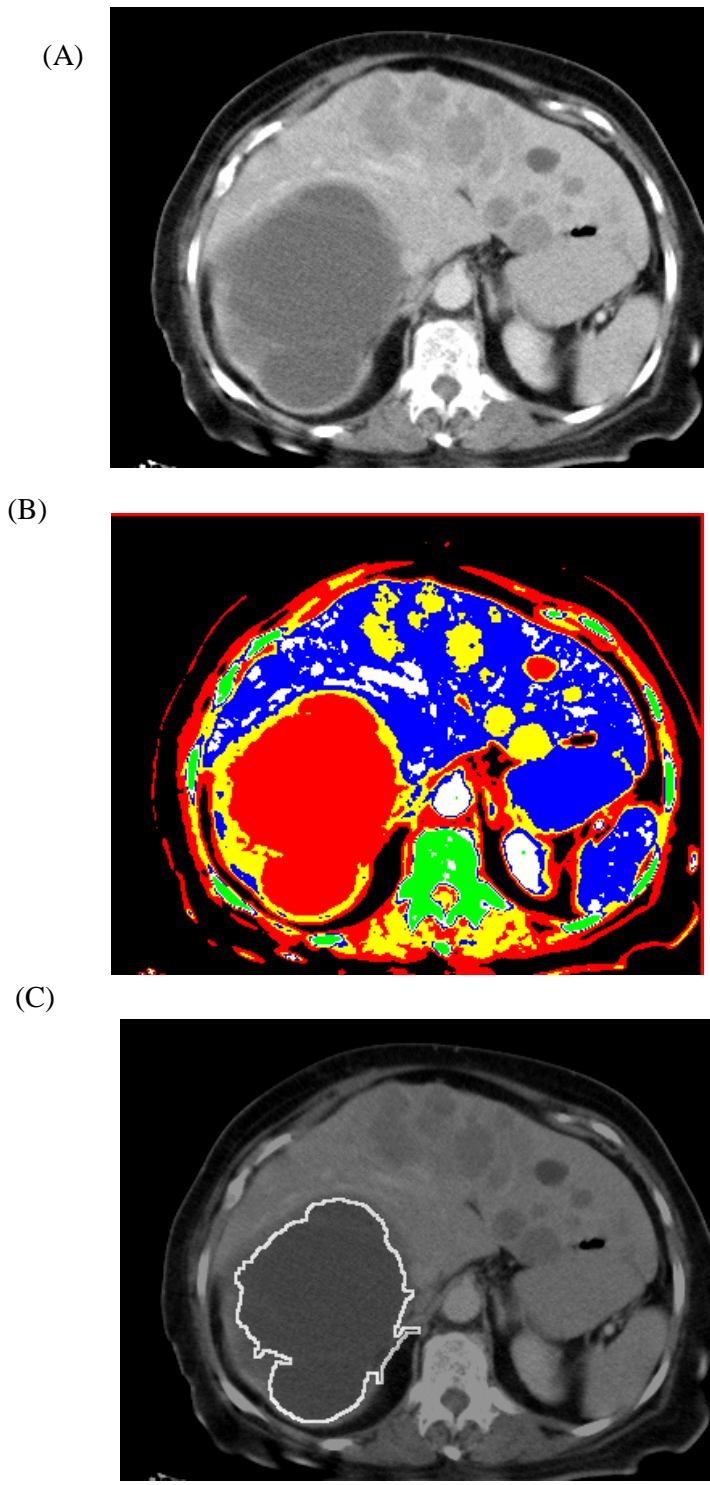


Figure (9)(A)an original axial CT image (B) classification map of the original image using Euclidian distance, (C) an original image with tumor region delineated