ABSTRACT

This research proposes optic disc and optic cup segmentation using super pixel classification for glaucoma screening. It uses the 2D fundus images to find the segmentation of optic cup and optic disk. In optic disc segmentation, clustering algorithms are used to classify each super pixel as disc or non-disc. For optic cup segmentation, in addition to the clustering for CNN algorithms, the Gabor filter is also included into the feature space to boost the performance. The segmented optic disc and optic cup are then used to compute the cup to disc ratio for glaucoma screening. The CDR of the color retinal fundus camera image is the primary identifier to confirm Glaucoma for a given patient Healthy or Glaucoma stage.