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(54) Title: AUTOMATIC CUP-TO-DISC RATIO MEASUREMENT SYSTEM

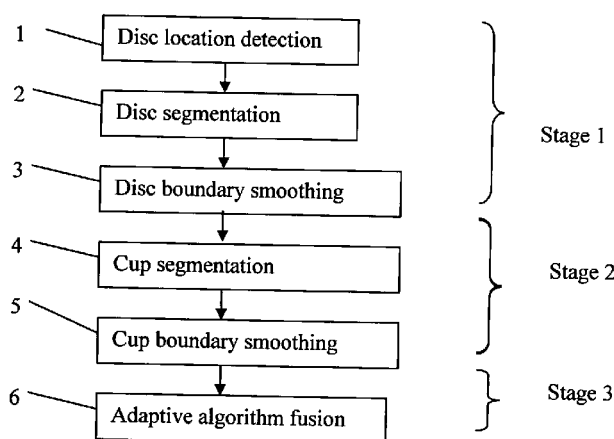


Fig. 2

(57) Abstract: A two-dimensional retinal fundus image of the retinal fundus of an eye is processed by optic disc segmentation (2) followed by cup segmentation 4. Data derived from the optic disc segmentation (i.e. the output of the disc segmentation (2) and/or data derived from the output of the optic disc segmentation step, e.g. by a smoothing operation 3) and data derived from the output of the optic cup segmentation (i.e. the output of the cup segmentation (4) and/or data derived from the output of the optic disc segmentation, e.g. by a smoothing operation 5) are fed (6) to an adaptive model which has been trained to generate from such inputs a value indicative of cup-to-disc ratio (CDR) of the eye. The CDR is indicative of glaucoma. Thus, the method can be used to screen patients for glaucoma.



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