

**Detection of eye and cornea on IR thermogram using genetic snake
ALGORITHM**

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Abstract

Infrared imaging is widely used nowadays in health care field with more focus on detection of breast cancer and eye abnormalities. An algorithm is presented to correctly localize the eye and cornea in Infrared (IR) thermogram using gradient vector flow (GVF) snake coupled with genetic algorithm. In order to put the snake in the right place and identify the appropriate initial contour a fitness function was introduced to search for global minimum by genetic algorithm. The snake then converges to eye feature, localizing the eye and estimating the corneal centre and radius. In this work, we have used 125 IR normal images. The proposed algorithm can localize the eye and cornea correctly in 90% of the IR thermograms.

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