Abstract

Image segmentation is one of the substantial techniques in the field of image processing. It is excessively used in the field of medicine provides visual means for identification, inspection and tracking of diseases for surgical planning and simulation. Active contours or snakes are used extensively for image segmentation and processing applications, particularly to locate object boundaries. Active contours are regarded as promising and vigorously researched model-based approach to computer assisted medical image analysis. However, its utility is limited due to poor convergence of concavities and small capture range. Many subsequent models have been introduced in order to overcome these problems. This paper reviews the traditional model, the Gradient vector flow (GVF) model and the balloon model for different images and proposes a model which can provide the most accurate segmentation.

References

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Index Terms

Computer Science

Image Processing

Keywords

Active contour models edge detection gradient vector flow balloon model image segmentation snakes