

Level Set and Morphological Operation Techniques in Application of Dental Image Segmentation

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Abstract : Medical image analysis is one of the great effects of computer image processing. There are several processes to analysis the medical images which the segmentation process is one of the challenging and most important step. In this paper the segmentation method proposed in order to segment the dental radiograph images. Thresholding method has been applied to simplify the images and to morphologically open binary image technique performed to eliminate the unnecessary regions on images. Furthermore, horizontal and vertical integral projection techniques used to extract the each individual tooth from radiograph images. Segmentation process has been done by applying the level set method on each extracted images. Nevertheless, the experiments results by 90% accuracy demonstrate that proposed method achieves high accuracy and promising result.

Keywords : integral production, level set method, morphological operation, segmentation

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