Abstract

Dental cavity is the disease inside the human mouth which is caused by different bacterial activities. Cavities make an everlasting damage in the tooth and it results in holes inside tooth. Dealing properly with dental cavities and taking an urgent treatment is always recommended to avoid more damage. Dentist recognizes the caries in patients' teeth by looking directly with eyes and sometimes with help of x-ray (radiograph) of teeth. The automated system would help the dentist to identify the caries in teeth by making use of x-ray. This paper proposes a model to detect the cavities using x-ray images by making use of various image processing techniques, involving RGB to Gray conversion, generation of binary image, finding the region of interest, removing background, identifying regions and dividing image into multiple blocks and finally identifying the cavities present in x-ray image.

References


Index Terms

Computer Science  Image Processing
Keywords

Dental caries, dental cavity, cavity detection, image processing, caries detection, x-ray images, region detection.