

## ABSTRACT

*An abscess is a pus collection locally in a cavity that occurs because of the disintegration of a tissue by pyogenic germs. In general, the abscess caused by an infection of the tissues around. This time disease detection is done with the help of technology periapical radiographs. However, these results have uncertain nature for doctors to diagnose diseases by looking at the results in plain radiographs. So that incorrect diagnosis can lead to treatment planning and treatment are not appropriate. Therefore, we need a tool that can help improve the accuracy of diagnosis.*

*Based on these problems, this final project resulted in an android-based application that can detect diseases of the teeth abscess using Linear Discriminant Analysis as feature extraction and classification process by using k-NN (k-Nearest Neighbor).*

*The results of this study obtained an accuracy of 93,33% with the classification is divided into two types: non abscess and peripikal image abscess tooth using a periapical radiograph results as the test images and imagery training.*

**Keywords:***Abscess, Periapical Radiograph, Linear Discriminant Analysis(LDA), K- Nearest Neighbor*