

## ABSTRACT

*Determining the age of a person plays an important role in forensic medicine, not only for body identification, but also closely related to crime and accidents, due to crime and accidents, it is not uncommon to find human skeletons or victims that are difficult to identify. Many procedures can be taken in determining the age of a person in this case my research focuses on identifying human age through teeth precisely in the pulp area.*

*Large pulp measurements were taken with a panoramic radiograph. Panoramic radiographs have long been one of the many superior radiographic techniques among dentists for use in taking dental structures because of their various advantages. The panoramic radiograph gives a two-tooth jaw appearance and a clear appearance of some anatomical structures such as the maxillary sinus, temporomandibular joint, and hyoid bone. In addition, panoramic radiographic retrieval is also easy to do and can be applied to patients who experience limitations in opening the mouth.*

*This final project was made to identify human age by using a mandibular canine radiograph panoramic technique using Watershed segmentation method. This method is a fairly good method in analyzing the results of segmentation of an image. To classify it using the support vector machine method. The performance of the system resulted with 91% accuracy rate and 0.0111s computation time using 141 training image samples and 47 test image samples. The existence of this system could make benefit for the medical world especially for forensic odontology in identifying human age.*

**Keywords:** *Panoramic Radiography, Gabor Wavelet, K-Nearest Neighbor*