# ABSTRACT

Research and development in biomedical field has developed vastly in the computerized era. There are a vast number of researches done to create medical apparatuses to overcome the problems arising along with the progress of the techology age. CT Scan is one of the medical examination tools that have been invented and developed since 1970. Computer Tomography Scanner, commonly reffered in Indonesian as CT Scan, is an imaging modality to help diagnosing internal disorders with the use of X-ray, and is able to make internal body incisions images accurately and precisely without injuring patients.

This thesis is conducted to present 3 dimensional images from the 2 dimensional images of the CT Scan output. The CT Scan output is in the form of 512 x 512 pixels 2 dimensional images, originating from the scanned soft body tissues. The 3 dimensional images meant are the 2 dimensional images rendering results, which can be rotated 360° and have volume.

The output of this thesis are various 3 dimensional images reconstructions with different accuracy values depending on the threshold value input. The image reconstructions assessment was obtain by conducting MOS survey towards 30 people from various professions. The assessment findings state that this simulation program has good performance using 121 slicing of head helical with Canny method, threshold image is 131.

Keywords: CT Scan, 3 dimensional, MOS