ABSTRACT

Today, many activities can cause pain in the spine. Many things can be pain in

the spine. One is a spinal curvature, namely scoliosis. Scoliosis is a disorder of the

spine so the spine curves to the left or right side. Usually this scoliosis is detected when

the patient performs an X-ray examination or other medical device during MCU. This

Final Project aims to build a system capable of detecting spinal cord in humans with

X-rays. The construction of this system is expected to help the process of measuring

rough angles of the back spine quickly and accurately.

In this final project used method using Matched Filter and Morphology

Operation method. There are two main steps in the corner computation process. The

first step is to do preprocessing which aims to improve image quality in order to be

segmented optimally. In order to achieve the best accuracy, the test variables studied

are mostly on preprocessing because the image is the image of X-rays, so it takes the

best variable to be the maximum input in the next process.

In this research, accuracy using Matched Filter is 62,67%, while for Operation

Morphology method is 70,76%, and for method of combination 72,44%.

Keywords: Backbone, Image Detection, Angle Calculation

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