ABSTRACT

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Object Recognizing System using Freeman Chain Code Technique and Neural Network

(viii + 101 pages: 10 tables, 70 pictures)

Information Technology is growing rapidly. It has been implemented successfully in industry for automation. This final project uses image processing techniques and artificial neural network to recognize four objects. There are one screw driver and three kinds of wrench.

This system uses Freeman code descriptors to find area and perimeter of the image. These two parameters will be set as inputs for the artificial neural network and be trained to recognize the image.

Through several trainings, this system successfully recognized the objects. However, system has some failures in recognizing the objects, which is caused by the lighting that doesn't spread well.

References: 16 (1993-2006)