IMAGE PROCESSING FOR IDENTIFYING PHYSICAL QUALITY OF 3 KILOGRAMS LPG (LIQUIFIED PETROLEUM GAS) CYLINDERS BASED FORMS

By

M. JAUHAR FATHONI
08 621 036

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ABSTRACT

The development of information technology is growing very rapidly. Several studies created many applications in the field of image object identifier. Image processing is one type of technology to solve the problem of image processing. In image processing, the image is processed in such a way that the images could be used for further applications. At this final project will be implemented in a system that will identify the physical quality of 3 kilograms LPG cylinders with shape-based operations. This initial process of the segmentation system that takes green channel normalization process to do the binary, while the physical quality of the identification process using shape-based operations (filter area). Filter operation identifying the binary image areas, if the white pixels area wider, the physical quality will get better. Based on the above objectives, the system created using Matlab R2008b application program. Tests performed by using an image size of 3 kg LPG cylinders by 4 sides with each having dimensions of 250 x 333 pixels were 60 objects (240 images). From the test results generate a 76.66% accuracy rate for LPG cylinders which has good physical qualities and 73.33% accuracy rate on LPG cylinders had poor physical quality.

Keywords : Image Processing, 3 KG, LPG, segmentation, shape-based operations, filter area.

Supervisor : Mochammad Nuruddin, ST., MT.

Co Supervisor : Soffiana Agustin, S. Kom., M. Kom.