ABSTRACT

West Java has the largest number of textile industry in Indonesia. One of the companies that engaged in textiles is CV. Maemunah which located in the district of Ibun, Majalaya Bandung. The product of CV. Maemunah has been exported to Japan. To require fabric export best quality is needed to compete with other country. For to get the best quality of product needs to consider their quality control. In The inspection process still manually used four inspection stations with two workers in each station and average 23 second processing time needed inspection per screen. Therefore, unbalance of production volume with inspection process. The effect is bottle neck in inspection process. Inspection Process in CV. In this research proposed designing automated fabric inspection using image processing and Fuzzy Logic Model. Undertake extraction using GLCM to get value of autocorrelation, cluster shade and number of object. The proposed fabric inspection using Fuzzy Logic implemented with MATLAB provides better result in identifying fabric defect and optimizing process time. Using 35 data test produces an overall accuracy 82.86% and average process time 2.528 second. Therefore, using automated fabric inspection can decrease process time 17 second.

Keywords: Automated Fabric Inspection, Fabric Defect Detection, Image Processing, Fuzzy Logic Model