ABSTRACT

      Product label symbolizes many kinds of information that related to service and goods. Actually, a label consists of name, sign, and other visual elements such as image, typography, and symbol. In sales transaction application such as at the shop and many selfservice shops, the existence of a product label identification is very needed not only for the seller database but also for making easy a buyer transaction process. In this time, barcode scanning system is considered as an effective system in the case of that. However, there is nothing wrong if we do an experience to identify product by recognizing the form and the colour of a product label. The target of the system will be implied based on Image Processing and Wavelet Transform.

      In this final paper, it is designed a product identification system based on the form and the colour of a label. The applied process that is used such as, Wavelet Transform. As for the reason of this transform using, is being supported by many researches which imply the ability of wavelet transform to perform many special features of an image. While recognizing and classification process is applied by BackPropagation Neural Network. The Input of neural network is an image of a product label , 240x320 of its size, and captured from a webcam.

      The result of implementation is tested many times by testing image. Through the implementation and testing, this system can perform up to 100% accuration from daubechies6 and coiflet 1 output.

Keywords   : Image Processing, Wavelet Transform, BackPropagation Neural Network