

ABSTRACT

The study is made to investigate the industrial applicability and performance of neural network-based computer vision system designed for inspection of actual brand images marked on top of IC packages. There were three devices considered in this thesis due to limited and controlled number of these units provided by the company. Using the available limited samples of devices, brand names were captured using a camera and processed in the neural network using various representations to investigate thoroughly the effect of neural network parameters to network performance. As a result, using the neural network technique trained by backpropagation in brand defect recognition proved to be very effective within the scope and limitations of the concluded study.

