

ABSTRACT

Visual identification using the human eye as the primary senses have limitations. The limitations of the eye as a visual identification is the factor of fatigue and lack of endurance. This drawback occurs when doing a visual identification of products on the production line or for other identification process. Therefore man developed a visual identification automation system which is called vision system. Indonesia is growing rapidly in the textile industry. Especially the textile industry uses a wide variety of basic materials skin. Therefore, we need a system utilizing automated vision system for identifying the type and quality of the skin.

Vision System using MATLAB language can be applied in a variety of automated systems, one of them is for processing of basic materials in various products such as leather shoes, handbags, and wallets. Textile industry nowadays, identified clusters leather still using manual methods, which causing much human error on its application.

Vision System work begins with the user input the samples to the conveyor, then the camera will capture the leathers material through a graphical user interface in matlab assisted with stable lighting. Then the sampling results will be processed by matlab that the result will be stored in the database which is then actuated by pneumatic system controlled by a programmable logic controller.

Keywords— *Vision System, Industrial Automation, Cluster Identification, Programmable Logic controller, RGB.*