ABSTRACT

Pressure Ulcers are injuries primarly caused by prolonged pressure on the skin usually occurs on elderly who lie down on bed or who sit for long periods of time and could appear on certain parts of body. This injuries happened because degression of the body move (imobility) and potentially decreasing the quality of life. Even though pressure ulcer considered as worrying injuries but in mostly Indonesia the diagnosed of pressure ulcers are using the manual such as the Braden scale so that an expert is needed to assess it. This will be a problem if the data needed are in large quantities, such as health medical research purposes that require patient statistical data.

The search for a tool for monitoring the diagnosis of pressure sores has actually been done, this search resulted in a prototype that describes an early stage wound diagnosis method based on Tissue Reflectance Spectroscopy (TRS). But this prototype did not pass clinical trials because of the non-ergonomic design and the difficulty of using this tool. Therefore we need a tool to detect wounds in the elderly to meet these needs. The tool in this final project uses the TCS3200 color sensor which is useful for detecting pressure sores on the color of pressure sores. The test results obtained resulted in 51 correct data and 9 incorrect data which were recalculated with a confusion matrix to find accuracy, precision, recall, and f-measure. The calculation produces an accuracy value of 87,5%, precision value 87,5%, recall value 87,5%, f-measure value 87,5%.

Keyword: Pressure Ulcers, TCS3200 Color Sensor, Elderly