

## **ABSTRACT**

Pressure sores or decubitus ulcers are often a problem in the care of patients with limited mobility. This research highlights the problem of determining the level of pressure injuries which is carried out by medical personnel who lack knowledge in determining the level of pressure injuries and do not have tools that can classify the level of pressure injuries, which can result in inappropriate treatment.

This research focuses on developing a portable tool that uses images to classify the level of pressure ulcers while also considering aspects of ease of use, sustainability and health. The components used are a Raspberry Pi Camera Module, a Raspberry Pi microcomputer and a 4 inch Waveshare Resistive Touch LCD as a display. In the classification process, a method called Convolutional Neural Network (CNN) is used. It is hoped that the results of this research will have a significant impact on the action and treatment of pressure ulcers, especially in Indonesia which has a fairly high prevalence rate of pressure ulcers and can help medical personnel determine the extent of pressure ulcers quickly and accurately. This research is in line with the standard classification of decubitus ulcer levels issued by the National Pressure Ulcer Advisory Panel (NPUAP). The planned development of this device is expected to improve the treatment of pressure ulcers and provide better care for patients with mobility impairments.

Key words: Decubitus wounds, level classification, CNN, microcomputer, medical