

ABSTRACT

The skin is the largest organ of the body that covers the entire surface. Skin functions as protective body against injury and pathogens. Skin also regulates body temperature, and stores fat and water, The skin also used as a recipient of touch or external stimuli such as radiation and invasion of the external environment which have become the subject of great interest in various fields of science and technology.

Just like the other organs of the body, skin cannot be separated from a disease, many kinds of skin problem that make people often not confident. Increasing age, exposure to pollution, to improper skin care are the triggers for skin problem.

In the end, this skin disorder classification system can detect skin disorders such as keloids and acne, where the average output value of the three infrared sensors for acne skin disorders is in the range of 0.168-0.208 V and keloids in the range of 0.143-0.158 V. Before carrying out the detection, there is a process of measuring the distance from the infrared sensor to the surface of the skin disorder using an ultrasonic sensor.

Keywords: *Skin, skin disorder, near infrared, ultrasonic*