

Abstract

Physically we can see that there are differences between obese people or not from body posture that in obese people its more fatter. Then we can categorize the person into obese or not by calculating the Body Mass Index (BMI). But this still must be done manually because it must be checked the weight and height of the person, then calculated according to the BMI formula. Therefore we need a system that can be used to detect obesity automatically. In this final project created a system that can detect obesity automatically based on plantar foot pressure. On foot plantar pressure there is a significant change between foot pressure in obese and non-obese individuals. In individuals who are obese the pressure will be further increased in the metatarsal foot, heel, and midfoot. This is because the heel is part of the foot which is the main support of the body and in the midfoot there are different levels of leg curvature between obese and non-obese individuals. The system is built using fuzzy logic algorithm so that the system can provide output automatically whether the person is categorized as thin, normal, or obese.

Keywords: bosity mass index, foot plantar pressure, obesity, fuzzy logic.