

Abstract

Dehydration is sometimes considered a problem that does not need to be taken seriously. Most people do not consider water as a nutrient even though water is the most important of all nutrients. Most children and adolescents consider it normal thirst so that mineral water is often underestimated. Busyness is one of the biggest factors. Though 60% more total body mass is water content, so it becomes important for the health of the body in carrying out his days. Water content is very important for body tissues, skin, cells and all organs in the body. Based on this problem, the solution that will be made in this study is a microcontroller-based dehydration monitor as an alternative. This technology will later give an alarm notification that he is dehydrated so it is necessary to drink water to get the right liquid (hydration). Then when someone is in a room with a certain temperature and body temperature, the device will check it. The tool will then notify the Smartphone if the person is dehydrated based on these temperature parameters. Work on tools using fuzzy logic as the research method. The test results say if the temperature above 37 °C has dehydrated from mild to severe. The parameters of body temperature are the focus of the dehydration monitor, while the room temperature is the supporting parameter of the device.

Keywords: dehydration, *fuzzy logic*, microcontroller, sensor MLX900614