Analisis dan Implementasi Klasifikasi Data Aktivitas Setelah Joging Menggunakan Fuzzy Logic (Studi Kasus: Pendeteksian Dehidrasi)

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Abstract

One of the routine activities that cause a lot of body fluids is jogging. Research explains excessive jogging disrupts the balance of body fluids so that you tire quickly in the long run. As a result, the body releases too much fluid. This makes someone forget or underestimate the need for fluids in the body. In this Final Project Research, a body dehydration detection system was built to maintain fluid stability in the body. The system built by dehydration classification detection uses the *Pulse Sensor*, *MLX90614*, *OpenWeatherAPI* and the Android Platform. The system knows the dehydration status from body temperature data, heart rate and ambient temperature. This study uses the Mamdani Fuzzy Logic method to determine the classification of user dehydration. The results of the research analysis showed a difference in the Deffuzification value due to the difference in the fixed point for each library. Matlab fixed point with a value behind the three digit point, 16 digit Fuzzy Sci-kit and the Builded System using a 15 digit point value.

Keywords: dehydration, fuzzy logic, detection, jogging