PROJECT REPORT

MONITORING OF HEALTH CONDITIONS USING A FUZZY ALGORITHM

PETRA ALFELISANTO

17.K1.0046

Faculty of Computer Science
Soegijapranata Catholic University
2022

APPROVAL AND RATIFICATION PAGE

HALAMAN PENGESAHAN

Judul Tugas Akhir:	:	MONITORING OF HEALTH CONDITIONS USING A FUZZY ALGORITHM
Diajukan oleh	:	Petra Alfelisanto
NIM	:	17.K1.0046
Tanggal disetujui	:	06 Januari 2022
Telah setujui oleh		
Pembimbing	:	Y.b. Dwi Setianto S.T., M.Cs.
Penguji 1	:	Y.b. Dwi Setianto S.T., M.Cs.
Penguji 2	:	Rosita Herawati S.T., M.I.T.
Penguji 3	:	R. Setiawan Aji Nugroho S.T., MCompIT., Ph.D
Penguji 4	:	Hironimus Leong S.Kom., M.Kom.
Penguji 5	:	Yulianto Tejo Putranto S.T., M.T.
Penguji 6	:	Yonathan Purbo Santosa S.Kom., M.Sc
Ketua Program Studi	:	Rosita Herawati S.T., M.I.T.
Dekan	:	Dr. Bernardinus Harnadi S.T., M.T.

Halaman ini merupakan halaman yang sah dan dapat diverifikasi melalui alamat di bawah ini.

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Name : PETRA ALFELISANTO

ID : 17.K1.0046

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17.K1.0046

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ACKNOWLEDGMENT

First of all, I would like to thank the Lord Jesus because with God's participation and grace I was able to complete this project well. Thanks also to my parents who have paid for college, worked hard to make me a graduate. Thank you to Dewi Sampe Matande who always gives encouragement, reminds, helps and gives input and thanks to Y.b. Dwi Setianto for everything, as a lecturer and as a supervisor, patiently and diligently guiding me to pass the project well. Grateful once again for the opportunity that exists may God bless them.

Semarang, 6 January, 2022

PETRA ALFELISANTO

17.K1.0046

ABSTRACT

Maintaining a healthy body is the duty of each of us, both young and old. To maintain a healthy body can be done in various ways such as exercise and eating healthy foods. Health according to the World Health Organization (WHO) is perfect health, physically fit, free from disease and disability, and spiritually and socially healthy. A person's health can be determined through many factors. To find out whether the health intensity has been reached, an indicator of pulse rate and body temperature that is healthy and in accordance with normal human standards can be used. To know a person's health, one can measure the pulse in certain parts such as the wrist, but this is not necessarily effective and accurate. So body temperature is a vital condition that must be monitored to avoid hypothermia and hyperthermia.

The health monitoring system is a system designed to determine the user's health condition by measuring the pulse and body temperature which is then used as a decision-making parameter by applying fuzzy algorithm using the internet of things (IOT). Fuzzy algorithm is used for decision making from a logic that has a fuzzy value between true or false.

The author uses 2 input sensors, namely MLX90614 (temperature) and pulse sensor as parameters for determining health. The HC-SR04 sensor (distance) is used to turn on the 5volt pump which functions as an automatic hand sanitizer. The 16x2 LCD functions to display the output, namely Healthy, Unhealthy, Sick. The TTV standard is used as a reference for membership limits.

Keyword: IOT, MLX90614, pulse sensor, HC-SR04, LCD, fuzzy algorithm

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