



Home Security Alarm Using Wemos D1 and HC-SR501 Sensor Based Telegram Notification

Refni Wahyuni¹, Aditya Rickyta², Uci Rahmalisa, Yuda Irawan⁴*

¹ Informatics Engineering, STMIK Hang TuahPekanbaru

^{2,3,4} Information Systems Department, STMIK Hang TuahPekanbaru

E-mail: refniabid@gmail.com¹, adityarickyta@gmail.com², acinahmalisa89@gmail.com³, yudairawan89@gmail.com⁴

*Corresponding Author

Abstract—Home Security Alarms in today's modern society only use CCTV that can only see the person without any notification that goes into the cellphone in dealing with the theft that occurred. To help the community in dealing with the theft that enters the house, a Home Security Alarm was made using WEMOS D1 and HC-SR501 Sensor with Telegram Notification. The whole tool is divided into several parts which consist of HC-SR501 Sensor, WEMOS D1 and Buzzer. This tool works when the WEMOS D1 microcontroller processes the pear sensor as a motion detector and buzzer as a sound alarm if motion is detected, then the notification automatically enters into the Telegram Application, with this tool can monitor directly if anyone enters the house while being left

Keywords—Keywords: Wemos D1, Sensor HC-SR501, Telegram, CCTV, Buzzer.

I. INTRODUCTION

Seen from the point of view of the crime rate, it can be seen that the crime rate of finding empty houses is increasingly happening. The owner of the house does not know the condition of his house when traveling because there is no tool that can directly inform someone if the house has been entered by an

application is very suitable for remote control and monitoring of Smart Home, Distance from 1, 7 km to 151 km of different areas obtained an average delay of 20.66 seconds [2]. Muhammad KhoiruSyabibi, ArkhanSubari in this article explained that when someone enters a house, he must press a button. If the input keypad is correct according to the passcode then the LED will turn off, indicating that the home security monitoring system is off for 10 seconds. If you enter the house without pressing the keypad according to the passcode then when the door is open the magnetic switch will be active, then the bell rings and the web indicator will change, indicating that he is a person who will commit a crime [3].

Hamzah & Rusilawati research about NFC is a technology that can simplify and facilitate transactions, transfer data, and wireless connections between two communication devices that are very close to a few centimeters. This system is designed using an Android device that has NFC technology [4] research conducted by Yuda Irawan et al discusses detecting heart rate using a sensor device, researchers designed to measure heart rate as an alternative in maintaining health, using a pulse sensor and Arduino circuit. This research produces a heart rate application system as a control to monitor the condition of the

Editor/Author Correspondence

Edi DELETE

tor Subject: [JRC] Editor Decision

202 Dear Authors,

0-

 10 We have decided on your submission to the Journal of Robotics and Control (JRC),

01:5

3 Our decision is: Accepted with Mayor Revision

AM

The detail of the comment is as follow.

Comment of Editor:

>> The Title must fully describe the paper's content in short.

The Abstracts must contain at least 150 words up to 250 words, consist of 2-3 sentences as brief intro about the paper, 2-3 sentences to describe how the problem is solved, and 2-4 sentences showing the results of experiments/simulation, ended with 1-2 sentences

as short main conclusions of the work.

The Introduction section must explain the background of the problem and the urgency of the study, which can be proved by providing some previous researches and works, and also how to solve the problem in brief. Also, the contribution and the importance of the research must be stated clearly.

The Method contains an explanation of the research method and the proposed method. This section can include research diagrams, system block diagrams, wiring diagrams and program flow diagrams.

The Results and Discussion section should provide a comparison to a similar method from previous works and researches.

The minimal References are 30 from an English Journal and using IEEE Style.

>> The Figure, Table and Equation are some of the most beneficial parts that will be seen first when reading a paper, hence it needs to be made easy to read and as best as possible.

The Image/Figure. It must be in PNG or JPG/JPEG format with 600-1200 dpi. Please don't crop, or use snipping and print-screens tools. Otherwise, the image resolution will be compromised.

The Tabel. Please use the Insert Table feature.

· cp ·

The Equation. Use the Insert Equation or Ms Equation. We suggest using 3 columns of the table to help, and then to make the equation on the middle of the column and the number of the equation on the right-side column.

All of Figure, Tabel, and Equation must be given by information, explanation and analysis, not only included without description.

- >> Please use Grammarly to check your manuscript. The free Grammarly is enough for fixing some typo and grammar mistakes. The proofreading is recommended to increase the quality of the English language and writing.
- >> The author must follow the template journal and the similarity must be under 20% or the manuscript will be rejected.

>	
Comment of Reviewer 1:	

Abstract is good, but it must include background, methods, analysis results and conclusions

The background is good, but the comparative article is still lacking take an article from IEEE.

The method is less clear and provides a complete description of the method you are

using The analysis must be sharpened and compared with articles in JRC The conclusions must contain from the analysis								
Comment of Reviewer 2:								
>> ===================================								
The Abstracts must contain at least 150 words up to 250 words In the Introduction part, the new features of the proposed method and the main advantages of the results over others should be clearly described. the method section should be explained in terms of the method for determining liquid density, the relationship between liquid density and temperature There are many repetitions in sentences. The writing of the manuscript. There are a many incomplete sentences or sentences without subjects. All Figures and Tables are clear enough to read. Many details are missing and others unclear. References aren't formatted according to rules. Some articles listed in References are old. Overall, the authors have made a good attempt. However, the authors' proposed method does not adequately describe their data. The results are not supported by any mathematical equations. Readers will fail to understand the scientific contribution of this research. The conclusions in this manuscript are primitive. Write your conclusions								
Comment of Reviewer 3: >> =================================								

In abstract, the result of this work must be described briefly with data.

In the Introduction part, the new features of the proposed method and the main advantages of the results over others should be clearly described.

The results are not easy to follow.

The English language of this paper too weak, please send the paper to the native speaker, there are several sentences which too poor.

The writing of the manuscript. There are a many incomplete sentences or sentences without subjects.

Many details are missing and others unclear.

The conclusions in this manuscript are primitive. Write your conclusions.

References aren't formatted according to rules.

The manuscript is hard to be understood and words should be improved.

mathematical equations. Readers will fail to understand the scientific contribution of this research. Add your citation by citing 30 manuscripts on IEEE
Comment of Reviewer 4:
Title doesn't reflect the content of the article, don't use too many abbreviations, without explanation. Abstracts should not be written summaries. However, an explanation that explains briefly the entire content of the writing. In the Introduction part, the new features of the proposed method and the main advantages of the results over others should be clearly described. Method there may be errors in the depiction of the flowchart, especially in the direction of the arrow, there is ambiguity in the branching. The proposed method and experiments are not clearly illustrated. The writing of the manuscript. There are a many incomplete sentences or sentences without subjects. All Figures and Tables are clear enough to read. Many details are missing and others unclear. References aren't formatted according to rules. There are no citations for many sentences in this manuscript. Why? Please check. The order of citations isn't convincing.
======================================

Overall, the authors have made a good attempt. However, the authors' proposed method

does not adequately describe their data. The results are not supported by any

- 1. Novelty of work: In view of the large developments in the area of present work, Expand your work more.
- 2. In the Introduction part, the new features of the proposed method and the main advantages of the results over others should be clearly described.
- 3. The description of manuscript is very important for potential reader and other researchers. I encourage the authors to have their manuscript proof-edited by a native English speaker to enhance the level of paper presentation.
- 4. The figures are not clear.
- 5. How are the parameters in the proposed model selected?
- 6. The contributions presented in this paper are not sufficient for possible publication in this journal. I highly suggest authors to clearly define the contributions.

- 7. The proposed method and experiments are not clearly illustrated.
- 8. The English language of this paper too weak, please send the paper to the native speaker, there are several sentences which too poor.
- 9. The manuscript is hard to be understood and words should be improved.
- 10.Overall, the authors have made a good attempt. However, the authors' proposed method does not adequately describe their data. The results are not supported by any mathematical equations. Readers will fail to understand the scientific contribution of this research.
- 11. The manuscript is hard to be understood and words should be improved.
- 12. References aren't formatted according to rules.
- 13. Overall, the authors have made a good attempt. However, the authors' proposed method does not adequately describe their data. The results are not supported by any mathematical equations. Readers will fail to understand the scientific contribution of this research.
- 14. Add your citation by citing 30 manuscripts on IEEE

Please, revise your manuscript based on the editor and reviewer suggestion, advice and comment. Then, send your revision manuscript using our system journal.

Thank you,

Best Regards, Faaris Mujaahid JRC Editor.

Journal of Robotics and Control (JRC)
Email: jrc@umy.ac.id || jrcofumy@gmail.com
Website: http://journal.umy.ac.id/index.php/jrc

Journal of Robotics and Control (JRC)

Email: jrc@umy.ac.id || jrcofumy@gmail.com Website: http://journal.umy.ac.id/index.php/jrc