

## FACULTY OF ELECTRICAL ENGINEERING

# UNIVERSITI TEKNOLOGI MARA

## TERENGGANU

# IOT CONNECTED SAFETY HELMET FOR NOISE HAZARD PROTECTION

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### "In the name of Allah, Most Gracious, Most Merciful"

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#### **EXTENDED ABSRACT**

*Abstract*— Current situation now that have a problem about hearing. Many of workers according to statistics from Center of Disease Control and Prevention, 17% of workers expose to hazardous noise each year. This project was created to redesign the safety helmet by adding additional safety precautions measures using the relevance technique by using IoT and to develop a system to monitor the use of safety helmet at the noisy workplaces. NodeMCU is used as microcontroller to select the output depending on user's input selection. Sound sensor is used to detect the noise and the system will operate the components such as vibrator motor and LED. The value of the output will display at laptop and also send the information through Telegram. Result indicated that this project achieved the objective to protect from noise hazard. Further improvement can be made by modified it be more easy to use and more high quality.

Keyword: NodeMCU, Blynk, Internet of Thing (IoT), sound sensor

## TABLE OF CONTENT

CHAPTER	TITLE	PAGE
	DECLARATION	i
	ACKNOWLEDGEMENT	ii
	ABSTRACT	iii
	TABLE OF CONTENTS	iv-v
	LIST OF FIGURES	vi-vii
	LIST OF TABLES	vii
	LIST OF ABBREVIATIONS	viii
1.	INTRODUCTION	
	1.1 Background of study	1
	1.2 Problem Statement	2
	1.3 Objective	2
	1.4 Scope of Study	3
2.	THEORETICAL BACKGROUND	
	2.1 Theoretical Background	4
	2.11 A Brief Overview	4-5
3.	METHODOLOGY	
	3.1 Methodology Process	6
	3.1.1 Flow Chart	6
	3.1.2 Block Diagram	7
	3.2 System Description	8
	3.2.1 Schematic Diagram	8
	3.2.2 Hardware Development	9-11

3.3 Circuit Testing and Troubleshooting	12
3.3.1 Blynk Application	12-13
3.4 PCB Board Design	14
3.4.1 Printed Circuit Board (PCB)	14-17
3.5 Node-RED programming	18
3.5.1 How To Program Node-RED For IoT	18-19

## 4 **RESULT AND DISCUSSION**

4.1 Simulation Result	20
4.1.1 Arduino Integrated Development Environment	20-22
Software (IDE)	
4.2 Data Analysis	23
4.2.1 Experiment 1: Activation using Blynk Apps	23
4.2.2 Experiment 2: Calibration Test	24
4.2.3 Experiment 3: Node-RED Test	25-26
4.2.4 Device Functionality Test	27-29

#### 5. CONCLUSION AND RECOMMENDATION

5.1 Conclusion	30
5.2 Recommendation	30

30

#### REFERENCES

#### APPENDICES

Appendix A: Price Every Component	31
Appendix B: Price of Prototype	32
Appendix C: Price of booth	32
Appendix D: Datasheet of Component	33-38
Appendix E: Poster	39-40
Appendix F: Technical Paper	41-49