

UNIVERSITI TEKNOLOGI MARA

**AUTOMATED CLOTHESLINE FORHOME
APPLICATION**

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Thesis submitted in fulfillment
of the requirements for the degree of
**Diploma of Electrical Engineering
(Power)**

**Centre for Electrical Engineering Studies
College of Engineering**

FEB 2024

ACKNOWLEDGEMENT

Firstly, I'd like to thank the Almighty Allah SWT for blessing me with the successful completion of this final assignment. I'd also want to express my gratitude to my final year project supervisor, Dr Fatimah Khairiah binti Abd Hamid, whose stimulating comments and support helped me plan my project, particularly when writing this report. She also provided motivation and support during the completion of this assignment.

I want to thank my family for their unwavering support throughout my life. They are always loving and supportive of my choices. They have provided with financial assistance to complete my final year project.

Finally, this thesis is dedicated to the loving memory of my very dear late father and mother for the vision and determination to educate me. This piece of victory is dedicated to both of you. Alhamdulillah.

ABSTRACT

The automated clothesline system is a technologically advanced solution designed to address the inconvenience of unexpected rain while drying clothes outdoors. It consists of various sensors, a microcontroller, a motor, and output elements, including a light-dependent resistor, water sensor, and ultrasonic sensor. The microcontrollers, Arduino Uno R3 and ESP01, facilitate intelligent control of the system, processing information from the sensors and orchestrating subsequent actions. The control mechanism uses a stepper motor, a Light Emitting Diode (LED), and a buzzer as output components. The project underwent rigorous development and testing, with circuits meticulously constructed and evaluated for optimal functionality. The microcontroller's programming was critical for precise motor control and seamless integration of all components. A miniature model was created before the final prototype, providing a scaled representation of the entire system. The successful implementation of this project showcases its practicality and potential to enhance the efficiency of traditional clothes drying methods, especially in unpredictable weather conditions.

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CHAPTER 1

INTRODUCTION

1.0 Research Background

In today's fast-paced world, finding innovative solutions to simply daily tasks is essential. Enter the Automatic Smart Clothesline application, a cutting-edge technology designed to revolutionize clothing management and enhance convenience in our lives. This intelligent system combines automation connectivity and advanced features to protect clothes from the rain. Gone for the days of manually moved sorting clothes one by one.

With the automatic clothesline for home application, it can be eliminating the need for tedious and time-consuming tasks. Simply load the hanger with your clothes, and the system takes care of the rest, freeing up your valuable time for other activities. Preserving the quality of your clothing is a priority, and the automatic smart hanger understands that with advanced features, it ensures your garments will be protected from unexpected rain that can cause the clothes wet and odors. Whether you are a busy professional, a fashion enthusiast, or someone who values simplicity and efficiency, the automatic smart hanger is poised to transform your clothing management experience. Embrace the future of organization and discover the convenience and sophistication that this innovative technology brings.

The issue of uncertain weather has made it difficult for people to do laundry as a regular duty at home. The rainfall distribution in most places of Malaysia is unpredictable and inconsistent at times. At the same time, the busyness of people going about their everyday lives outside leads garments on the clothesline to get wet when it rains unexpectedly. This predicament has led many to seek remedies from the doorman. However, doing so over time can be costly in terms of both energy and money.