



AUTOMATED RAIN COVER SYSTEM FOR OUTDOOR DRYING CLOTHES

A PROJECT REPORT

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*In partial fulfillment for the award of the degree
of*

BACHELOR OF ENGINEERING

in

ELECTRONICS AND COMMUNICATION ENGINEERING

**KARPAGAM INSTITUTE OF TECHNOLOGY,
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MAY 2024

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ACKNOWLEDGEMENT

With genuine humility, we are obediently thankful to God Almighty without him, this work would have never been a reality.

We express our profound gratitude to our respected chairman **Dr.R.Vasantha kumar**, for giving this opportunity to pursue this course. At this pleasing moment of having successfully completed the project work, we wish to acknowledge our sincere gratitude and heartfelt thanks to our respected Principal **Dr.P.Manimaran**, our respected vice-principal **Dr.D.Banu**, for having given us the adequate support and opportunity for completing this project work successfully.

We express our deep sense of gratitude and sincere thanks to our beloved Head of the Department, **Prof.Dr.S.Gopinath.**, who has been a spark for enlightening our knowledge. Our profound gratitude goes to project coordinators **Dr.T.Manojkumar Ph.D., Dr.V.Vinothkumar Ph.D., Mr.S.Pragadeswaran M.E.,**and our project guide **Mr.G.Manisankar M.E.**, review members and all the faculty members of Department of ECE for the invaluable knowledge they have imparted on us. Our humble gratitude and heartiest thanks goes to our family members and friends for their encouragement and support throughout the course of this project.

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ABSTRACT

This project presents an innovative solution to the common problem of rain disrupting outdoor clothes drying. Through the development of an automated rain cover system, this project aims to provide users with a convenient and reliable method to ensure their laundry stays dry regardless of weather conditions. By incorporating weather sensors and a motorized cover mechanism, the system detects rain and deploys the cover automatically to protect the drying clothes. Extensive research, prototyping, and testing were conducted to refine the system's functionality and performance. Field trials demonstrated the system's effectiveness in accurately detecting rain and deploying the cover promptly. User feedback indicated high satisfaction with the system's convenience and reliability. Data analysis provided valuable insights for system optimization and future enhancements. Additionally, the automated rain cover system contributes to sustainability efforts by encouraging eco-friendly laundry practices and reducing energy consumption associated with indoor drying methods. This project sets the stage for further advancements in automated rain cover systems, with potential applications in residential, commercial, and industrial settings.

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LIST OF ABBREVIATIONS

RPM	Rotations per Minute
DTH	Direct-to-Home
IoT	Internet of Things
ARCS	Automated Rain Cover System
PWM	Pulse Width Modulation
LDR	Light Dependent Resistor
QFD	Quality Function Deployment
PIC	Peripheral Interface Microcontroller
UV	Ultraviolet
GSM	Global System for Mobile Communication
RISC	Reduced Instruction Set Computing
SRAM	Static Random Access Memory
ALU	Arithmetic Logic Unit
PLC	Programmable Logic Controller

