

UNIVERSITI TEKNOLOGI MARA

**STRUCTURAL ANALYSIS
OF AN OUTDOOR DRYING
RACK**

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ABSTRACT

The project is about structural analysis of an outdoor drying rack will focus on cable clothes hanger in terms of durability on the cable structure. Nowadays, we already know the various types of dryer racks such as freestanding, wall-mounted, hanging etc. created for us. As a conscientious consumer, need to emphasize on the strength of the product. Consumers are sometimes clueless of the durability of products that purchase. Every customer desires a low-cost drying rack to save money on other expenses. In addition, when there are a lot of clothing on the dryer rack, the strength of the cable structure is affected. For this project, will complete research by reading the facts related to the title project that has been given. After done with some research, will sketch 2 ideas and then choose the best one as well as improve on those options. The best selected design gained from the preliminary result used are from Morphological and Pugh chart which one is the design that meets the specified criterion regarding durability and lastly sketch the CAD modelling design on the SOLIDWORKS 2021 software that can show in 3 dimensions (3-D). The fabrication of drying rack to do the physical experiment which are used three differences materials and loads. The result will get from the experiment by observation and some calculation theory.

Table of Contents

| | |
|---------------------------------------|------------|
| CONFIRMATION BY SUPERVISOR | I |
| AUTHOR'S DECLARATION | II |
| ABSTRACT | III |
| ACKNOWLEDGEMENT | IV |
| LIST OF FIGURES | VII |
| LIST OF TABLES | IX |
| CHAPTER ONE: INTRODUCTION | 1 |
| 1.1 BACKGORUND OF STUDY | 1 |
| 1.2 PROBLEM STATEMENT | 2 |
| 1.3 OBJECTIVES | 2 |
| 1.4 SCOPE OF PROJECT | 2 |
| 1.5 SIGNIFICANCE | 2 |
| CHAPTER TWO: LITERATURE REVIEW | 3 |
| 2.1 INTRODUCTION | 3 |
| 2.2 AN OUTDOOR DRYING RACK | 3 |
| 2.3 MATERIAL PROPERTIES | 3 |
| 2.3.1 Stainless Steel | 3 |
| 2.3.2 Nylon | 4 |
| 2.3.3 Polypropylene | 5 |
| 2.4 FINITE ELEMENT ANALYSIS (FEA) | 5 |

| | |
|--|-----------|
| 2.5 THEORETICAL | 6 |
| 2.5.1 Cable Tension | 6 |
| 2.5.2 Normal Stress | 7 |
| CHAPTER THREE: METHODOLOGY | 8 |
| 3.1 INTRODUCTION | 8 |
| 3.2 FLOWCHART | 9 |
| 3.4 MATERIALS AND TOOLS | 13 |
| 3.5 GANTT CHART | 16 |
| CHAPTER FOUR: RESULT AND DISCUSSION | 18 |
| 4.1 INTRODUCTION | 18 |
| 4.2 PRELIMINARY RESULT | 18 |
| 4.2.1 Ideas of Sketch Design | 18 |
| 4.2.2 Morphological Chart | 20 |
| 4.2.3 Pugh Chart | 21 |
| 4.2.4 Best Selected Design | 22 |
| 4.3 DESIGNING CAD MODELLING | 23 |
| 4.3.1 Part of Drying Rack | 23 |
| 4.3.2 Exploded View and Full Assemble | 24 |
| 4.4 ACTUAL DESIGN | 26 |
| 4.4.1 Roller | 26 |
| 4.4.2 Clothes Hanger | 26 |
| 4.5 PHYSICAL EXPERIMENT | 30 |
| 4.5.1 Data and Result | 31 |
| 4.6 SOFTWARE SIMULATION | 34 |
| 4.6.1 Data and Result | 35 |