

**UNIVERSITI TEKNOLOGI MARA**

**DESIGN AND FABRICATE OF PORTABLE AND  
MULTIFUNCTION SHOE RACK**

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## **ABSTRACT**

Shoe racks are common furniture storage units available in the existing market with many various designs. According to study, the most previously existing products are in good working order. In addition, products that provide space or seating but are not portable are provided. Nowadays, most consumers prefer products that provide multi-purpose. The objective of this project is to come up with fresh ideas for making foldable and multi-purpose shelves. Furthermore, this project is to create multi-functional and portable shoe racks for everyone's use especially for students who live in hostel. In this project, I want to use economical, easily accessible material as well as material that could be swiftly manufactured and supervised. In nut shell, this product is designed to assist customers organize their shoes properly and exceed their expectations with a pleasant experience when using it.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of Study

Many different styles of furniture have been developed and innovated in recent years. Furniture appears to be an afterthought in life. But it can also play a significant part in our lives in terms of pleasure and comfort. Shoe racks are a sort of storage that is designed to retain and arrange shoes in an organized way. Shoe racks enable us to display or store a large number of shoes in a limited amount of space. According to a survey done in America in 2006, wealthy American women own an average of 27 pairs of shoes, while wealthy American men own an average of 12 pairs[1]. With such ridiculous numbers, it is not surprising that there is an increase in demand for convenient shoe storage options. It reduces the amount of space and it is portable that would otherwise be necessary. This project focuses on designing a smart rack which can be used not only to organize shoes, but also to sit on especially for hostel students.

### 1.2 Problem Statement

Shoes rack is compulsory furniture in the house or office. However, there are several disadvantages to the existing design. According to a market analysis, there aren't many racks that can be folded. This will thus be tough for those who like to move it or put it somewhere else. This is due to the size of the shoe rack. Therefore, the purpose of this multifunction rack project is to deal the problem of storing and organizing shoes that are strewn about the house, which is inconvenient for the residents. Students' shoes are frequently messed up and mismanaged at home, particularly in college dormitory.

Furthermore, the number of shoes owned by students plays important part in the project's implementation. This is due to the fact that students now wear a variety of shoes to class, play sports, work in the workshop, and so on.