

**UNIVERSITI TEKNOLOGI MARA**

**DESIGN AND FABRICATION OF  
ROAD DUST CLEANING MACHINE**

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## **ABSTRACT**

Cleaning is the main basic need for all human beings and it is necessary for daily routine process. The conventional road and floor cleaning machine is most widely used in many applications such as roads, railway stations, airports, hospitals, bus stands, buildings, and colleges. In recent years, most people prefer to commute by train or bus, and as a result, these areas are littered with biscuit wrappers, cold drink bottles, and other items. It is a user friendly as well as eco-friendly. In this project are to design and develop road cleaning machine capable of cleaning some part of road as well as around space .This target also to fabricate a machine that able to help people to do their cleaning at wide outdoor area. This project goes through many phases and aspect to fill the customers need based on recommendation and survey from every layer of life. All the finding are then turn into ideas to finalize the design and model for this project.

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# **CHAPTER 1**

## **INTRODUCTION**

### **Background of Study**

Cleaning and sanitizing effectively benefits and protects human health both directly and indirectly. Cleaning and sanitizing also helps to prevent pest infestations by removing residues that attract and support bees, pests, and other insects, as a result of routine cleaning and maintenance. In recent years, most people prefer to commute by train or bus, and as a result, these areas are littered with biscuit wrappers, cold drink bottles, and other items. Moreover, it is necessary to clean bus stops and train stations on a regular basis. There is no single cleaning method that is appropriate for all locations and occasions, and effective cleaning is dependent on the type of cleaning device, cleaning technique, and user-friendliness of the equipment.

Cleaning is a physically demanding job, and there is a need to develop methods for systematically evaluating new products' ergonomics. Due to a shortage of workers, floor cleaning robots have become increasingly popular in recent years among busy and aging populations. However, because unemployment is increasing in India, there is a need to develop cleaning machines that are less labor intensive.

Hence, the present work is aimed to design, development and evaluation of a manually operated road and floor cleaning machine M. Ranjith Kumar with the title "Design of Manually Operated Floor Cleaning Machine". [1] The author has been designed manually operated floor cleaning machine. He framed a model specifically for rural areas in this research article. He came to the conclusion that cleaning is less effective in areas where the street appears to be rough and damaged.

### **Problem Statement**

Nowadays, machine energy is more needed in this era to facilitate human beings. The project is design and fabrication of Road Dust Cleaning Machine that can be used for cleaning certain place and road from dust. Cleanliness is one of the major issues that