

**UNIVERSITI TEKNOLOGI MARA**

**DESIGN, ANALYSIS, AND  
FABRICATION SIMPLIFIED DRAIN  
WASTAGE CLEANER DEVICE.**

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## **ABSTRACT**

Introducing or implementing new ideas or methods is not the only way to demonstrate innovation. The definition or meaning of innovation can be defined as a multi-step process that helps new ways of doing things. Currently, the expansion of drain cleaning in Malaysia still using the old method. Therefore, there are a lot of problem that worker or people need to face when cleaning the drain. Simplified Drain Wastage Cleaner is an innovative device inspired by the existing project that made by students from other countries. This concept should be implemented in Malaysia. So, this innovative will help the workers or people easily to clean the drain. Other than that, this device will give more benefit to everything including environment, animals, and human. For instance, this device is easy to operate and will help the workers to reduce their times and energy during the cleaning process. Moreover, this device will be sold at a reasonable price. This devices marketing is focused on society especially residential area, school, and public playground.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of Study

Cleanliness encompasses both the abstract condition of being devoid of germs, dirt, trash, and waste, as well as the practice of obtaining and maintaining that state. Cleaning is a common way to obtain cleanliness [1]. Drainage is the natural or artificial evacuation of surface and subsurface water from an area that has too much water [2]. Clean water is a more important thing if using any purpose. The dirt present in water can cause hazards and disease due to too much rubbish and waste items in drainage will cause a major problem. This is because the function of the drainage system is to collect, transport, and dispose of the water through an outfall or outlet. The dirt in drainage water such as empty bottles, polythene bags, papers, and more. This dirt will cause the drains to be always clogged [3].

According to The Star having a dialogue with senior assistant director Kuala Lumpur City Hall (DBKL) the reason that drains are always clogged because too many, rubbishes or waste items will cause the drain to become dirty [4]. The current method that is used in Malaysia normally the drain-cleaners will clean up all the drains once a month manually by using a shovel or drain scoop. People surround will assume this method used to be getting worse due to the old way. In reality, the cleaners cannot be blamed due to a lack of time to clean up all the drains. This is because the dirt has piled up again. Other than that, the operation cost is too high to hire more cleaners [4]. This project is to develop a machine that can reduce all the weakness that found in the existing method during cleaning the drainage efficiently.