



اَوْبَهُوْ سِيْتِيْ بِاَيِّ كُوْلُوْ كِيْ مَبَارَا  
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**MEC 299**

**DESIGN AND FABRICATION OF PINEAPPLE  
PEELER MACHINE**

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## **ABSTRACT**

The main purpose of developing this product is to help small business and for personal use to improve the efficacy of peeling the pineapple. The main problem of traditional ways of peeling the pineapple is it will take lot of time to and will use a lot amount of energy. If small business want to buy a automatic pineapple peeler, they have to spend a lot of money to buy it. The objective is design and fabricate a pineapple peeler that can peel lot of variety and size of pineapple. The software that will be used to design this machine is by using solidwork. This machine will be fabricate in mechanical laboratory. The requiment will be consider before the design is create. The method that will be used to choose the best concept design for this machine is pugh chart and morphological table .

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# CHAPTER 1

## INTRODUCTION

### 1.1 Research background

Fruits and vegetables expire quickly due to biochemical changes (enzymatic and/or the action of bacteria, yeast, and moulds). Microbial activity is reduced or eliminated in order to preserve fruits and vegetables. Post-harvest losses in fruits and vegetables are one of the most pressing processing issues in tropical regions. The pineapple (*Ananas comosus*) is the most economically significant plant in the Bromeliaceae family, having edible numerous fruit composed of coalesced berries. In India, the total production of Pine apple was 1438.50 Tonnes [1].

Manually peeling and slicing pineapple takes time and effort. Thus, machines such as pineapple peelers and slicers are critical for processing a significant amount of pineapple per unit time. In marketplaces, pineapples of all shapes and sizes, such as round, oval, and conical, are available. Various food material characteristics (such as variety and maturity level) have a considerable impact on tissue structure and slicing operation. Pineapple is the only source of bromelain, an enzyme used in medicines and as a meat tenderizer [2].

### 1.2 Problem statement

- The manufacture of automatic pineapple peeler machines demands a large amount of material. So, if the small business want to buy a automatic pineapple peeler it will burden them because the price for one automatic pineapple peeler is very expensive
- It is hard to peel the pineapple using the old method or the way that people always used to do, which is using a knife. When using a knife, people have already risk theirself with more percentage of injury by using that knife. And it will take a long time to peel the pineapple because its need to rotate the pineapple every time the skin is cut