

A Review on Development of Kek Lapis Sarawak's Machine

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Abstract. Kek Lapis Sarawak is a beautifully decorated and flavorful cake that can be considered as the artwork of the Malays in Sarawak. There is an overwhelming demand of the Kek Lapis Sarawak in the market that consequently need for automation. This paper summarizes comprehensive reviewed patents of the current machine and journals which have similar functions and related to the current function of manual process of producing Kek Lapis Sarawak. Conceptual idea of the Kek Lapis Sarawak machine consists of three modules namely Depositor Module, Cooling and Pressing Module and Baking Module. Therefore, patents and journals that have similar functions with these modules are reviewed that look into its advantages. The disadvantages of the design also considered for future design. Hence, the crucial advantages of each module considered are namely improved production rates, increased of hygienic rating, easy to maintenance and portability of a design. The reviewed patents and journals can be considered for the development of Kek lapis Sarawak's machine with some improvisations are needed to meet up the specific requirements of the machine.

1 Introduction

Kek Lapis Sarawak can be considered as the artwork of the Malay people in Sarawak. The uniqueness of the cake's pattern and flavour captures the world's attention. Kek Lapis Sarawak is a must menu during the festive seasons in Sarawak including birthdays and wedding ceremonies. The popularity of the cake creates an overwhelming market demand.

The current production of Kek Lapis Sarawak which is done manually is unable to meet the growing demand. Conventional method involves repetitive processes of depositing, layering, baking, cooling and pressing dependent on number of layered needed [1]. The tedious process is very time consuming and relying on the labour's skills. The issues consequently limit the productivity and quality of the cakes produced. The needs of producing compact and cheaper machine that can produce varieties of Kek Lapis Sarawak caused by the high dependable to a foreign supplier that costs more on the maintenance such as delay in repairing process and international expertise that contributes to the loss of production. Likely, automation of the Kek Lapis Sarawak machine is the most viable solution.

The objective of this paper is to present summary of reviewed any related patent, journal and proceeding that have similar functions to the current process namely

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depositing, baking and layering. Advantages of the reviewed publications can be considered for the development of the future machine. While, any drawback need to be improvised to suite with the specific needs of the Kek Lapis Sarawak machine.

2 Discussions

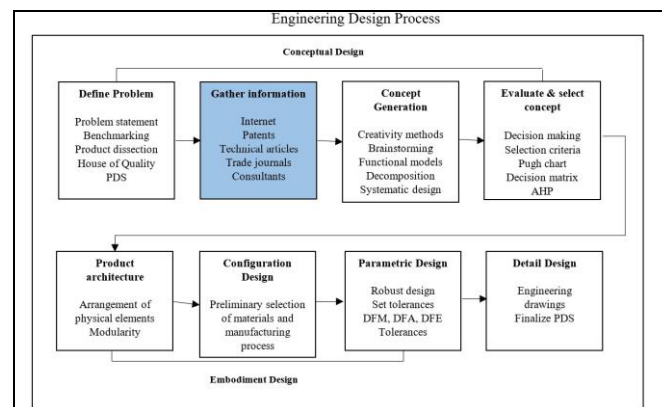


Figure 1. Schematic diagram of Engineering Design Process. [2]