DESIGN OF AN AUTOMATIC CASSAVA SLICING MACHINE USING AUTODESK FUSION 360

Salsabila Liandra Putri,S.K.M.,M.K.K.K (*Thesis Supervisor*)

Taufiq Ikrom Jamil
Mechatronics Engineering Technology Study Program,
Engineering Department
Taufiqikromjamil@gmail.com

ABSTRACT

Cassava is one of the most important staple crops in Indonesia, playing a strategic role in food security due to its adaptability to various soil and climate conditions. One of its most popular processed products is cassava chips, which are favored for their savory and crunchy taste, and have significant market potential both locally and for export. However, the chip production process—particularly the slicing stage—is still largely done manually, resulting in inconsistent slice thickness, low efficiency, and high labor requirements. To address these issues, this study designs and develops an automatic cassava slicing machine using Autodesk Fusion 360 software. The machine is intended to produce uniformly sliced cassava more quickly and efficiently. The research consists of three main stages: hardware and software design, machine fabrication, and performance testing. The results indicate that the automatic slicing machine significantly improves production efficiency, reduces manual labor, and ensures consistent slice thickness, making it highly suitable for application in small and medium-sized enterprises (SMEs)

Keywords*: cassava, cassava chips, automation, slicing machine, Autodesk Fusion 360, SMEs.*