IMPLEMENTATION OF AN AUTOMATIC CASSAVA SLICING MACHINE WITH A SINGLE-PHASE AC MOTOR DRIVE SYSTEM

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ABSTRACT

The advancement of technology in the agricultural sector has driven the development of innovative tools for post-harvest processing, one of which is an automatic cassafa slicing machine. This study aims to implement an automatic cassava slicer powered by single phase AC motor. Designed to operate efficiently and reliably. The implementation process includes mechanical and electrical assembly based on a design provided by the development team, followed by performance testing to evaluate the machine's effectiveness. Test result show that the machine is capable of slicing cassava automatically with an average slice thickness off 1.2 mm. in performance tests, the machine successfully sliced 1.5 kg of cassava in 4 minutes and 35 second, with a production capacity of up to 17 kg per hour. The implementation demonstrates that the machine can improve production efficiency, ensure consistent slucing result, and reduce reliance on manual labor. This technology is expected to serve as an appropriate and practical solution for small- to medium scale agricurtural processing industries

Keywords : *Cassava sliver machine*