Automated Coconut Scraping Machine

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Abstract: *Extraction of the coconut meat manually poses significant risk of injury to the Operator's hands and also a tedious process. This work is aimed at solving the imminent hazard during cracking and extraction of coconut meat from the endocarp. It was also done to reduce human effort in cracking and scraping. Although there are machines that have been developed to handle the problems of cracking and scraping of coconut for domestic and industrial use. However, integrating cracking and scraping functions in one machine to perform these tasks is not common. Besides, the scraping machines that are available in the market still require human handling of the coconut. To scrape properly, pressure is required. An integrated coconut cracking and scrapping machine was developed as presented in this work to effectively handle the task of cracking and extracting coconut flesh with less operational risk. The cracking unit of the machine uses a spring-loaded hammer that is operated by a rotating crank. The crank is powered with an electric motor. Cracking efficiency of up to 89.91% was obtained on the basis of the crack formed on the shell in relation to its size along the cracking axis during test*

Keywords: Coconut, Cracking, Scrapping, Development, Performance, Machine, Analysis