

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA-590018



A Project Report on

“ARECANUT BUNCH BEATER”

Sponsored By,

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

38th SERIES OF STUDENT PROJECTS PROGRAMME: 2014-2015

Project proposal code: 38S0089

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**In the partial fulfillment for the award of Degree of Bachelor of Engineering in
Mechanical Engineering of the Visvesvaraya Technological
University, Belagavi during the year 2015.**

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Abstract

The operation of lifting and beating each arecanut bunch on a solid surface several times and collection of stripped arecanut from ground level is usually performed which leads to high demands of energy expenditure and develops high work stress in the majority of the arecanut plantation workers. These results in musculoskeletal disorders, such as upper limb disorders, lower limb disorders and less job satisfaction. For minimizing the human effort and also to increase the productivity, a rotary type, worker friendly arecanut stripper with safety features was developed. The hold-on type arecanut stripper unit consisted of a feed tray, a rotary stripping mechanism. The arecanuts were separated from bunches due to the impact force of the rotating blades, the stripped arecanuts fell on the feed tray. The entire unit was mounted on steel structure. The stripper was suitable for stripping both green and ripe arecanuts. The developed worker friendly arecanut stripper was evaluated for its performance and its suitability for male and female workers was assessed for reduced human comfort. The damage caused to the stripped arecanut was eliminated. The use of the worker friendly arecanut stripper enhanced the comfort of the subjects with reduction in physiological stress and body part discomfort when compared to conventional arecanut stripping.