

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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A

**PROJECT REPORT
ON
AUTOMATED RUBBER TAPPER**

(Sponsored by KSCST, Bangalore)

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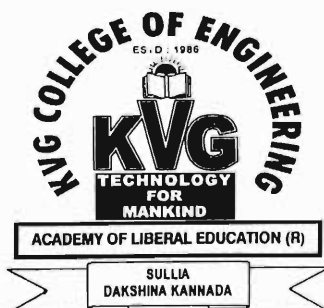
IN

ELECTRONICS AND COMMUNICATION ENGINEERING

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ABSTRACT

Rubber tapping is the process by which the sap (latex) is collected from a rubber tree. The conventional rubber tapping system is entirely manual. This project '**Automated rubber tapper**' is an approach towards the automation of rubber tapping process and there by overcome the shortage of labour required for the same. Latex harvesting in the early morning before sunrise would yield maximum crop. Hence all the rubber trees of the plantation, each fixed with a rubber tapper can be programmed to operate simultaneously, there obtaining the maximum crop than the conventional tapping method.

Two DC motors are used to provide two dimensional movements for the tapping blade. The position of the tapping blade is precisely controlled by the sliding bar and the DC motor driven by the microcontroller. The distance measure sensor is used to sense and protect the cambium of the rubber tree during the tapping process.

The distance measure sensor and DC motors are interfaced to P89V51RD2 microcontroller. The real time clock which is interfaced to the microcontroller decides the beginning of the rubber latex tapping. The source code is developed in embedded C on the Keil- μ vision flat form. The microcontroller is programmed using flash magic software.