VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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Project Work

On

"ADVANCED ELECTRONIC VOTING SYSTEM USING FREQUENCY BASED THUMB PRINT RECOGNITION"

(Sponsored by KSCST)

Submitted in partial fulfillment of the requirement for the award of degree

BACHELOR OF ENGINEERING

IN

ELECTRONICS AND COMMUNICATION ENGINEERING

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ABSTRACT

To implement an Advanced Electronic voting machine using Frequency based Thumb print Recognition with high computation efficiency and recognition rate and to make the fingerprint recognition system practical. The development tool used on the PC platform will be MATLAB which consists of Image Processing functions.

A simple technique based on Discrete Wavelet Transform (DWT) and Fast Fourier Transform (FFT) Technique is used for identification of a person based on his\her Thumb print. It is proposed to develop an embedded system that is interfaced with the computer to identify the person. This system can be used for authentication purposes in various industries.

The main objective of this project is to cover the following objectives To avoid the **proxy voting** in the conventional voting method by identify the authorized voter utilize the uniqueness, universality, permanence, easy accessibility, easy collectability of the human's one of the biometric characteristics and also increase the TOTAL SUCCESS RATE of recognition and matched output is fused with embedded intelligent hardware to display the result.

In this project, a novel technique for selecting DWT and FFT coefficients in the area of Thumb print recognition has been presented. Tests have been performed on the Standard Database, showing that recognition rates are increased when the technique is deployed.

Finger print recognition is done using DWT applied FFT. The technical performance capability of the finger print recognition process far surpasses that of any biometric technology now available. The extremely low probabilities of getting a false match enable the thumb print recognition algorithms to search through extremely large databases, even of a national or planetary scale. Finger print biometric technology has always been an exceptionally accurate one, and it may soon grow much more prominent