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## Comparison Of Various Transformations In Fingerprint Recognition.

A Balakumar\*, and B Kiran Bala.

<sup>1</sup>Department of Electronics and Communication Engineering, K.Ramakrishnan College of Engineering, Trichy, Tamil Nadu, India.

<sup>2</sup>Department of Computer Science and Engineering, K.Ramakrishnan College of Engineering, Trichy, Tamil Nadu, India.

### ABSTRACT

One of the well known and effective technology used in recent technology is fingerprint recognition technique which is user friendly and easy to access the technology and very safe in order to give more safe and effective results in fingerprint recognition technique for extracting the feature various transformation has been implemented and make comparison among those transformation with parameter like FAR, Time and FRR justify the results for the fingerprint recognition and the data set used for this proposed system is open database for the entire process.

**Keywords:** Fingerprint Recognition, Z-Transform, Fast Fourier Transform, Wavelet Transform

*\*Corresponding author*

### INTRODUCTION

The system deals with fingerprint open database from that feature extraction will be made by using various transformation like Z-Transformation, Fast Fourier Transform and Wavelet transform make compare with all the transformation and parameter should be consider for the entire process is FAR, Time and FRR justify the result from the entire data[1-7].

### METHODS AND MATERIALS

The system deals with very strength technology like fingerprint recognition and which gives more security in the recent technology in addition to that technology give more strength to the technology various transformation comparison made and result of best technology have comparison and result has been implemented for the feature extraction and matching done by Euclidian distance metric and open database has been implemented for the proposed system [1].

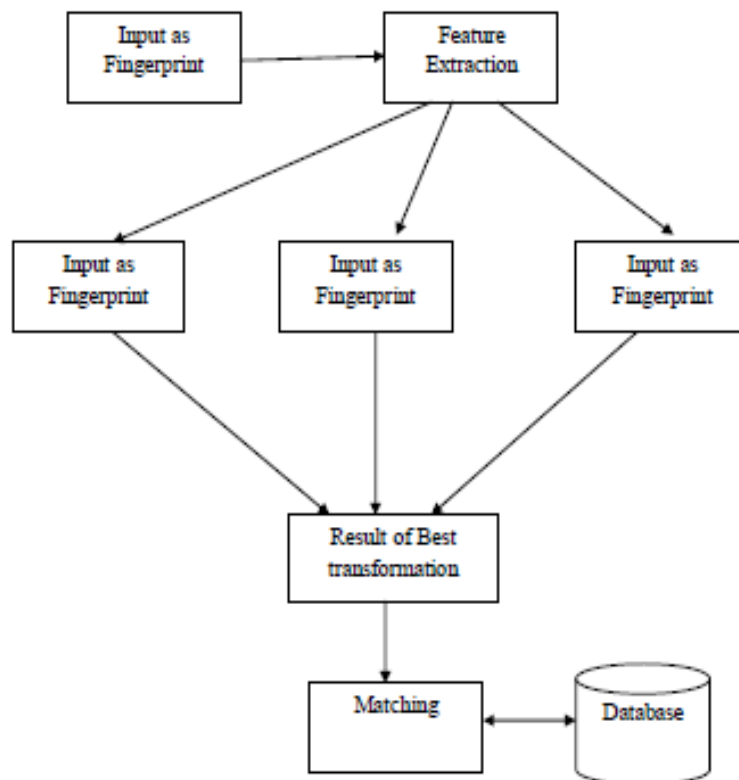


Figure 1: Architecture Diagram

### Implementation

The implementation deals with open database which has totally 206 images has been used for the proposed system and all the 206 images are thumb images feature extraction made for the fingerprint and table 1 shows the comparison result of FAR, Time and FRR[3].



Figure 2: Sample Fingerprint

Table 1: Comparison of Transformation

S.No	Transformations	FAR (%)	FRR (%)	Time (S)
1.	Z-Transform	98.06	98.06	0.01
2.	Fast Fourier Transform	99.51	98.06	0.04
3.	Wavelet	99.51	99.51	0.01

### CONCLUSION

The result of implementation justify the wavelet transformation is suitable for the implementation of the fingerprint recognition system and comparative results shown in the table 1 for the analyze and open database has been taken into account for the entire process and totally 206 images has been processed result shows the justification.

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