JSS MAHAVIDYAPEETHA

JSS ACADEMY OF TECHNICAL EDUCATION NOIDA

DEPARTMENT OF ELECTRONICS ENGINEERING

SYNOPSIS OF THE PROJECT

GROUP NO: 38

Title of the project:

Fingerprint Combination for Privacy Protection

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Group Members:

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OBJECTIVE:

Combination of two fingerprints for privacy protection.

SCOPE OF THE PROJECT:

Fingerprints are the most widely used biometric feature for person identification and verification in the field of biometric identification. Fingerprints possess two main types of features that are used for automatic fingerprint identification and verification: (i)Ridge and furrow structure that forms a special pattern in the central region of the finger print and (ii) Minutiae details associated with the local ridge and furrow structure. In a traditional biometric recognition system,
the biometric template is usually stored on a central server during enrolment . The candidate biometric template captured by the biometric device is sent to the server where
the processing and matching steps are performed. The main scope of the project is to combined minutiae template from the original minutiae templates. With the help of an existing fingerprint reconstruction approach ,we are able to convert the combined minutiae template into a real-look alike combined finger
print.

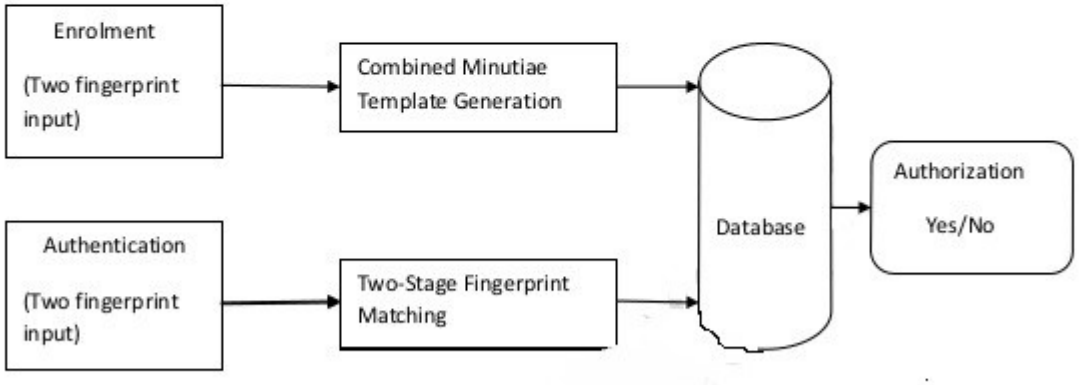
PROJECT BACKGROUND & LITERATURE REVIEW:

Algorithms used:

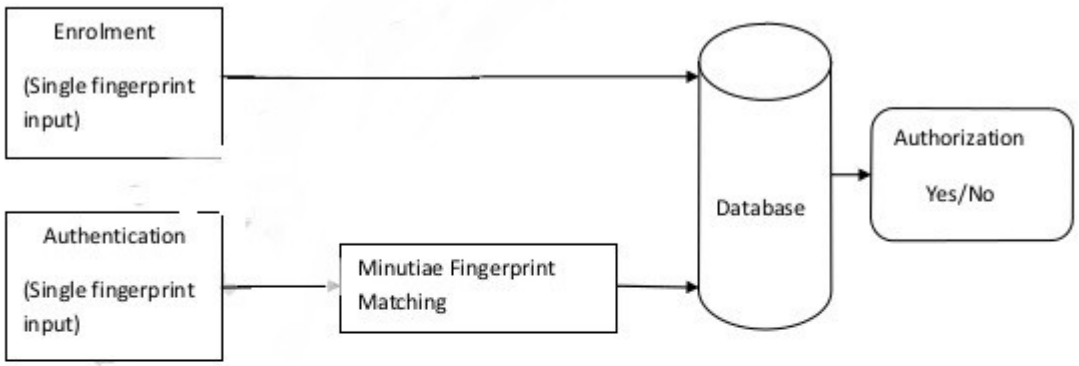
1. Combined minutae template generation for combination of fingerprint.

2. Beta skeleton technique for matching of the fingerprint combination in database and the client input.

Architecture Diagram:



Existing System Architecture



CHALLENGES:

1. Efficient algorithm for combination of two fingerprint.
2. Minutae and orientation extraction from fingerprints.

HARDWARE/SOFTWARE TOOLS REQUIRED:

1.MATLAB(R2015a) :Signal Processing Toolbox

RESPONSIBILITY OF EACH MEMBER:

1.Ankit Agarwal: Extraction of minutae and orientation .
2.Shashank Shekhar: Matching the database and user combined fingerprint.
3.Aman Verma: Building gui for the comparision.

REFERENCES: