

# VIRTUAL ATM USING 3 TIER SECURITY POWERED BY AI

# PROBLEM STATEMENT

To enhance the experience of Virtual ATM using face and finger print authentication proposed model uses channel boosted conventional neural network and decision making techniques.

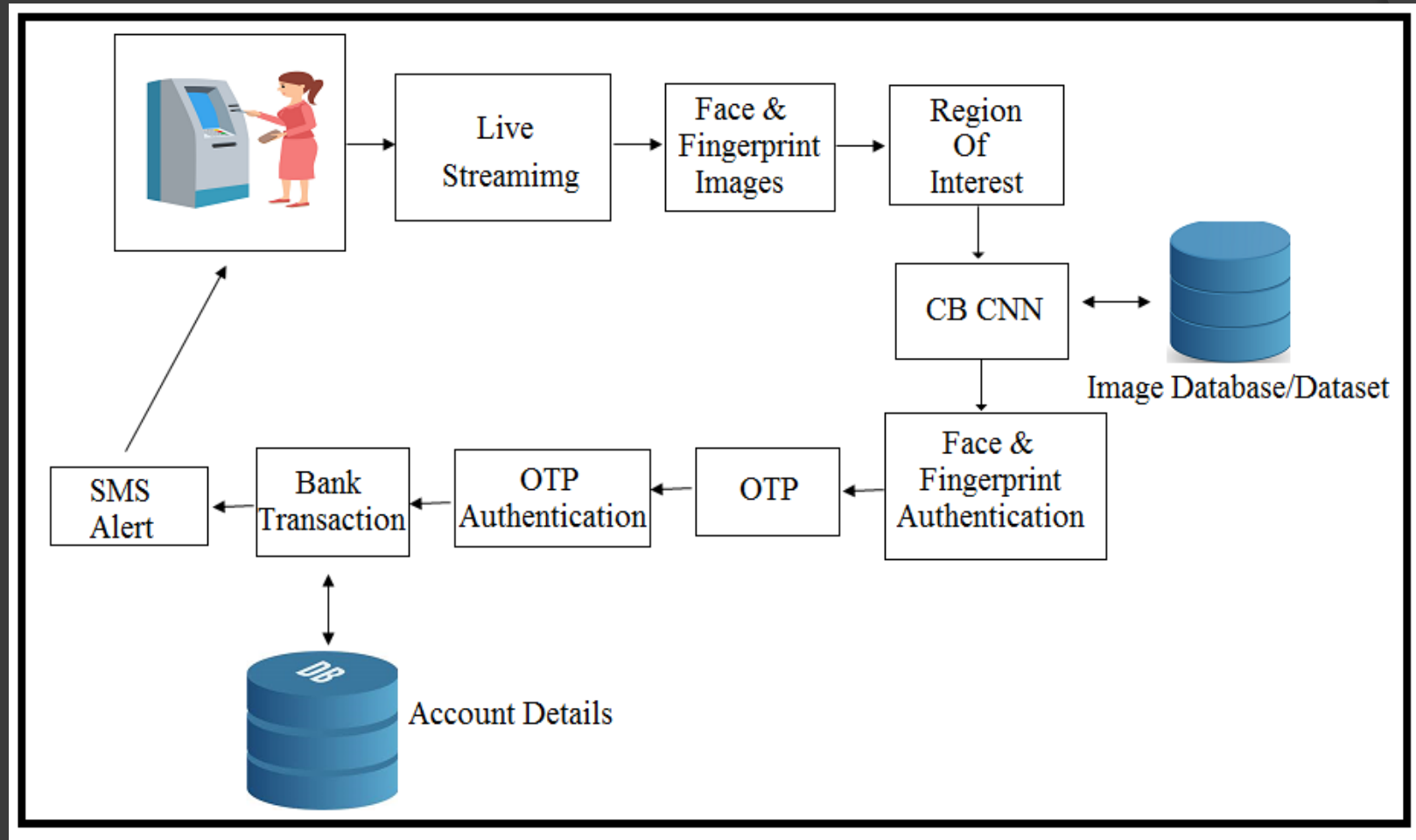
# MOTIVATION

- To increase the security of cordless ATM facilities through face and Finger print authentication
- To deploy the model of contactless finger print authentication
- To incorporate the model of deep learning mechanism for the bio metric authentication in supervised mode
- To bring down the whole idea into reality

# OBJECTIVES

- To capture the finger print and facial images properly for the purpose of training
- Proper channel boosting of the images for the process of training
- Accurate training of the data through channel boosted Convolutional neural network
- Seamless handling of the multi- threads for the authentication of 3 tier layer bio metric data

# OVERVIEW DIAGRAM



# PROPOSED METHODOLOGY

The proposed methodology of our system can be explained through following modules:

## ❑ **Module A: Biometric capturing**

- Input: Frames
- Process: Frame Grabbing and frame processing for face and fingerprint
- Output: Frame storage and dataset preparation

## ❑ **Module B: Preprocessing**

- Input: Dataset
- Process: Preprocessing
- Output: Preprocessed image

# PROPOSED METHODOLOGY

## ❑ **Module C: Channel boosted Convolutional Neural Networks**

- Input: preprocessed images
- Process: Hidden and output layer evaluation
- Output: Trained data

## ❑ **Module D: Decision Making**

- Input: Test Image frame
- Process: Model Initialization and if-then rules
- Output: Virtual ATM transaction handling

# HARDWARE AND SOFTWARE TECHNOLOGY

## Minimum Hardware Specification:

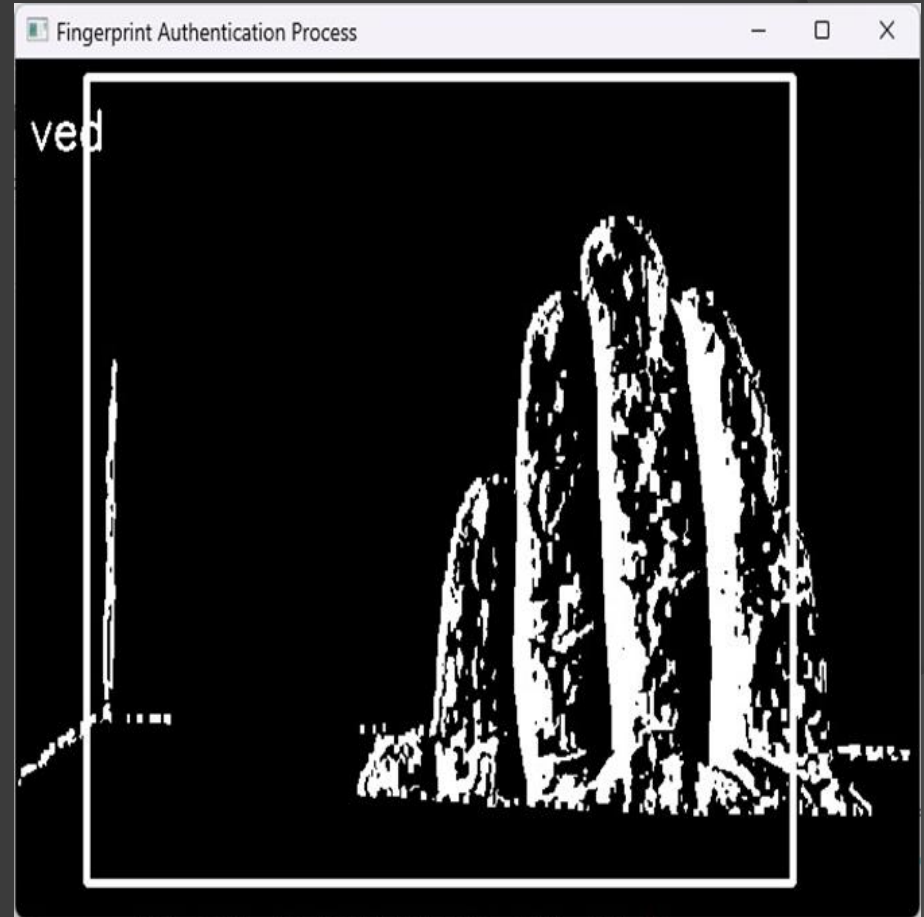
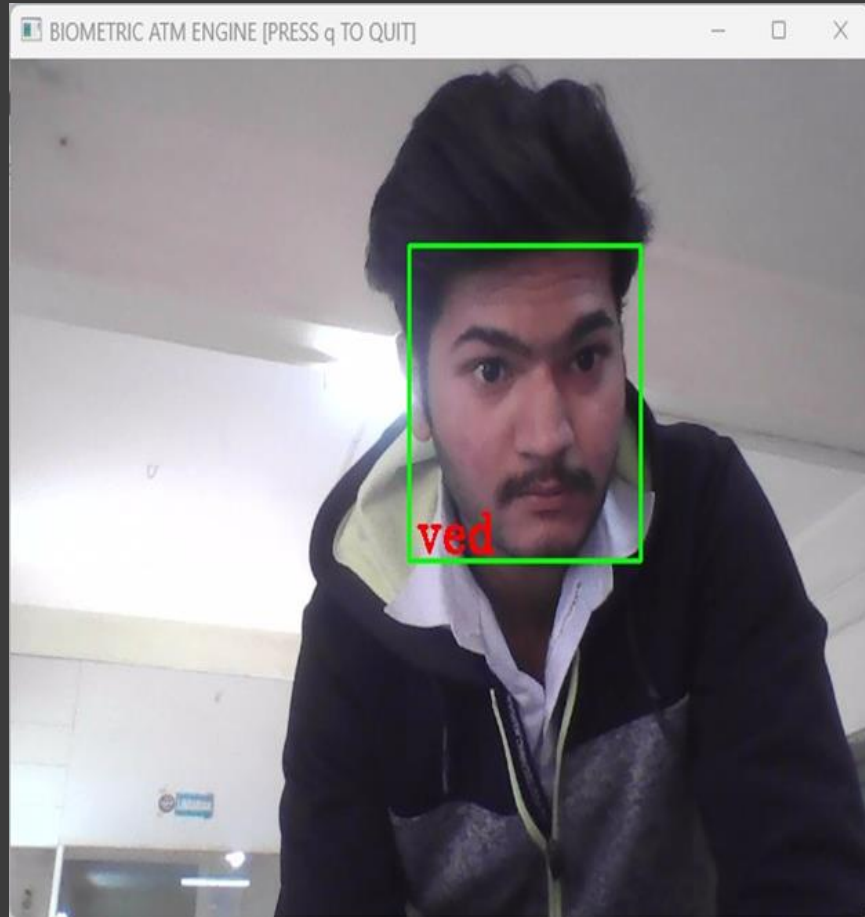
- CPU : Core I5
- RAM : 8 GB
- HDD : 500 GB
- Camera : 48 MP

## Software Specification:

- Coding Language : Java, Python
- Development Kit : JDK 1.8, Python 3.8
- Front End : Java Swing
- Development IDE : NetBeans 8.2, Spyder 3.8
- Data Base : My SQL 5.0



# RESULTS



OTP AuthenticationPanel

SHRI CHATRAPATI SHIVAJI CO-OPERATIVE BANK, AHMED NAGAR

ENTER OTP RECEIVED ON YOUR REGISTERED EMAIL ID

33199

SUBMIT

Today's moment  
Purple Day

Search

Success Message

i OTP Matched

OK

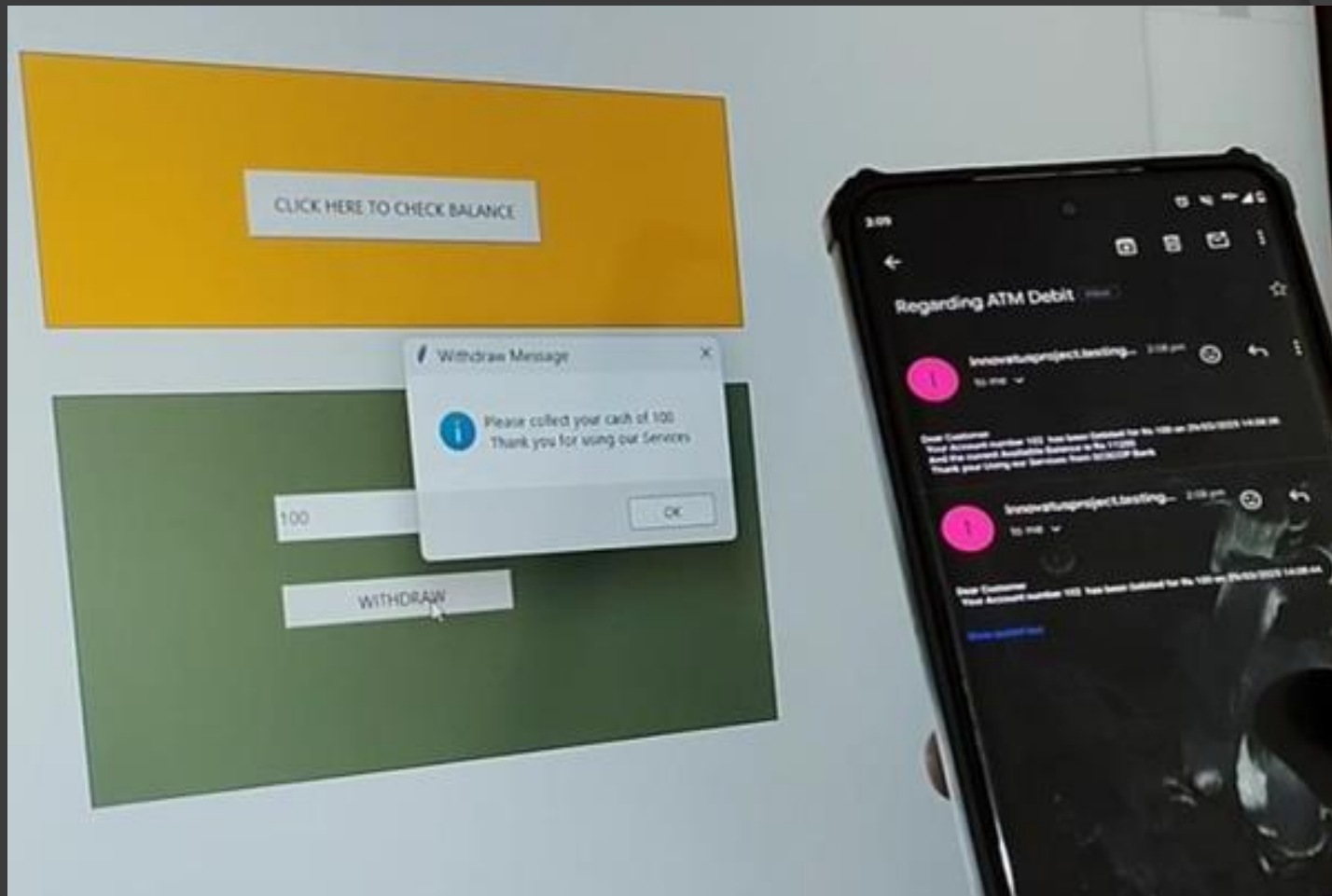
TRANSACTION FORM

CLICK HERE TO CHECK BALANCE

WITHDRAW

Snipp  
Screenst  
Automat

Search







Edit Profile Frame

Manage Profile Account Logout

### Edit Profile Frame

Employee Id

Employee Name

Email Id

Mobile Number

Username

Password

Confirm Password

New Account Creation Frame

Manage Profile Account Logout

### New Account Creation

Account Number

Account Type ☒ Saving Account ☐ Current Account

Customer Name

Address

Mobile Number

Email Id

Atharcard Number

Pancard Number

Initial Amount

# CONCLUSION

- Accurate dataset formation for face and finger prints
- Accurate training of the face and finger print
- successful authentication of faces
- Successful authentication of finger prints
- Accurate handling of multi- threads to maintain sequence of authentication to enhance Virtual ATM process