

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.

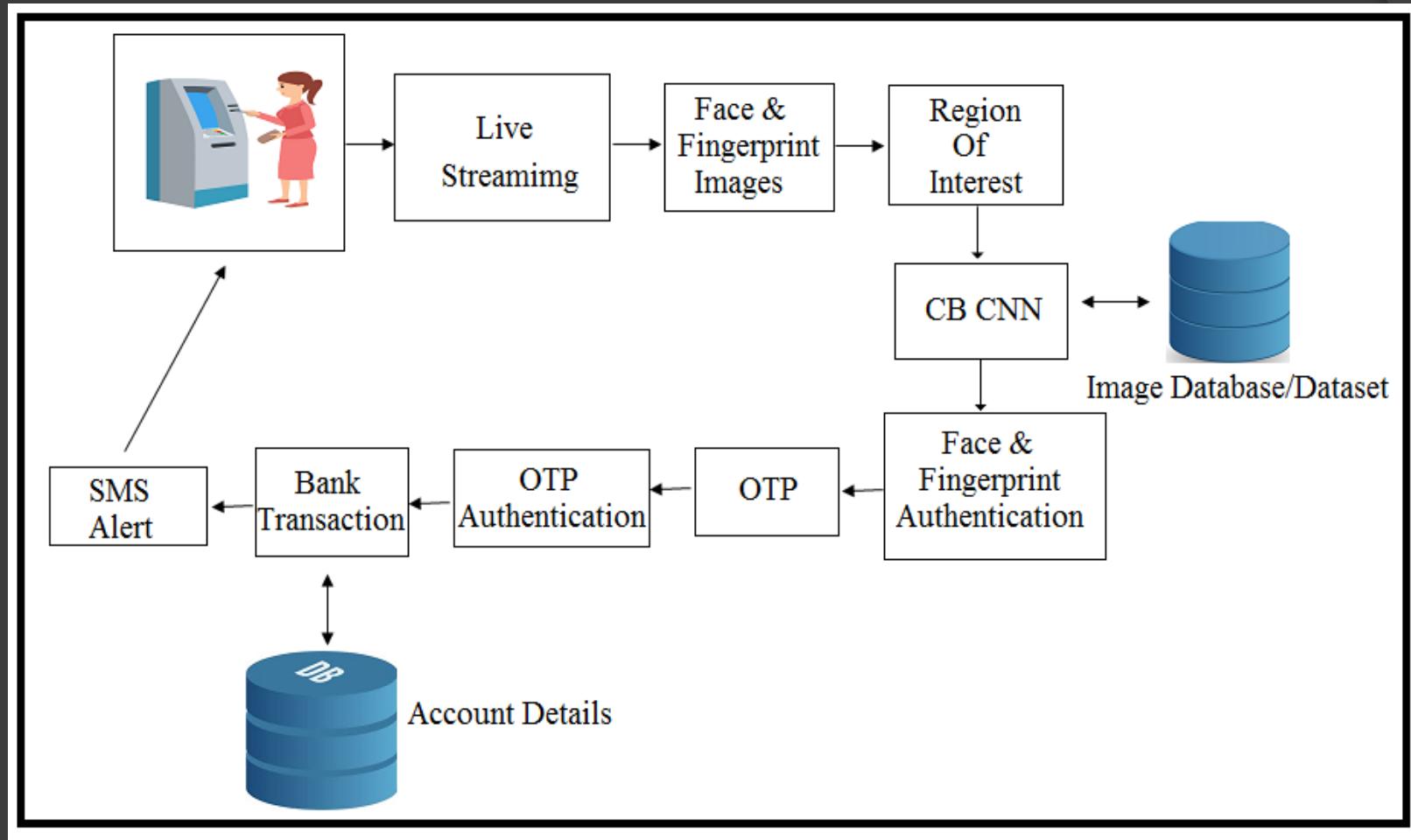
MOTIVATION

- 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

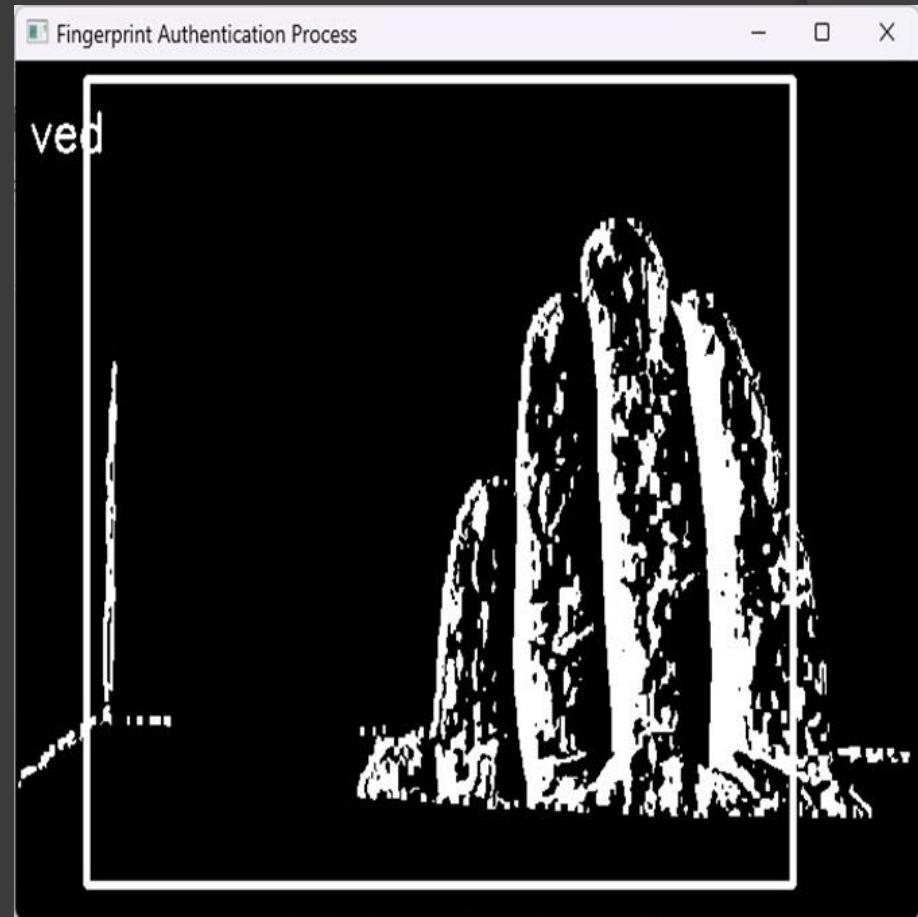
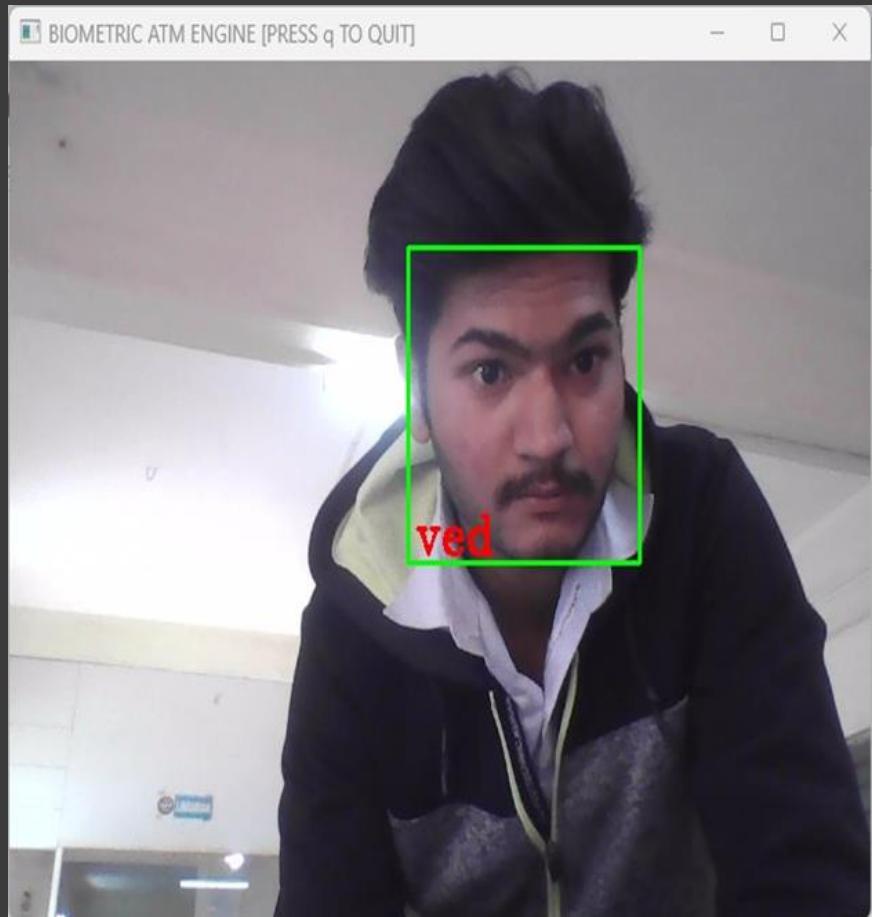
Minimum Hardware Specification:

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

Software Specification:

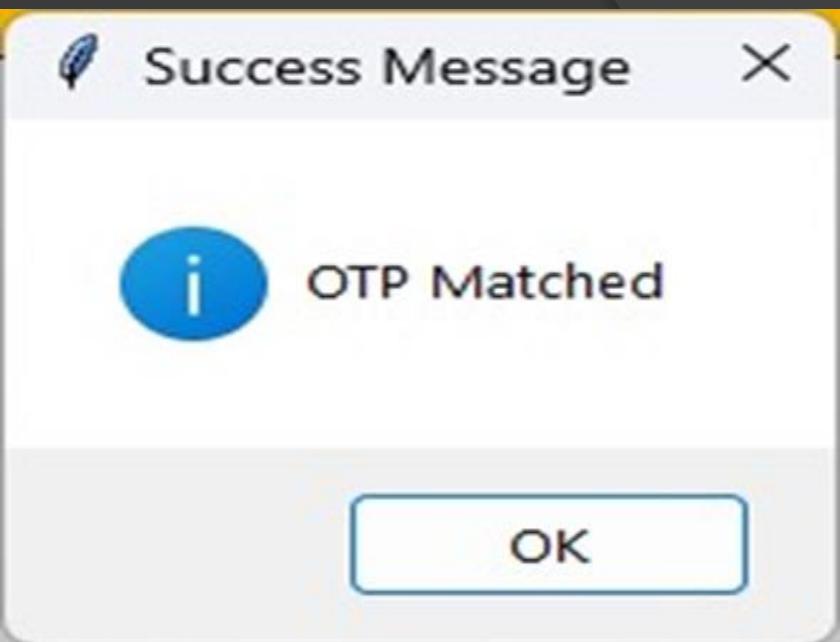
- Coding Language** : Java, Python
- Development Kit** : JDK 1.8, Python 3.8
- Front End** : Java Swing
- Development IDE** : NetBeans 8.2, Spyder 3.8
- Data Base** : My SQL 5.0

RESULTS



SHRI CHATRAPATI SHIVAJI CO-OPERATIVE BANK, AHMED NAGAR

ENTER OTP RECEIVED ON YOUR REGISTERED EMAIL ID



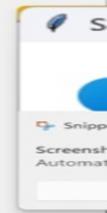
day's moment

Search          

TRANSACTION FORM

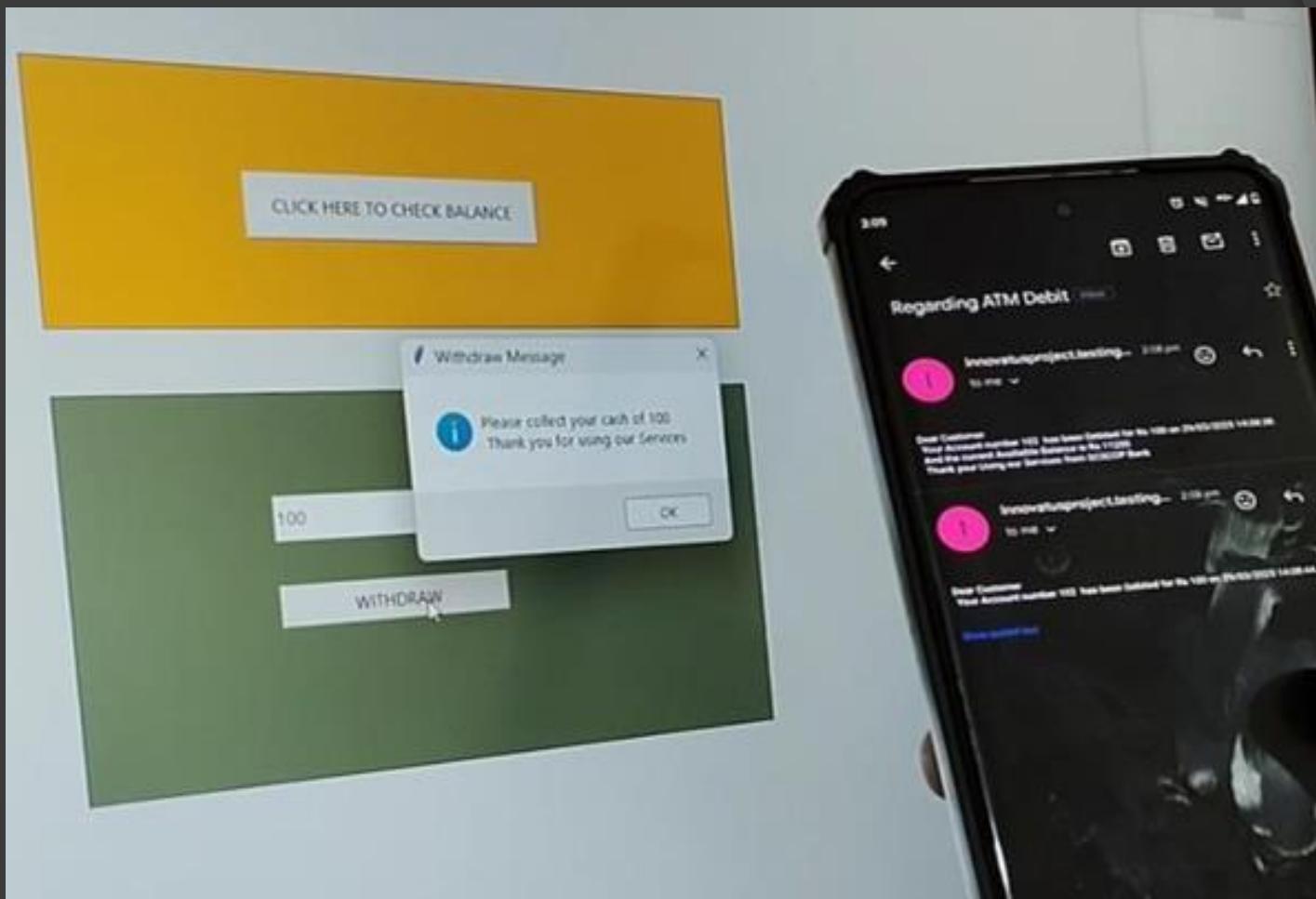
CLICK HERE TO CHECK BALANCE

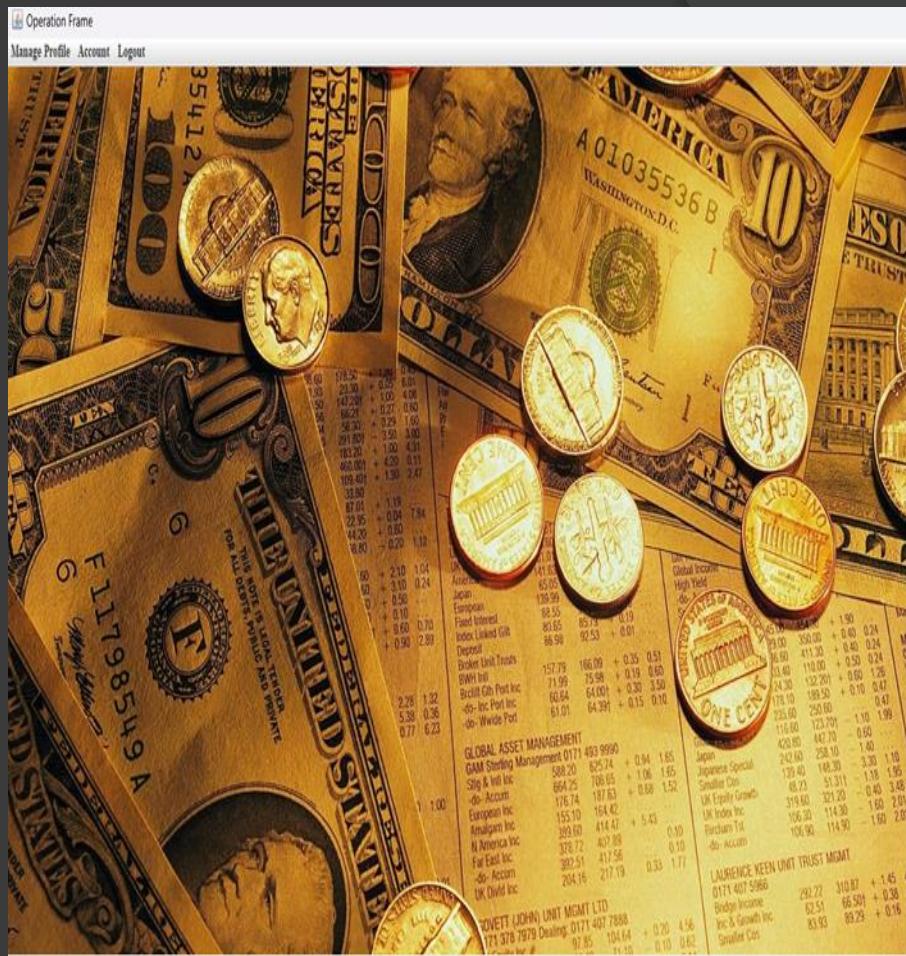
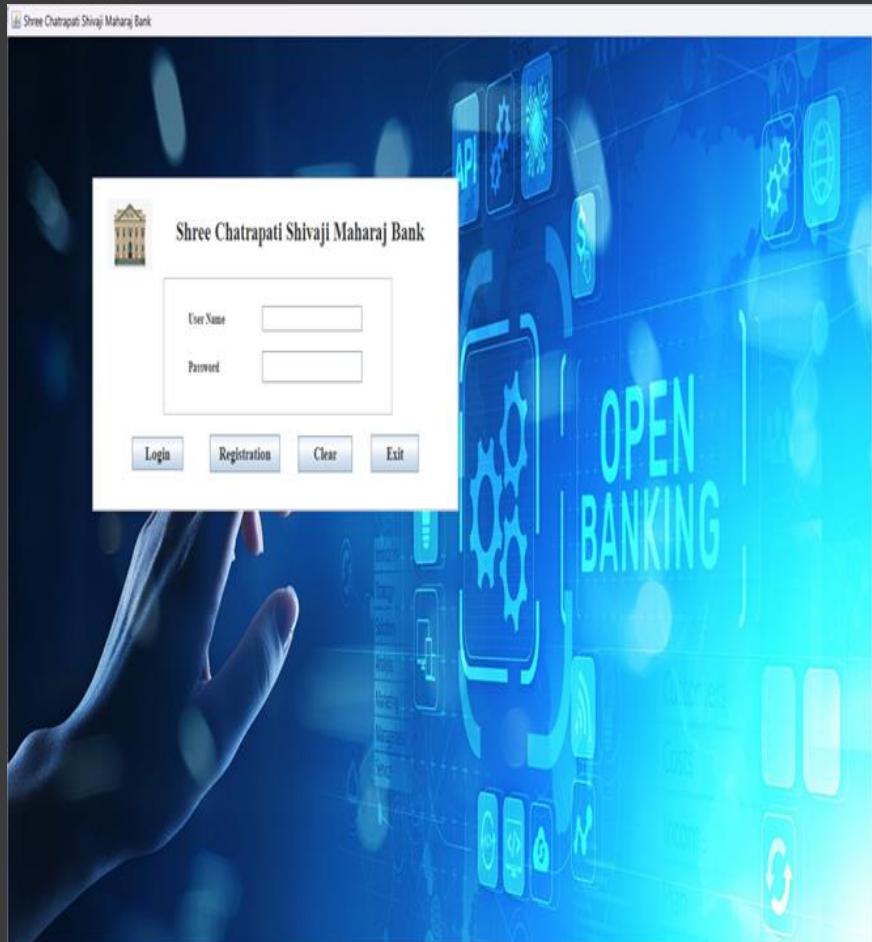
WITHDRAW



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Edit Profile Frame

Employee Id Employee Name Email Id Mobile Number Username Password Confirm Password

New Account Creation

Account Number Account Type Saving Account Current AccountCustomer Name Address Mobile Number Email Id Adharcard 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