SECURE ONLINE TRANSACTION WITH USER AUTHENTICATION

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ABSTRACT

Online transaction process is secure with one-time password (OTP). Generating OTP has many factors that can make OTP unique for every time it is generated. In this paper we implement user Identification using Face Recognition to verify the user. In case of emergency situation, the login can be done using OTP and also the person image is captured and Mail to the Account Holder. Thus, our system has improved security compared to existing System.

Index Terms Face Recognition, Internet of Things, OTP, ID Cards, M-Banking

Biographical notes:

[I] INTRODUCTION

Presently a day with the system world, the path for cybercrime is gotten simpler for hacking reason. On account of this explanation, arrange security has gotten one of the greatest confronting the present IT offices security. We heard a ton about programmers and wafers approaches to take any sensible secret phrase or pin code number character, wrongdoings of ID cards or Mastercard's misrepresentation or security breaks in any significant structure and afterward build up any data or different significant information from any association or organization. These issues permit us to know the need of solid facial innovation to verify significant information and certifications. This innovation depends on a system called "face acknowledgment" utilizing biometric. Biometric is a type of bio-informatics that utilizations organic properties to recognize individuals. Since biometric frameworks recognizable proof an individual by the natural qualities, they are hard to counterfeit.

[2] TECHNIQUES USED IN MACHINE LEARNING

As of late, as indicated by the rising improvement of savvy cell phones and tablet PC, portable web-based business has significantly expanded because of the explanation that the capacity of keen cell phone and tablet PC are consolidated together. M-banking is consequently gotten increasingly helpful, powerful and opportune through the new portable correspondence frameworks. So as to raise the security of M-banking, a few banks receive the one-time secret key (OTP) to cure the conceivable M-banking taking danger[1-4]. Previously, the OTP is sent to individual cell phone. However, right now a large portion of the savvy cell phone can perform M-banking effectively. In this manner, it increases higher danger of data security because of cell phone hacking. So as to give a solid and secure M-banking process without decline the accommodation simultaneously, in the paper one-time secret word (OTP) and individual biometric have been joined with individual distinguishing proof and secret key for confirmation while M-banking [5] As the customer side starts a solicitation for M-banking to the server side of a bank that gives M-banking administration, the server side will create an OTP with restricted period for enrollment the M-banking and transmit to the customer side. Subsequent to getting the OTP message, the customer side must check if the OTP message is approval and gave by the ideal genuine server side. After at that point, the customer side will enroll the on-line M-managing an account with the OTP in the predefined brief period. Subsequent to getting the administration demand, the server side will at that point demand the customer side to catch individual biometric, for example, unique finger impression, iris, photograph, and so forth quickly for additional check with the existed information put away in the server side to forestall the M-banking stealing. On the off chance that the individual biometric has been confirmed as an old one, the M-banking will quickly ended by the server side. As the check is at long last done by the server side, the customer side at that point can perform exchange by means of M-banking easily[6-9]. The proposed plan not exclusively can provide.

## [3]TECHNIQUES APPLIED FOR FACE RECOGNITION

Now a days with the network world, the way for cybercrime is become easier for hacking purpose. Because of this reason, network security has become one of the biggest facing today's IT departments security. We heard a lot about hackers and crackers ways to steal any logical password or pin code number character, crimes of ID cards or credit cards fraud or security breaches in any important building and then develop any information or various important data from any organization or company. These problems allow us to know the need of strong facial technology to secure important

data and credentials[10-13]. This technology is based on a technique called "face recognition" using biometric. Biometric is a form of bio-informatics that uses biological properties to identify people. Since biometric systems identification a person by the biological characteristics, they are difficult to fake. Examples of biometrics are iris scan, various signature authentications, voice recognition system and hand geometry system. Now the face recognition this concept more concern for providing security for internet banking this system is used to image processing systems.
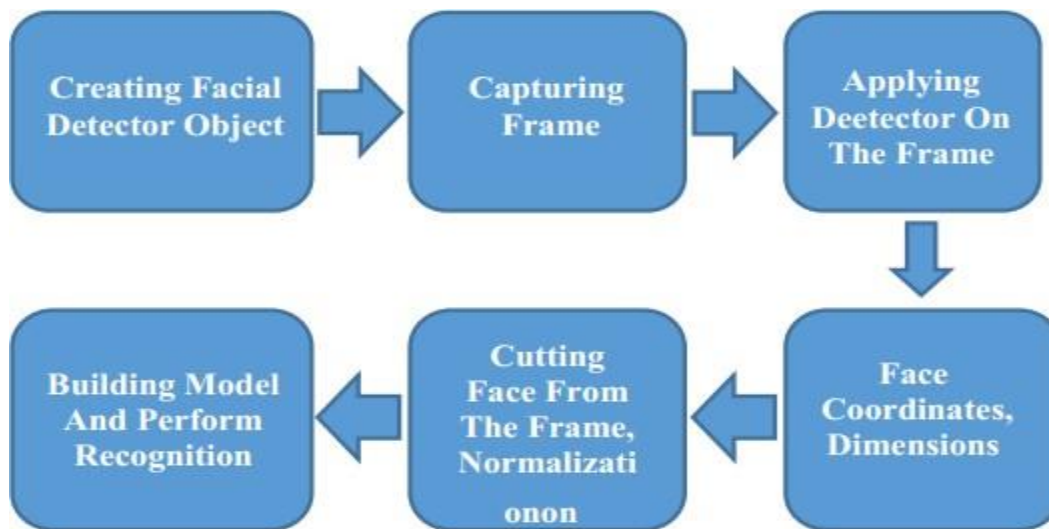
[4] PROPOSED SYSTEM

The face recognition is a promising biometric pattern for personal identification in terms of its security and convenience. Internet of Things (IOT) and Computer Vision with the ATM card online transaction service makes much more smart, advanced and user-friendly, too. Transaction from ATM card using mobile banking apart from using an ATM is proposed in, in order to reduce the time of transaction, but there might be a security problem, if the system is compared to any biometric security. For alternate user Login can be done using OTP and also the person image is captured and Mail to the Account Holder. Thus, our system is improved in Security comparing to the existing System.

BASIC ARCHITECTURE(GUI)
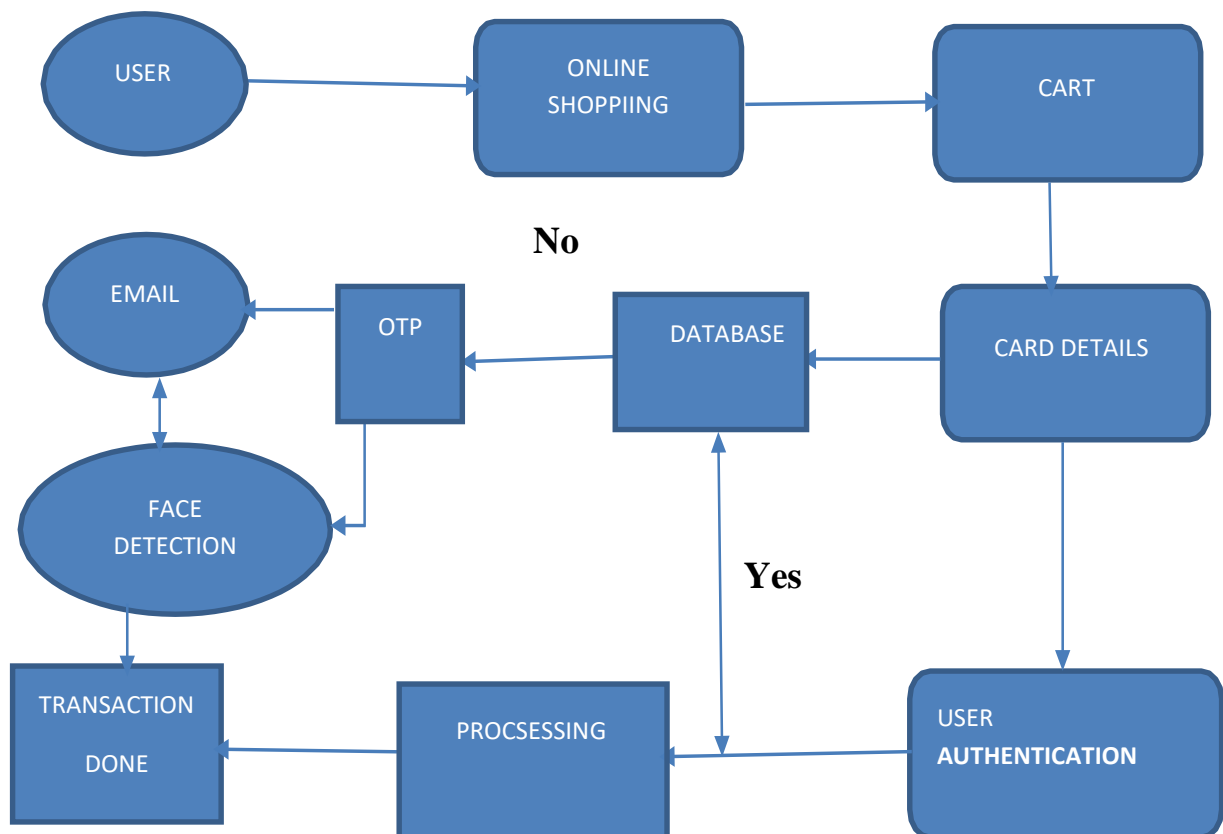
Block diagram of the workflow of facerecognition

CHALLENGES INVOLVED

- Unauthorized person may use the account.
- Transactions are done through keyboard, so passwords may visible to others.
- The thieves can further hack the Debit/credit card and be able to do transaction from your account.
- However, the drawback in the existing system is that the user password may be miss use by others
- So only we designed a system which helps us to use the Debit card with User Identification

SYSTEM DESIGN
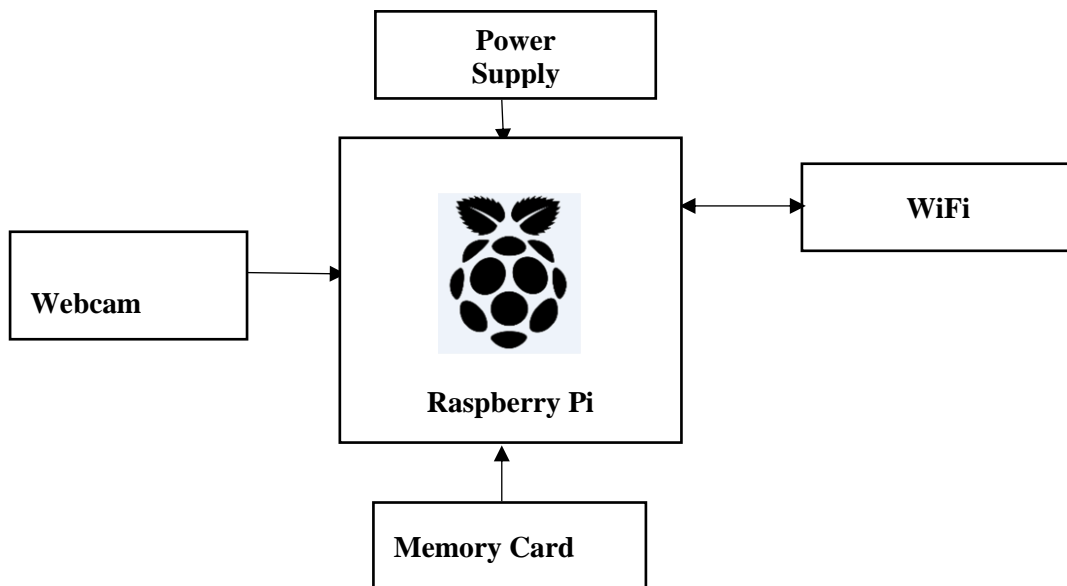
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Implementation:

➢ The face recognition is a promising biometric pattern for personal identification in terms of its security andconvenience.

➢ Internet of Things (IOT) and Computer Vision with the ATM card online transactionservicemakesmuchmoresmart,advancedanduser-friendly,too.

➢ Transaction from ATM card using mobile banking apart from using an ATM isproposedin,inordertoreducethetimeoftransaction,buttheremightbea security problem, if the system is compared to any biometricsecurity.

➢ For alternate user Login can be done using OTP and also the person image is captured and Mail to the Account Holder. Thus, our system is improved in Security comparing to the existingSystem.

Key generation algorithm

➢ The process of generating keys for cryptography. A private key and its corresponding public key; a key pair is used with an asymmetric-key (public-key) algorithm. A key is used to encrypt and decrypt whatever data is being encrypted/decrypted.

➢ Modern cryptographic systems include symmetric-key algorithms and public-key algorithms. Symmetric-key algorithms use a single shared key; keeping data secret requireskeepingthiskeysecret.Public-keyalgorithmsuseapublickeyandaprivate   key. The public key is made available to anyone (often by means of a digital certificate).Asenderencryptsdatawiththepublickey;onlytheholderoftheprivate key can decrypt thisdata.

OUTCOMES

- **EMAIL ALERT (ThroughCloud)**
  Face detection shows an unauthorized person after detecting it sends transaction OTP to authorize card holder. After transaction Person image is sent to the authorized person email id.

- **WEBCAM**
  Awebcamisavideocamerawhichfeedsitsimagesinrealtimetoacomputer   or   computer network, often via USB, Ethernet or Wi-Fi. Their most popular use is the establishment of   video   links,   permitting   computers   to   act   as videophonesorvideoconferencestations.Thiscommonuseasavideocamera for the World Wide Web gave the webcam its name. This face recognition system more than security provides   for   net   banking   concept   or   personal   social mediaaccount.Thisprojectcanprovidetwotypeofsecuritymethodfirstuser   can   normal

login then face recognition for user this user and account user image match then start net banking process and onlineprocess

CONCLUSION

This task is created based on more need of security in Debit/Credit card Transaction framework. Presently a-day's online Transaction is getting less secure with developing approaches to hack/break PIN or secret key of Debit/Credit card. Thus, we actualize client Identification utilizing Face Recognition to check the client. If there should be an occurrence of crisis circumstance the login should be possible utilizing OTP and furthermore the individual picture is caught and Mail to the Account Holder. Along these lines our framework is improve in Security contrasting with the current System.

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