e-ISSN:2582-7219

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

Volume 7, Issue 6, June 2024

INTERNATIONAL STANDARD SERIAL NUMBER INDIA

Impact Factor: 7.521

International Journal Of Multidisciplinary Research In Science, Engineering and Technology (IJMRSET)

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 7.521| Monthly Peer Reviewed & Referred Journal |

| Volume 7, Issue 6, June 2024 |

| DOI:10.15680/IJMRSET.2024.0706025 |

Real Time Secure Clickbait and Biometric ATM User Authentication and Multiple Bank Transaction System

Nivetha P, Dr. S. Roshini, Mrs. G. Lalitha

PG Scholar, Department of Master of Computer Applications, Vidyaa Vikas College of Technology, Tirucengode, Tamilnadu, India

Associate Professor, Department of Master of Computer Application, Vidyaa Vikas College of Technology, Tirucengode, Tamilnadu, India

Assistant Professor, Department of Master of Computer Application, Vidyaa Vikas College of Technology, Tirucengode, Tamilnadu, India

ABSTRACT: ATM or Automated Teller Machines are widely used by people nowadays. Performing cash withdrawal transaction with ATM is increasing day by day. ATM is very important device throughout the world. The existing conventional ATM is vulnerable to crimes because of the rapid technology development. A total of 270,000 reports have been reported regarding debit card fraud and this was the most reported form of identity theft in 2021. A secure and efficient ATM is needed to increase the overall experience, usability, and convenience of the transaction at the ATM. In today's world, the area of computer vision is advancing at a breakneck pace.

KEYWORDS: ATM, secure ,facial recognition, Deep Convolutional neural network

I. INTRODUCTION

Automated Teller Machines, popularly referred to as ATMs, are one of the most useful advancements in the banking sector. ATMs allow banking customers to avail quick self-serviced transactions, such as cash withdrawal, deposit, and fund transfers.ATMs enable individuals to make banking transactions without the help of an actual teller. Also, customers can avail banking services without having to visit a bank branch.

PROBLEM STATEMENT:

Automated teller machines (ATMs) face various security challenges that threaten the integrity of financial transactions and jeopardize customer trust. One prevalent issue is card skimming, where criminals install skimming devices to illicitly capture card information, leading to unauthorized access and identity theft. Additionally, PIN theft remains a significant concern, with attackers resorting to methods like shoulder surfing or installing fake keypads to compromise personal identification numbers.

II.LITERATURE SURVEY

2.1. IMPACT OF VIDEO SURVEILLANCE SYSTEMS ON ATM PIN SECURITY

AUTHOR: Piyumi Seneviratne; Dilanka Perera; HarindaSamarasekara; Chamath Keppitiyagama; Kenneth Thilakarathna; Kasun De Soyza
YEAR:2020

OVERVIEW:

ATM is one of the common information systems in use and often ATM keypad entries include the PIN of an ATM user. The PIN is a piece of confidential customer information which uses for the authentication of a transaction. The banking system operates mainly under the trust assumption that the PIN is secured and kept in private by both the system and the customer to ensure the security requirement of confidentiality.

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 7.521| Monthly Peer Reviewed & Referred Journal |

| Volume 7, Issue 6, June 2024 |

| DOI:10.15680/IJMRSET.2024.0706025 |

OUTCOME:
Taking security controls for granted can result inadditional threats and risks. Guidelines and standards on theplacement of surveillance cameras can mitigate thisvulnerability to a certain extent.

2.2. SECURE CARD-LESS ATM TRANSACTIONS

AUTHOR: :Khushboo Yadav; Suhani Mattas; Lipika Saini; Poonam Jindal
YEAR:2020

OVERVIEW:
In the current system, user needs to visit the nearest ATM,swipe the card in the ATM machine there to withdrawmoney. This physical contact of card and machine makes iteasier for the fraudsters to capture the data and misuse it.The proposed solution eliminates this physical contact

OUTCOME:
Thus, though the idea aims solving the issue of card cloning but there is a lot that needs to be taken in consideration to make the system work effectively and efficiently.

III.PROPOSED SYSTEM

The proposed system for the ATM User Face Identification project involves integrating facial recognition technology into the existing ATM infrastructure. Here's an overview of the key features and components:

•Facial Recognition Module
The Facial Recognition Module integrates advanced facial recognition technology, leveraging a Convolutional Neural Network (CNN) trained on a dataset of facial images.

•Unknown Face Verification System
In cases where the user's face is not recognized or matches with an unknown identity, the Unknown Face Verification System is activated. This system generates a unique Face Verification Link and securely transmits it to the user's registered mobile number

•Notification System
The Notification Module is designed to deliver real-time transaction updates and security alerts to users. Users receive notifications via their preferred communication channels, including SMS, email, or in-app alerts. Transaction details, such as withdrawal amounts, account balances, and transaction confirmations, are promptly communicated to the user to ensure transparency and security.

3.1.1. ADVANTAGES
•The advantages can be found as that the face-id is unique for everybody; it cannot be used by anybody other than the user.
•It can be used to reduce fraudulent attempts.
•To prevent theft and other criminal activities.
•Secure facial authentication platform that users can trust
•Provide safe and secure lifestyle infrastructure

IV.MODULES

1. ATM Simulator
The ATM Simulator is designed to replicate the functionalities of a physical Automated Teller Machine. The User Authentication Module ensures secure access by validating user credentials and verifying Personal Identification Numbers (PINs). The Account Overview Module provides users with a snapshot of their accounts, displaying balances and recent transactions

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 7.521| Monthly Peer Reviewed & Referred Journal |

| Volume 7, Issue 6, June 2024 |

| DOI:10.15680/IJMRSET.2024.0706025 |

2. End User Interface

2.1. ATM System

Cardholder Interaction

Upon inserting their ATM card into the interface, users kick-start transactions. The system promptly reads the card details to facilitate seamless transaction processing.

Facial Recognition

Simultaneously, the system employs advanced facial recognition technology to capture the user's face. This captured image is then meticulously compared with the pre-trained face model stored in the system's database.

Security Measures

In scenarios where a facial match is identified, the transaction proceeds effortlessly. However, in cases of non-matching faces, the system activates additional security measures to safeguard the transaction.

V. EXPERIMENT AND RESULTS

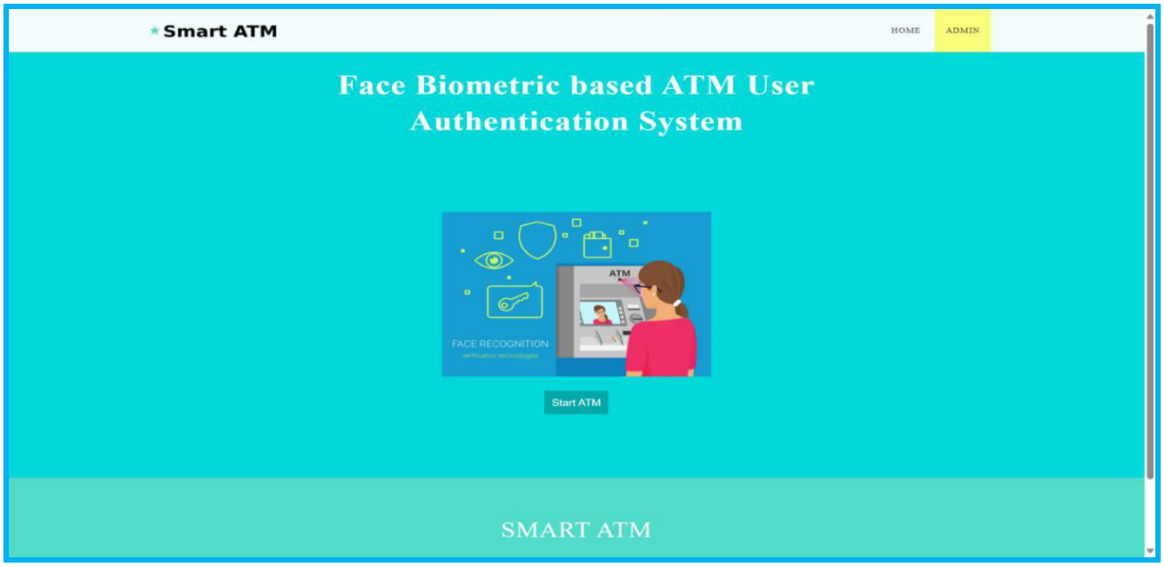

Fig 1. Smart ATM

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 7.521| Monthly Peer Reviewed & Referred Journal |

| Volume 7, Issue 6, June 2024 |

| DOI:10.15680/IJMRSET.2024.0706025 |

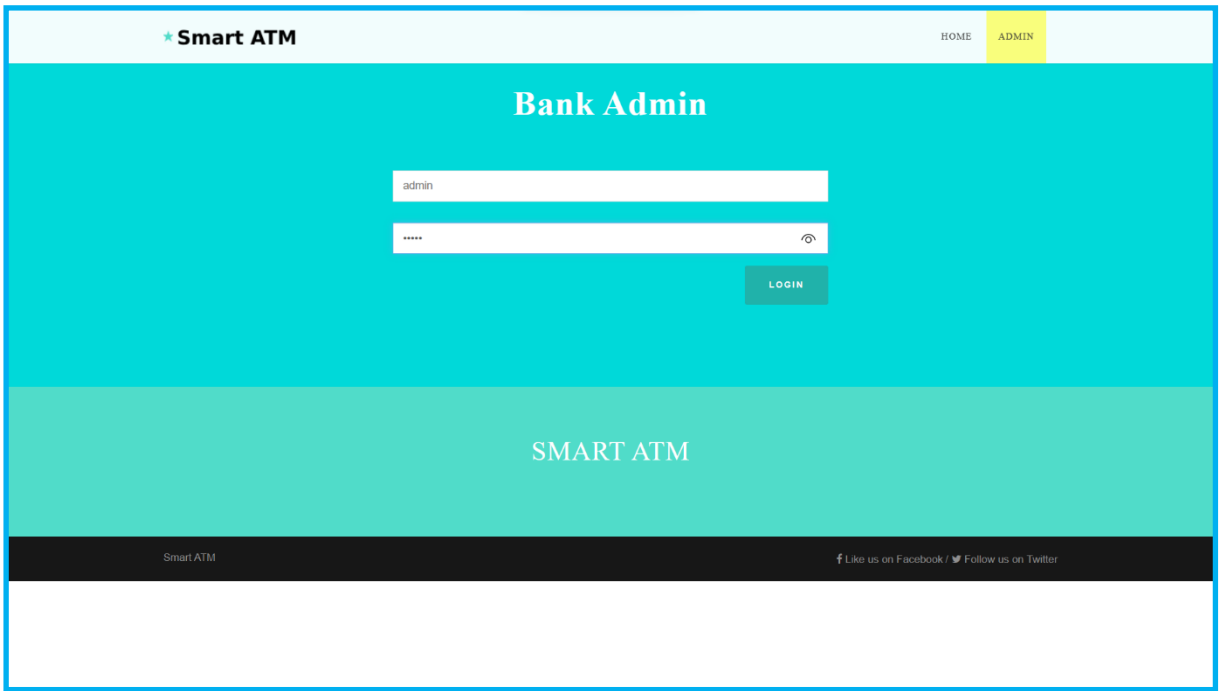

Fig 2.Bank admin

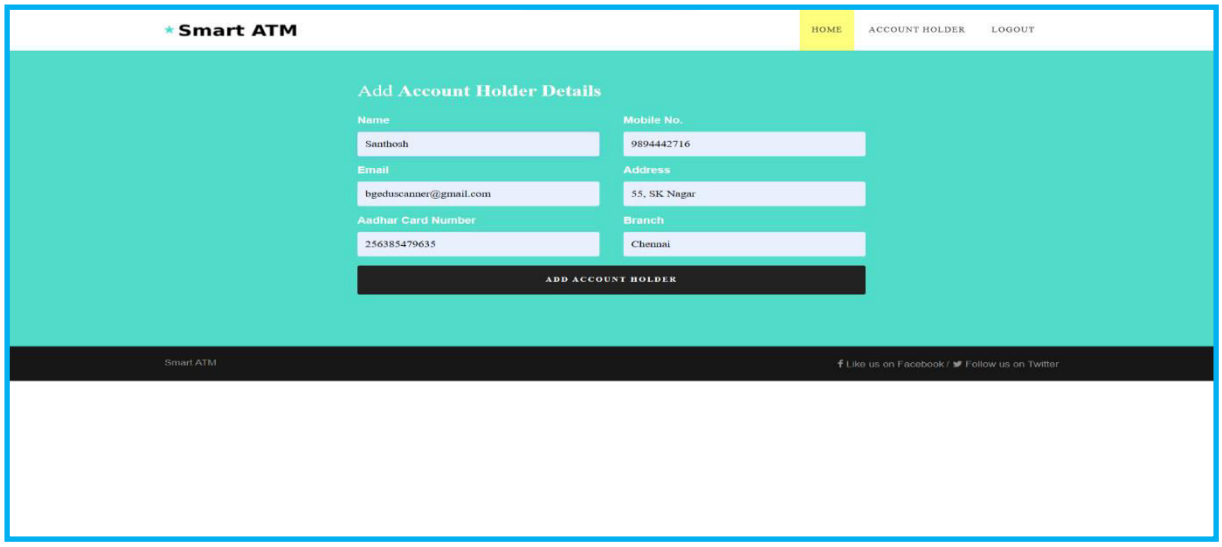

Fig 3.Add account holder details

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 7.521| Monthly Peer Reviewed & Referred Journal |

| Volume 7, Issue 6, June 2024 |

| DOI:10.15680/IJMRSET.2024.0706025 |

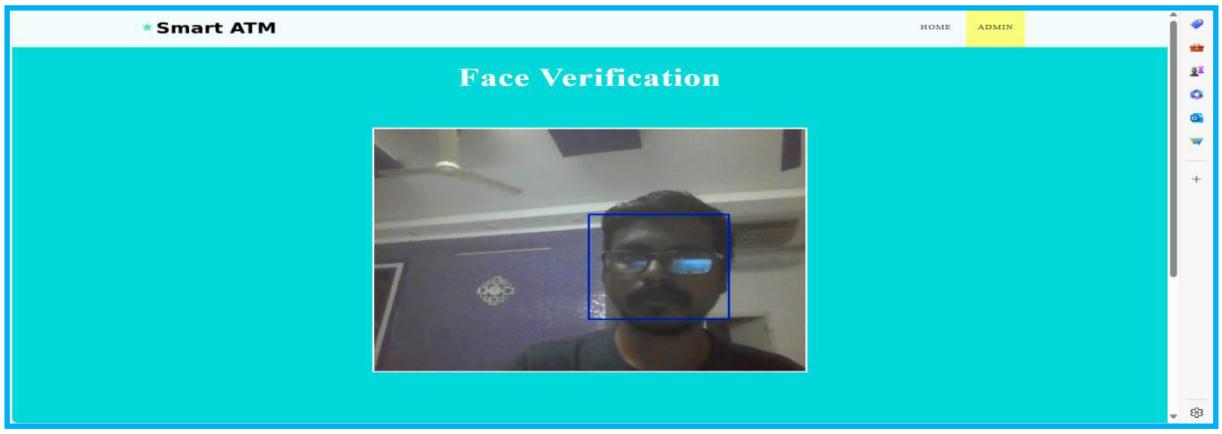

Fig4. Face verification

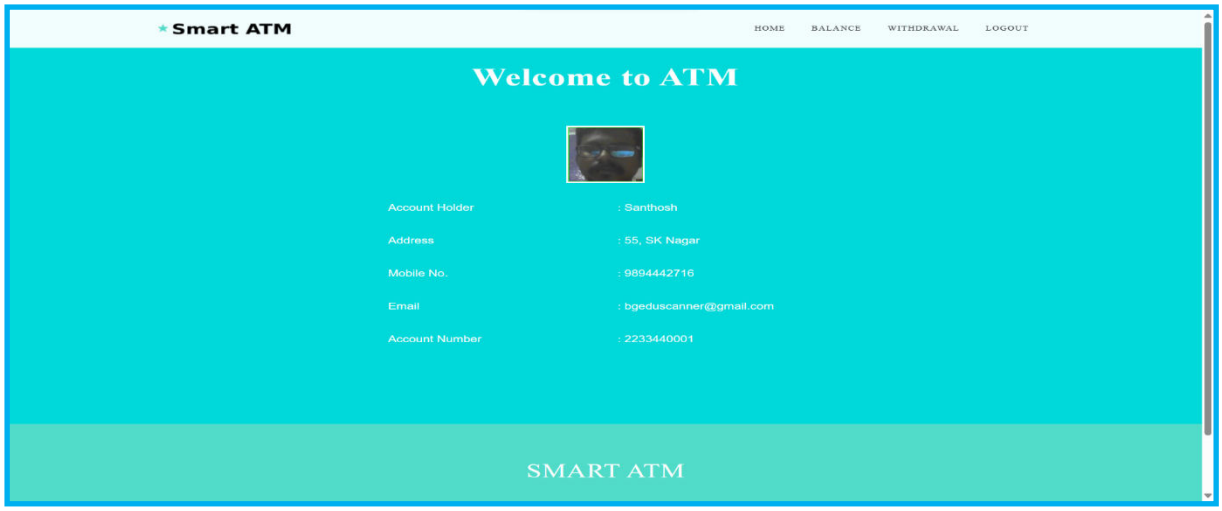

Fig 5. Welcome to ATM

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 7.521| Monthly Peer Reviewed & Referred Journal |

| Volume 7, Issue 6, June 2024 |

| DOI:10.15680/IJMRSET.2024.0706025 |

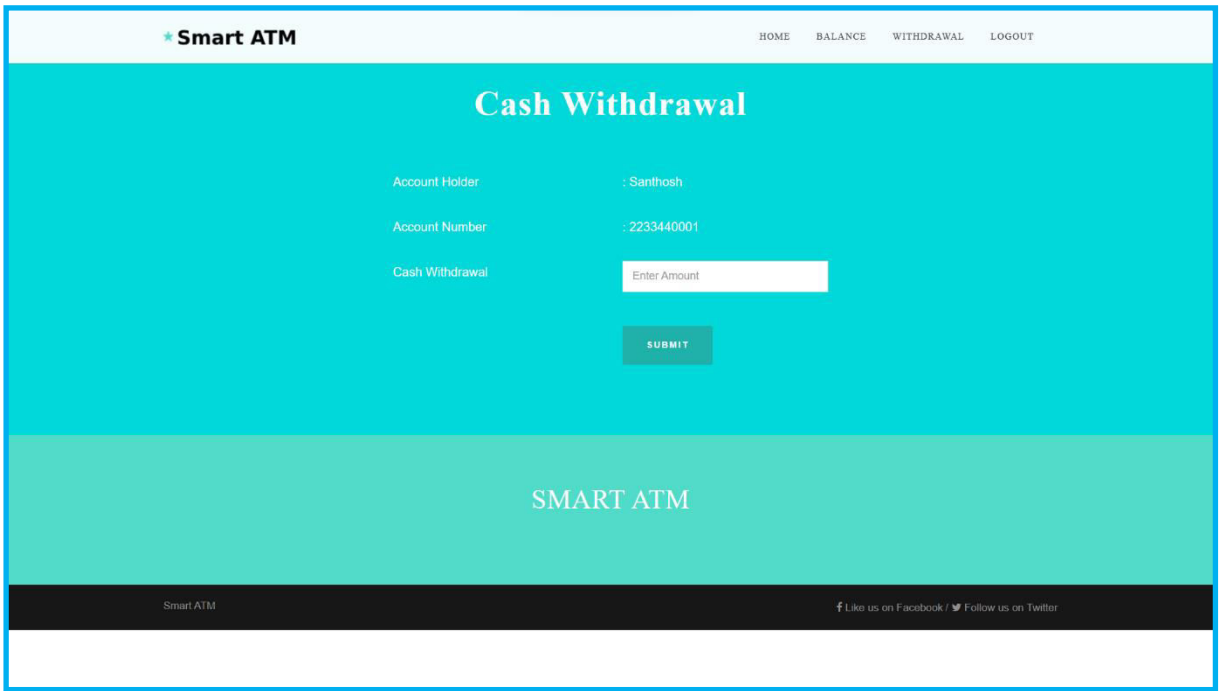

Fig 6. Cash withdrawal

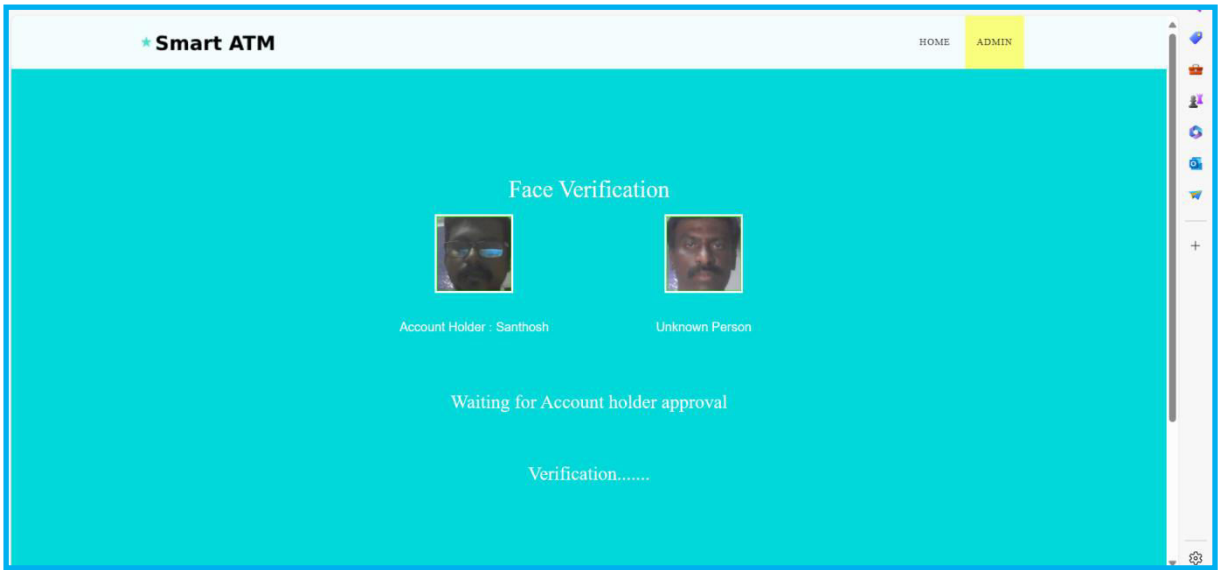

Fig 7. Face verification

VI. CONCLUSION

Agricultural farm security is widely needed technology nowadays. In order to accomplish this, Biometrics as means of identifying and authenticating account owners at the Automated Teller Machines gives the needed and much anticipated solution to the problem of illegal transactions. In this project, we have developed to proffer a solution to the much-dreaded issue of fraudulent transactions through Automated Teller Machine by biometrics and Unknown Face Forwarder that can be made possible only when the account holder is physically or far present. Thus, it eliminates cases of illegal transactions at the ATM points without the knowledge of the authentic owner.

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 7.521| Monthly Peer Reviewed & Referred Journal |

| Volume 7, Issue 6, June 2024 |

| DOI:10.15680/IJMRSET.2024.0706025 |

REFERENCES

[1] J. Liang, H. Zhao, X. Li, and H. Zhao, ``Face recognition system based on deep residual network,'' in Proc. 3rd Workshop Adv. Res. Technol. Ind. (WARTIA), Nov. 2017, p. 5.
[2] I. Taleb, M. E. Amine Ouis, and M. O. Mammar, ``Access control using automated face recognition: Based on the PCA & LDA algorithms,'' in Proc. 4th Int. Symp. ISKO-Maghreb, Concepts Tools Knowl. Manage. (ISKO-Maghreb), Nov. 2014, pp. 1-5.
[3] X. Pan, ``Research and implementation of access control system based on RFID and FNN-face recognition,'' in Proc. 2nd Int. Conf. Intell. Syst. Design Eng. Appl., Jan. 2012, pp. 716-719, doi: 10.1109/ISdea.2012.400.

INTERNATIONAL STANDARD SERIAL NUMBER INDIA

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH

IN SCIENCE, ENGINEERING AND TECHNOLOGY

| Mobile No: +91-6381907438 | Whatsapp: +91-6381907438 | ijmrset@gmail.com |

www.ijmrset.com