Multimodal Bank Transaction System With Real-Time Secure Clickbait and Biometric ATM User Authentication

A Praveenkumar[1], S Prabu[2], N Pradeep[3], G Saravanan[4]

Department of Computer Science and Engineering

Dhanalakshmi Srinivasan Engineering College, Perambalur, Tamil Nadu, 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. The recent progress in biometric identification techniques, including finger printing, retina scanning, and facial recognition has made a great effort to rescue the unsafe situation at the ATM. Specifically, the goal of this project is to give a computer vision method to solve the security risk associated with accessing ATM machines. This project proposes an automatic teller machine security model that uses electronic facial recognition using Deep Convolutional Neural Network. If this technology becomes widely used, faces would be protected as well as their accounts. Face Verification Clickbait Link will be generated and sent to bank account holder to verify the identity of unauthorized user through some dedicated artificial intelligent agents, for remote certification. However, it obvious that man's biometric features cannot be replicated, this proposal will go a long way to solve the problem of account safety making it possible for the actual account owner alone have access to his accounts. This eliminates the possibility of fraud resulting from ATM card theft and copying. The experimental results on real-time datasets demonstrate the superior performance of the proposed approach over state-of-the-art deep learning techniques in terms of both learning efficiency and matching accuracy. By using this real time dataset, the proposed system achieves the highest accuracy with 97.93%.*

Keywords: Deep Convolutional Neural Network, Biometric identification techniques, Rapid technology

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