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## *Next-gen biometric ATM protection and monitoring system*

**\*<sup>1</sup>Dr. Kavitha Jayaram, <sup>2</sup>Namitha B.M, <sup>3</sup>Rajath Prabhu, <sup>4</sup>Shree Raksha R**

Associate Professor, Department of Computer Science and Engineering BNM Institute of Technology  
Bengaluru, India  
Department of Computer Science and Engineering, BNM Institute of Technology Bengaluru, India

*\*Corresponding Author: Dr. Kavitha Jayaram  
Email: kavithajayaram@bnmit.in*

## **Abstract:**

Rapid and precise user identification and verification are becoming more and more necessary as the number of electronic transactions rises. There are various benefits of using biometric authentication in ATMs. Facial recognition and fingerprints are used in biometric authentication. The existing ATM authentication technique has the drawback of using password-based PINs, which can be readily traced and abused. To increase security and put an end to these illegal actions, our suggested method is made to secure ATMs more. In this instance, OTP is created at random and communicated via IoT in addition to PINs. The project's objective is to do away with ATM card usage entirely. The customer can proceed with the transaction after completing the biometric and OTP pin authentication processes. The account will be blocked after three unsuccessful tries in a row. The prevention of ATM fraud is another focus of this program. The ATM doors close, the fainting gas is released, and the surrounding area is informed if the vibration sensor picks up any suspicious behavior. This will stop the scam from happening and catch the offender in the act.

## **Keywords:**

Internet of Things, ATM, face recognition, fingerprint sensor, microcontroller, biometric authentication, and OTP (one-time password).