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Fingerprint Based Bank Locker System using Microcontroller

Mr. VibhuteAjit Suryakanta[1], Mr. MandhareMangesh Nivrutti[2], Ms. Datir Pushpa Nana[3], Ms. Kotkar Harshada Subhash[4], Prof. K. I. Mahale[5]

[1,2,3,4,5]Department of Electronics & Telecommunication Engineering
Vidya Niketan College Of Engineering Centre, Bota, Sangamner, A. Nagar, Maharashtra, India

Abstract: *This paper presents a fingerprint-based bank locker system utilizing ATmega328 microcontrollers to enhance security measures for personal belongings. Traditional locking mechanisms, such as padlocks, password authentication, and RFID cards, have significant security flaws, making them vulnerable to unauthorized access. To address these vulnerabilities, the proposed system employs biometric fingerprint recognition, which offers a high level of security due to the uniqueness of fingerprints. The system integrates various peripherals, including an LCD, keypad, buzzer, DC motor, and a fingerprint module, all interfaced with ATmega328 microcontrollers. The fingerprint module, utilizing an optical scanner, ensures precise verification and prevents unauthorized access. This approach not only enhances security but also provides a cost-effective solution, making it accessible to a broader audience.*

Keywords: Fingerprint Module, Microcontroller, ATmega328, Biometric Security, DC Motor