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SafeNest: A Multilayered IOT Security System for Smart Homes

Sakshi Doke¹, Shivani Borhade², Dipti Mule³, Prof. Pallavi Gholap⁴

Students, Department of AI&DS Engineering^{1,2,3} Professor, Department of AI&DS Engineering⁴ Jaihind College of Engineering Kuran, Maharashtra, India.

Abstract: This paper proposes a high level IoT-based house security framework involving three unmistakable modules intended to improve generally security. The main module utilizes RFID innovation for door mechanization, where vehicles outfitted with RFID cards are perceived by anEM18 module, permitting consistent, secure admittance to approved vehicles. This computerized framework wipes out the requirement for manual entryway control and guarantees that as it were enrolled vehicles can enter the premises. The subsequent module centers around a home storage, which is gotten through a three-way confirmation process that incorporates unique finger impression acknowledgment, RFID filtering, and a mystery key entered by means of a keypad. This complex way to deal with storage security guarantees that entrance is conceded just when each of the three confirmation factors are effectively given, incredibly decreasing the gamble of unapproved access. The third module improves border security by utilizing a movement sensor to distinguish unapproved development at the rear of the house. After recognizing movement, the framework right away sends an alarm to the property holder's cell phone, empowering ideal reactions to possible dangers. This IoT based framework incorporates RFID innovation, multifaceted verification, and constant portable cautions to give a extensive and powerful security answer for private settings

Keywords: IoT-based security system, RFID technology, Gate automation, Home locker security, Multi-factor authentication, Fingerprint recognition, Motion sensor, Real-time alerts



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