

ALTERNATE METHOD FOR OTP BASED AUTHENTICATION IN AREAS WITH WEAK SIGNAL

PROBLEM CODE: WD10

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OBJECTIVE

Nowadays, OTP based authentication/verification has been implemented in various website requiring aadhar based authentication, gem etc. However, such verification requiring cellular mobile based OTP becomes challenging in remote locations where cellular signals are very weak or poor. Solutions or alternative verification/authentication technologies need to be device.

ABSTRACT

In this project, we propose a multi-factor authentication system that combines three distinct authentication methods: voice input, biometric recognition, and scratch cards. The goal is to create a highly secure and user-friendly authentication process for web and mobile applications. The system leverages voice input for user identification, where users provide a voice sample that is compared against a pre-registered voice signature. Biometric recognition is employed to authenticate users based on unique physical traits like fingerprint or facial features, enhancing the security further. Additionally, we introduce a scratch card mechanism as a second-factor authentication option. Users receive scratch cards containing one-time codes that they must enter during the login process, adding an extra layer of security. By integrating these multiple authentication methods, our system provides a robust defense against unauthorized access and fraudulent activities. The combination of voice input, biometrics, and scratch cards not only ensures enhanced security but also enhances user experience by offering flexible and user-friendly authentication options. This project aims to serve as a foundation for implementing advanced multi-factor authentication systems in various applications, promoting trust and confidence among users and strengthening data protection.

Keywords:

Multi-factor authentication, Voice input, Biometric recognition, Scratch card, User identification, Security, User-friendly, Web and mobile applications, Authentication methods, One-time codes