

# E-Authentication System using QR Code and OTP

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**Abstract:** This paper proposes an authentication system that combines One-Time Password (OTP) and Quick Response (QR) code technologies to enhance security and user experience. The system generates an OTP and a unique QR code for each authentication attempt, which can be scanned using a mobile device to complete the authentication process. The QR code contains encrypted information about the user's identity and the OTP, which is verified by the server. The proposed system provides a secure, convenient, and efficient method for user authentication, which is crucial in today's digital world. An e-authentication system that uses OTP and QR code technology is a secure and efficient method for authenticating users in online transactions. This system combines the benefits of OTP and QR code technology to provide a two-factor authentication mechanism that is convenient for users and effective in preventing unauthorized access. This system aims to address the vulnerabilities of traditional username and password authentication by providing an additional layer of security through two-factor authentication. The system aims to prevent unauthorized access to online services and transactions. The system aims to provide a userfriendly and convenient authentication method that can be easily integrated into existing online platforms. It protect sensitive information and ensure that only authorized users can access online services and transactions

**Keywords:** OTP generation, QR code

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