

Blockchain Based Academic Certificate Verification System

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Abstract: *The rapid growth of digital education has increased the need for secure and tamper-proof academic certificate verification systems. Traditional certificate verification methods are manual, time-consuming, and vulnerable to forgery. This paper proposes a Blockchain Based Academic Certificate Verification System that ensures authenticity, integrity, and transparency of academic records. The system uses cryptographic hashing techniques to generate a unique hash value for each certificate and stores verification data securely in a blockchain-inspired structure. QR codes are generated for quick verification, allowing organizations and institutions to validate certificates instantly. The proposed system eliminates fake certificates, reduces verification time, and enhances trust between institutions and employers. The implementation demonstrates secure certificate issuance, tamper detection, verification logs, and real-time validation. The system provides a reliable and scalable solution for modern educational institutions*

Keywords: Blockchain, Certificate Verification, Cryptographic Hashing, QR Code, Academic Security, Digital Authentication

