IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 9, May 2023

Smart Contract Enabled Online Examination System Based on Blockchain

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Abstract: *The Smart Contract Enabled Online Examination System Based on Blockchain is a project that aims to revolutionize the traditional examination system by leveraging the power of blockchain technology. The project proposes a tamper-proof and transparent examination system that is based on smart contract technology. The system will provide students with the opportunity to take exams from anywhere in the world, without the need for a physical examination center. The proposed system will also eliminate the need for third-party examination invigilators, thereby reducing costs and ensuring integrity. The system's architecture will consist of four components: the blockchain, smart contracts, a user interface, and an authentication mechanism. The blockchain will provide the necessary decentralization and transparency required for a tamper-proof examination system. The smart contract technology will be used to create self-executing contracts that will ensure the examination process is fair and free from manipulation. The user interface will allow students to access the examination system and complete their exams, while the authentication mechanism will ensure that only authorized users can access the system. The proposed system's benefits include increased efficiency, security, and transparency in the examination process. The system will provide institutions with an efficient and secure way of conducting examinations. It will also improve the credibility of the examination system, which is essential in today's competitive educational landscape. Additionally, the system will reduce costs associated with traditional examination systems, such as the need for physical examination centers and invigilators. The project's implementation will involve the development of a proof-of-concept system to demonstrate the feasibility of the proposed system. The proof-of-concept will be developed using the Ethereum blockchain platform and will utilize smart contract technology to implement the examination process. The system's functionality will be demonstrated using a simulated examination scenario. In conclusion, the Smart Contract Enabled Online Examination System Based on Blockchain is a promising project that seeks to transform the examination system by leveraging the power of blockchain technology. The proposed system's benefits include increased efficiency, security, and transparency, which will benefit both students and institutions. The implementation of the system will involve the development of a proof-of-concept, which will demonstrate the feasibility of the proposed system.*

Keywords: Blockchain, Secure, Smart Contract, Solidity, Metamask, Examination System

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