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# Secured International Money Transfer Using Blockchain

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**ABSTRACT:** This research paper delves into the potential of blockchain technology to transform international money transfers, particularly within the banking sector. It focuses on enhancing efficiency and reducing costs by utilizing blockchain's core features such as immutability and decentralization. The proposed system eliminates the need for intermediary banks, thereby speeding up the transfer process significantly compared to traditional methods.

The study introduces an Ethereum-based decentralized Banking Application that utilizes smart contracts to enforce transaction rules, ensuring trust among participants. By removing intermediary banks, the system enhances trustworthiness and authenticity while addressing challenges related to regulatory compliance, integration complexities, and scalability concerns. This research contributes to the advancement of a transparent, secure, and cost-effective approach to international money transfers, marking a significant shift in the landscape of cross-border transactions.

**KEYWORDS:** Decentralization, Immutability, Ethereum, smart contracts, regulatory compliance, paradigm shift

## I. INTRODUCTION

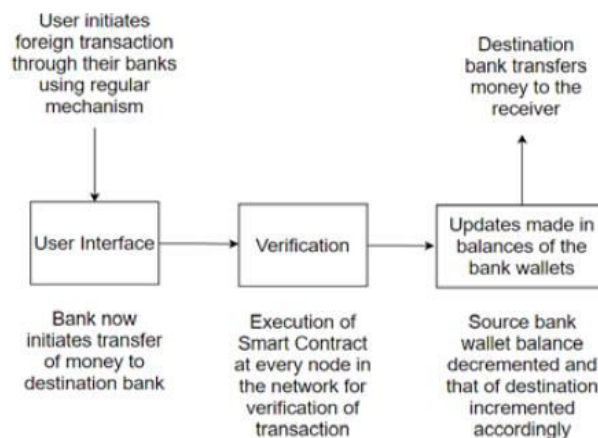
- It aims to create a system that is faster, more secure, and transparent compared to traditional methods like wire transfers or third-party remittance services. This emphasis on speed, security, and transparency sets the stage for a more efficient transfer process. The project acknowledges the limitations inherent in conventional international money transfer methods. These include the involvement of intermediary banks, leading to higher transaction fees, longer processing times, and a lack of transparency in the transfer process. Blockchain at its core, blockchain is a decentralized, distributed ledger technology that enables secure and transparent recording of transactions across a network of computers. This unique architecture offers several advantages that make it particularly well-suited for international money transfers. The proposed solution involves integrating blockchain technology to facilitate international money transfers. By utilizing a decentralized network, the project ensures that transactions are securely recorded in blocks, enhancing transparency and immutability of transaction records. It employs smart contracts to secure agreements, while a shared ledger ensures transparent records and quicker processing. Overall, it aims to improve international transfers by removing middlemen, reducing fees, and making transactions faster compared to traditional methods.

## II. PROPOSED SYSTEM

The proposed system is a user-centric financial platform designed to simplify and enhance the user experience in international money transactions. Users can initiate their engagement by opening an account, followed by a secure login process. Once logged in, the system enables users to effortlessly deposit funds into their accounts, ensuring a

seamless financial onboarding process. The core functionality of sending funds internationally is streamlined, providing a user-friendly interface for quick and efficient transactions. Additionally, users can easily access and monitor their account balance, promoting transparency and financial awareness. This system aims to deliver a straightforward and accessible solution for individuals seeking a hassle-free way to manage and transfer funds globally, catering to the modern demand for user-centric, digitally-driven financial services.

### SYSTEM DESIGN



### III. IMPLEMENTATION

#### MODULES:

**1. Open an Account** This module deals with the process of onboarding new users/customers into the system. It involves collecting necessary information from individuals or entities intending to use the financial services provided by the institution. In the context of the KYC (Know Your Customer) process, this step typically includes gathering personal or business details, identification documents, and other pertinent information required by regulatory standards. Using the Ethereum blockchain for this process ensures that the data collected is securely stored and tamper-proof.

**2. Login to Account** This module enables registered users to log in securely to their accounts. It involves authentication processes to validate user credentials and grant access to their personalized account information, including transaction history, account balances, and other relevant details.

**3. Deposit Amount** This module allows users to add funds or make deposits into their accounts. By utilizing the Ethereum blockchain, this transaction can be recorded immutably, providing a transparent and auditable record of the deposit made by the user.

**4. Send Amount** This module facilitates the transfer of funds from one account to another within the system. Users can send amounts to other users or external accounts securely. Utilizing the Ethereum blockchain ensures the integrity and security of these transactions.

**4. View Balance** This module enables users to check their account balance in real-time. It retrieves the current balance from the blockchain ledger and displays it to the user, providing them with accurate and up-to-date financial information. Each of these modules plays a crucial role in building and managing the KYC verification system using the Ethereum blockchain. They work together to ensure secure, transparent, and efficient handling of user accounts and transactions while maintaining compliance with regulatory standards.



IV. EXPERIMENTAL RESULTS

Figures shows the results of International Money Transfer Using Blockchain.fig.1) shows the transactions that are mined during transaction process.fig.2) shows Transaction hash and from address and to address.fig.3)shows amount deducted from sender account



Block	Time	From	To	Amount	Status
27	2023-12-19 18:13:12	0x1...	0x2...	0.002	Success
19	2023-12-19 18:13:11	0x1...	0x2...	0.002	Success
18	2023-12-19 18:13:10	0x1...	0x2...	0.002	Success
17	2023-12-19 18:13:11	0x1...	0x2...	0.002	Success
16	2023-12-19 18:13:10	0x1...	0x2...	0.002	Success
15	2023-12-19 18:13:10	0x1...	0x2...	0.002	Success
14	2023-12-19 18:13:10	0x1...	0x2...	0.002	Success
13	2023-12-19 18:13:10	0x1...	0x2...	0.002	Success

Fig.1 Ganache

Block	Time	From	To	Amount	Status
28	2023-12-19 18:13:12	0x1...	0x2...	0.002	Success

Transaction Hash: 0x1f72c126b49456b385645fe154656b44361127a358806a982c5df581e4ca3

To: 0x23484762495b173f1556c9392b7b45222164f49269f5498a83c39b18752

Fig.2 Transactions Details

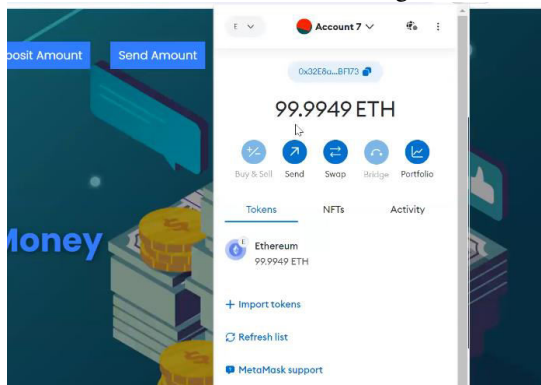


Fig 3: Metamask Wallet



## V. CONCLUSION

Leveraging blockchain's core components like its decentralized network, smart contracts, and distributed ledger, the project aims to remove intermediaries, decrease transaction fees, and expedite international transfers. This strategic use of blockchain technology enhances the efficiency and cost-effectiveness of money transfers. The integration of blockchain represents a pivotal change in how international money transfers operate. By introducing heightened security measures, reducing costs, and improving efficiency through blockchain technology, the project signifies a groundbreaking advancement. It sets the stage for further advancements and innovations in the realm of global financial transactions.

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