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Crowdfunding using Blockchain

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Abstract: ***Existing crowdfunding consists of reviewing the crowdfunding field and addressing four specific issues: security, collaboration, ignorance, and support. Crowdfunding effectively raises money within and across networks. The idea behind the project is to use smart contracts to make payments and distribute rewards, making the process safe and efficient. Our Crowdfunding platform uses smart contracts to solve these lim- itations by offering crowdfunding using blockchain technology. The platform is designed to enable individuals and organizations to create various campaigns and finance their projects easily and efficiently.***

Index Terms: Crowdfunding, Raising money, Smart contracts,Blockchain.

I. INTRODUCTION

Crowdfunding is a revolutionary financial model that lever- ages the collective support of a diverse group of individuals, often referred to as ”the crowd,” to fund an array of projects, ventures, or creative ideas initiated by creators, entrepreneurs, artists, or individuals with innovative visions. Unlike tra- ditional financing methods reliant on a single institutionalinvestor or a limited group of stakeholders, crowdfunding taps into the power of mass collaboration. It allows countless people to contribute modest sums of money, cumulatively providing the necessary capital for projects spanning from groundbreaking technological innovations and artistic cre- ations like films and music albums to charitable initiatives andpersonal aspirations.

Crowdfunding manifests in various forms, including reward-based crowdfunding, where backers receive non-monetary incentives in exchange for support, equity crowdfunding, where investors receive shares in a company, and donation- based crowdfunding, where individuals contribute to causesor charities. This democratized approach to financing is anecessity in today's diverse and dynamic landscape, addressingthe limitations of traditional funding avenues and fostering innovation, inclusivity, and community-driven support on a global scale, redefining how we bring ideas and dreams tolife.

Integrating blockchain technology and smart contracts into crowdfunding holds the potential to revolutionize the executionprocess. By leveraging the transparency, security, and effi- ciency of blockchain, crowdfunding platforms can ensure that funds are used as intended, enhancing trust among backers and creators. Smart contracts, self-executing agreements with predefined rules, can automate project milestones and fund disbursements, eliminating the need for intermediaries. This automation streamlines project execution, reduces administra- tive overhead, and safeguards against fraud, offering a more transparent and frictionless crowdfunding experience.

Additionally, blockchain's immutable ledger ensures that project progress and financial transactions are permanently recorded, providing a verifiable and auditable record for all stakeholders. Ultimately, this integration enhances the account-ability, efficiency, and integrity of crowdfunding, fostering a more robust ecosystem for creators and backers alike.

II. MOTIVATION

It can be a fastest way to raise finance for different causes with no upfront fees.

As crowdfunding becomes an increasingly common source of financing for a diverse range of entrepreneurs, hence we got motivated from this idea and decided to develop a project on this topic.

It is a great way of raising finance and covering costs forthe businesses and causes without having access to traditional forms of bank lending, or in a difficult economy.

III. PROBLEM STATEMENT

Trust and transparency are probably the biggest issues whenit comes to crowdfunding.

Most of the traditional crowdfunding platforms don't keepa record.

Another common problem often faced by user is that theycharge high fee for transactions.

Interest building is also a very common fail point in thecrowdfunding experience.

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IV. OBJECTIVE

To keep track of campaign's progress as well as fundraising.To create a secure system that is user friendly and trustworthy.

V. LITERATURE SURVEY

Vladimir,Ivanov and Anzhela knyazeva [1] has cited in theirpublication that crowdfunding market has seen gradual adop- tion by issuers and intermediaries but the problem is Insider threats can come from employees or contractors that monitor employee activity and limit access to sensitive information andsystems.

Sirine,Zribi [2] has cited in their publication that the effect of COVID-19 has increased the use of social media and other digital platforms and this aspect may positively affect thecrowdfunding environment. Positive social influence, such as endorsements, can increase the likelihood of a project being funded , while negative social influence, such as criticism, candecrease funding.

Huasheng Zhu and Zach Zhizhong Zhou [3] have cited in their publication that Equity crowdfunding via the Internet is a new channel of raising money for startups. As it features low barriers to entry, low cost, and high speed, which encourages innovation. In the recent years, in China equity crowdfunding has experienced some developments. However, there are someproblems that remain unsolved in practice.

Hasnan,Baber and Mina Fanea-Ivanovici [4] has cited in their publication that Financial backers may be motivated bya desire to support independent creators and help bring uniqueprojects to fruition.

VI. PROPOSED SYSTEM

A. *Introduction*

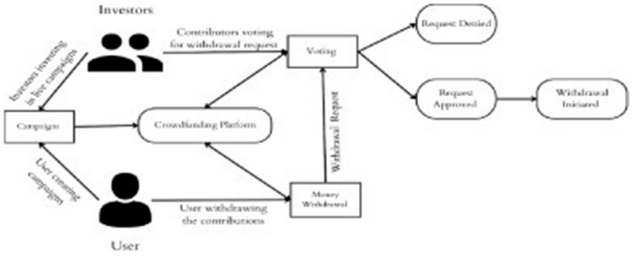


Fig. 1.

1) *System Overview:* The proposed crowdfunding system leverages blockchain technology and smart contracts to ad- dress the issues of security, collaboration, ignorance, and support in the existing crowdfunding landscape. This platform allows individuals and organizations to create and managecrowdfunding campaigns efficiently and securely.
2) *Key Features*

a) *Smart Contract Integration:* Smart contracts will be the backbone of the system, automating payment processing and reward distribution. - Ensure transparency and trust in transactions as all actions are recorded on the blockchain.
b) *Campaign Creation:* Users can easily create and cus- tomize crowdfunding campaigns with detailed project descrip- tions, goals, and deadlines. - Specify the type of campaign (e.g., donation-based, equity-based, reward-based).
c) *Fundraising:* Users can contribute to campaigns using cryptocurrencies. - Real-time tracking of campaign progress and contributions.
d) *Security Measures:* Enhanced security protocols to protect user data and transactions. - Wallet authentication for account access.
e) *Dispute Resolution:* Smart contract-based dispute res- olution mechanism to handle conflicts. - Escrow services for funds in dispute.

B. *Details of Hardware and Software*

Software Requirements (Minimum)
Windows 8 or above
Google chrome or any other browser Hardware Requirements (Minimum):
Intel i3 Processor4 GB RAM
Stable internet connection

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C. Methodology used

For the design, we will be using multiple frameworks andtools such as - Solidity, Web3Js, ReactJs, NodeJs
Languages we will be using are - HTML, CSS, JAVASCRIPT

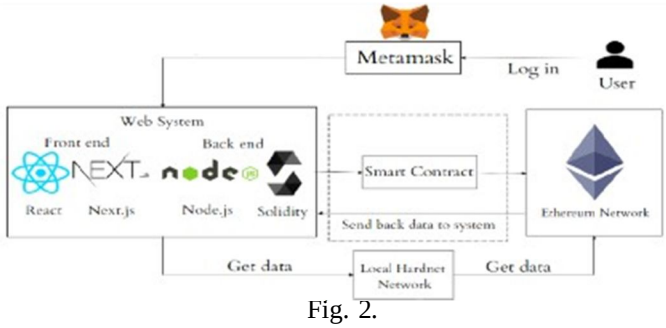


Fig. 2.

VII. CONCLUSION

The current research paper has undertaken an extensive exploration of the multifaceted domain of blockchain-based crowdfunding. A blockchain-based crowdfunding application is a platform that enables users to create, manage, and fund projects using cryptocurrency. The platform is built on blockchain technology, which provides security, transparency, and immutability to the crowdfunding process. Users can create campaigns for various purposes, such as funding star- tups, charities, or personal projects. The platform uses smart contracts to automate the crowdfunding process, which ensures that funds are released to the project creators only when certainconditions are met.

This eliminates the need for intermediaries, such as banksor crowdfunding platforms, reducing the costs associated withtraditional crowdfunding methods. With the use of cryptocur- rency, a blockchain-based crowdfunding application allows for global participation in the crowdfunding campaign, regardless of the users' location or currency. It also provides a more secure and efficient way to transact, eliminating the risks of fraud and chargebacks. The platform provides transparencyto all participants, allowing them to track the progress ofthe campaign, view the distribution of funds, and monitorthe project's milestones. The use of blockchain technology also ensures that the crowdfunding process is decentralized, removing the need for a central authority to manage the campaign.

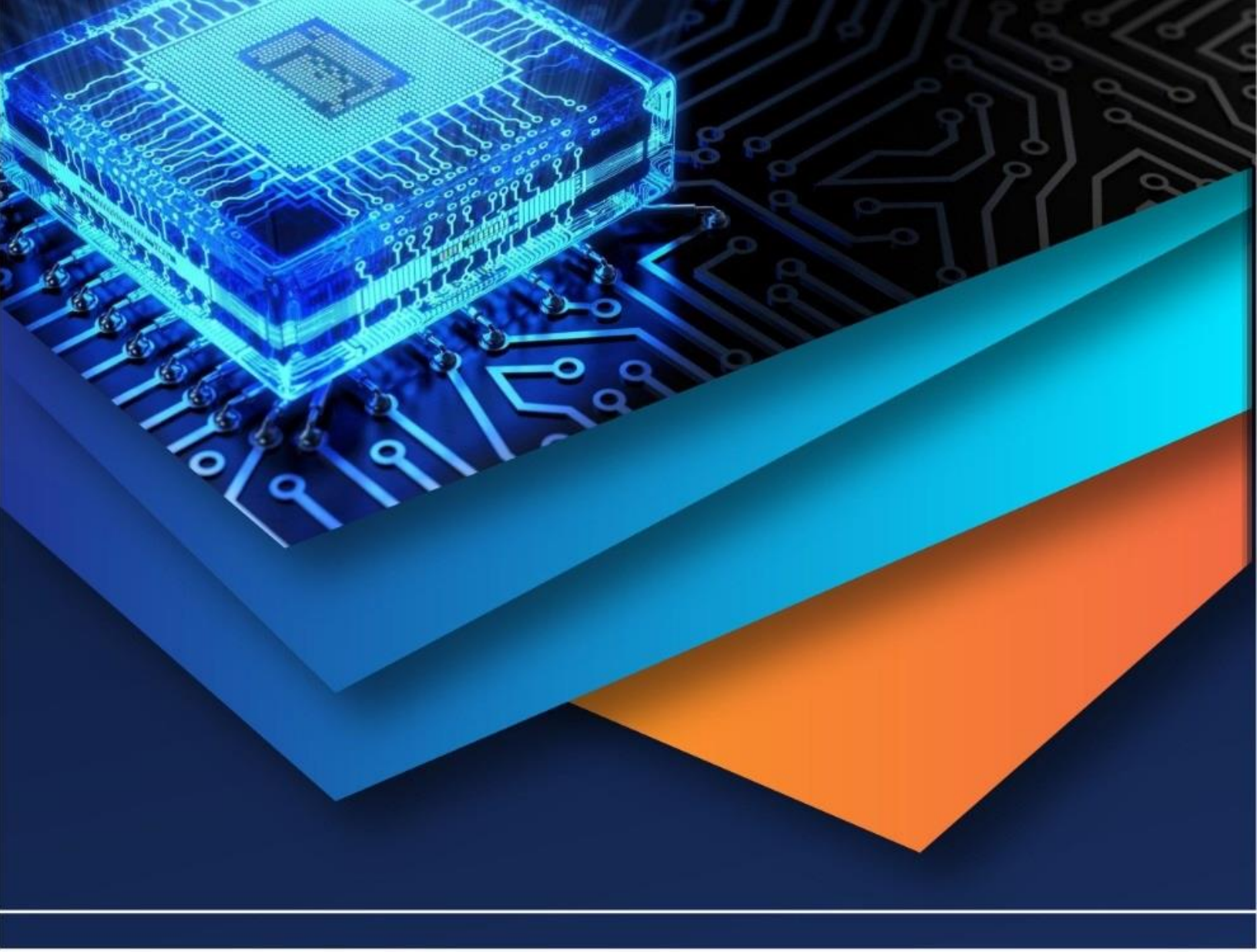
Overall, a blockchain-based crowdfunding application pro- vides a secure, efficient, and accessible way for creators to fund their projects and for investors to support innovativeideas. It offers more flexibility, transparency, and autonomy toall participants while eliminating the costs and risks associatedwith traditional crowdfunding methods.

VIII. ACKNOWLEDGMENT

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