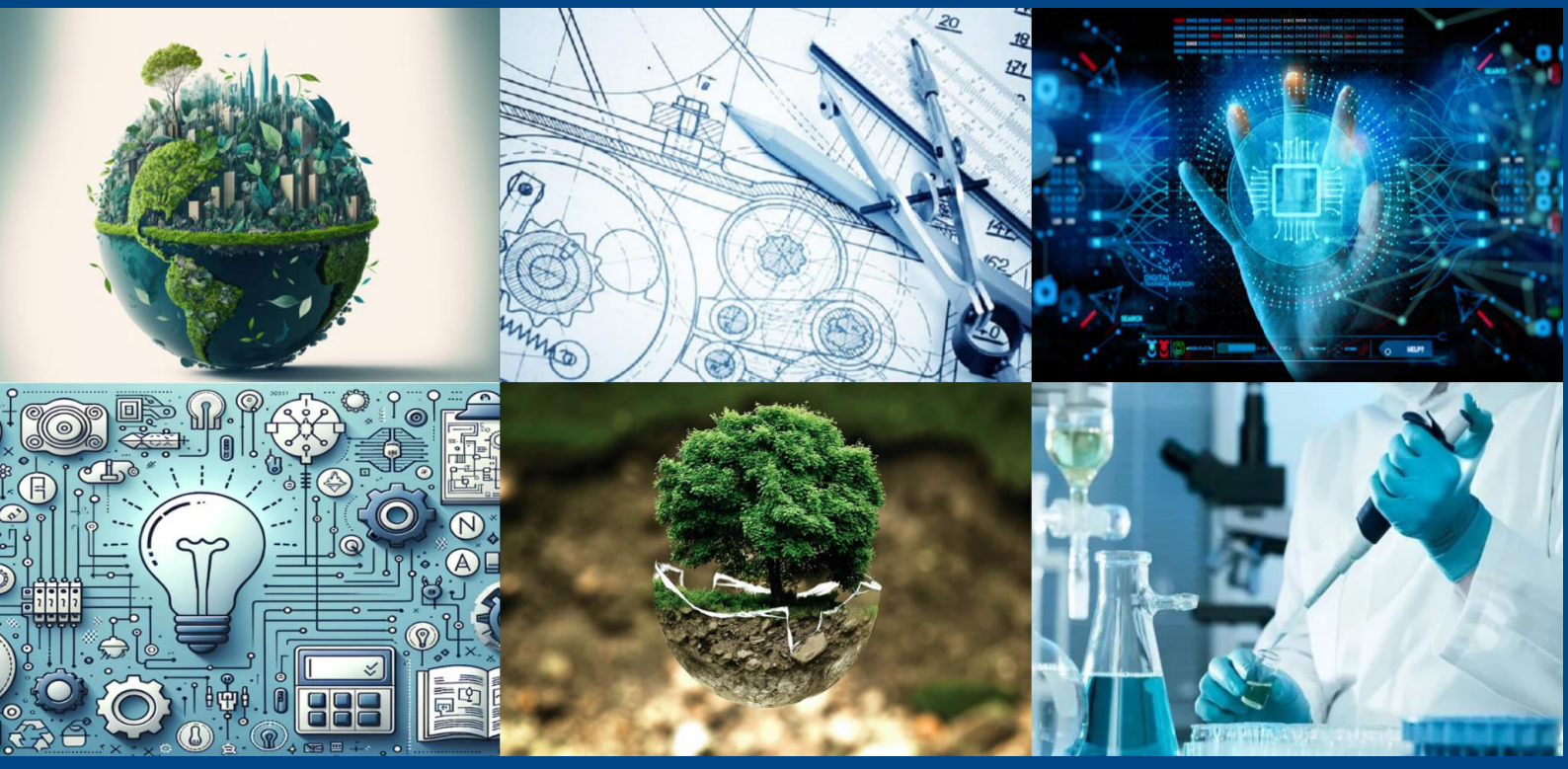
ISSN: 2582-7219

International Journal of Multidisciplinary Research in Science, Engineering and Technology

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)



Impact Factor: 8.206 **Volume 8, Issue 5, May 2025**

© 2025 IJMRSET | Volume 8, Issue 5, May 2025| DOI: 0.15680/IJMRSET.2025.0805285

ISSN: 2582-7219 | www.ijmrset.com | Impact Factor: 7.521| ESTD Year: 2018|

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CryptoBoost:-Empowering Crowding Through Blockchain Technology

Lokhande Govinda, Pawar Tanmay, Nagawade Pratik Guide- Dr.Suryavanshi A.P.

Department of Computer Engineering, HSBPVT'S Faculty of Engineering, Kashti, India

ABSTRACT: In order to link project creators and possible funders, this project demonstrates the design and construction of an extensive crowdfunding platform. Through the platform, people and organisations can raise money for a variety of projects, such as community development, startups, social causes, and creative endeavours. Secure user registration, tools for creating and managing projects, tiered incentive structures, integrated payment methods, and real-time campaign tracking are some of the main features. The user experience, security, and openness are prioritised in order to foster confidence between contributors and creators. Through the use of scalable infrastructure and contemporary online technologies, the platform encourages creativity and gives users the financial resources to realise their ideas.

I. INTRODUCTION

An online tool called a crowdfunding platform allows people, businesses, or organisations to raise money from a lot of people, usually online. Crowdfunding depends on modest contributions from numerous backers rather than large payments from a select few investors. This strategy enables entrepreneurs, innovators, and creative professions to realise their ideas while democratising access to funds. Platforms for crowdfunding give users the means to start a campaign, raise the word about it, and safely raise money. Reward-based, donation-based, equity-based, and debt-based crowdfunding are popular forms of crowdfunding that meet the needs of various project kinds and investor expectations.

II. LITERATURE REVIEW

Crowdfunding platforms have revolutionized fundraising by allowing individuals and organizations to raise capital from a large number of online contributors. The main types of crowdfunding are donation-based, reward-based, equity-based, and lending-based, each with distinct motivations and outcomes.

Research highlights that social capital, campaign quality, and early engagement are key success factors.

Backers are motivated by altruism, rewards, and interest in supporting innovation (Gerber & Hui, 2013). Platform design, such as "all-or-nothing" funding models, also influences outcomes. Legal and ethical concerns, particularly in equity crowdfunding, have prompted regulatory responses in many countries (. New technologies like blockchain are introducing further innovation and complexity.

Legal and ethical concerns, particularly in equity crowdfunding, have prompted regulatory responses in many countries (Hornuf & Schwienbacher). New technologies like blockchain are introducing further innovation and complexity.

Problem Statement

Many entrepreneurs, artists, organisations, and people with creative ideas or pressing financial needs find it difficult to obtain conventional finance from banks, investors, or grant programs, even while the number of these persons is growing. Current fundraising strategies may be slow, inaccessible, and constrained by institutional or geographic constraints. Furthermore, there is frequently no centralised, reliable, and easy-to-use platform for prospective contributors or supporters to find, assess, and support organisations that share their beliefs and interests.

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To create a dependable, safe, and easy-to-use crowdfunding platform that gives backers transparency, involvement, and confidence in the projects they finance while empowering project creators to raise money from a worldwide audience.

III. METHODOLOGY

System Architecture

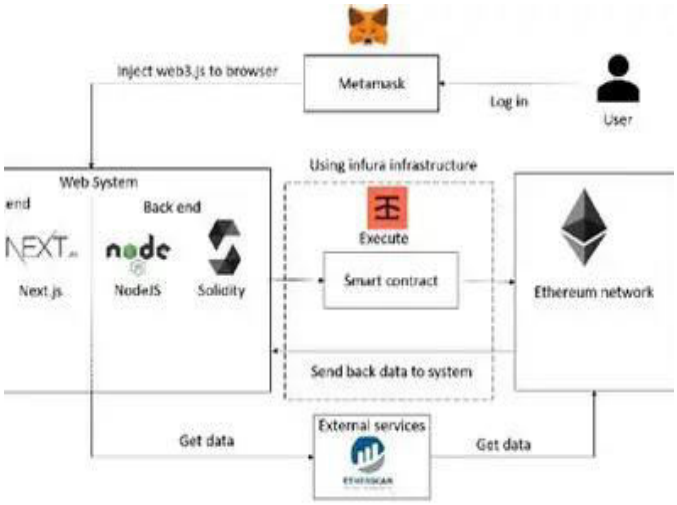

Figure 1. System architecture

1. Frontend (User Interface)
Users create or fund campaigns
Connect crypto wallets (e.g., MetaMask)

2. Backend Server (API & Logic)
Validatescampaigns
Handles KYC, notifications, and stores metadata
Connects frontend with smart contracts

3. Smart Contracts (Blockchain Layer)
Manages campaign rules (goal, deadline)
Locks contributions in escrow
Releases or refunds funds automatically

4. Blockchain Network
Executes smart contracts
Stores immutable records of all transactions

5. IPFS / Off-chain Storage
Stores media files (images, videos, PDFs)
Linked to campaigns via smart contracts

6. Database (Optional)
Stores user profiles, campaign stats, logs for admin use

Feasibility
Technical Feasibility
High, given the maturity of blockchain platforms like Ethereum, Solana, and Polygon, which support smart contracts and decentralized applications (dApps).

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Technologies involved
Smart Contracts (for automating funding rules, payouts, etc.)
Cryptocurrency wallets (e.g., MetaMask)
Tokenization (project rewards, equity, or utility tokens)
Decentralized Identity (DID) (for KYC/AML where needed)

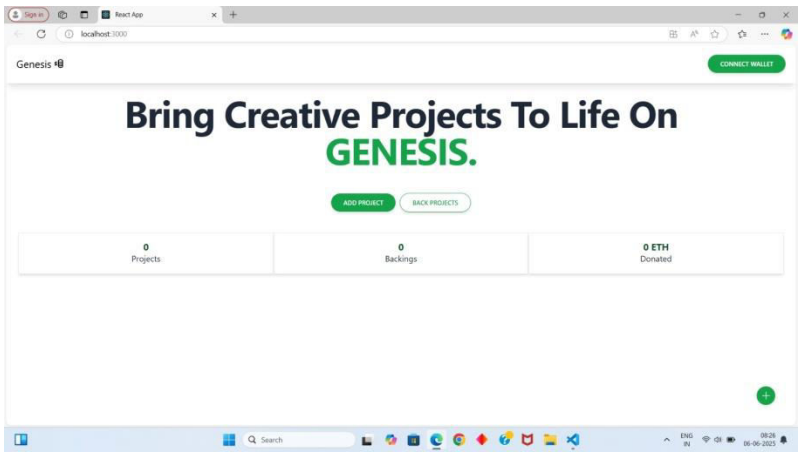
Market Feasibility

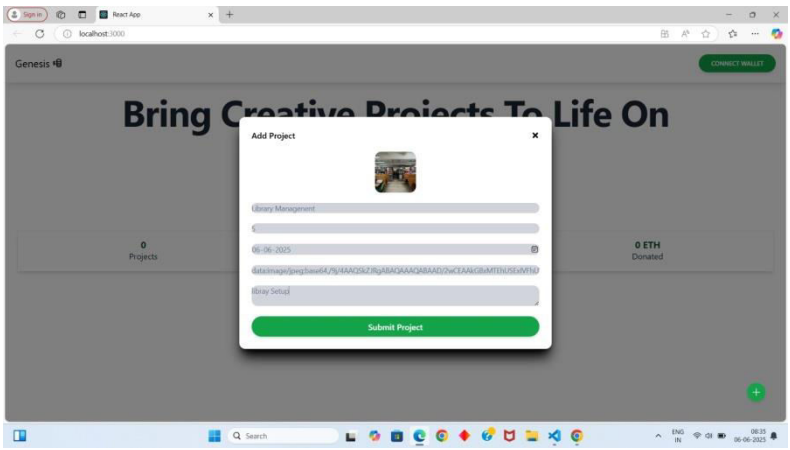
Rising demand for transparency in crowdfunding.
Blockchain enables borderless funding, expanding the backer base.
Appeals to crypto-native audiences and decentralization advocates.

Financial Feasibility

Startup costs can vary:
$30k–$100k+ for MVP
Higher if regulatory compliance is needed (e.g., securities laws)
Revenue can come from:
Transaction fees
Token listing or promotion fees
Premium services for campaigners

Sample Screenshot





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Key benefits include:

Transparency: Every transaction is recorded on a public ledger, reducing fraud and increasing trust among backers.
Security: Decentralized systems are harder to tamper with, offering enhanced protection for both contributors and creators.
Automation: Smart contracts can automatically release funds based on predefined conditions, reducing administrative overhead.
Global Access: Cryptocurrency enables borderless funding, opening campaigns to a global pool of contributors.
Lower Fees: Reduced reliance on banks and payment processors can significantly lower transaction costs.

IV. CONCLUSION

By offering more transparency, security, and decentralisation, crowdfunding platforms that include blockchain technology present a revolutionary alternative to conventional systems. Blockchain ensures trustless and automated funding processes by doing away with the need for middlemen through smart contracts, peer-to-peer payments, and immutable transaction records.

In conclusion, blockchain-powered crowdfunding platforms represent the next evolution in fundraising, offering a more democratic, efficient, and secure alternative to traditional models. However, mainstream adoption will depend on solving challenges like regulatory compliance, user education, and cryptocurrency volatility.

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