

# Donation Based System using Blockchain

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**Abstract:** *A donation-based system using blockchain technology can provide transparency and accountability in charitable giving, addressing concerns about the misuse of donated funds. The system would allow donors to contribute directly to specific causes or organizations, with each transaction recorded on a public blockchain ledger, ensuring that funds are used as intended. Smart contracts could be used to automate the distribution of funds according to predetermined rules and conditions, reducing administrative overhead and ensuring that funds are distributed fairly. In addition, the use of cryptocurrency could eliminate the need for intermediaries such as banks, reducing transaction fees and increasing the speed of transfers. The system would also allow for real-time tracking of donations and impact, providing donors with greater visibility into how their contributions are being used and the overall effectiveness of the charitable organizations they support. Overall, a blockchain-based donation system has the potential to improve transparency, efficiency, and accountability in charitable giving, ultimately helping to create a more equitable and sustainable world.*

**Keywords:** EB - Ethereum Blockchain, CF – Crowdfunding, DC – Decentralized

## I. INTRODUCTION

Blockchain technology is most simply formed as a decentralized, distributed book that records provenance of a digital asset. The blockchain is an incorruptible digital book that records every transaction. It is a distributed system in which all the records are stored in every node in the decentralized network. By design, the facts on a blockchain are unable to be made different, which makes it a within the law disruptor for industries like payments, cybersecurity and state of health care.

Crowdfunding provides an easy way to find funds for innovative project ideas. The problem with the current crowdfunding companies is that they charge upper fees and sometimes there have been scams while handling the funds. Implementing a CF strategy in blockchain will help to avoid these types of problems.

In the process of raising funds, of course it is not easy, because it requires trust between many parties, both the funders, intermediaries or organizations as a place to store temporary funds to the recipient of funds. That trust is the main capital for fundraising organizations to attract funders to donate their funds to recipients of funds. Trust is their challenge in attracting donors to donate their money to the organization. Not a few also a non-profit organization that uses technology to make it easy for donors to donate funds through them. So, from this it can be concluded that in addition to trust which is the main factor to get as many funds as possible, technology also plays a big role in this as well.

## II. LITERATURE SURVEY

Donation based system using Blockchain Technology: The primary objective of the authors is to address the limitations of existing crowdfunding platforms by leveraging a decentralized application powered by the EB. By doing so, they aim to provide a platform where all campaign details, donations, withdrawals, and funds are stored on an open blockchain network that is accessible to everyone. With a shared ledger, transactions only need to be recorded once, eliminating the need for redundant efforts. This approach improves the transparency and security of the crowdfunding process, ensuring that all transactions are immutable and irreversible.

The papers suggest that blockchain technology has the potential to disrupt traditional financial intermediation in crowdfunding. A paper by Cynthia WeiyiCai (2018)[1] notes that crowdfunding platforms and blockchain both create new intermediaries, but blockchain's trust element may enable it to eliminate the need for intermediaries in some

financial areas. A paper by Zhu (2016)[2] suggests that blockchain technology can be used to simplify the transaction and transfer of crowdfunding equities, enable peer-to-peer transactions, and develop a voting system for crowdfunders. A paper by Muneeza (2018)[3] argues that crowdfunding is a viable means to promote financial inclusion, and blockchain technology could help mitigate the current issues faced by platform operators. Overall, the papers suggest that blockchain technology can improve the efficiency, security, and transparency of crowdfunding, potentially making it more accessible to a wider range of people.

### 2.1 Objective

The objective of a donation system in blockchain is to provide a more transparent, secure, and efficient platform for charitable giving, which can increase public trust in the charitable sector and promote more donations.

### III. EXISTING SYSTEM

Based on the four papers, there are existing donation-based crowdfunding platforms that use blockchain. A paper by Saadat (2019)[4] propose blockchain-based crowdfunding systems that can be used for disaster aid and to prevent fraud in crowdfunding campaigns. A paper by Saranya (2022)[5] also proposes a crowdfunding charity platform that uses blockchain technology for secure funding transactions. Khan (2019)[6] designed a decentralized app in the Ethereum blockchain to optimize the process of Zakaah donation.

### IV. SYSTEM ARCHITECTURE

The system will utilize a blockchain network to perform and store transactions.

#### 4.1 Application Working

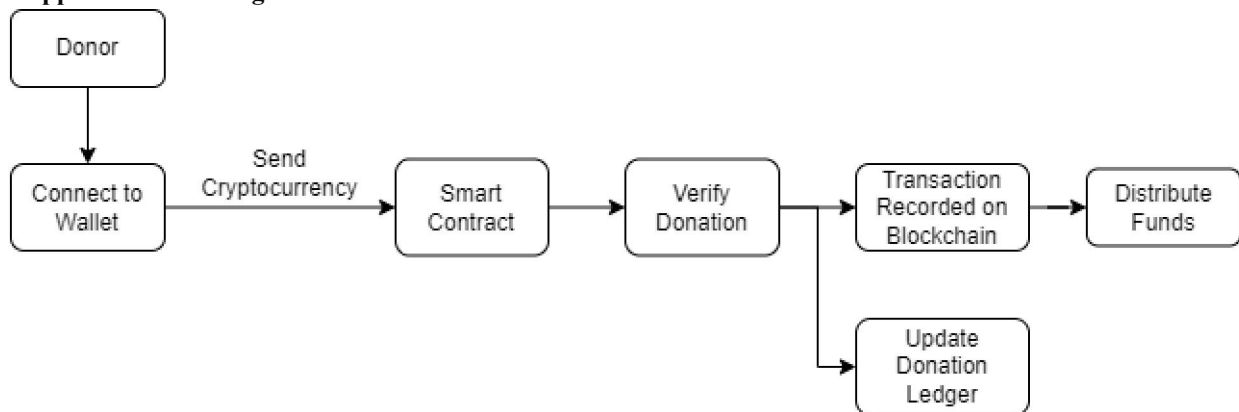


Fig. Application Working

A donation system using blockchain involves the creation of a smart contract on the blockchain that outlines the rules and regulations of the donation process. Donors can send their donations to the smart contract's address on the blockchain, which automatically records the donation and adds it to the total amount of funds raised. This process ensures transparency and accountability as all donations and distributions can be tracked on the blockchain, providing an immutable record of all transactions. The smart contract can also be programmed to distribute the funds raised automatically based on predefined rules, reducing the need for intermediaries and ensuring that funds are allocated according to specific criteria. Using blockchain technology can also significantly reduce transaction fees compared to traditional payment systems, making it easier for people to donate, especially smaller donations. Overall, a donation system using blockchain technology can provide a more transparent, secure, and efficient way of managing donations, creating new opportunities for philanthropy and social impact.

### V. CONCLUSION

The main objective of a donation system in blockchain is to provide a more transparent, secure, and efficient platform for charitable giving, which can increase public trust in the charitable sector and promote more donations.

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