**VISVESVARAYA TECHNOLOGICAL UNIVERSITY**



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**FINAL YEAR PROJECT PHASE - I REPORT ON**

**IDENTITY MANAGEMENT USING BLOCKCHAIN**

*Submitted in partial fulfillment of the requirements for the award of degree of*

**BACHELOR OF ENGINEERING**

IN

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**Identity Management Using Blockchain**

**Objective**

The idea is to use a blockchain for storing identities that could potentially be used across different services but also leave a person in control of their information - a concept referred to as self-sovereign identity.

**Introduction**

Many advocates of blockchain technology suggest that it can eliminate fraud. It's true that blockchain makes it extremely difficult for hackers to tamper with your data, it isn't infallible. With blockchain, whenever you make a payment or data transaction you can trace the transfer information. This means you could track the end location of stolen money, for example.

The problem is that your ability to trace the transaction would end once the money is converted to a physical currency. So blockchain technology makes fraud more difficult it isn't impervious to being breached. Recent hacker attacks on a number of online wallets prove blockchain is a desired target for hackers.

That being said, blockchain does offer serious improvements in terms of its identity management potential. If you're able to segment and dictate which data third parties have access to, you can manage your online presence and privacy much more effectively.

**Literature survey**

Why De-centralized..?

**Decentralized** means that there is no single point where the decision is made. Every node makes a decision for its own behavior and the resulting system behavior is the aggregate response.

Think of Bitcoin, no one place where the validation happens any miner can validate a block through mining .

In Identity context, this would mean all our identities are on a public blockchain with the network validating our identity and skills. Although we are heading in this direction we got to set the foundation strong so that the de-centralized community has a solid ground to work on.

**Existing system**

Identity and access management (IAM) is arguably the broadest issue in IT security. There are few other single concepts that impact as widely on so many areas as that of managing identity in an enterprise business context. From enabling employees to access the internal resources they need to fulfil business aims, through companies outsourcing functionality and hardware to consumers seeking to bank, trade or buy goods remotely, all are dependent on secure, reliable identity and access management.

Limited access by more than one person to the same set of data as there is only one copy of it and it is maintained in a single location.

This can lead to major decreases in the general efficiency of the system.

If there is no fault-tolerant setup and hardware failure occurs, all the data within the database will be lost.

**Problem Identification**

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**Problem Statement**

The idea is to use a blockchain for storing identities that could potentially be used across different services but also leave a person in control of their information - a concept referred to as self-sovereign identity.

**Proposed System**

Blockchain technology is truly revolutionary with regards to identity management. We live in the age where almost everything about our personal identity can be found on the web. Our online data footprints are extensive, combining everything about us from our name, age, financial history, work history, addresses and social records.

Blockchain technology will enable us to track where our data is used so if someone is fraudulently using our information we'll be able to react. All our data will be stored in a centralized location offering a clear transaction history to help identify unauthorized usage.

**Requirements**

Hardware

* Processor - Intel core family
* RAM - 4GB
* Disk Space- 250GB

Software

* solidity
* Windows OS
* Etherium - Computing platform