



PANIMALAR ENGINEERING COLLEGE

Chennai – 600 123

Department of Computer Science & Engineering

CS 6811 - Project Work (2021 -2022)

ZEROth REVIEW FORM

TITLE OF THE PROJECT

A Blockchain based mobile application for land ownership record and Product
Anti-Counterfeiting

ABSTRACT

Nowadays with the advancement of technology people come up with new ways of duplicating a product and selling it for the same price as the original. Same is the case with land fraud as there are cases of forced land acquiring through fake documents.

This project aims to solve this problem by providing a mobile application with Blockchain technology as the base architecture ensures that the contents of its data are tamper-proof. The mobile application displays a list of sources distributed by the product/country, so you can be sure that your end distributor is selling a genuine product.

Blockchain guarantees transparency and reliability because the technology is decentralized over a shared network. That is, you cannot change the data. You can take ownership of land / real estate in the same application. In this case, large parties such as governments can act as a source to verify reliability and place data on the blockchain through applications. Therefore, a digital signature is assigned to the owner to ensure the security of the owner's ownership.

TECHNOLOGY

- Mobile application will be made using **Flutter** framework
- **Dart** programming language will be used for the app.
- The technology that will be used to secure the data in a decentralized way is **Blockchain**.

- **Solidity** programming language will be used to create the blockchain software.
- **Metamask** will be used during the development process to test the contract.
- **Node js** will be used to create apis that could interact with the application and server.
- **Ganache** will be used create our own private Ethereum blockchain to test dApps.
- **Remix IDE** will be used for creation and deployment of smart contracts.

LIST OF REFERENCES

Below sites will be referred during the making of this project :

- A Blockchain-Based Application System for Product Anti-Counterfeiting
<https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8985337>
- Digitalization of Land Records using Blockchain Technology
<https://ieeexplore.ieee.org/document/9404678>
- Providing Security to Land Record with the computation of Iris, Blockchain, and One Time Password
<https://ieeexplore.ieee.org/document/9397176>
- How Blockchain Technology is Changing Real Estate
<https://www.investopedia.com/news/how-blockchain-technology-changing-real-estate/>
- Blockchain: properties and misconceptions
<https://www.emerald.com/insight/content/doi/10.1108/APJIE-12-2017-034/full/html>
- Blockchain's Unsuitability for Real Property Transactions
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3315000

ENCLOSE A COPY OF THE BASE PAPER

The project is inspired and based on a paper that was published on IEEE by JINHUA MA , SHIH-YA LIN , XIN CHEN , HUNG-MIN SUN , YEH-CHENG CHEN , (Graduate Student Member, IEEE) AND HUAXIONG WANG

Link to the base paper

<https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=8985337>