

INDIAN INSTITUTE OF MANAGEMENT KOZHIKODE



Working Paper

IIMK/WPS/555/ITS/2023/01

March 2023

A peer-to-peer lending application on blockchain to finance realworld assets

Lija Chandran¹ Mohammed Shahid Abdulla²

© All rights belong to their respective authors. Please contact the corresponding authors if you would like to access the full case.

¹Senior Test Lead, HCL Technologies

²Associate Professor, Information Systems Management Area, Indian Institute of Management Kozhikode, IIMK Campus PO, Kunnamangalam, Kozhikode, Kerala 673 570, India; Email - shahid@iimk.ac.in, Phone Number - 0495-2809254

A peer-to-peer lending application on blockchain to finance real-world assets

Abstract:

We propose a decentralized peer-to-peer money lending application with specific features that make it suitable to the Indian context. There are already several Decentralized Financial (DeFi) applications which enable peer-to-peer lending and borrowing of cryptocurrencies. We propose a similar application, but the wallet/dapp will hold the central bank digital currencies (CBDC) or fiat-collateralized stable coins, which can be used to purchase real world entities and thus contribute to the real economy. Users can register into the wallet using an Indian PAN number, but the wallet provider will not reveal the identity of the user unless there is a legal obligation. Anonymity helps to maintain the privacy and security of the users - whether the lender or the borrower. The borrower of the loan amount will have to submit the collateral in the form of non-fungible token (NFT) of ownership document, e.g. RC Book of a vehicle with governmental Motor Vehicles Deptt approval. The identity of the users will reveal only when the borrower defaults on the loan repayment. Further, then the ownership of the collateral will now be transferred to the lender's name.

Keywords: DeFi, smart contract, NFT, peer-to-peer lending, blockchain.

Research Office Indian Institute of Management Kozhikode IIMK Campus P. O., Kozhikode, Kerala, India, PIN - 673 570 Phone: +91-495-2809238 Email: research@iimk.ac.in Web: https://iimk.ac.in/publications

