

AUTO SCRUPLE

Aleena Kuriakose
S4 MCA A
Roll No: 09

Relevance Of The Topic

Scrapping of cars in India is not an organized process like the sale of used cars.

Transactions related to vehicles mainly involve buying and selling. However, tracking these transactions can be a challenging task.

Even though there exist some solutions using centralized systems, they may have problems with transparency, trust, and access control. Also, scrap dealers might deceive naive customers by fixing unfair prices for the cars given for scrapping.

Therefore, I provide an integrated blockchain and machine learning-based solution for automating the transactions related to the scrapping of cars.

Description of the topic

A car starts degrading and releases toxic emissions either due to an accident or aging, which in turn contaminates the environment. Such a car is considered a scrap car according to the Scrapping policy.

The system is incorporated with three entities, the scrap dealer, car owner, and the RTO. The scrap dealer, car owner, and RTO cooperate with each other using a proof of work consensus algorithm.

Once the scrap dealer and car owner registers, the RTO will verify them and approves the scrapping requests.

The next step is detecting damage of the car and predicting the price conforming to the damage detected and other features of the car.

After scrapping the car, the scrap dealer has to put forward all information about the scrapped car to the RTO.

The RTO will verify the details and issue a certificate to the car owner stating that the vehicle is deregistered. The certificate is generated using blockchain

Objectives of the study

The objective is to provide immutable data storage , data security , transparency, authenticity and security.

To provide the importance of Car Scrapping thereby providing a hassle-free platform to interact with the scrap dealer

Existing System

According to the norms, the car owner should approach the authorized Regional Transport Officer (RTO) and submit a letter expressing the intent to scrap the car.

Once an agreement has been reached, the scrap dealer will dismantle the car parts and segregate them into iron, plastic, rubber, etc, the chassis number is cut out and submitted to RTO for deregistration.

After getting the vehicle scrapped, the car owner is supposed to submit the registration certificate along with the chassis number, an affidavit mentioning that the car is not under any loans, insurance claims or pending court cases.

This traditional method is complex and centralized.

It requires a huge amount of time and manual work which is one of the biggest drawbacks in today's world of digital technologies.

Proposed System

The proposed system comprehends a private Ethereum blockchain and machine learning technologies.

The blockchain technology helps in acquiring a decentralized system.

It leads to quick and more translucent settlements, as the ledger is automatically updated and can be accessed by each member of the network

Input and Output modules

The scrap dealer registers with his details and wait for approval from the RTO, who in turn authenticates the scrap dealers details and allows the scrap dealer into the network.

The car owner has to register with his details and wait for approval by the scrap dealer as well as verification by RTO

RTO verify both the scrap dealers and car owner. RTO will approve the scrapping request.

Algorithms used

The framework uses the proof of work consensus algorithm

THANK YOU