1. THEME : Smart City
2. TEAM COMPOSITION DETAILS:
    - Pavan K Kumar :
    - Sandeep G :
    - Aleena Mary Varghese:
    - Anisha Beck:

3. Idea and proposed technological solution :

To solve the problem of traffic rules violation and to ensure safety on the roads using Blockchain Technology.

The number of traffic accidents has been on the rise in Bangalore.We can have the best rules of the road, but if these are not enforced effectively, we will continue to have an increase in fatal accidents on our roads.
Due to which, authorities must take measures to reduce road accidents and make Indian roads safer.In a city like Bangalore, effective traffic enforcement is the only requirement for road safety.

However, traffic enforcement is threatened by the crime of corruption. The menace in Bangalore involves both the parties in the transactions – the bribe giver who breaks the law & the bribe-taker who doesn't care about the safety or traffic discipline.
Therefore it is important to introspect the nature of such corruption and look out for strategies to fight this evil.

One such strategy could be the implementation of a block chain system on a combination of a new beat system for the traffic policemen and the vehicle owners where the traffic policeman can maintain records, keep track of all the fines/penalties charged against the defaulters and allow the defaulters access to view these records with the aim of a smooth traffic movement. The use of the blockchain technology is intended to improve traffic enforcement by increasing transparency in the society and help in assisting traffic cops. This system makes sure that the violators do not escape by bribing or any other means.

The process starts with the police collecting details of those who violate the traffic rules. They will then take the details of the vehicle owner, choose the category of the offense and register for fines/ penalties in the records.
As soon as they receive the details (Name and address of the owner, vehicle model), an SMS will be sent on the registered phone number of the violator. This SMS will have an OTP which will be entered before charging a fine/penalty to make the violator aware of the details collected,

the offense they are charged for and the fine to be paid. Upon registration, the information about the offense such as the time, date and location of the offense will be recorded along with generation of these details in the traffic police's profile and if there is no such fines/violation of any kind is found the vehicle owners will be awarded coins as a token of appreciation so as to motivate the vehicle riders and aid them in maintaining safety. If in case the vehicle owner has a good number of badges and is caught for breaking the traffic law , the owner will be reduced with badge count but also would be free from paying any fine(only for minor incidents).
Our system will focus on traffic policeman authentication, traffic policeman activity and progress, vehicle owner details in a set of categories, fine/ penalty tabulation, coins and badges to reward and appreciate the traffic policemen so as to encourage them to continue doing their job and for the vehicle owners which will encourage them to follow the traffic rules. Overall, help in using the system in an effective manner ensuring safety and harmony on the roads of Bangalore.
There are other functionalities like accident record, passport verification request etc. Alongside permitting a vehicle owner to request/ file a complaint on another vehicle owner, in case of any violation or misbehavior of any sort .It also tracks the sign in and sign out of the traffic police and keeps track of their activities. The traffic rules and regulations will be updated in the home page which includes the fine rates/ percentages etc
Finally, we will also ensure that both the vehicle owner's approval and the traffic police's approval to process the fine request , so that there won't be any kind of disturbances/scams .

Uses ::Corruption free society ,Safety.

Tech stack :

Application layer :
User interface : html , css , js
programming languages : python / Solidity
service layer : Smart contracts /distributed databases / digital identity
network and protocol layer : ethereum / bitcoin
infrastructure layer : storage , computation