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**INFORMATICS
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Smart Pay Parking System

By

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❖ Abstract

This ever-growing traffic congestion and waste of time and human resources at parking premises have thus enforced the need for a Smart Pay Parking system. Implementation of a Smart pay parking system would be an efficient and timely solution for this issue. A smart pay parking System where the systems cameras captures images of vehicles as passing through the gates and extracting the necessary information without having to stop and get parking cards or make payment manually at entrance or departure payment gates which will save their time and coast as well as which will charge the customers accordingly by comparing if any purchases have been made inside the premises which will be a new approach for the parking systems. This system will be more profitable as there will be no people involved and the system can be implemented with a relatively less coast when compared with the current systems. And when implementing and requirement gathering was done the following factors were considered the following factors were considering when selecting the criteria for the proposed project The Complexity and the technology used for the project, The Controllability, The Cost involved in implementing the project, The Clarity of the Application, The Main Features which are included, The Technical Framework of the project.

The system will allow the user to create an account and register their vehicle details in the system the user also require to deposit a minimum amount of cash in their account when creating the user account. When the Vehicle enter the Targeted business environment the system will capture the vehicle's number plate and recognize the number plate by extracting the information from image captured from the camera at the entrance once the vehicle enters the premises and it will identify the vehicle details and mark the time that the vehicle entered the premises. For this process image processing technology and character recognition will be used. Once the vehicle is leaving the premises the cameras will again capture the vehicle number plate and extract the information from it after that the system will pair it with the image captured at the entrance and identify the owner of the vehicle.

If the specific customer has made any kind of purchase from the business environment the system would grant a free pass without charging for the parking time period. If not, any purchase has been made it will then calculate the charge for using the premises by calculating the time lot between