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Analysis of Parking Performance in Amravati City

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ABSTRACT: : This project provides a thorough description of the design and fabrication of multipurpose hydraulic press for agriculture product. It begins with research into hydraulic operations, a brief study of fluid power and incompressible fluids, and a look into existing products. A basic structure is developed for peanut oil extraction, cotton bale pressing and agriculture waste fire briquettes. Aim of project is to encourage rapid rural development since they facilitate wealth creation and open up employment for the villagers thus improving their living standards significantly

KEYWORDS: Text detection, Inpainting, Morphological operations, Connected component labelling.

I. INTRODUCTION

The study aims at understanding the scale of the problem of on-road parking, flyover parking and the different methodologies and methods used to tackle the issues. Certain criteria of the campus structure and capital plan should incorporate the following priorities into all project proposals to the extent possible: Parking and transportation services that are secure, convenient, and accessible to all members of the university population are critical college services that can be enhanced at any opportunity. The pedestrian corridor or spine connecting the Hall, Mall, Campus, and Shops is a vital unifying feature of the campus and should be maintained and improved. Both programmes and enhancements should be fully open and adhere to the Indian with Disabilities Act's standards.

II. LITERATURE REVIEW

Amtul Waheed et.al. "Learning automata and reservation based secure smart parking system: Methodology and simulation analysis" Simulation Modelling Practice and Theory.

Christopher G. Hoehnea et.al." Valley of the sun-drenched parking space: The growth, extent, and implications of parking infrastructure in Phoenix" science direct (2019)

Daniel J. Findley et.al." Safety effects of parking maneuvers" Transportation Research Part F 69 science direct (2020)

III. METHODOLOGY

In the data collection part, real-world data from twelve parking lots of different places of the city are taken from authentic sources. Data of parking lots was obtained based on the in and out-time records of vehicles. In the method development part, forecasting method ie Least Square Method have been proposed to calculated the future expected volume of vehicles from current data. Then questionnaire survey is made to know the choices of the vehicle users. Analytic Hierarchy Process (AHP) is applied on user's replies. The Analytic Hierarchy Process (AHP), is an effective tool for dealing with complex decision making, and may aid the decision maker to set priorities and make the best decision.

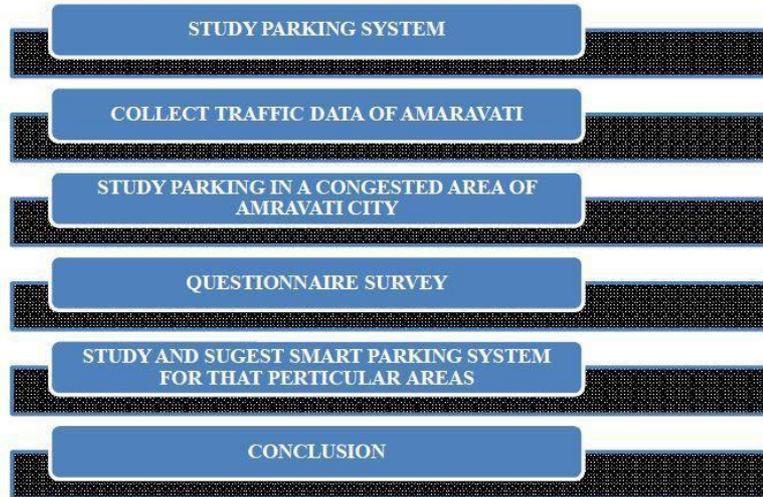


Fig 4.1: Framework of the study

IV. RESULTS

Results:

1. Least Square Method

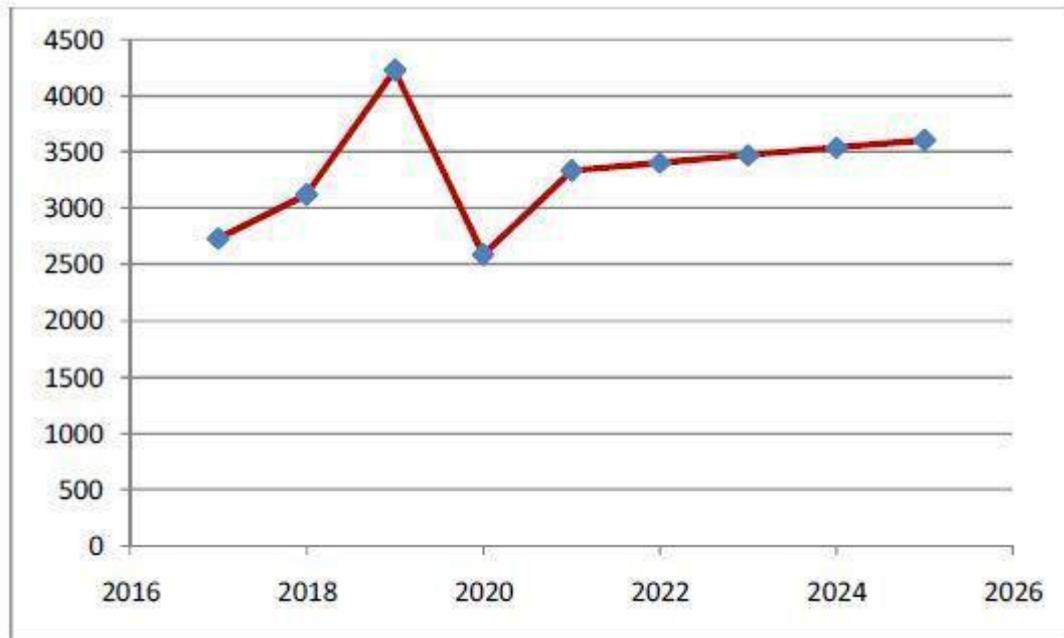
Location	Projected PCU in 2025
Gandhi Chouk	3949
Gadge Nagar	3605
Irwin	2815
Jaistambh	2624
Rajkamal	2192
Prabhat Chouk	3495
Itwara	1512
Rajapeth	1669
Takhatmal	3587
Ambadevi	2165
Bus stand	2137
AMC MSH6	3539

2. Analytic Hierarchy Process

- a) Respondents have given 80% weight ineffective land use for parking.
- b) Respondents have given 52% weight to Parking mobile app and parking sensor
- c) Respondents have given 42% weight to Smart counter parking systems.
- d) Respondents have given 26% weight to Automated parking structures.
- e) Respondents have given 31% weight to Parallel parking.
- f) Respondents have given 41% weight to

3. 't' Test

We have applied this test on two different questions. As our hypothesis is accepted, we can say that the users spends time in looking for parking spots is equal to that they find difficulties in getting a parking space.



Graph 5.2: Existing and projected PCU at Gadge Nagar

V. CONCLUSION

People were caught unprepared due to the fact that the auto society has been developing in a rapid speed. There are sharp contradictions between the numerous parking demands and the limited road traffic system.

In this study, a systematic comparison was done to analyse the parking occupancy prediction of parking lots with different types and scales. One forecasting methods and two prediction models (LSM, AHP and t - test) were used to develop prediction models for parking occupancy. To implement the models, numerical experiments were conducted to predict the parking with real-world data from parking lots, located in various places in Amravati city, of different scales and types.

Our focus was to find the solution of existing and future parking problem. There are lots of solutions, some are short term and some are long term basis but we need to work on the basis of long term plan and at the same time take care of discomforts or problems. We need the authority that can look after the construction and development of parking spaces.

The authority should make master plans for inner, middle and outer roads which will help us in reducing the traffic congestion. Promoting the use of bicycles in the city, we can comfortably use the bicycle in travelling. So this mode needs to be promoted in the city among the coaching students. We need to improve our existing parking system.

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