1. **STATEMENT OF A PROBLEM**

With decreasing costs of high quality surveillance systems, human activity detection and tracking has become increasingly practical. Accordingly, automated systems have been designed for numerous detection tasks, but the task of detecting illegally parked vehicles has been left largely to the human operators of surveillance systems. We propose NPVD for detecting this event in realtime by applying a novel image processing system that can perform the job quite easily and efficiently. After event detection, we extract the number plate (or otherwise called license plate) data for further processing. The proposed program is able to successfully recognize illegally parked vehicles in real-time and impose fine as per the traffic law in india.

1. **SYSTEM ANALYSIS**

**1.Present system**

The problem that countries like India that are still trying to deal with is the uncontrollable traffic rule breaking. Most of the problem fails to find a solution beacause of slow and manual actions that authorities takes when someone breaks the rule. Vehicles that are parked in no parking area often didn’t get any legal actions due to reasons like unability to watchout for local no parking areas and unavailability of that much of human working force. This results in many conditions like traffic jam, public nuisance etc. Thus the traditional present system in inefficient and non reliable.

**2.Limitation of present system**

* Manual process
* Time consuming
* Events may get unreported while authorities are abscent at the time of it’s occurrence
* More human effforts needed

**3.** **Proposed system**

NPVD system is proposed for monitoring and imposing fine to vehicles that are parked in non-parking area via identifying vehicle license plate numbers. No additional equipment need to be installed for operating this system. The only requirement of this system is installing special cameras for identifying license numbers on the no-parking area. The images taken by these cameras are subsequently processed in a computer. The cameras used in the system can be deployed under all weather conditions and are equipped with powerful infrared radiation units for identifying vehicle license plates in absolute darkness. The system normally comprises a camera for monitoring the vehicle path, an identification system for recognizing license plate number and are used for further identification of the corresponding owner to impose fines for breaking the traffic rules.

The software program used within the system deliver high precision and provide great processing speeds and fully reliable system. The OpenCV library provide a great image processing engine that ensures powerful and precise processing capabilities. The system prepares reports of vehicle that are parked in terms of time of entry and departure, vehicle license number, duration of each vehicle’s stay in the area , amount of fine imposed etc. The user interface of the system is designed for speedy access to system events

**4. Advantages and Features of Proposed System**

* The system can detect vehicle immediately
* Less human intervention needed
* .Fast, reliable and secure
* Less paper work needed
* Instant fine imposing

**3. Feasibility Study**

A feasibility study is an analysis of how successfully a project can be completed, accounting for factors that affect it such as technical, economic, behavioural, operational factors. When a new project is proposed, it normally goes through the feasibility assessment. Feasibility Study is carried out to determine whether the proposed system is possible to develop with available resources & what should be the cost of consideration.

Various types of feasibilities are,

* Technical Feasibility
* Economic Feasibility
* Operational Feasibility

If the proposed system is not feasible to develop, it is rejected at this very step.

**1. Technical Feasibility**

The proposed system uses the language Python. Based on this criteria, we can strongly say that it is technically feasible, since there will not be much difficulty in getting required resources for the development & maintaining system as well. All the resources needed for the development of the software as well as the maintenance of the same is available in the organization. Here we are utilizing the resources which are already available so it’s very well technically feasible that we can implement flood detection system.

**2. Economic Feasibility**

It is found that the benefit from our system would be more than the cost and time involved in its development. In our system the implementation cost over production is economically feasible. Economic analysis is the most frequently used techniques for evaluating the effectiveness of the proposed system more commonly known as cost/benefit analysis the procedure is to determine the benefits and savings that are expected from a proposed system and compare them with costs.

**3. Operational Feasibility**

The proposed system satisfies operational feasibility in the way that the customers needs are satisfied. The system is adaptable to the customers and acceptable to the common people who use this. Operational feasibility assesses the extent to which the required software performs a series of steps to solve business problems and user requirements. This feasibility is dependent on human resources (software development team) and involves visualizing whether the software will operate after it is developed and be operative once it is installed. Operational feasibility also performs the following tasks:

* Determines whether the problems anticipated in user requirements are of high priority
* Determines whether the solution suggested by the software development team is acceptable
* Analyses whether users will adapt to a new software
* Determines whether the organization is satisfied by the alternative solutions proposed by the software development team.