FUNCTIONAL AND NON-FUNCTIONAL REQUIREMENTS

6.1 FUNCTIONAL REQUIREMENTS

Functional requirements represent the intended behaviour of the system. This behaviour may be expressed as services, tasks or functions that the specified system is required to perform. Functional requirements are the main roles for which the system is designed. Speed Limit Detection From Traffic Signboard Using Artificial Intelligence is a driver assistance system. This method has a real time processing ability to remind drivers about the speed limitation of the vehicle when they drive their vehicle in different road conditions. It is implemented inside the vehicle not in the road, as during the first part image acquisition and pre-processing is done. Image acquisition can be used using “pi”. Followed by this, traffic sign board detection such as shape and color, speed limit number detection, number identification and speed limit recognition is done.This proposed system is a fully automated system, thus no manual assistance is needed. This system includes features like automated sign board detection & speed limit number identification.

6.2 NON-FUNCTIONAL REQUIREMENTS

A non-functional requirement is a requirement that specifies criteria that can be used to judge the operation of a system, rather than specific behaviours. Non-functional requirements are “system shall be requirement ". Non-functional requirements are often called qualities of a system. Other terms for non-functional requirements are "constraints", "quality attributes”, “quality goals", "quality of service requirements" and "non-behavioural requirements. Some of the non-functional requirements are mentioned Below

Usability: The system shall have a clean interface with only needed features, clear terminology and tool tips wherever necessary. Warnings or alerts shall be specified in clear way.

• Efficiency: The system shall respond to different searches being conducted like searching particular product, search quantity, etc. in a very fast way.

• Interoperability: The system shall be able to interact with other systems. The system should able to be supported at least one software which has a relationship with payment process

• Portability: The system shall be independent of the specific technological platform used to implement it.

• Reliability: Reliability defined as a measure of the time between failures occurring in a system (measure show frequently the system fails), so that the system shall operate without any failure for a particular period of time

• Availability: Availability measures the percentage of time the system is in its operational state so that the system shall be available for use 24 hours per day and 365days per year.