Problem Statement- Traffic On Road.

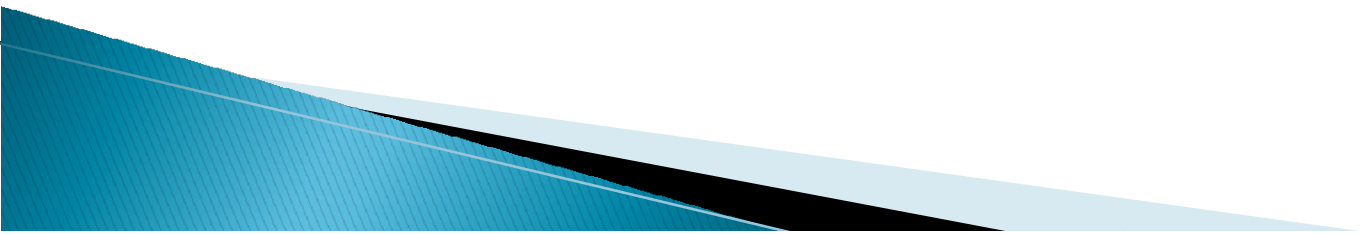
Solution Statement-Traffic Management
through
Signal Automation

Solution

- Our solution is for traffic jams on the roads of the cities.
- Our solution provides a better way to handle traffic. It is divided into two modules.
- One module is the automated module and the other is the manual module.
- In automated module the chips are embedded with algorithms and programs to handle traffic effectively and in an efficient way.
- If the automated module cannot handle the traffic on its own then the system shifts to manual mode. In this mode the operator handles the traffic remotely.

Plan

- The plan is basically to handle traffic effectively. We intend to do this with the help of multiple programming algorithms and microprocessors and also different kinds of sensors for input.
- We are using multiple programming platforms that are C and Java.
- We are using embedded C for the programming of the microprocessors.
- Currently we are using NetBeans and Proteus to display our plan and also a video to simulate some conditions for system input.



Future Development

- We would likely be using traffic enforcement cameras such as speed limit enforcement camera, and more.
- We are also thinking of adding of a module to detect an accident on any kind of road.
- We would also be using the ATS (Ambulance Tracking System) for the creation of Green Corridor for emergencies.
- We will also integrate Automatic Number Plate Recognition system that can take a picture of the number plate and then send it to the Vigilance authorities so they can find and take action on the offender.
- Smart street lights is also a system which we are interested in taking up for development.

Current Status

- The microprocessor 89c51rd2 is used to show the working of the signals in the automated mode.
- The java GUI represents the system in manual mode.
- The microprocessor is actual representation of our automated system and java is used for simulation of manual mode.
- The microprocessor is complete.
- Basic design(GUI) is complete.

GUI

- Until now all the Green signals and their respective Red signals are working.
- When the red signal is on then the green signal is off.
- Currently the buttons on the screen represent the cars or the density of the traffic.
- The GUI is completed.