Abstract

The motive of this paper is to design and implement “Intelligent Traffic with Emergency Control and Stolen Vehicle Tracking System” using Artificial Intelligence. Thus this system is capable to sense the density of vehicles for intelligent traffic management and also able to recognize emergency vehicles as ambulance to allow that signal for emergency control, as well as this system also recognizes the vehicles number for tracking stolen vehicles. It is significant to identify the density of traffic on real time mainly in metropolitan cities for signals control and active traffic management using traffic mass estimation using neural networks. In Density Control System we allow that signal first which has the highest density of vehicles, through which the congestion of traffics can be controlled then signals will get back to its original position or flow. In Emergency Control System we recognize the ambulance using pattern recognition among other vehicles from traffic and if system recognized emergency vehicle then that particular signal will be allowed and other signals will become red and an emergency alarm will be generated to indicate the activation of emergency signal. And in Stolen Vehicle Tracking System, our system will recognize vehicles numbers from those vehicles which are waiting for
green signal then it will verify the validation and authentication of that vehicles numbers and report the location of signal to the control room if any fraudulent information is found. This entire system is based on artificial intelligence that can make better control system.

References

1. Shilpa S. Chavan (Walke) 1, Dr. R. S. Deshpande3, J. G. Rana2 proposed Design Of Intelligent Traffic Light Controller Using Embedded System at Second International Conference on Emerging Trends in Engineering and Technology, ICETET-09 which is based on GSM technology.
2. Sarika B.Kale proposed Embedded system for intelligent Ambulance and traffic control Management at International Journal of Computer and Electronics Research [Volume 2, Issue 2, April 2013] which is based on RFID.
4. Manoj Prabhakar K and Manoj Kumar S proposed GPS Tracking System Coupled With Image Processing In Traffic Signals to Enhance Life Security at International Journal of Computer Science & Information Technology Vol 5, No 4, August 2013 which is based on image processing and GPS system.
5. K.Sangeetha1, P.Archana2 , M.Ramya3 , P.Ramya4 proposed an Automatic Ambulance Rescue With Intelligent Traffic Light System at IOSR Journal of Engineering (IOSRJEN) Vol. 04, Issue 02 (February. 2014) which is also based on GPS system.
6. Jyoti Sharma, Savita Sivani proposed LAN Based Traffic light control System with Emergency service Identification & Density Based Control at International Journal of Engineering Science Invention || Volume 3 || Issue 6 || June 2014 which is based on LAN.
7. Farheena Shaikh1, Dr. Prof. M. B. Chandak2 proposed An Approach towards Traffic Management System using Density Calculation and Emergency Vehicle Alert at International Conference on Advances in Engineering & Technology – 2014 which is based GPS system.

Index Terms

Computer Science        Artificial Intelligence

Keywords
Pattern Recognition, Neural Network, Density Control System, Stolen Vehicle Tracking System, Emergency Control System, MATLAB etc.