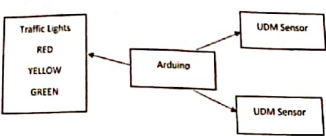


 <b>JSSATE</b> BENGALURU		DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING <b>ROBOTICS: THE ON ROAD FRIEND</b>	
<b>ABSTRACT</b> <p>The designed robot will be controlling and showcasing the standard traffic commands such as showing directions, no parking, one way and ensure the working safety of the vehicles' movement on road with respect to the feedback of a radar sensor. Having highly defined digital cameras for capturing high resolution images for viewing the road operation history anytime later. The robot uses the embedded AGV Traffic Control Software (AutoGuide's Advanced Vehicle Programming System) which is connected to each individual's vehicle by an Ethernet radio frequency wireless interface, providing graphics-based displays of all AGVs and their current status mapped to the desired facility floor plan in real time. The software is programmed by using Embedded C.</p>		<b>ARCHITECTURE</b> 	
<b>INTRODUCTION</b> <ul style="list-style-type: none"> <li>➤ Survey shows that around 464,000 motor vehicle accidents occur in India per annum due to lack of monitoring.</li> <li>➤ There is a need for design and development of a smart system for effective parking and traffic control.</li> <li>➤ The robot also provides a general notification to drivers of the motor vehicles if and when they park in a legal No Parking area.</li> <li>➤ If the notification is ignored, the number plate of the motor vehicle is scanned and the vehicle information is sent to the concerned authorities.</li> <li>➤ Based on the number of pedestrians and the number of vehicles, the robot controls both the foot traffic lights and the motor traffic lights.</li> <li>➤ It is observed that the proposed intelligent traffic light controller is more efficient than the conventional controller in respect with less waiting time and efficient operation in emergency mode.</li> <li>➤ The system has simple architecture, fast response time, user friendliness and scope for further expansion.</li> </ul>		<b>TOOLS</b> <ul style="list-style-type: none"> <li>➤ Arduino IDE Tool</li> <li>➤ N/W Protocol</li> <li>➤ Embedded C</li> <li>➤ IOT</li> <li>➤ Robotic Technology</li> </ul>	
<b>HARDWARE</b> <ul style="list-style-type: none"> <li>➤ Arduino UNO</li> <li>➤ Node MCU</li> <li>➤ WiFi Module</li> <li>➤ RFID</li> <li>➤ UDM Sensor</li> </ul>		<b>RESEARCH &amp; REFERENCES</b> <ul style="list-style-type: none"> <li>• M. A.A. Parkhi, Mr. A.A. Peshawar, Mr. K.G. Pande "Intelligent Traffic System Using Vehicle Density", Yeshwantrao Chavan College of Engg., Nagpur, International Journal of Electrical and Electronic Engineers, 2016.</li> <li>• Bilal Ghazal, Khaled ElKhatib "Smart Traffic Light Control System", Conference Paper-April 2016.</li> <li>• Malik Tubashshar, Ti Shang and Honghui Shi "Adaptive Traffic Light Control with Wireless Sensor Networks", Article-January 2007.</li> </ul>	
			
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