



IoT device to make roads free for ambulance in busy traffic

Real-time feasibility test to start on the Vizag roads from the next week, say developers

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THE persistent problem of ambulances being caught in traffic jams, with the patients in the need of emergency healthcare hanging between life and death, may be a thing of past soon as a city-based start-up Greenline Labs has developed a device that will help keep the roads free by regulating traffic signals.

Having developed a prototype which is giving good results in the in-house simulated environment, the developers has already held talks with the Greater Visakhapatnam Municipal Corporation (GVMC) authorities seeking permission for the real-time testing of the device on the city roads. "Last year, we signed a pact with the Gayatri Vidya Parishad Medical Institute and Hospital which will now examine the real time feasibility of the prototype in their ambulance, beginning next week," says Srivishnu Ayyagari.

ishnu Ayyagari, co-founder and CEO of Greenline Labs.

The device has been made with the Internet of Things (IoT) technology. The system comprises complementary gadgets which will be installed in ambulance and traffic signals and all the devices will be connected through a common network. "The gadget installed in ambulances will send signals to all traffic junctions within the radius of 500 to 700 metres. All the signal lights will automatically turn red, except for the one that will remain green, making the way clear for the ambulance," says Srivishnu Ayyagari.

In case this automation technology fails, the traffic signals can be turned red or green manually from the control room which will be equipped with a traffic signal health monitoring system which will detect whether or not all the networks are connected to the grid, explain the developers.

This is not all. The technology, within its network, will have a monitoring units at the hospitals concerned from where the condition of the patients being ferried by ambulances can be monitored real time.

The start-up has also developed an app to make it simple for the patients and their kin who can summon an ambulance in the need. Even a phone call to the 108 emergency services will also do as the ambulance will track the signal to reach the exact location to pick up the patients.

Having conceived the idea, a research team of Greenline Labs began research for the project in September 2015 and the Gayatri Vidya Parishad Medical Institute and Hospital has agreed to do a real time feasibility study on the prototype to make it a viable product, with all necessary amendments.

"We have also drafted a patent for the hardware design and in-

frastructure and developed the first batch of 10 units. The GVMC commissioner has asked us to complete the testing and give a detailed report of the real-time trial. If it works, we will get the permission for its full scale implementation," adds Srivishnu Ayyagari, who is also a part of the 6-member core research team working on the project, adding that the team will meet GVMC commissioner MHari Narayanan with the detailed report of the prototype in a simulated environment on Tuesday.



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Srivishnu Ayyagari, Greenline Labs CEO and project core research team member



HOW THE DEVICE WORKS

- Device infrastructure based on Internet of Things (IoT) technology

- Complementary gadgets connected to a common network installed in ambulance and traffic junctions

- Ambulance gadget sends signals to traffic junctions within the radius of 500 to 700 metres

- All signal lights turns red, except for the one that remains green, making the way clear for ambulances

- Entire network monitored from control room for lapses

- Real time monitoring of patients being ferried by ambulances from hospitals

- Special app to summon ambulance

