

# IIT-Gn to help get traffic out of jam

## 4 IPS Officers To Oversee Execution Of Intelligent Traffic Management System Across State

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**Gandhinagar:** The Gujarat home department has decided to tie up with Indian Institute of Technology, Gandhinagar (IIT-Gn) to beat traffic problems and reduce the number of accidents by using technology.

Th government of Gujarat will use computer modelling for realistic representation of traffic dynamics and route choices. An intelligent traffic management system will also be adopted. Four senior IPS officers will put on special duty at the state level to execute these reforms in all cities.

The home department has started a State Traffic Unit, which will to improve traffic management services.

The home department, after in-depth deliberations, identified two major problems areas. The first is congestion during peak traffic hours in urban areas like Ahmedabad, Surat, Vadodara, Rajkot and other cities. The second is the rising number of fatalities on state and na-



tional highways. Road engineering solutions were suggested, but no means of verifying the effectiveness of these road improvements for the identified accident black spots has been implemented.

A senior home department official said: “We are adopting computer modelling for realistic representation of dynamics and route choice to address peak hour congestion in cities. Ahmedabad will be divided in to the regions and describe traffic flows in mathematical and physical terms. It will be studied by time blocks. By dynamically dividing the city’s road network this way, computer mo-

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dels of traffic can be simplified to the point that real time management of traffic in the entire city will become possible.”

“At present, CCTV footage is data-mined only for traffic enforcement and some post-incident analysis. The footage will be used to create computer models based on vehicle count, mean vehicle speed, bumper to bumper distance etc., This can form the basis for creating appropriate algorithms for the Intelligent Traffic Management System and based on built-in parameters for critical density be able to predict traffic congestion and alerts stakeholders to mitigate it,” added the source.

A source further said: “To minimize the number of accidents on the highway Empirical Bayes (EB) methods will be used to analyse before and after crash data in a systematic manner: It will begin with determining unique safety performance functions (SPF) for identified roadway segment using various statistical modelling software packages. Based on the number of fatalities in a specified time-frame, road segments/points are identified as black spots. Road engineering issues at these places are reviewed using theoretical principles. Safety audit will be done for all roads and measures will be taken accordingly. A team of four IPS officers and other staff will be assigned shortly.”