# HYDRAULIC TRAFFIC REDUCE SYSTEM

**46S_BE_1936**

**COLLEGE:** S.J.B. INSTITUTE OF TECHNOLOGY, BENGALURU

**GUIDE (S) :** Mrs. NISARGA P

**STUDENT (S) :** Ms. SWETHA M K

Mr. SAGAR K

Mr. SUJAN T S

Ms. RISHITHA S

## SYNOPSIS

Traffic congestion has been one of the major issues, in order to reduce congestion automated, highways are adopted which is based on Hydraulic system. At present time the footpath provided on the edges of the road is mono functional reserves only for pedestrians. To reduce the congestion of traffic we propose the design of a modified footpath platform which will be used by both vehicles as well as peoples to reduce the traffic congestion. We ought to use pre-stressed concrete slabs to provide an upward and downward motion to the footpath. With the help of this mechanism, the footpath can be used for pedestrians by raising its level and also could be used as a separate lane by lowering it. Hence, reducing the amount of traffic significantly by simply providing an extra lane on the road.

In the present study Kathriguppe Intersection is taken as study area to provide automated road in the form of Hydraulic Traffic reduce system. This emphasizes the dissolution of major traffic congestion at Kathriguppe and its traffic and traffic volume. Road inventory and traffic studies are conducted at the study area to know the present traffic condition at Kathriguppe. The survey day was selected on the working day that is Tuesday, Thursday and Saturday, the peak hour time is selected for survey, additional data is collected during off peak hours and traffic volume is analyzed. Highway Capacity Manual (HCM) suggested that a two-lane urban road with one-way traffic has a maximum capacity of 2000 vehicle/hour. In the identified road stretch the traffic volume has reached 2514 vehicle/hr, which results in reduced level of service and increased traffic delays.

Automated Footpath is designed using jack system during the study which can be used as an additional lane to relieve the congestion. This additional lane can also be used as an emergency lane for movement of ambulance, fire extinguishers etc. The modified footpath traffic reducing system in congestion study area ensures smooth traffic flow. Thus, from the studies, it is concluded that use of jack system in footpath /automated footpath with less area of construction is an innovative method to reduce congestion. Automated

road system reduces traffic caused by the lack of road width also by providing additional lane for emergency vehicle for speedy service across the city.