

PLANNING OF A RING ROAD FORMATION FOR SALEM CORPORATION USING GIS

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Abstract

Design of ring road deals with the development of a comprehensive plan for construction and operation of transportation facilities. In order to develop an efficient and better transport facility, it is necessary to have a proper procedure in transport movement. This ring road helps to a great extent in improving the safe and fast movement of both human and goods traffic, there by increasing the economy of the City. This improved economy contributes the growth of the country. The first and foremost step is reducing the traffic for the particular route by diverting the density of the vehicles to enhance the safe transport and environmental pollution. This project deals with the traffic problem of the Salem city and provides better transportation. In this project GIS is used for surveying, for preparing Contour maps, for developing three dimensional Digital Elevation Models, for various types of route alignments and for estimation of cutting and filling volumes. The existing road path was 18 km long from Ayodhyapatnam to Kusa Malai (via Salem old bus stand, Salem new bus stand & five roads). Another existing road path was 26 km long from Ayodhyapatnam to Kusa Malai (Via bye pass route) and the least cost pathway was 13.8 km long. Results indicate that the route which was designed applying GIS method is more environmentally effective and cheaper. This proposed shortest route provides traffic free, pollution free, risk free, operating for movement of vehicle passing from Attur to Omalur main road. Time and consumption of fuel will also be reduced considerably.