Abstract

GIS and GPS-based Road Network Planning in Urban Sprawl Areas

Track: Transportation

Author(s): K.M. Lakshmana Rao, Kuchu Jayasree, G Ravishankar

Development of road network configurations to coordinate the multiple demand and supply centres is the objective of the study. Travel demand profiles are developed with desire of interactions on the data collected through home interview surveys. The existing network configurations at micro level are developed for each colony by GPS technology as supporting tool. The GIS conceptualization and application is framed on the attribute and spatial data of satellite and collateral information. The mathematical models like gravity pull theory, shortest spanning lines are used to develop the links warranted for new connectivity and accessibility and lines warranted for widening of a municipality in urban sprawl.

K.M. Lakshmana Rao
Jawaharlal Nehru Technological University
Centre for Transportation Engineering
Centre for Transportation Engineering, IPGSR, JNTU, Masab Tank, Hyderabad, Andhra Pradesh, , Andhra Pradesh 500 028
India
Phone: +91-040-3375318
E-mail: kjayasree2@rediffmail.com

Kuchu Jayasree
Jawaharlal Nehru Technological University
Centre for Transportation Engineering
Centre for Transportation Engineering, IPGSR, JNTU, Masab Tank, Hyderabad , Andhra Pradesh 500 028
India
Phone: +91-040-3375318
E-mail: kjayasree@hotmail.com

G Ravishankar
NRSA(National remote Sensing Agency)
NRSA
NRSA, Hyderabad
Hyderabad , Andhra pradesh
India