

# Use of GIS in the Study of the Impact of Road Network Accessibility in Electricity Infrastructure Distribution and Monitoring a Review

Njike Chigbu and Susan Chiawolam Nmergini (Nigeria)

**Key words:** Geoinformation/GI; Spatial planning; GIS,GEODATABASE, IMPEDANCE,MONITORING

## SUMMARY

Quality road network enhance better monitoring and distribution of electricity distribution. The study aimed at reviewing the impact of road network accessibility in electricity utilities distribution and monitoring of World Bank Housing Estate Umuahia using Geographic Information System. The research was done by assessing the weight impedance on the routes within the Estate using the digital road map stored in the database. The objectives included the assessment of characteristics, spatial arrangements, and impedance of the roads through digital road map and database. Data analysis included layers and database creation, link impedance that indicate area with low, moderate and high efficiency route and proximity analysis that indicate areas with difficulty accessibility due to poor planning infrastructure. The results included digital road map and database (attribute table) which revealed the present condition of roads that leads to improper monitoring of electricity distribution within the estate. The use of geodatabase, digital road map for the evaluation of road transportation and infrastructure planning such as electricity was recommended which will help to solve long lasting problem of light within the area.

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