

# **Vectorisation and Database Creation of Abia State Polytechnic Aba, Nigeria with Geographic Information System.**

**Michael Apeh, Njike Chigbu and Alozie Chigbu (Nigeria)**

**Key words:** Geoinformation/GI; Land management; Spatial planning; Vectorisation; GIS and Quantum GIS

## **SUMMARY**

The project is the application of geographic information system (GIS) in effective and digital mapping of the entire Abia State polytechnic, Aba, Nigeria. The objectives include capturing of geometric and attribute data of the study area such as roads, buildings, electric poles, etc., and the design of a geo-database for the polytechnic, perform spatial analysis on the created database and finally the visualization of the final products in the form of thematic maps. Google satellite imagery in combination with aerial Bing map of the site was used as the base information. The geometric data acquisition was carried out using hand held GPS while oral interviews and field completion exercise was used for the attribute data acquisition. The image was first georeferenced and later vectorized using quantum GIS 1.8.0 software. The final output is the detailed map of Abia State Polytechnic Campus, Aba, Nigeria in a digital and analogue format.