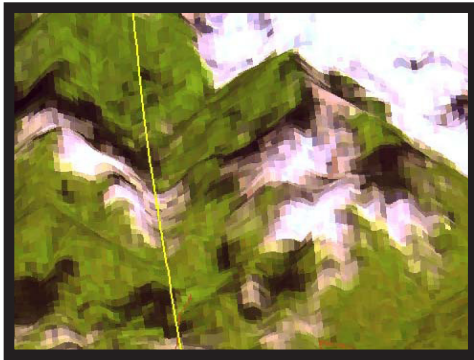


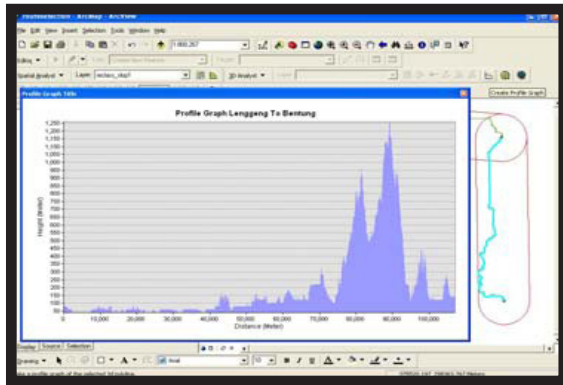


R&D Fund Project

Study On Transmission Line Route Selection Using Geographical Information System (GIS)



3D view along the proposed line generated by the application system



2D profile along the proposed transmission line. generated by the application system

Project Overview

This project is to introduce Geographical Information Technology in selecting the optimum route for a proposed 500kV Transmission line. The line is being studied as a pilot study for the route selection process using GIS. Current selection process of transmission line route has been improved using a more comprehensive and exhaustive set of data and information. Route selection will not

only use topographic maps, but also other data which are more comprehensive and up-to date. These include land use maps, geological maps, satellite imageries, cadastral maps, future development/structure plans, etc.

Deliverables

- Documented procedure / manual for a standard methodology in route selection study for transmission line
- Final route for the 500kV transmission line
- GIS (Geographical Information System) application for optimum route selection
- Training on GIS based technology in route selection study

Benefits

- i) The GIS-based method utilizes an exhaustive and latest data sources, hence route selected will be an optimum route which had considered various factors which relevant in the route selection process. This equates to cost savings in implementation and maintenance.
- ii) Establishment of a standard method for transmission line route selection will reduce 'on-the-ground ad-hoc' changes which are costly and time consuming. On-site work can be planned and estimated more accurately.
- iii) Standard method used is systematic, consistent, well documented & traceable. Decisions made on route selection are therefore more defensible.
- iv) Development of the application model and process 'template' can be used for future route selection process. Hence results of future route selection process will be consistent. This will increase productivity & efficiency of the route selection process.
- v) Data collected for route selection process can be stored and results can be retrieved at a later date for other works on the transmission line including monitoring and other