

## The application of digital elevation model for the Klang Valley geological structure.

### ABSTRACT

**Purpose** – The purpose of this paper is to utilise the interactive view capability of the geographical information system (GIS) for the geological interpretation in Klang Valley, Malaysia. **Design/methodology/approach** – Topographical map scale of 1:10 000 was used to generate digital elevation model (DEM). The geological map was draped over the DEM to create a 3D perspective view. The geological interpretation was undertaken using the 3D capability of the GIS software. **Findings** – From the study, five lineaments which could possibly be the newly identified faults and one lithological boundary have been delineated. **Research limitations/implications** – Although these findings need to be rechecked in the field, they show the capability of the DEM application in structural geology interpretation. **Practical implications** – The results obtained from this study demonstrate the capability of utilising a geological map draped over DEM for structural geological interpretation. Thus the technique may increase the interpretation accuracy. **Originality/value** – The major outcome of this research is the possible use of DEM in the application of geological study.

**Keyword:** Geological analysis; Geomorphology; Malaysia; Topography.