

# **A GIS Application to Mineral Exploration in Ghana – A Case Study of the Ayanfuri Area**

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## **SUMMARY**

The mineral exploration industry in Ghana has been undergoing tremendous improvement. Now the mineral industry in Ghana is incorporating GIS using overlay and data management to analyse geographic information. This project seeks to apply Topographical data, Photogeological interpretation data, Rock data and Geochemical data to show how these datasets can be combined to form a mineral potential map. The various mineral potential maps were obtained using different ranking methods to give the decision maker options on which to take an informed decision. The flexibility of GIS showed how this technological tool can easily be amenable to the minerals exploration industry in Ghana.

## **BIOGRAPHICAL NOTES**

**Ambrose Amoako** holds a Diploma in Geological Engineering from the University Science Technology School of Mines, Tarkwa, Ghana. He is the Senior Geologist in Charge of Projects at African Precious Minerals. He has 20 years of field experience in Geology especially in the area of mineral exploration. He is currently a member of the Ghana Institution of Geoscientists. He is currently an MSc student at the University of Mines and Technology researching into Geographic Information Systems for Mineral Exploration.

**E. E. Duncan** holds an MSc degree in Geomatics (Surveying) from the University of Glasgow, UK and a BSc degree in Geodetic Engineering from the University of Science and Technology, Kumasi, Ghana. He worked on a UNICEF mapping project of the Northern regions of Ghana in 1993 as a Surveyor. In 1996 he joined the UST School of Mines (Currently The University of Mines and Technology, UMaT) where he now lectures in GIS, GPS, Remote Sensing and Advanced Statistical Applications to Geomatics. He is currently affiliated to the Institution of Civil Engineering Surveyors, UK (ICES) and an academic member of the Federation of International Surveyors (FIG).

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