

Digital Seismic Network – The Way Forward and the Challenges

The threat of earthquakes has compelled the Government of Ghana to fund the purchase and installation of Digital Seismic Network to replace the defunct analogue seismic network. The six remote Libra VSat seismic network is now transmitting the various levels of earthquakes and their frequencies of occurrence successfully. The software programmes installed gives automatic location and magnitude determination of seismic events. It also allows post processing of events manually and moment tensor determination to study the stress regime and constraint the depth of faulting. Also ten stand alone strong motion accelerometers has been installed on some major dams in Ghana. The data from the seismic sensors will be used for studies into the internal properties of the earth and to obtain ground motion estimates to generate a new national seismic hazard map to form the basis for land use planning and building codes formulation etc. The way forward is to have open data sharing with the Global Seismological Community, especially within the West African sub-region to study the level of activeness of the West African craton through partnership and co-operation. Funding for the maintenance and upgrading of the network and activities within the sub-region is the key challenge.

Primary author: OPOKU, Nicholas (Geological Survey Department)

Presenter: OPOKU, Nicholas (Geological Survey Department)

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