

# **Development and Sustainability of NIGNET – Nigerian GNSS Network and the Relation with AFREF**

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**Key words :** GNSS/GPS, Risk management

## **SUMMARY**

Development and Sustainability of NIGNET – Nigerian GNSS Network and the relation with AFREF Peter C. Nwilo fnis, U. R. Edozie, A. Adebomehin Key words: GNSS, CORS, Reference Frame SUMMARY Currently, development approaches in Africa are geared towards continental and regional economic and political integration. Traditionally, each country in Africa has its own geodetic reference system. In addition, many of the trig points materializing the reference frames have disappear or are not adapted to the new observation techniques using space-geodetic techniques. As a result, many problems exist nowadays to efficiently geo-referencing objects in a proper reference frame. In this respect, OSGoF decided to develop a new Permanent GNSS Network covering the entire country to be used in the future to continuously materialize the new reference frame that should replace the existing classical datum (Minna Datum) in the coming years. This reference frame will be fully consistent with the African Geodetic Reference Frame (AFREF) initiative. This project, promoted by the United Nations Economic Commission for Africa (UNECA) intends to move from national reference systems to regional or global reference system. The project was conceived to create a unified and homogeneous reference frame for Africa, which should be consistent with the International Terrestrial Reference Frame (ITRF). A unified coordinate reference frame is of immense benefit to Nigeria. One of such benefits is in its contribution to sustainable Infrastructural Development. This paper describes the development of the NIGNET project, progress and prospect as well as its impact on sustainable development in Nigeria.