

# Establishing Ghana's active geodetic reference network as a tool for enhancing national socio – economic development buoyed by the realities of a pandemic

Yaw Opoku - Gyamfi, Kwame Tenadu, Isaac Dadzie, Herbert Djaba and Michael Nyoagbe (Ghana)

**Key words:** Access to land; e-Governance; Geoinformation/GI; GIM; GNSS/GPS; Low cost technology; Positioning; Professional practice; Reference frames; Reference systems; Security of tenure; Spatial planning; 1 Geodetic reference network, 2 Digital enablement, 3 land services delivery,

## SUMMARY

As an infrastructure needed to meet the drive into digital world and enhance the socio-economic development in Ghana, the Licensed Surveyors Association of Ghana (LiSAG) has established a privately owned Geodetic Reference Network, LiSAGNet. This demand-driven, on-going privately owned project is operational in the southern part of Ghana and has eight Continuously Operating Reference Stations, (CORS) out of the proposed 28 stations nationwide. The station which is the control center LSA1, located in Accra -Spintex has been smoothly operating on the Spider software since 2018 and the rest have been established and are all operational. The network uses Networked Transport of RTCM via Internet Protocol, NTRIP, and data is stored virtually in the clouds. Currently the available product includes Static application, Real Time Kinematics, RTK, Virtual RINEX and Network RTK. In addition to using the Spider software, LiSAG has developed a LiSAG Management System software that caters for all the transactions by users who do business with the Lands Commission as a major partner online. This paper discusses the results of the accuracies attained, cost effectiveness and the time savings made with the establishment of LiSAGNet and its expected impact on the sustainable development of Ghana. Additionally enabling the deployment of IT to augment land services delivery for Surveyors and the public as a solution to address the realities of a global COVID-19 pandemic.

---

Establishing Ghana's active geodetic reference network as a tool for enhancing national socio – economic development buoyed by the realities of a pandemic (11141)

Yaw Opoku - Gyamfi, Kwame Tenadu, Isaac Dadzie, Herbert Djaba and Michael Nyoagbe (Ghana)

FIG e-Working Week 2021

Smart Surveyors for Land and Water Management - Challenges in a New Reality

Virtually in the Netherlands, 21–25 June 2021