Heavy rain ensures base station communication

This study investigated HAPS performance in Tanzania under heavy rain conditions. Rain rate, rain attenuation, and carrier-to-noise ratio were used to quantify the system''s ...

Research Objectives The objective of this paper is to compute rainfall attenuation using ITU-R P.618-8 with rain rate data from TRMM and GPM for the six candidate ground ...

Outdoor communication base stations are the backbone of modern communication networks, bearing a significant load of data traffic and communication tasks. They must ...

Small cells: The use of small cells can help reduce the distance between base transceiver stations (BTS) and user devices, thus reducing ...

The rain gauge of the HSR early warning system is connected to the on-site monitoring unit via the signal cable, and the on-site monitoring unit is set up in the ...

In disaster scenarios, e.g., earthquakes, tsunamis, and wildfires, communication infrastructure often becomes severely damaged. To rapidly restore damaged communication ...

Moreover, most of the studies are implemented in tropical and equatorial regions due to heavy rain which increases the rain attenuation. Furthermore, different models with ...

High altitude platform station (HAPS) is positioned at a stratospheric altitude ranging between 17-25 km. The footprint and the coverage area of the HAPS communication system ...

The Low Earth Orbit (LEO) satellite communication system has become an important trend of next-generation communication services. As it is known, rain attenuation ...

Small cells: The use of small cells can help reduce the distance between base transceiver stations (BTS) and user devices, thus reducing the effects of rain attenuation.

In this paper, we propose RainfalLTE, a system that uses the communication link between base station and terminal devices to sense rainfall. In particular, RainfalLTE is ...