

Can a logistic method be used to predict a base station failure?

One of the primary tasks for effective disaster relief after a catastrophic earthquake is robust communication. In this paper, we propose a simple logistic method based on two-parameter sets of geology and building structure for the failure prediction of the base stations in post-earthquake.

Why do mobile network operators face frequent power supply failures at BTS sites?

Mobile network operators (MNOs) face frequent power supply failures at BTS sites, leading to revenue loss and increased operational expenditure (OPEX). Despite their critical role, BTSs face significant operational challenges due to vulnerabilities in their power supply. These disruptions can arise from various external and internal sources .

Why do base stations fail after earthquake?

The weight parameters of two-parameter set by the actual field data significantly show that the failure of base stations after earthquake is mainly due to the geological differences where the base stations are located.

What factors affect a post-earthquake communication base station?

While ignoring that the damage of the post-earthquake communication base station is also related to many factors such as the geographical location of the base station, the distance from the earthquake source, the geography and geology between the earthquake source and the communication base station.

Do power failures affect BTS sites?

In today's dynamic world, BTS sites function as the backbone of mobile networks that provide communication services for millions of users. However, in practice, power failures can disrupt the critical operation of BTS sites which impact network reliability and user experience.

Why do cellular networks need a base transceiver station?

The widespread deployment of cellular networks has improved communication access, driving economic growth and enhancing social connections across diverse regions. Base Transceiver Stations (BTSs), are foundational to mobile networks but are vulnerable to power failures, disrupting service delivery and causing user inconvenience.

One of the primary tasks for effective disaster relief after a catastrophic earthquake is robust communication. In this paper, we propose a simple logistic method based on two ...

**ABSTRACT-** In this research work, the classifications of the device that controls the energy supply sources of the mobile communication base station are presented. The device is used to ...

One of the most important factors for the effective operation of mobile communication systems is the uninterrupted and stable supply of power to base stations. Uninterrupted power supply to ...

The seismic fragility analysis of communication equipment can be utilized for pre-earthquake disaster prediction and targeted improvement of their seismic performance; on the ...

In particular, MORNSUN can provide specific power supply solutions for optical communication and 5G base stations applications. In particular, MORNSUN's VCB/VCF series of isolated 3 ...

Abstract Faults incurred by Base Transceiver Stations pose challenges to telecommunication organisations. Mostly the faults are due to BTS failures. BTS power system failures can have a ...

Abstract Cooperative transmissions allow fast and reliable communication between user equipment (UE) and base stations (BSs) in radio access networks. Selecting which base ...

Motivated by the need for uninterrupted service provision in the telecommunications industry, this paper presents a novel problem concerning the transportation of diesel ...

The telecommunications sector faces a serious problem with Base Transceiver Station power system failure. This is a critical issue in the telecommunications industry as it can result in ...

To identify the most significant factors affecting BTS power supply systems, focusing on environmental factors, equipment failure, and power supply issues: The study aims to identify ...

Furthermore, it seeks to determine if the full activation time can meet the requirements of an FFR product. The system consists of a live mobile base station site with a ...

