

# Communication base station power supply earthquake

Do communication base stations perform post-earthquake functionality using Bayesian network?

A method to evaluate the post-earthquake functionality of communication base stations using Bayesian network is developed. The dependence between the equipment and its hosting building structure, and the impact of power outages are considered. The method is validated using seismic damage data from the Ludian Earthquake.

How to assess damage to mobile communication facilities during large earthquakes?

Ke et al. proposed a method for assessing damage to mobile communication facilities during large earthquakes. The study analyzed the impact of power outages and evaluated the damage caused by ground motion to base stations using fragility curves .

Do earthquakes affect communication base stations?

Analyzing and summarizing these observed seismic damages can enhance our understanding of the impairment of communication base stations during earthquakes, providing valuable information for establishing a Bayesian network model for functionality loss.

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.

How does a communication tower damage a base station?

The communication tower and its antenna equipment are responsible for signal transmission and reception, and their damage directly affects the normal operation of the base station. This study mainly considers tower body damage (X 11) and antenna damage (X 12).

How do earthquakes affect communication?

Earthquake disasters can cause collapse of houses, damage to communication base stations towers and transmission lines, resulting in the disruption of communication services over a large area.

Since the batteries in the SBP are connected in series to provide power to the equipment in the base station, if one battery shifts excessively or falls out of the battery cabinet ...



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