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Title: Evaluation of the capacity of communication base stations

Generated on: 2026-06-19 07:35:34

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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.

Can a Bayesian network be used to assess communication base stations?

This study applies a Bayesian network method to the functionality assessment of communication base stations. The method integrates Fault tree analysis and Bayesian network, and its performance is validated through the observed seismic damage data of the Ludian earthquake.

How are communication base station data collected?

The communication base station data from different seismic sources are randomly combined and randomly divided into training set and test set according to the ratio of 7:3. 70% of the training set data are used for learning and 30% of the test set data are used for testing.

What is a typical communication equipment room (ground base station)?

Fig. 2. Layout of the typical communication room (Ground base station). 2.1.2. Role of Each Component The main forms of the communication equipment room are civil construction room, color-coated steel room [33, 34], and integrated (container) room.

A simulation-based SINR and capacity performance analysis of a LTE-A HetNet based network scenario with HANET members complementing the ground Base Stations to handle the Place Time Capacity ...

In this context, Aerial-Terrestrial communication networks are intended to provide temporal large coverage with the provision of broadband services at the disaster area. This paper ...

This paper studies the performance of Aerial UMTS Long Term Evolution (LTE) base stations in terms of coverage and capacity. Network model relies on appropriate channel model, LTE 3GPP ...

Based on the real operation data of post-earthquake communication base stations, this paper proposes a

logistic method of parameter grouping, which can effectively evaluate the failure...

A method to evaluate the post-earthquake functionality of communication base stations using Bayesian network is developed.

Aerial base stations (AeBS) with flexible deployment capabilities stand as a pivotal approach, enhancing network capacity and quality over robust line-of-sight (LoS) links.

In this study, we study on the downlink indoor coverage performance of unmanned air vehicle (UAV) base stations. We consider a probabilistic expression for air-to-ground (ATG) path loss, and a ...

In this paper, the major work is to solve the "blind spot" of 5G existing network BSs. In other words, it aims to solve the signal coverage problem of weak coverage points on the basis of 5G ...

In this method, the geological structure, geographic location of the base station, and the category of the base station in the parameter variables are objectively available when evaluating the ...

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