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Reasons for abnormal power consumption of communication base stations



Overview

Three-phase power supply is used in the base station, and sometimes there are various power supply failures such as phase loss, three-phase unbalance, voltage deviation exceeding the standard, or power outage. How to reduce the power consumption of BTS under the premise of meeting the network coverage?

Many people will think of improving BTS coverage and reducing the number of BTSs, but this is not the case. Using both site-level measurements and aggregated multi-eNB data collected over a typical workweek, the study analyses traffic trends, PRB utilization. Base stations represent the main contributor to the energy consumption of a mobile cellular network. Since traffic load in mobile networks significantly varies during a working or weekend day, it is important to quantify the influence of these variations on the base station power consumption.

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Measurements and Modelling of Base Station Power ...

Therefore, this paper investigates changes in the instantaneous power consumption of GSM (Global System for Mobile Communications) and UMTS (Universal Mobile Telecommunications System) ...

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Research on Abnormal Energy Consumption Monitoring of Base ...

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Communication base station energy consumption comprehensive ...

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Measurements and Modelling of Base Station Power Consumption ...

Base stations represent the main contributor to the energy consumption of a mobile cellular network. Since traffic load in mobile networks significantly varies during a working or weekend day, it is ...

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Comparison of Power Consumption Models for 5G Cellular Network ...

Power consumption models for base stations are briefly discussed as part of the development of a model for life cycle assessment. An overview of relevant base station power ...

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Power Management of Base Transceiver Stations for Mobile Networks



Since traffic load in mobile networks significantly varies during a working or weekend day, it is important to quantify the influence of these variations on the base station power

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Empirical Analysis of Power Consumption in LTE Base Stations: ...

The analysis revealed significant temporal mismatches between user demand and energy use, with base stations consuming nearly constant power despite major fluctuations in PRB utilization and ...



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Research on Abnormal Energy Consumption Monitoring of Base ...

With the large-scale construction of 5G, the operating cost of the communication industry is increasing year by year, and the energy consumption management of w

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