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5g power-consuming base station sleep

Overview

The explosive growth of mobile data traffic has resulted in a significant increase in the energy consumption of 5G base stations (BSs). However, the existing energy conservation technologies, such as traditi.

Can base stations save energy in 5G cellular networks?

Base stations (BSs) sleeping strategy has been widely analyzed nowadays to save energy in 5G cellular networks. 5G cellular networks are meant to deliver a higher data speed rate, ultra-low latency, more reliability, massive network capacity, more availability, and a more uniform user experience.

Is a 5G BS a sleeping retrial queue?

For energy efficiency in 5G cellular networks, researchers have been studying at the sleeping strategy of base stations. In this regard, this study models a 5G BS as an \ (M^ { [X]}/G/1\) feedback retrial queue with a sleeping strategy to reduce average power consumption and conserve power in 5G mobile networks.

Can a 5G base station energy storage sleep mechanism be optimized?

The optimization configuration method for the 5G base station energy storage proposed in this article, that considered the sleep mechanism, has certain engineering application prospects and practical value; however, the factors considered are not comprehensive enough.

What is the energy consumption of a 5G network?

The energy consumption of 5G networks is one of the pressing concerns in green communications. Recent research is focused towards energy saving techniques of base stations (BSs). BSs are one of the most power consuming elements of a 5G network. It is important to model their energy consumption for analyzing overall energy efficiency of a network.

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Energy consumption optimization of 5G base stations ...

An energy consumption optimization strategy of 5G base stations (BSs) considering variable threshold sleep mechanism (ECOS-BS) is proposed, which includes the initial ...

Power consumption based on 5G communication

This paper proposes a power control algorithm based on energy efficiency, which combines cell breathing technology and base station sleep technology to reduce base station ...

AI-based energy consumption modeling of 5G base stations: ...

The energy consumption of 5G networks is one of the pressing concerns in green communications. Recent research is focused towards energy saving techniques of base ...

Energy consumption optimization of 5G base stations ...

The inner goal included the sleep mechanism of the base station, and the optimization of the energy storage charging and discharging strategy, for minimizing the daily ...

Renewable microgeneration cooperation with base station sleeping ...

The energy consumption of the mobile network is becoming a growing concern for mobile network operators and it is expected to rise further with operational costs and carbon ...

Stochastic modelling of sleeping strategy in 5G base station ...

Base stations (BSs) sleeping strategy has been widely analyzed nowadays to save energy in 5G cellular networks. 5G cellular networks are meant to deliver a higher data speed ...

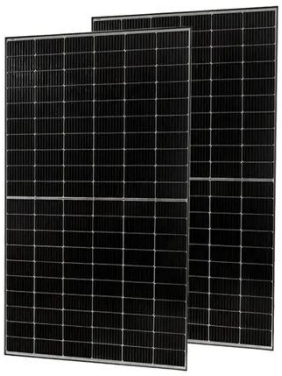
Stochastic modelling of sleeping strategy in 5G base station ...

AbstractBase stations (BSs) sleeping strategy has been widely analyzed nowadays to save energy in 5G cellular

networks. 5G cellular networks are meant to deliver a ...

Dynamical modelling and cost optimization of a 5G base station ...

For energy efficiency in 5G cellular networks, researchers have been studying at the sleeping strategy of base stations. In this regard, this study models a 5G BS as an (M^ { ...



Optimal configuration of 5G base station energy storage ...

Furthermore, the power and capacity of the energy storage configuration were optimized. The inner goal included the sleep mechanism of the base station, and the ...

A User-Driven Sleep and Wake-Up Technology for Energy-Efficient 5G

As the primary source of energy consumption in communication networks, the power usage of 5G base station(BS) is a significant concern. The

sleep mode (SM) of BS can ...

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