5g power-consuming base station sleep

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To reduce average power consumption and save power in 5G, we have modelled the 5G BSs sleeping mechanism as an M/G/1 queue with two types of vacations (two different sleep modes), ...

By adopting a user association and sleep strategy in this paper, BS power consumption can be reduced and the power system can allocate more power resources to other necessary ...

To maximize overall benefits for the investors and operators of base station energy storage, we proposed a bi-level optimization model for the operation of the energy storage, and the ...

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 be utilized to reduce mobile ...

In this paper, we presented and categorized the different techniques for enabling sleep mode of the base stations in the 5G heterogeneous cellular networks with the ultimate goal of ...

To solve this crucial issue, a day-ahead collaborative regulation method for 5G BSs and power grids considering a sleep strategy and energy storage regulation capacity is proposed.

A novel analytical methodology is presented in Peesapati et al. (2021) to evaluate the energy consumption of 5G base stations under varying traffic loads, with the impact of deep sleep ...

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

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 energy consumption ...

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