Communication 5g base station energy-saving technology

Does a 5G base station need a sleep strategy?
Abstract: For time and space constraints,5G base stations will have more serious energy consumption problems in some time periods,so it needs corresponding sleep strategies to reduce energy consumption.

Can network energy saving technologies mitigate 5G energy consumption?
This technical report explores how network energy saving technologies that have emerged since the 4G era,such as carrier shutdown,channel shutdown,symbol shutdown etc.,can be leveraged to mitigate 5G energy consumption.

What is base station energy saving?
There are mainly two method of base station energy saving,which are hardware power savingand software energy saving. It is based on lowering the basic energy consumption of the base station.

What is the energy-saving technology of base stations?
This technical report focuses on energy-saving technology of base stations. Some energy saving technologies since 4G era will be explained in details, while artificial intelligence and big data technology will be introduced in response to the requirement of an intelligent and self-adaptive energy saving solution.

For time and space constraints, 5G base stations will have more serious energy consumption problems in some time periods, so it needs corresponding sleep strategies to ...

A multi-base station cooperative system composed of 5G acer stations was considered as the research object, and the outer goal was to maximize the net profit over the ...

Compared to earlier generations of communication networks, the 5G network will require more antennas, much larger bandwidths and a higher density of base stations. As a ...

In response to the current widespread issue of high energy consumption in 5G base stations, this article conducts overall design, hardware design, and software design of ...

To further explore the energy-saving potential of 5 G base stations, this paper proposes an energy-saving operation model for 5 G base stations that incorporates ...

With the rapid development of communication technology, the large-scale deployment of base stations (BSs) has led to an increase in power consumption. To reduce ...

Although 5G networks offer larger capacity due to more antennas and larger bandwidths, their increased energy consumption is concerning. This paper investigates energy ...

In response to the requirement of an intelligent and self-adaptive energy saving solution, artificial intelligence (AI) and big data technology are introduced to form a more ...

As communication technology enters a large-scale development phase, communication base stations (CBSs) are increasing rapidly. At the end of 2021, there were ...

With the rapidly expanding coverage of the mobile Internet, the large-scale deployment of 5G base stations (BSs) has accelerated significantly. However, the substantial ...

This paper proposes a traffic-driven cell zooming technique, where the coverage area of Base Stations can expand and contract as per the traffic volume. This is done by ...

The intelligent energy-saving of base station using AI technology should divided into different types of problems, study the characteristics of telecommunication analysis and ...

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