The necessity of green base station optimization in communications

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Our research addresses the critical intersection of communication and power systems in the era of advanced information technologies. We highlight the strategic ...

This paper proposes two models for enhancing QoS through efficient and sustainable resource allocation and optimization of base stations. The first model, a Hybrid ...

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 ...

Abstract: Green network aims to promote the sustainable development of communication systems, and base station (BS) and cells sleeping has been proven effective in reducing the ...

In order to effectively improve the energy efficiency of the future mobile networks, it is thus important to focus the attention on the Base Station.

Improving base station energy efficiency is not only a matter of environmental responsibility but also a strategic move to cut operational costs and enhance network ...

In today"s 5G era, the energy efficiency (EE) of cellular base stations is crucial for sustainable communication. Recognizing this, Mobile Network Operators are actively prioritizing EE for ...

This paper develops a method to consider the multi-objective cooperative optimization operation of 5G communication base stations and Active Distribution Network (ADN) and constructs a ...

Energy efficiency and renewable energy are the main pillars of sustainability and environmental compatibility.

This study presents an overview of sustainable and green cellular ...

Energy efficiency and renewable energy are the main pillars of sustainability and environmental compatibility. This study presents an ...

Improving base station energy efficiency is not only a matter of environmental responsibility but also a strategic move to cut ...

This paper presents a control theoretical approach to study the base station sleeping strategy optimization issues with CoMP communications.

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