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Title: 5g base station construction energy revolution

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How to evaluate a 5G energy-optimised network?

To properly examine an energy-optimised network, it is very crucial to select the most suitable EE metric for 5G networks. EE is the ratio of transmitted bits for every joule of energy expended. Therefore, while measuring it, different perspectives need to be considered such as from the network or user's point of view.

Can a 5G network reduce energy consumption?

Notably, China, Korea, and the US are vigorously engaged in this field, specifically related to the 5G network. This review paper identifies the possible potential solutions for reducing the energy consumption of the networks and discusses the challenges so that more accurate and valid measures could be designed for future research.

What is a 5G cellular network?

5G cellular network operates on a millimetre wave spectrum i.e., between 28GHz-60GHz along with LTE. Certain unlicensed frequencies such as 3.5 GHz, 3.6 GHz and 26 GHz are also being explored for fulfilling demands of high throughput and capacity [4,5,6].

What are the factors affecting a 5G network?

Some of the prominent factors are such as traffic model, SE, topological distribution, SINR, QoS and latency. To properly examine an energy-optimised network, it is very crucial to select the most suitable EE metric for 5G networks. EE is the ratio of transmitted bits for every joule of energy expended.

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 ...

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