Energy base station energy distribution analysis

A greedy energy-efficient BS deployment framework is de-veloped for HetNets. The proposed algorithm deploys micro BSs iteratively and maximizes the energy efficiency of the network.

To achieve low latency, higher throughput, larger capacity, higher reliability, and wider connectivity, 5G base stations (gNodeB) need to be deployed in mmWave. Since mmWave base stations (gNodeB) ...

To address this, we propose a novel deep learning model for 5G base station energy consumption estimation based on a real-world dataset. Unlike existing methods, our approach integrates the Base ...

In this section, we present our proposed availability model for the base station, which considers critical components that have a significant impact on the base station"s availability and power consumption.

Aiming at the problem of mobile data traffic surge in 5G networks, this paper proposes an effective solution combining massive multiple-input multiple-output techniques with Ultra-Dense ...

In this thesis linear regression is compared with the gradient boosted trees method and a neural network to see how well they are able to predict energy consumption from field data of 5G radio base stations.

To ensure continuous functionality, wireless networks rely on available base stations (BSs). However, the persistent operation of BSs comes at the cost of substantial 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 ...

The simulation validates the accuracy of the theoretical analysis, and demonstrates that the energy efficiency maximization can be achieved by the optimized BS deployment.

The 5G base station energy consumption prediction model based on LSTM proposed in this paper takes into account the energy consumption characteristics of 5G base stations.

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