

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.

Future work includes the further development of the power consumption models to form a unified evaluation framework that enables the quantification and optimization of energy consumption and ...

The energy consumption of 5G networks is one of the pressing concerns in green communications. Recent research is focused towards energy saving techniques of base stations (BSs). BSs are one of ...

To understand this, we need to look closer at the base station power consumption characteristics (Figure 3). The model shows that there is significant energy consumption in the base ...

The network power efficiency with the consideration of propagation environment and network constraints is investigated to identify the energy-efficient architecture for the 5G mobile ...

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 ...

This dataset provides normalized real-world measurements of energy consumption and operational data from a large-scale 5G network deployment. It includes eight days of measurements collected from ...

The report looks at the expected every increasing energy consumption of the Internet of Things with consideration of not only powering the devices, but also to the manufacture and to the infrastructure ...

In this paper, we review the evidence on these drivers of decreasing or increasing overall energy use at the network level for the next generation of mobile communications technologies ...

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 ...

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