A design of a green communication base station

We review the architecture of the BS and the power consumption model, and then summarize the trends in green cellular network research over the past decade.

In this article, a robust RL-based multicells sleeping model called graph deep deterministic policy gradient (GDDPG) is developed for handling highly complex communication scenarios. Besides, we ...

This paper discusses green base stations in terms of system architecture, base station form, power saving technologies, and green ...

To address the energy consumption issues of communication base stations, we have implemented a series of measures to transform traditional base stations into low-carbon base stations.

This research paper provides an exhaustive analysis of green communication strategies in 5G and next-generation networks, covering energy-efficient technologies, resource management, renewable ...

The aim of this study is to identify the green mobile telecommunication base station design practices as adopted by leading cases, four cases were ...

This paper presents the design considerations and optimization of an energy management system (EMS) tailored for telecommunication base stations (BS) powered by ...

However, the design of a green mobile network requires the dimensioning of the energy harvesting and storage systems through the estimation of the network"s energy demand. Therefore, ...

The main goal of designing green base stations is to save energy and reduce power consumption while guaranteeing user service and coverage and ensuring the base station"s capability for evolution.

Different from the prior works that target on the total power consumption, we propose a novel scheme to minimize the carbon footprint of networks by dynamically switching the ON/OFF modes of SBSs and ...

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