

Solar Storage Container Solutions

Communication method not based on base station



Overview

Can a base station locate a target with a single base station?

The proposed method can locate the target with a single Base Station and has the advantages of lower delay, lower cost, and higher accuracy. The simulation results show that the positioning error of the proposed algorithm is submeter in 63% of the cases and less than 2.2 m in 80% of the cases.

Why do we need additional base stations in case a?

In Case A, a new demand is created in each period in addition to the demand of previous periods. Hence, additional base stations (BSs) may be needed to satisfy the new demand.

How to optimize the location of BSS in wireless communication networks?

Some studies optimize the location of BSs in wireless communication networks through exact solution approaches such as mixed integer linear programs (MILP) and algorithmic approaches , , .

What is the positioning error of the proposed method?

According to the simulation results, the positioning error of the proposed method is submeter in 63% of the cases and less than 2.2 m in 80% of the cases. With the application of millimeter waves and massive MIMO technology.

What is the difference between Toa based and AOA based positioning methods?

Due to the instability of power characteristics, the positioning accuracy of such methods is usually not high, the TOA-based positioning methods have high requirements for clock synchronization, and the AOA-based positioning methods require the device to have an array antenna.

How can a BS be used for positioning based on a single BS?

For positioning based on a single BS. Combining the time, angle, power, and other information of the signals is the main idea , but more parameters mean more complex algorithms.

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Optimization of 5G base station coverage based on self

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Sep 1, 2024 · In communication network planning, a rational base station layout plays a crucial role in improving communication speed, ensuring service quality, and reducing investment ...

Wireless Communication Base Station Location Selection ...

Jun 9, 2024 · data set, is used to select base station location and optimize the multihop relay network for latency reduction. The article presents a following method: location selection and ...



Base Station System Structure

Jan 28, 2011 · 2 Base Station Background The intent of this section is to explore the role of base stations in communications systems, and to develop a reference model that can be used to ...

WO/2023/168572 BASE STATION AND WIRELESS COMMUNICATION METHODS ...

Jul 3, 2022 · A base station and wireless

communication methods of inter-cell coordination signaling reduction for cross link interference (CLI) mitigation in dynamic time division duplex ...



The Positioning of Base Station in Wireless ...

Aug 27, 2017 · The placement of base stations depends on the traffic density, channel conditions, interference scenario, the number of base stations, and the other network planning ...

Collaborative optimization of distribution network and 5G base stations

Sep 1, 2024 · In this paper, a distributed collaborative optimization approach is proposed for power distribution and communication networks with 5G base stations. Firstly, the model of 5G ...



Global Differential GPS Positioning without Using a Base ...

Aug 22, 2023 · efforts are currently underway to develop new processing methods to allow stand-alone point to achieve accuracy at a decimeter to centimeter level. paper describes the ...

Base Station handover Based on User Trajectory Prediction

...

Sep 30, 2021 · In this paper, we propose a 5G base station handover method based on trajectory prediction. A CNN-LSTM neural network, which combines a Convolutional Neural Network ...



A positioning method based on map and single base ...

Nov 23, 2024 · In this paper, we propose a positioning method for the 5G-Advanced (5GA) or 6G network. Firstly, we establish the communication link and generate the map-based hybrid ...

Reliability prediction and evaluation of communication base stations ...

Jun 2, 2023 · Abstract One of the primary tasks for effective disaster relief after a catastrophic earthquake is robust communication. In this paper, we propose a simple logistic method based ...



Optimal configuration of 5G base station energy storage ...

Feb 1, 2022 · The high-energy consumption and high construction density of 5G base stations have greatly increased the demand for backup energy storage batteries. To maximize overall ...



Design of Wireless Communication Base Station Monitoring System Based

Jan 1, 2023 · In the experiment, using the supervised machine learning algorithm, the program of the wireless communication base station monitoring system is designed by setting the working ...



Mobile Communication Network Base Station Deployment ...

Apr 13, 2025 · This paper discusses the site optimization technology of mobile communication network, especially in the aspects of enhancing coverage and optimizing base station layout. ...

Path planning of UAV base station based on deep ...

Jan 1, 2022 · UAV base station platform has become the current research hotspot of assisting ground base station for wireless coverage. At present, the most important issue is how to make ...



Location correction technique based on mobile communication base

Sep 1, 2018 · To address these issues, based on MCBS (mobile communication base station) and big data technology, we propose a method to get, store, correct and publish position and ...

Research on Location Decision and Optimization of 5G Base Station Based

The experimental results show that this method can effectively optimize the location decision of 5G base stations, and can be widely used in the field of 5G base station location decision, so ...



Traffic Prediction of Mobile Communication Base Station Based ...

Aug 14, 2024 · Simultaneously, in the age of big data information, it is possible to obtain real-time feedback of base station traffic data. By acquiring information about traffic changes in mobile ...

5G Mobile Communication Base Station Electromagnetic ...

Dec 15, 2023 · Abstract. The current national policies and technical requirements related to electromagnetic radiation administration of mobile communication base stations in China are ...



Communication method and base station (2016) , Ming-Ju Li

...

Abstract: A communication method and a base station are provided, the method includes: determining, by a base station, a time length of a time domain scheduling unit, a downlink, a ...

TERMINAL, WIRELESS COMMUNICATION METHOD, ...

Sep 13, 2023 · In this case, appropriate communication is unavailable, and through-put reduction or communication quality degradation may occur. a base station that can appropriately update ...



TERMINAL, WIRELESS COMMUNICATION METHOD AND ...

[0008] Thus, an object of the present disclosure is to provide a terminal, a radio communication method, and a base station that suppress deterioration of communication quality even when ...

TERMINAL, WIRELESS COMMUNICATION METHOD, ...

Sep 13, 2023 · (54) TERMINAL, WIRELESS COMMUNICATION METHOD, AND BASE STATION (57) To appropriately update a beam in relation to BFR. A terminal according to one aspect of ...

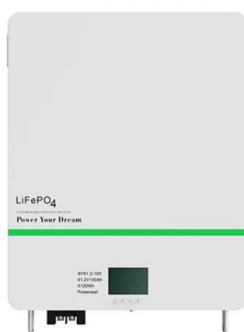


Mobile station, base station, communication system, and communication

EP2187544A1 2010-05-19 Base station device, mobile station device, distributed antenna wireless communication system, pilot channel generation method, synchronization channel generation ...

Energy-saving control strategy for ultra-dense network base stations

Oct 29, 2024 · Threshold-based base station sleep strategy is a common base station management method in wireless communication networks, which adjusts the operating state ...



A positioning method based on map and single base station ...

Jan 11, 2024 · Download Citation , A positioning method based on map and single base station towards 6G networks , Positioning based on wireless communication networks has great ...

Wireless Communication Base Station Location Selection and ...

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ABSTRACT Base station location selection and network optimization are critical to improving the performance of wireless communication networks in terms of latency reduction. To this end, ...



Research on 5G base station coverage optimization and ...

Nov 16, 2023 · Aiming at the problem of 5G base station coverage optimization, an optimization strategy of base station layout based on adaptive mutation genetic algorithm is proposed; ...



A Low-Altitude Network Base Station Planning Model Based ...

...

Nov 30, 2024 · The rapid development of low-altitude unmanned aerial vehicles (UAVs) has led to significant communication demands. Leveraging cellular networks to support low-altitude UAV ...



Optimization Method for Flight Path of UAV Airborne Base Stations ...

Mar 22, 2025 · Based on the communication service quality evaluation method, we optimize the UAVs flight path through particle swarm optimization (PSO) analysis, so as to provide wireless ...



A positioning method based on map and single base ...

Nov 23, 2024 · Abstract Positioning based on wireless communication networks has great application potential. In this paper, we propose a positioning method for the 5G-Advanced ...

HEAT DISSIPATION

Cold aisle containment,
making optimal refrigeration effect:



5G Communication Base Stations Participating in Demand ...

Aug 20, 2021 · The literature [10] sorts out the key technologies necessary for 5G base stations to participate in demand response, foresees the application scenarios for 5G base stations to ...

Multi-objective cooperative optimization of ...

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 ...





Research on location planning of 5G base station based on ...

Feb 26, 2023 · In China, the coverage of 5G network is increasing rapidly, and the cost of base station construction is huge. Therefore, reasonable and efficient site planning is an extremely ...

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