

# Multi-base station communication

Can integrated sensing & communication (Isac) base stations be used for collaborative sensing?

Abstract: The collaborative sensing of multiple Integrated sensing and communication (ISAC) base stations is one of the important technologies to achieve intelligent transportation. Interference elimination between ISAC base stations is the prerequisite for realizing collaborative sensing.

Do 5G communication base stations have multi-objective cooperative optimization?

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 description model for the operational flexibility of 5G communication base stations.

What are the basic parameters of a base station?

The fundamental parameters of the base stations are listed in Table 1. The energy storage battery for each base station has a rated capacity of 18 kWh, a maximum charge/discharge power of 3 kW, a SOC range from 10% to 90%, and an efficiency of 0.85.

How can a millimeter-wave base station improve real-time information transmission?

Finally, the proposed metasurfaces help the millimeter-wave base station to realize real-time information transmission of multi-users with different directions in a realistic indoor scenario. The experimental results demonstrate that the new beamforming base station system can intelligently enhance or attenuate signals in specific target areas.

Can multiple Isac base stations communicate and radar sense simultaneously?

Interference elimination between ISAC base stations is the prerequisite for realizing collaborative sensing. In this paper, we focus on the mutual interference elimination problem in collaborative sensing of multiple ISAC base stations that can communicate and radar sense simultaneously by transmitting ISAC signals.

What is the equipment composition of a 5G communication base station?

Figure 1 illustrates the equipment composition of a typical 5G communication base station, which mainly consists of 2 aspects: a communication unit and a power supply unit.

Based on the power-communication coupling perspective, this paper establishes a multi-objective collaboration model of VPPs with 5G base station and distribution network considering ...

Cooperative communication power allocation plays an important role in intelligent communication base stations, but there is a problem of inaccurate cooperative distribution. The traditional ...

We design and build a base station certificate (certifying the base station's public key and location) and a multi-factor authentication (making use of the certificate and the information ...

This research delves into an integrated sensing and communication (ISAC) system, which leverages a ship-based station to simultaneously offer maritime communication services and ...

Multi-connectivity (MC) in satellite-terrestrial integrated networks (STINs), included in the Third Generation Partnership Project (3GPP) standards, is regarded as a promising technology for ...

Recently, unmanned aerial vehicles (UAVs) have attracted lots of attention because of their high mobility and low cost. This article investigates a communication system assisted by multiple ...

Due to the limited sensing accuracy and sensing range of single base station (BS), multi-BS cooperative sensing can be applied to realize high-accurate, long-range and continuous ...

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