

Principle of unmanned base station communication system

How can a base station be used in wireless communications?

I. INTRODUCTION The rapid development of the technology of unmanned aerial vehicles (UAVs) has spawned a myriad of use cases in wireless communications. One of the most prominent application scenarios involves mounting base stations on board UAVs to provide connectivity in areas where it is insufficient or absent.

Do UAV-mounted base stations provide communication coverage for ground UDS?

By utilizing the deployment of UAV-mounted base stations (UAV-BSs) providing communication coverage for ground UDs, as mentioned before, the communication coverage scenarios can be categorized into two types, UAV alone communication coverage and UAV communication coverage together with existing SBSs.

Can Aerial Base stations be deployed on board unmanned aerial vehicles (UAVs)?

Abstract--The deployment of Aerial Base Stations (ABSs) mounted on board Unmanned Aerial Vehicles (UAVs) is emerging as a promising technology to provide connectivity in areas where terrestrial infrastructure is insufficient or absent.

What is a Wireless Communication transmission system for a UAV?

3.1. Implementation of a wireless communication transmission system for UAV based on transmission antenna at the tail of the UAV. The signal transmitted by the UAV wireless transceiver is off-platform interface. At the same time, the receiving platform can embed a network transmission module to transmit the signal to the central station .

The paper is concluded by discussing future research directions. Index Terms--UAV-assisted communications, aerial base stations, aerial base station placement. I. ...

Such UAV base stations (UAV-BSs) provide several advantages in providing cellular and network connectivity to the users [4]. The positioning of the UAV-base stations is ...

In addition, it explores the principles and implementation approaches of three types of UAV wireless communication systems, including a UAV wireless communication system, a UAV ...

Unmanned aerial vehicle (UAV) has recently contributed significantly to vehicle communications, offering promising solutions for enhancing connectivity in modern ...

Abstract--Under NASA program NNA16BD84C, new architectures were identified and developed for supporting reliable and secure Communications, Navigation and ...

1.1 Background Wireless communications systems which include unmanned aerial vehicles (UAV) are capable of providing cost-effective wireless connectivity for devices without ...

Unmanned Aerial Vehicle (UAV) mounted Base Stations (UAV-BSs) have been widely used to enhance communication coverage for ground user devices (UDs) due to their ...

A massive MIMO cellular system may use multiple antennas at a base station to mitigate the interference in a UAV communication system. In FD-MIMO transmission, the ...

It delves into UAV communication and location collaboration technology oriented towards base station sensing, with a primary focus on the communication-sensing issues of ...

In addition, it explores the principles and implementation approaches of three types of UAV wireless communication systems, including a UAV wireless communication system, a ...

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