

# What are the unmanned base station communication systems

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.

Can unmanned aerial vehicles be used as flying base stations?

Considering that one of the goals of the future network generations is to provide ubiquitous communication in the most diverse scenarios to achieve high connection coverage, it is foreseen that the use of unmanned aerial vehicles as flying base stations (UAV-BSs) can potentially extend the network and communication range.

Can unmanned aerial vehicle-mounted base station be used for 6G wireless networks?

Scientific Reports 15, Article number: 15882 (2025) Cite this article Thanks to its flexibility and cost-effectiveness, an unmanned aerial vehicle-mounted base station (UAV-BS) is a promising technology for the upcoming 6G wireless networks.

What is a UAV drone flying base station system?

The UAV drone flying base station system combines a telecommunications base station (for its application and purpose of connectivity provision) and UAV drone (for mobility implementation and control).

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The inherent flexibility and adaptability of deploying Unmanned Aerial Vehicle-mounted base stations (UAV-BSs) offer a unique opportunity for enhancing wireless communication capacity ...

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A flying base station based on an unmanned aerial vehicle (UAV) uses its mobility to extend its connectivity coverage and improve its communication channel quality to achieve a greater ...

This involved the design of the UAV Ground Control Station (GCS) communication system and the analysis of transmission power.

What is UABS (Unmanned Aerial Base Station)? Unmanned Aerial Base Stations (UABS) are airborne communication nodes deployed to enhance network coverage and capacity, especially ...

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Abstract Future mobile communication networks need Unmanned Aerial Vehicles as Base Stations (UAVasBSs) with the fast-moving and long-term hovering capabilities to guarantee ...

Unmanned aerial vehicles (UAVs), also named as drones, have become a modern model to provide a quick wireless communication infrastructure. They have been used when conventional ...

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