

Can a new base station architecture improve multiuser network performance?

This paper proposes a new base station (BS) architecture employing multiple MAs for improving the multiuser network performance. First, the uplink multiple access channel (MAC) is modeled to capture the characteristics of the variation of wireless channels caused by the movement of MAs at the BS.

What is a base station?

What is Base Station? A base station represents an access point for a wireless device to communicate within its coverage area. It usually connects the device to other networks or devices through a dedicated high bandwidth wire of fiber optic connection. Base stations typically have a transceiver, capable of sending and receiving wireless signals;

What are the components of a base station?

The base station will have one or more RF antennas installed to transmit and receive RF signals from other devices. The block diagram of a base station typically includes the following key components: Baseband Processor: The baseband processor too deals with different communication protocols and interfaces with mobile network infrastructure.

Why are base stations important in cellular communication?

Base stations are important in the cellular communication as it facilitate seamless communication between mobile devices and the network communication. The demand for efficient data transmission are increased as we are advancing towards new technologies such as 5G and other data intensive applications.

The disclosure relates to a 5G or 6G communication system for supporting a higher data transmission rate. A method performed by user equipment (UE) in a communication system is provided.

WO2025175410 - USER EQUIPMENT, BASE STATION, AND WIRELESS COMMUNICATION METHODS FOR SBFD OPERATION.

Abstract: This paper investigates user equipment (UE) assisted device-free networked sensing in the sixth-generation (6G) integrated sensing and communication (ISAC) system, where ...

Equipment for wireless signal transmission and reception, typically including RRU, BBU, and antennas. The RRU performs radio frequency processing and amplification; the BBU handles ...

Embodiments of the present invention provide a communication method, a base station, and a user equipment.

According to one aspect disclosed herein, it is possible to perform power control suitable for a network and perform more flexible communication.

The present-day tele-space is incomplete without the base stations as these constitute an important part of the

modern-day scheme of wireless communications. They are referred to as cell ...

Thus, a multi-user hybrid beamforming scheme is designed to mitigate the inter-user interference issues and achieve better trade-off between performance and complexity in UAV-enabled...

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