Millimeter wave 5g base station three-dimensional communication

Abstract Although the 5th-generation mobile communications system (5G) commercial services are now being provided, further evolution of 5G is needed to meet a variety of future demands. As part of ...

In this work, a three-dimensional (3-D) model based on stochastic geometry is proposed, in which the distribution of base stations (BSs) are modelled as a 3-D Poisson point process...

Millimeter wave (mm-Wave) wireless communication systems require high gain antennas to overcome path loss effects and thereby enhance system coverage. This paper presents the design and ...

In this comprehensive review, enhancement techniques for Massive MIMO antenna arrays in 5G millimeter-wave base stations are explored, with key challenges addressed and effective solutions ...

The main focus of this paper is to throw some lights on how mm-wave can be used for fifth generation communication and to discuss how the next generation users can be highly benefited by prudently ...

This paper presents the design and analysis of an antenna array for high gain performance of future mm-wave 5G communication systems.

With the rapid evolution of 5G wireless communications, millimeter-wave (mmWave) technology has become a crucial enabler for high-speed, low-latency, and large-scale connectivity.

This paper introduces our efforts in developing A-RoF technology, focusing on enabling the economically viable deployment of millimeter-wave (mmWave) radio communication systems, which are essential ...

In three-dimensional (3D) environments, the design of beamforming for uplink multi-user M-MIMO relies on accurate uplink channel state information (CSI) at the transmitter/receiver.

In this paper, we study the 3D SLAM problem in com-plex outdoor environments based only on millimeter-wave (mmWave) wireless communication signals.

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