

To clarify this prospect, this article provides a systematic perspective rooted in optical physics, explaining how advances in this field are driving the evolution of scalar OWC into a vectorial...

In this study, we perform video signal transmissions via an FPGA-based FSO communication prototype to investigate the feasibility of an FSO link with a distance of up to 20~km. ...

This paper investigates the potential transformation to be ushered in by 6G technology in telecommunications, enabling huge data rates, low latencies, high-reliability connectivity, and ...

5) Offering a comprehensive overview of the main optical technologies considered for the 6G fronthaul use cases, including P2P, PON and FSO (in particular, their suit-ability in various 6G fronthaul ...

6G networks will likely require 1.6T and 3.2T optical modules, with per-lane speeds reaching 200-400Gbps, pushing existing electrical and optical components to their physical ...

In light of developing a 6G IoT network in an open environment, this paper analyses the impact of temperature and strain on FSO communication links using Fiber Bragg Grating (FBG) ...

This paper aims to serve as a comprehensive resource for researchers and industry professionals about the current state and future prospects of 6G optical fronthaul technologies, facilitating the ...

In this article, we address possible 6G innovations, such as the implementation of flexible functional splits and end-to-end network slicing, from the viewpoint of evolved x-haul networks that are based ...

This study conducts a systematic literature review of recent advances, challenges, and enabling optical technologies for intelligent and autonomous 6G networks.

In this work, we focus on planning and designing an efficient optical access system for 5G and beyond fronthaul, which is a crucial and complex problem due to the high density of 5G and 6G networks, ...

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