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Energy-Efficient Transmission Strategies for Fiber-Wireless Networks: A Performance Evaluation

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Abstract: Research on fiber-wireless technology as a possible option for next-generation broadband wireless signal delivery is ongoing. The adoption and commercial implementation of this hybrid system are hindered by several technical issues, notwithstanding its popularity. In today's telecommunications infrastructure, one of the fundamental problems is the transmission of wireless signals via a mostly digital optical network. Numerous strategies have been presented and shown to function, with digital radio frequency transfer of wireless communications being the best suitable for the current optical fiber networks. In order to overcome the inherent problems with analog transport in fiber-wireless networks, we discuss our work in the field of digitized RF transport in this article. We also evaluate the energy economy and transmission performance of the various transport schemes

Keywords: Fiber-Wireless (Fi-Wi) Networks, Transmission Performance

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