

Research on FSO DWDM optical wireless network

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Abstract: This topic focuses on researching and developing a Free Space Optical (FSO) communication system using Dense Wavelength Division Multiplexing (DWDM) technology. The practical context highlights a high demand for data transmission speed, especially in areas lacking cable infrastructure. The objective of the research is to build and test an FSO DWDM system to optimize information transmission performance under various complex environmental conditions. The methodology includes both theoretical research and practical experiments to evaluate the feasibility and application of the proposed solution. The expected results will contribute significantly to the development of FSO DWDM technology in wireless communication platforms.

Keywords: FSO, DWDM, radio over fiber, information transmission, practical testing