

Building a WDM optical system using dispersion compensation technique.

Hoang Cao Huyen Trang

Abstract: This topic focuses on building and deploying an efficient Wavelength Division Multiplexing (WDM) optical system by applying dispersion compensation techniques. The context of the topic arises from the need to optimize transmission bandwidth in modern fiber optic networks. The objective of the research is to address the problem of limited transmission bandwidth and enhance system performance by minimizing the effects of dispersion. The approach includes both theoretical research on dispersion compensation techniques and experimental implementation of applications on existing optical network platforms. The significance of the topic lies in its novel contribution to the field of optical transmission, while also providing a feasible solution for improving the performance of WDM systems.

Keywords: WDM optical system, dispersion compensation technique, fiber optic network