Algorithm for implementation of the wavelength division multiplexing in EPON

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References:

Abstract:
Today, implementation of wavelength division multiplexing in Ethernet passive optical network (EPON) is considered as one of the most perspective solutions for the bottleneck problem in the access network. With development of new applications and services, multimedia applications above all, quality of service (QoS) support becomes a major concern in WDM EPON, as it was a case in EPON. In this work, WDM EPON architecture is presented along with a novel algorithm for wavelength and bandwidth allocation with full QoS support. Beside theoretical analysis, simulation results are presented and they confirm good performance of presented solution.

Keywords:
DWBA algorithm, WDM EPON, quality of service