

# **Abstract**

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**“Tunable optical buffer using a fiber Bragg grating array and a widely tunable wavelength converter**

This paper demonstrates a tunable optical buffer with widely variable time delays using an array of fiber Bragg gratings (FBGs) filter and tunable wavelength converters (WCs). The flexibility of the proposed system gives an exact required delay and, consequently, better output port utilization. This system is designed to be compatible with 10 to 40 Gbps RZ communication systems.