

## **An overview of optical modulator based on nanophotonic lithium niobate film**

Luma Z. Mohammed<sup>1</sup>, Makram A. Fakhri<sup>1,a)</sup>, and A. K. Abass<sup>1</sup>

### **ABSTRACT**

This paper represents an overview of most articles which concerned with the nanophotonic lithium niobate film based on optical modulator. The previous published works are discussed and summarized as well the basic concept and the performance parameters of this type of optical modulators are explained. A lithium niobate film based on optical modulator has found wide use in optical fiber communication links, including analog and digital systems. The low cost and high stability optical communication links can be achieved by enhancing the optical modulator performance. As reported in this overview, the enhancement and development were achieved by increasing the modulator bandwidth as well as by reducing the driving voltage.