

# **Abstract**

**Mohamed E.Tamazin**

## **Precise Analysis of Optical OFDM System Indirect and Diffused Optical Wireless Environment**

In this paper, the precise analysis of an all optical orthogonal frequency division multiplexing (OFDM) is carried out. All optical OFDM is used to achieve high bit rate and to eliminate intersymbol interference (ISI) in optical wireless communications. The overall architecture is enlightened and analytical evaluation of the system in terms of the probability of error is carried out in a line of sight and in a diffused wireless optical environment. As a conclusion, the proposed system shows promising results for a high speed optical wireless channel.