Title: RETRACTED ARTICLE: Various transmission codes for the control of bit error rate in both optical wired and wireless communication channels

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Abstract: This study clarifies the data error rates optimization for OFC/OWC channels based on different transmission codes. These codes that are namely multi bits/symbol digital pulse interval modulation (DPIM), multi bits/symbol pulse position modulation (PPM), nonreturn to zero inverted (NRZI), 4 bit data symbol/5 bit code (4B5B), and Manchester for upgrading optical wired/wireless communication systems. The optical power through OFC/OWC channels, S/N ratio, the output power at the receiver side are stimulated with high bit transmission rates. The effects of coding complexity on the *Q*-factor, BER, optical power, and electrical received power are also stimulated using both DPIM and PPM coding.

Keywords: B5B coding; DPIM coding; Manchester coding; NRZI coding; PPM coding

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