



Research Article



## Analysis of Receive Diversity in Rayleigh Fading for various Modulation Techniques

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### ABSTRACT

Now-a-days the requirements of wireless communication are to have high voice quality, high data rates, multimedia features, lightweight communication devices etc. But the wireless communication channel suffers from several impairments. One of them is fading which is due to the effect of multiple propagation paths. One effective solution is proposed for wireless system named diversity, without the requirement of power or extra bandwidth. In this paper, we analyze the error performance of a wireless communication system employing receive diversity in a Rayleigh fading environment. The method is easily extended to obtain the BER for the coherent reception of M-ary modulation techniques.

**Keywords:** Fading, Diversity, Fading channels, combining techniques, Wireless Communication, MIMO.

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