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Research Article

A Novel methods of ICI self-Cancellation Scheme in OFDM System

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ABSTRACT

In OFDM System the Frequency offset in wireless communication systems distort the Orthogonality between subcarriers resulting in Inter Carrier Interference (ICI).This Paper presents a new scheme for ICI self-cancellation which is simple and convenient technique. It utilize data allocation and combining of (λ_{so}, μ_{so}) on to a pair of symmetrically placed subcarriers to reduce the ICI. In proposed scheme we are maximizing CIR performance for a normal frequency offset ε. In this method the CIR performance is about more than 20dB better than that of normal OFDM for Small values of frequency offset ε and having same bandwidth efficiency for larger Doppler frequency. Simulation results show that comparing proposed scheme with standard OFDM system and conventional ICI self-cancellation. In simulation results we found that the performance of proposed scheme is better than the standard OFDM system and conventional ICI self-cancellation.

Keywords: ICI, CIR, OFDM, CFO, etc.…

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