Abstract

These days, Orthogonal Frequency Division Multiplexing (OFDM) is a more attractive technique used in wireless communication systems. It has high capacity of data transmission. The major disadvantage of OFDM is Peak to Average Power Reduction which arises mainly due to increase in number of sub-carriers. Partial transmit sequence (PTS) is one of the best technique among all the proposed techniques to reduce the Peak-to-Average Power Ratio (PAPR). It has been found that the phase angles should lie in between 00 to 3600 for best optimized result. But in this way, computational complexity increases exponentially with increase in sub-blocks. In this paper, a comparative analysis of different already existing optimization algorithms like Exhaustive Search Algorithm (ESA), Simulated Annealing (SA), Particles Swarm Optimization (PSO), Genetic Algorithm (GA), Electromagnetism (EM) and Bacteria Foraging Optimization (BFO) used to reduce the computational complexity of phase factors by finding optimal phase factors has been carried out. Finally, the performance of the said algorithms has been compared on the basis of PAPR reduction.
Complexity Reduction in PTS based OFDM System: A Survey

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Index Terms
Computer Science
Communication Systems

Keywords
OFDM  phase factors  partial transmit sequence  PAPR  multi-carrier modulation