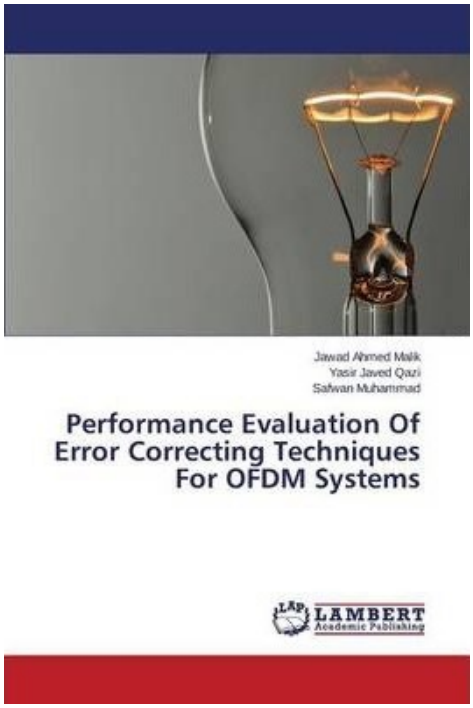

Performance Evaluation of Error Correcting Techniques for Ofdm Systems

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Orthogonal frequency-division multiplexing (OFDM) systems provide efficient spectral usage by allowing overlapping in the frequency domain. Additionally, they are highly immune to multipath delay spread. In these systems, modulation and demodulation can be done using Inverse Fast Fourier Transform (IFFT) and Fast Fourier Transform (FFT) operations, which are computationally efficient. OFDM allows suppression of inter-symbol interference (ISI), provides flexible bandwidth allocation and may increase the capacity in terms of number of users. In this work, we have investigated the performance of different error correcting techniques for OFDM systems. These techniques are based on Convolutional codes, Linear Block codes and Reed-Solomon codes. Simulations are performed to evaluate the considered techniques for different channel conditions. By comparing the three techniques, the results show that Reed-Solomon codes performs the best for all error rates due to its consistency in performance at both low and high code rates which we verified by results.