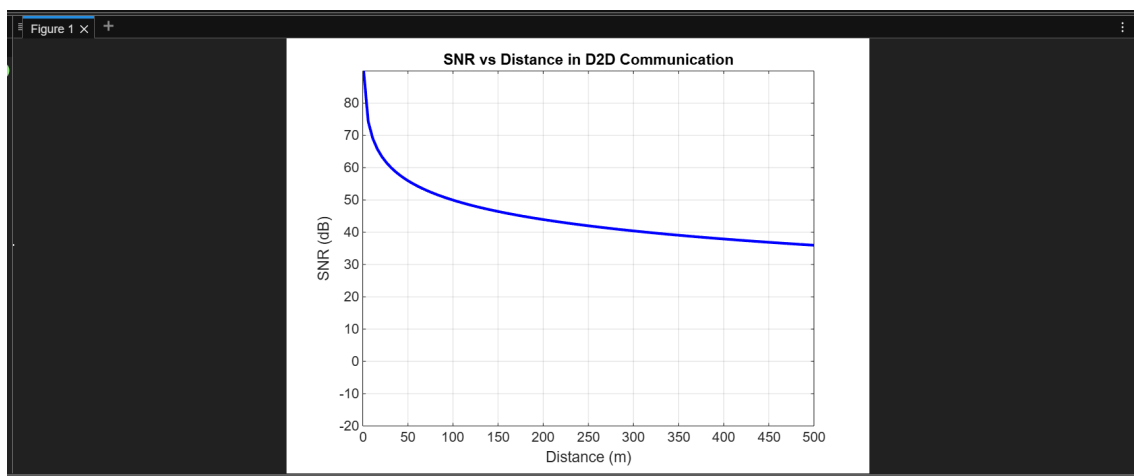# SNR vs Distance in D2D Communication

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This project simulates the variation of Signal-to-Noise Ratio (SNR) with distance in a Device-to-Device (D2D) communication system using MATLAB. The simulation helps understand how SNR degrades with increasing distance due to path loss, which is critical for reliable communication system design.

As the distance increases, the SNR decreases due to increased path loss in wireless propagation. This graph illustrates the importance of optimizing distance and power allocation in D2D communication to maintain high data rates.