



# **GWO Optimized Block Diagonalization in Multi-User MIMO System**

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*Abstract* – This paper presents Block Diagonalization and Grey Wolf Optimized Block Diagonalization precoding for multi user MIMO system to reduce error rate in system. Both the method reduces the error probability efficiently as shown in results, to enhance the performance of system. The optimization of Block Diagonalization process using Grey Wolf Optimization is proposed in this paper and the results are showing that the proposed technique significantly improves the performance of Block Diagonalization method.

*Keywords* – BS, Block Diagonalization GWO, MU-MIMO.