VI. Conclusion

This work proposed a frequency domain equalization space-time block-coded CDMA-based transmission system. The frequency domain equalization algorithms used with single user detection resulted in a simple receiver design with reduced computational complexity. Simulations results have shown good performance in terms of bit error rate (BER) when compared to previously proposed space-time block-coded CDMA systems. Diversity and coding gain analysis of the proposed structure were performed and conditions to achieve their maximum values, with multiuser maximum likelihood detection, were identified.