Abstract

In this paper a technique is offered for improving the security of data transmission. In today’s technical world the prime objective of wireless communication is to make the transmission not only clear, noise free and time efficient but also to make it well secure from unauthorized interceptors. Frequency hopping is a technique used for this purpose in which the random sequence is used to add with each hop of frequency which is used to change randomly at every instant. There was a draw back that if the attacker comes to know the sequence code for selecting the carrier frequencies, than the integrity of our information could be loss. To conquer this problem we have offered an algorithm in which the pseudorandom and its encrypted form both will be used. Its name is Dual Coded FHSS (DC-FHSS).

References

Security Improvement by using Dual Coded FHSS (DC-FHSS)

- Huang He, Liang Yan, Zhao Chunhui, Pan Quan, "Design of A Spread Spectrum Communication System Based on DSP"; Proceedings of the 2011 IEEE International Conference on Cyber Technology in Automation, Control, and Intelligent Systems, March 20-23, 2011, Kunming, China.
Index Terms

Computer Science  Security

Keywords

Spread spectrum  FHSS  Pseudorandom Code  Encryption  Decryption