Abstract

Orthogonal frequency division multiplexing (OFDM) is a special case of multicarrier transmission, where a single data stream is transmitted over a number of lower rate subcarriers. Orthogonal frequency division multiplexing (OFDM) has been chosen as modulation technique for different application wireless communications. OFDM can provide large data rates with sufficient robustness to radio channel impairments. The purpose of this paper is to provide a MATLAB simulation of the basic processing involved in the generation and reception of an OFDM signal in a physical channel and to provide a description of each of the steps involved. For this purpose, we shall use one of the proposed OFDM signals of the Digital Video Broadcasting (DVB) standard for the European digital television service i. e. Digital Video Broadcast-Terrestrial (DVB-T).

References

- C. Yuen, Y. Wu, and S. Sun, "Comparative study of open-loop transmit diversity
schemes for four transmit antennas in coded OFDM systems, &quot; In Proceeding of IEEE conference on Vehicular Technology, pp. 482–485, (Baltimore, MD) September 2004


- Orthogonal frequency division multiplexing for high-speed optical transmission, by Ivan B. Djordjevic et al

- A Novel Construction Technique For Designing Of Video Application Using Wirless 4G, by M. Suman et al.

- Comparison of OFDM, SC-FDMA and MC-CDMA as AccessTechniques for Mobile Communication, by Zohaib Shaikh et al.


Index Terms

Computer Science

Keywords

Orthogonal Frequency Division Multiplexing (ofdm) Digital Video Broadcasting-terrestrial (dvb-t)