

{tag}

{/tag}

Communication and Mobile Networks
© 2012 by IJCA Journal

IJCA Special Issue on Wireless

wcmn - Number 1

Year of Publication: 2012

Authors:

Shashi Tiwari

Dolly Sharma

Kulbhushan Gupta
C.K. Shukla

M. Shukla

{bibtex}wcmn1008.bib{/bibtex}

Abstract

In recent years, the Interleave-Division Multiple-Access (IDMA) scheme has attracted the attention of researchers to be a promising candidate for next generation networks. And Since then numerous technical papers about IDMA have been published in the literature. In this

paper, we have simulated the IDMA scheme with various interleavers and modulation mechanism to establish the fact that tree based interleaver along with QPSK modulation mechanism performs better than other mechanisms. It has also been shown that the tree based interleaver is the optimum interleaver for IDMA receivers because it is the best solution to fading at low cost and without requirement of extra bandwidth

Refer

ences

- T. S. Rappaport, "Wireless Communications: Principles and Practice," 2nd Englewood Cliffs, NJ: Prentice-Hall, 2002.
- Li ping, Lihai Liu, Keying Wu and W. K. Leung, "Interleave-Division Multiple-Access," in IEEE Transaction of Wireless Communication, Vol. 5(4), pp. 938-947, 2006.
- M. Shukla, V.K. Srivastava, S. Tiwari, "Analysis and Design of Optimum Interleaver for Iterative Receivers in IDMA Scheme", Wiley Journal of Wireless Communication and Mobile Computing, Vol. 9 (10), pp. 1312-1317, 2009.
- H. Wu, L.Ping and A. Perotti, "User-specific chip-level interleaver design for IDMA System," IEEE Electronics Letters, Vol.42, Feb 2006.

Index Terms

Computer Science

Keywords

Modulation mechanism Channel Model Multiple Access Scheme Tree Based Interleaver