Abstract

In this paper, different statistical models of land mobile satellite channel are studied with emphasis on Lutz Model. The reason for selecting Lutz Model is that this model shows best distribution in the entire environment (open area, semi shadowed and shadowed region). The Lutz Channel Model is simulated in Matlab using random number generator technique and is validated. The channel model is used to evaluate the performance of satellite system in terms of Bit error rate using BPSK modulation scheme and is compared with AWGN, Rician and Rayleigh channel.

References

- S. Kandeepan, and A. D. S. Jayalath, "Narrow-band channel simulator based on statistical models implemented on Texas Instruments c6713 DSP and National Instruments PCIe-6259 hardware," IEEE Singapore International Conference on Communication


Index Terms

Computer Science

Communications

Keywords

Bit error rate (BER)  land mobile satellite system  multipath fading  propagation channel

2 / 3