Abstract

Statistical theory plays an important role in channel modelling which in turn can be applied in design and performance evaluation of various communication systems. The design and analysis of cascade fading models have been an active area of interest in recent years due to its application in numerous real world scenarios such as keyhole channel and multihop communication system. These cascade fading models are developed by the product of independent but not necessarily identically distributed random variables. Many researchers are currently working in this area and new cascade fading models have been suggested recently in the literature. Due to ever-increasing demand and ubiquitous access of personal communication services, wireless systems are required to operate in increasingly hostile environments so there is a need of better models for wireless communication. So in order to find the gap areas in the literature pertaining to cascaded models, an exhaustive survey has been done here in this paper. This effort will surely help the researchers working in this area, to be able to identify the most appropriate fading channel model for an efficient wireless communication system design.

**Index Terms**

Computer Science

Wireless
Keywords

Cascade fading  keyholes  relay terminals  multihop  multiple input and multiple output (MIMO).