Abstract

Lately, interference cancellation is a hard challenge in a cellular communication system. In this paper, we consider the interference cancellation using logic OR gate from the multiple input multiple output (MIMO) interference channel where each transmitter and receiver equipped with single or multiple antennas. In our system, we have used a threshold logic unit which is operated by logic OR with NOT operation in the MIMO receiver for interference cancellation. The threshold unit has two logic threshold signals which are separated by two vectors. These two logic thresholds are denoted by High and Low signal in the threshold unit. The High and Low signals are represented by the desired and interference signal, respectively. Our approach is to practically achieve interference alignment and absolutely cancel to the interference from the received signal by using logic OR operation in the MIMO receiver.

References

- Afif Osseirran, Mauro, and Jose Monserrat F., "Radio Enabling Techno-ques for..."
Interference Cancellation using Logic OR Operation in MIMO Receiver


Index Terms

Computer Science

Communication Systems

Keywords

System model interference alignment interference cancellation using logic OR gate operation