Abstract

In this paper, challenge about the condition of channel state info (CSI) in multiple-input multiple-output (MIMO) systems supported space time block codes (STBC) over slow time-varying Rayleigh attenuation channels are addressed. We develop a novel MIMO control assessment algorithmic rule that adopts a pilot symbol assisted modulation (PSAM) which has been proved to be effective for attenuation channels. In this approach, pilot symbols are periodically inserted into the information stream that's sent through the orthogonal STBC encoder. At the receiver, we propose a simple MIMO channel estimation methodology before getting used by STBC decoder. Simulation results indicate that the proposed pilot-assisted MIMO conception provides accurate channel estimates. The impact of Doppler frequency on performance scheme is also investigated by simulation.

References

1. Emna Ben Slimane, Slaheddine Iarboui, Zouhed Ben Mabrouk, Ammar Bouallegue, Pilot
Assisted Channel Estimation in MIMO-STBC Systems Over Time-Varying Fading Channels

The 2014 International Workshop on Resource Allocation, Cooperation and Competition in Wireless Networks 978-3-901 882-63-0/1 4/$31.00 ©2014 IEEE.


Index Terms

Computer Science Wireless

Keywords

Multiple-input–multiple-output (MIMO), pilot assisted systems, rate distortion. Channel Estimation.