Abstract

The performance comparison of two Markov models namely the Baum Welch Algorithm based HMM and Semi Hidden Markov Model has been evaluated for a DS-CDMA link in this work. The simulation includes the effects of AWGN, Multipath and Multiple Access Interference. Validation includes a comparison of the run-length statistic for the original and regenerated error sequence from estimated models. The SHMM approach is seen to be capable of developing a more accurate model as compared to the BWA. The length of number of symbols processed at a time does not affect the accuracy in both the methods.

Reference

Performance Comparison of Hmm Discrete Channel Modeling in Cdma Links


Index Terms
Electronics Modeling Methodologies

Key words
Discrete Channel Model
Performance Comparison of Hmm Discrete Channel Modeling in Cdma Links

CDMA

Hidden Markov Model

Baum Welch Algorithm

Run length vector

Log likelihood