

INVESTIGATING CONVERGENCE OF DIFFERENT TYPES OF SIGNED DECISION-DIRECTED LMS EQUALIZER

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ABSTRACT

When the receiver does not have knowledge of the transmitted signal, it must make use of the blind channel estimation techniques to reveal the source signal. A subclass of the techniques is called decision directed least mean square equalization. This technique utilizes the detected signal to reconstruct the transmitted signal and uses this signal in place of the original signal. The decision directed LMS equalizer uses the sign operator in decision making. The three types of sign operators which are; sign error LMS algorithm, sign data LMS algorithm and sign.sign LMS algorithms are investigated and their performance noted.