



Blind Channel Equalization Using Constant Modulus Algorithm

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Abstract: Signals when pass through a channel undergo various forms of distortion, most common of which is Inter Symbol Interference (ISI). ISI induced error can cause the receiver to misinterpret the received samples. Equalizers are important part of receivers, which minimizes the linear distortion produced by the channel. Equalizers are used to compensate Inter Symbol Interference. For bandwidth efficient communication systems operating in high Inter Symbol Interference environments, Blind Equalizers (BE) have become a necessary component of the receiver architecture. Blind Equalizers are able to compensate the amplitude and delay distortions of the communication channel using only the channel output sample and knowledge of the basic statistical properties of the data symbol. Constant Modulus Algorithm (CMA) is the popularly used Blind Equalization Algorithm.

Keywords: Constant Modulus Algorithm, Blind Equalization, Bussgang Algorithm, CMA (2, 2), and Property Restoral Technique.

