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論文 名稱 (中)	一個使用定值模數演算法產生參考信號的新型盲蔽等化技術架構
論文 名稱 (英)	A NOVEL BLIND EQUALIZATION STRUCTURE BASED ON CMA-GENERATED DESIRED RESPONSE
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關鍵字(中)	盲蔽等化器 定值模數演算法
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摘要(中)	<p>傳統使用傳統定值模數演算法(CMA)類型的盲蔽等化器(Blind Equalizer)存在著兩個嚴重的缺點:收斂速度慢和較大的穩定狀態時的平均平方誤差(MSE)。在這篇論文中我們對於盲蔽等化技術提出了一個新的架構。這個結構包括了一個盲蔽等化部分和一個類訓練佇列等化部分。在盲蔽等化部分,我們採用了定值模數類型的演算法,比如說標準的定值模數演算法,以便於產生原始傳輸訊號的估計值,而且這個估計值被當成下一個類訓練佇列等化部分的參考訊號。在類訓練佇列等化部分,整個架構在本質上與有訓練佇列的等化器幾乎一樣,可以採用傳統的等化器,比如說我們採用遞迴最小平方演算法(RLS)來改進等化器的性能,不管是在收斂速度</p>

	<p>上或最後穩定狀態時的平均平方誤差。電腦模擬的結果也證明了我們所提出來的新架構可以應用在不管是定值或非定值模數訊號,並且不管是在收斂速度上或最後穩定狀態時的平均平方誤差都能達到非常好的效果。</p>
<p>摘要 (英)</p>	<p>It is well known that conventional constant modulus algorithm (CMA)-based blind equalizers exhibit slow rate of convergence and large steady state mean square error (MSE). In this thesis we propose a novel structure for blind equalization that includes a blind part and a training-like part. In the blind part, one of CMA-based algorithms such as the standard CMA is employed to generate an estimate of the desired data symbol that is used as the desired response by the training-like part. In the training-like part whose function is essentially the same as that of the standard trained equalization, one of the conventional training algorithms such as the recursive least-squares (RLS) algorithm is employed to improve the convergence process as well as the steady state MSE. Computer simulations demonstrate that the proposed structure that is applicable to both constant and non-constant modulus signals can achieve excellent performance in rate of convergence as well as steady state MSE for blind equalization.</p>
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