جامعة المنوفية

كلية الهندسة الإلكترونية

اسم الباحث:	وليد عبد الرحمن الحنفي

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

عنوان البحث:

طريقة البحث:

In this paper we investigate non-linear precoding solutions for the problem of broadband multiple-input multipleoutput (MIMO) systems. Based on a broadband singular value decomposition (BSVD) we can decouple a broadband MIMO channel into independent dispersive spectrally majorised singleinput single-output (SISO) subchannels.

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

In this paper, an enhanced greedy bit and power allocation algorithms for orthogonal frequency division multiplexing (OFDM) communication systems are introduced. These algorithms combine low complexity greedy power allocation algorithms with a simplified maximum ratio combining (MRC) precoding technique at the transmitter for maximizing the average data throughput of OFDM communication systems

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

This study aims to maximise the rate over a multiple-in multiple-out (MIMO) link using incremental power and bit allocation. Two different schemes, greedy power allocation (GPA) and greedy bit allocation (GBA), are addressed and compared with the standard uniform power allocation (UPA).

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

Multi-User Orthogonal Frequency Division Multiplexing (MU-OFDM) is an efficient technique for achieving high downlink capacity in high-speed communication systems. A key issue in MU-OFDM is the allocation of the OFDM subcarriers and power to users sharing the channel. In this paper, a proportional rate-adaptive resource allocation algorithm for MU-OFDM is presented

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

We address the problem of precoding and equalisation of broadband MIMO systems. A new non-block based methods is based on a broadband singular value decomposition, which can decouple a broadband MIMO channel into independent dispersive SISO subchannels.

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

Space-time block coding (STBC) achieves the maximum diversity gain of a flat fading multiple input multiple output (MIMO) transmission link. For frequency selective fading, only a few receivers can be found in the literature

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

In this paper, we investigate the effect of precoding ordering on systems with successive interference cancellation for multiple-input multiple-output (MIMO), i.e., Tomlinson-Harashima precoding (THP). Based on the well known QR decomposition, a simple precoding ordering scheme based on a per-layer mean square error (MSE) criterion of the diagonal entries of the R-factor is proposed

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

This paper addresses an oversampled filter bank transmultiplexer applied to a power line communications scenario. We proposed structure has a low oversampling ratio and therefore introduces only a small amount of redundancy

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

Due to their noise amplification, conventional Zero-Forcing (ZF) equalizers are not suited for interference-limited environments such as the Single-Carrier Frequency Division Multiple Access (SC-FDMA) in the presence of Carrier-Frequency Offsets (CFOs) [1]

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

In this paper we consider a low cost bit loading based on the greedy power allocation (GPA). Compared to the standard GPA, which is optimal in terms of maximising the data throughput, three suboptimal schemes are suggested, which perform GPA on subsets of subchannels only. We demonstrate how these schemes can reduce complexity.

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

This paper develops Per-spatial Stream Power Allocation (PSPA) algorithms for Single User Multiple-Input Multiple-Output Orthogonal Frequency Division Multiplexing (SU MIMO-OFDM) wireless communication systems

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

In this paper we consider a reduced complexity discrete bit loading for Multicarrier systems based on the greedy power allocation (GPA) under the constraints of transmit power budget, target BER, and maximum permissible QAM modulation order. Compared to the standard GPA, which is optimal in terms of maximising the data throughput, three suboptimal schemes are proposed, which perform GPA on subsets of subcarriers only.

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

In this paper we investigate non-linear precoding solutions for the problem of broadband multiple-input multiple-output (MIMO) systems. Based on polynomial singular value decomposition (PSVD) we can decouple a broadband MIMO channel into independent dispersive spectrally majorised single-input single-output (SISO) subchannels.

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

Discrete bit loading for multicarrier systems based on the greedy power allocation (GPA) algorithm is considered in this paper. A new suboptimal scheme that independently performs GPA on groups of subcarriers and therefore can significantly reduce complexity compared to the standard GPA is proposed. These groups are formed in an initial step of a uniform power allocation (UPA) algorithm

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

This paper aims to maximise the rate over a MIMO link using incremental power and bit allocation. Two different schemes, greedy power allocation (GPA) and greedy bit allocation (GBA), are addressed and compared with the standard uniform power allocation (UPA). The design is constrained by the target BER, the total power budget, and fixed discrete modulation orders

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عنوان البحث:

نوع البحث: أكاديمي

تاريخ اعتماد تسجيل البحث: 2013/02/18

طريقة البحث:

In this paper, a low complexity transmission scheme for Multiple Input Multiple Output (MIMO) communication systems is introduced. This scheme combines a low complexity discrete bit loading algorithm with a simplified Maximum Ratio Combining (MRC) pre-equalization scheme at the transmitter for maximizing the data throughput of MIMO communication systems

جامعة المنوفية

عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

In this paper, an improved transmission scheme for high speed communication systems is introduced. This scheme combines a low complexity discrete bit loading algorithm with a simplified Maximum Ratio Combining (MRC) pre-equalization scheme at the transmitter for maximizing the data throughput of Orthogonal Frequency Division Multiplexing (OFDM) systems

جامعة المنوفية

عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

This paper considers a non-linear precoding scheme with adaptive bit loading in order to minimise the average BER for a given target data rate when transmitting over a frequencyselective (FS) multiple-input multiple output (MIMO) channel. The proposed design utilises a recently developed polynomial singular value decomposition (PSVD) to decouple the FS MIMO channel into a number of independent FS single input single output (SISO) subchannels, whereby spectral majorisation inherent on the PSVD leads to a natural ordering of channel gains

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

. In this paper, a proportional rate-adaptive resource allocation algorithm for MU-OFDM is presented. Subcarrier and power allocation are carried out sequentially to reduce the complexity. The low complexity proportional subcarriers allocation is followed by Greedy Power Allocation (GPA) to solve the rate-adaptive resource allocation problem with proportional rate constraints for MU-OFDM systems.

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عنوان البحث:

نوع البحث: أكاديمي **تاريخ اعتماد تسجيل البحث:** 2013/02/18

طريقة البحث:

In this work, the problem of rate maximisation of multichannel systems is considered. Two greedy allocation approaches using power (GPA) and bit (GBA) loading schemes with a slight difference in design constraints that aiming to maximise the overall system throughput are compared. Both algorithms use incremental bit loading whereby, the GPA is designed with main interest of efficient power utilisation