Fiber Optic Communication K-code

FEC uses n symbol codewords consisting of a data block that is k symbols long and a parity block (the code and redundant bits) that is n-k symbols long (see Figure 5). We denote a ...

In order to achieve a higher spectral efficiency, exploiting an advanced coded modulation scheme is inevitable. Since a general fiber-optic link is a non-Gaussian channel with nonlinear behavior, new ...

The study has outlined the different correction codes based optical wireless communication channel and security management in free space optics communication systems.

This code is called (n, k) code, where n=k+r. Since code space is enlarged and codewords are a constrained subset, error detection and correction is possible based on maximum likelihood decoding.

In order to optimize the performance of optical communication systems, this study draws on the biomechanical signal conduction mechanism to construct an optical fiber modulation scheme ...

This paper investigates the utility of FEC codes used to improve communication systems reliability. We consider Reed-Solomon (RS) codes, ...

In block codes, a block of k bits of information is followed by a group of r check bits. This results in a block of n (=k+r) bits which is called a code-word. The code is referred as (n, k) code.

This paper investigates the utility of FEC codes used to improve communication systems reliability. We consider Reed-Solomon (RS) codes, Convolutional codes, and their concatenation, ...

This document is a Scilab textbook companion for the book "Optical Fiber Communication" by A. Selvarajan, S. Kar and T Srinivas. It was created by Lochan Jolly and contains Scilab codes that ...

In this paper, the various line codes used in fiber optic communication have been reviewed. The need for line codes and the features of line codes are discussed.

ion (FEC) codes suitable for high-speed optical commu-nications, are introduced. An ITU-T G.709-compatible staircase code with rate R = 239/255 is proposed, and FPGA-based simulation results ...

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