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SIMULATION OF DATA TRANSMISSION SYSTEM WITH ADAPTIVE SELECTION OF AN ERROR-CORRECTING CODE BASED ON COMMUNICATION CHANNEL STATE ASSESSMENT

The article proposes a simulation model of an adaptive system for transmitting discrete messages, in which information about the state of the communication channel is used to set the parameters of an error-correcting code, which makes it possible to operate the bandwidth of the communication channel and optimize the performance of data transmission equipment. An assessment of the efficiency of certain error-correcting coding methods in a simulated system with respect to the value Eb/No is carried out. The model makes it possible to estimate such parameters as the weight of transmitted messages, the number of repeated messages through the feedback channel for a given value of Eb/No.
Keywords: error-correction coding, data transmission, communication channel, state assesment.

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