Error-controlled coding techniques are used to detect and/or correct errors that occur in the message transmission in a digital communications system. Wireless personal channels used by mobile communications systems and storage systems for digital multimedia data all require the implementation of error control coding methods. Demonstrating the role of coding in communication and data storage system design, this text illustrates the correct use of codes and the selection of the right code parameters. Relevant decoding techniques and their implementation are discussed in detail. Providing communication systems engineers and students with guidance in the application of error-control coding, this book emphasizes the fundamental concepts of coding theory while minimising the use of mathematical tools.

* Reader-friendly approach to coding in communication systems providing examples of encoding and decoding, information theory and criteria for code selection

* Thorough descriptions of relevant application, including telephony on satellite links, GSM, UMTS and multimedia standards, CD, DVD and MPEG

* Provides coverage of the fundamentals of coding and the applications of codes to the design of real error control systems

* End of chapter problems to test and develop understanding
ABOUT THE AUTHOR

Peter Sweeney is the author of Error Control Coding: From Theory to Practice, published by Wiley.

FEATURES

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