DESCRIPTION

Electrical Engineering/Communications/Information Theory

"The Berlekamp article alone will make this book worth having." --David Forney, Vice President, Motorola Codex Reed-Solomon Codes and Their Applications Edited by Stephen B. Wicker, Georgia Institute of Technology and Vijay K. Bhargava, University of Victoria On the Voyager spacecraft, they were responsible for sending clear pictures of the planets back to earth. They have also played a key role in the digital audio revolution. They are Reed-Solomon error codes: the extremely powerful codes that provide critical error control for many different types of digital communications systems. This outstanding collection of thirteen original articles written by leading researchers in the field provides a uniquely comprehensive overview of the history and practical applications--some never before published--of these important codes. Key features include:

* Thirteen original articles from leading researchers in the field, with a historical overview by Reed and Solomon

* An explanation of how Reed-Solomon codes were used in the Voyager spacecraft and how they are currently used in the compact disc player

* Specific applications for digital audio, data transfer over mobile radio, satellite communications, spread spectrum systems, and more

* New techniques for improving the performance of your own communications systems

This book will be of interest to design and research engineers in the telecommunications field, particularly those in the aerospace/satellite and mobile radio industries. It is also well-suited for use as an advanced-level textbook on the subject of error control coding.

ABOUT THE AUTHOR

Stephen B. Wicker is a Professor of Electrical and Computer Engineering at Cornell University, and a member of the graduate fields of Information Science and Computer Science. He teaches and conducts research in wireless and wired information networks, privacy-aware design, computer security, and digital telephony. Vijay K. Bhargava is the editor of Reed-Solomon Codes and Their Applications, published by Wiley.