



Modern Coding Theory

By Tom Richardson, Rüdiger Urbanke

Download now

Read Online ➔

Modern Coding Theory By Tom Richardson, Rüdiger Urbanke

Having trouble deciding which coding scheme to employ, how to design a new scheme, or how to improve an existing system? This summary of the state-of-the-art in iterative coding makes this decision more straightforward. With emphasis on the underlying theory, techniques to analyse and design practical iterative coding systems are presented. Using Gallager's original ensemble of LDPC codes, the basic concepts are extended for several general codes, including the practically important class of turbo codes. The simplicity of the binary erasure channel is exploited to develop analytical techniques and intuition, which are then applied to general channel models. A chapter on factor graphs helps to unify the important topics of information theory, coding and communication theory. Covering the most recent advances, this text is ideal for graduate students in electrical engineering and computer science, and practitioners. Additional resources, including instructor's solutions and figures, available online: www.cambridge.org/9780521852296.

↓ [Download Modern Coding Theory ...pdf](#)

📖 [Read Online Modern Coding Theory ...pdf](#)

Modern Coding Theory

By Tom Richardson, Rüdiger Urbanke

Modern Coding Theory By Tom Richardson, Rüdiger Urbanke

Having trouble deciding which coding scheme to employ, how to design a new scheme, or how to improve an existing system? This summary of the state-of-the-art in iterative coding makes this decision more straightforward. With emphasis on the underlying theory, techniques to analyse and design practical iterative coding systems are presented. Using Gallager's original ensemble of LDPC codes, the basic concepts are extended for several general codes, including the practically important class of turbo codes. The simplicity of the binary erasure channel is exploited to develop analytical techniques and intuition, which are then applied to general channel models. A chapter on factor graphs helps to unify the important topics of information theory, coding and communication theory. Covering the most recent advances, this text is ideal for graduate students in electrical engineering and computer science, and practitioners. Additional resources, including instructor's solutions and figures, available online: www.cambridge.org/9780521852296.

Modern Coding Theory By Tom Richardson, Rüdiger Urbanke Bibliography

- Sales Rank: #1772339 in Books
- Brand: Brand: Cambridge University Press
- Published on: 2008-03-17
- Original language: English
- Number of items: 1
- Dimensions: 9.72" h x 1.26" w x 6.85" l, 2.60 pounds
- Binding: Hardcover
- 590 pages

 [Download Modern Coding Theory ...pdf](#)

 [Read Online Modern Coding Theory ...pdf](#)

Editorial Review

Review

'There is definitely a market for a book focusing on LDPC codes, and Tom Richardson and Rüdiger Urbanke would be on anyone's short list to write that book. They have made substantive contributions to the theory and practice of LDPC codes. I believe this book will become required reading for researchers in LDPC codes at universities and communications companies around the world.' Thomas Fuja, University of Notre Dame

About the Author

Tom Richardson is Vice President and Chief Scientist at Flarion Technologies, Inc., New Jersey. He was awarded his Ph.D. in electrical engineering in 1990 from M.I.T., after which he worked for 10 years at the Bell Labs' Mathematical Sciences Research Center. He is the inventor of over 20 patents.

Rüdiger Urbanke is a professor in the School of Computer and Communication Sciences at the Ecole Polytechnique Fédérale de Lausanne, Switzerland (EPFL). He was awarded his Ph.D. in electrical engineering in 1995 from Washington University, after which he worked for Bell Labs until joining the faculty at EPFL in 1999. He is currently on the board for the 'Foundations and Trends in Communications and Information Theory' series for the IEEE.

Users Review

From reader reviews:

William Sebastian:

What do you about book? It is not important along with you? Or just adding material when you really need something to explain what the ones you have problem? How about your free time? Or are you busy particular person? If you don't have spare time to do others business, it is make one feel bored faster. And you have extra time? What did you do? Everybody has many questions above. They have to answer that question mainly because just their can do that will. It said that about reserve. Book is familiar in each person. Yes, it is suitable. Because start from on kindergarten until university need this kind of Modern Coding Theory to read.

Willie Letchworth:

Reading a book to become new life style in this yr; every people loves to go through a book. When you go through a book you can get a lots of benefit. When you read publications, you can improve your knowledge, simply because book has a lot of information onto it. The information that you will get depend on what forms of book that you have read. If you want to get information about your review, you can read education books, but if you want to entertain yourself read a fiction books, these us novel, comics, and also soon. The Modern Coding Theory will give you a new experience in looking at a book.

Bonnie Pace:

This Modern Coding Theory is brand new way for you who has attention to look for some information since it relief your hunger of information. Getting deeper you into it getting knowledge more you know otherwise you who still having bit of digest in reading this Modern Coding Theory can be the light food to suit your needs because the information inside this kind of book is easy to get by anyone. These books acquire itself in the form and that is reachable by anyone, sure I mean in the e-book contact form. People who think that in reserve form make them feel tired even dizzy this e-book is the answer. So there is not any in reading a reserve especially this one. You can find actually looking for. It should be here for an individual. So , don't miss this! Just read this e-book variety for your better life along with knowledge.

Daisy Harris:

What is your hobby? Have you heard that will question when you got students? We believe that that problem was given by teacher with their students. Many kinds of hobby, Everybody has different hobby. And also you know that little person including reading or as reading through become their hobby. You should know that reading is very important along with book as to be the matter. Book is important thing to include you knowledge, except your current teacher or lecturer. You discover good news or update regarding something by book. Different categories of books that can you take to be your object. One of them is Modern Coding Theory.

Download and Read Online Modern Coding Theory By Tom Richardson, Rüdiger Urbanke #L3HNOKXDJP4

Read Modern Coding Theory By Tom Richardson, Rüdiger Urbanke for online ebook

Modern Coding Theory By Tom Richardson, Rüdiger Urbanke Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Modern Coding Theory By Tom Richardson, Rüdiger Urbanke books to read online.

Online Modern Coding Theory By Tom Richardson, Rüdiger Urbanke ebook PDF download

Modern Coding Theory By Tom Richardson, Rüdiger Urbanke Doc

Modern Coding Theory By Tom Richardson, Rüdiger Urbanke Mobipocket

Modern Coding Theory By Tom Richardson, Rüdiger Urbanke EPub

L3HNOKXDJP4: Modern Coding Theory By Tom Richardson, Rüdiger Urbanke