



Fundamentals of Wireless Communication

By David Tse, Pramod Viswanath

Download now

Read Online →

Fundamentals of Wireless Communication By David Tse, Pramod Viswanath

The past decade has seen many advances in physical layer wireless communication theory and their implementation in wireless systems. This textbook takes a unified view of the fundamentals of wireless communication and explains the web of concepts underpinning these advances at a level accessible to an audience with a basic background in probability and digital communication. Topics covered include MIMO (multi-input, multi-output) communication, space-time coding, opportunistic communication, OFDM and CDMA. The concepts are illustrated using many examples from real wireless systems such as GSM, IS-95 (CDMA), IS-856 (1 x EV-DO), Flash OFDM and UWB (ultra-wideband). Particular emphasis is placed on the interplay between concepts and their implementation in real systems. An abundant supply of exercises and figures reinforce the material in the text. This book is intended for use on graduate courses in electrical and computer engineering and will also be of great interest to practising engineers.

 [Download Fundamentals of Wireless Communication ...pdf](#)

 [Read Online Fundamentals of Wireless Communication ...pdf](#)

Fundamentals of Wireless Communication

By David Tse, Pramod Viswanath

Fundamentals of Wireless Communication By David Tse, Pramod Viswanath

The past decade has seen many advances in physical layer wireless communication theory and their implementation in wireless systems. This textbook takes a unified view of the fundamentals of wireless communication and explains the web of concepts underpinning these advances at a level accessible to an audience with a basic background in probability and digital communication. Topics covered include MIMO (multi-input, multi-output) communication, space-time coding, opportunistic communication, OFDM and CDMA. The concepts are illustrated using many examples from real wireless systems such as GSM, IS-95 (CDMA), IS-856 (1 x EV-DO), Flash OFDM and UWB (ultra-wideband). Particular emphasis is placed on the interplay between concepts and their implementation in real systems. An abundant supply of exercises and figures reinforce the material in the text. This book is intended for use on graduate courses in electrical and computer engineering and will also be of great interest to practising engineers.

Fundamentals of Wireless Communication By David Tse, Pramod Viswanath Bibliography

- Sales Rank: #1028668 in Books
- Brand: Brand: Cambridge University Press
- Published on: 2005-07-11
- Original language: English
- Number of items: 1
- Dimensions: 9.69" h x 1.18" w x 7.44" l, 3.20 pounds
- Binding: Hardcover
- 564 pages

 [Download Fundamentals of Wireless Communication ...pdf](#)

 [Read Online Fundamentals of Wireless Communication ...pdf](#)

Download and Read Free Online Fundamentals of Wireless Communication By David Tse, Pramod Viswanath

Editorial Review

Review

"Tse and Viswanath achieve remarkable clarity in combining sound theoretical development, simple insights, and current practice into an integrated whole. Fundamentals of Wireless Communication will quickly become a classic, serving both as a reference and a textbook built on firm principles."

Professor Robert G. Gallager, MIT

"Fundamentals of Wireless Communication is a terrific introduction to principles of physical-layer design for state-of-the-art wireless systems. It is a wonderful and much-needed resource for new graduate students and practicing professionals alike. Tse and Viswanath have written a text of enduring value."

Professor Gregory W. Wornell, MIT

"Fundamentals of Wireless Communication is a unique combination of engineering insight, theoretical vision and systems experience. This is the text I use to explain to graduate students how they should think about fading channels."

Professor Robert Calderbank, Princeton University

"David Tse and Pramod Viswanath have succeeded in developing a superb textbook covering the field of modern wireless communications. The book, Fundamentals of Wireless Communication, truly covers the fundamentals of a wireless system design and incorporates a lucid exposition of the most recent advances such as MIMO and opportunistic communication. The results are derived with exceeding clarity and often linked to an information theoretical framework, thus providing the reader with a clear understanding of optimal design choices for both point-to-point and multiple access wireless communication... this textbook will be extremely valuable not only to graduate students pursuing research in wireless systems but also to engineering professionals who have the task of designing and developing future wireless technologies."

Dr. Roberto Padovani, Qualcomm Inc.

"This is a book written by academics, primarily for graduate courses. The style fits that role perfectly. It is predominantly mathematical, often using the maths as part of the way to describe a concept. However, it is an improvement over many graduate texts. The style of writing is open and relaxed. There are many real world examples explaining how concepts are related in 2G and 3G systems. The use of illustrations is excellent and there are copious exercises at the end of each chapter...I think that as a graduate text this would be truly excellent."

William Webb, IEE Communications Engineer

"The book Fundamentals of Wireless Communication, written by David Tse and Pramod Viswanath, presents a very good summary of the concepts and techniques used for the physical layer of radio networks that have emerged mainly during the last 10 years. The first chapters introduce wireless fading channels, diversity, multiple access, and interference management. The second part of the book covers the topic of multiple antennas, especially MIMO systems, with the authors concentrating on spectral efficiency and bit error probability...I strongly recommend this book for graduate students taking a course in wireless systems. The first four chapters can be recommended for use in an undergraduate course in wireless communications as well."

IEEE Communications Magazine

About the Author

DAVID TSE is a Professor at the Department of Electrical Engineering and Computer Science, University of California, Berkeley.

PRAMOD VISWANATH is Assistant Professor at the Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign.

Users Review

From reader reviews:

Jules Thompson:

Book will be written, printed, or descriptive for everything. You can realize everything you want by a publication. Book has a different type. We all know that that book is important thing to bring us around the world. Next to that you can your reading ability was fluently. A e-book Fundamentals of Wireless Communication will make you to be smarter. You can feel more confidence if you can know about everything. But some of you think that will open or reading a book make you bored. It is not make you fun. Why they can be thought like that? Have you seeking best book or ideal book with you?

Tommy Cowen:

Playing with family in a park, coming to see the sea world or hanging out with buddies is thing that usually you will have done when you have spare time, in that case why you don't try matter that really opposite from that. One activity that make you not sensation tired but still relaxing, trilling like on roller coaster you have been ride on and with addition of information. Even you love Fundamentals of Wireless Communication, you are able to enjoy both. It is good combination right, you still wish to miss it? What kind of hang-out type is it? Oh can happen its mind hangout people. What? Still don't understand it, oh come on its identified as reading friends.

Shaun Richards:

Fundamentals of Wireless Communication can be one of your basic books that are good idea. Most of us recommend that straight away because this e-book has good vocabulary that will increase your knowledge in words, easy to understand, bit entertaining but nevertheless delivering the information. The copy writer giving his/her effort to place every word into delight arrangement in writing Fundamentals of Wireless Communication however doesn't forget the main stage, giving the reader the hottest as well as based confirm resource information that maybe you can be considered one of it. This great information could drawn you into brand-new stage of crucial contemplating.

Steven Burley:

Would you one of the book lovers? If yes, do you ever feeling doubt while you are in the book store? Make an effort to pick one book that you never know the inside because don't judge book by its handle may doesn't work is difficult job because you are frightened that the inside maybe not as fantastic as in the outside

appearance likes. Maybe you answer may be Fundamentals of Wireless Communication why because the fantastic cover that make you consider concerning the content will not disappoint you actually. The inside or content is usually fantastic as the outside or maybe cover. Your reading sixth sense will directly make suggestions to pick up this book.

**Download and Read Online Fundamentals of Wireless
Communication By David Tse, Pramod Viswanath
#QSZPJT7NKCM**

Read Fundamentals of Wireless Communication By David Tse, Pramod Viswanath for online ebook

Fundamentals of Wireless Communication By David Tse, Pramod Viswanath 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 Fundamentals of Wireless Communication By David Tse, Pramod Viswanath books to read online.

Online Fundamentals of Wireless Communication By David Tse, Pramod Viswanath ebook PDF download

Fundamentals of Wireless Communication By David Tse, Pramod Viswanath Doc

Fundamentals of Wireless Communication By David Tse, Pramod Viswanath Mobipocket

Fundamentals of Wireless Communication By David Tse, Pramod Viswanath EPub

QSZPJT7NKCM: Fundamentals of Wireless Communication By David Tse, Pramod Viswanath