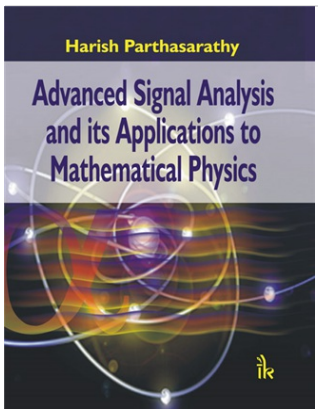
Book Information Sheet



Advanced Signal Analysis and its Applications to Mathematical Physics , 1/e

Harish Parthasarathy

2009 | 712 pp | Hardback | ISBN: 9789380026541 | Price: 1,995.00

About the Book

The mathematical tools used in signal analysis involve differential and difference equations, integral equations, matrix algebra and calculus, complex analysis and probability theory and random processes. This book applies these tools to problems in various branches of physics like fluid dynamics, electromagnetism and quantum theory. The book will be of use to research workers in signal processing as well as to research workers in physics and applied mathematics. Partial differential equations have been introduced here as an additional tool in signal analysis since they are used to describe quantum, electromagnetic and fluid dynamical phenomena not to forget Einstein's equations of gravitation. The book will be of use to signal processing experts who are interested in developing tools for the analysis of signals arising in real systems.

Salient Features

Salient Features:

- Explains the mathematical tools used in signal analysis to problems in various branches of physics.
- The proofs of the theorems and derivation of relationships have been given in detail.
- Many real life research problems have been discussed, and projects for students have been given.
- Includes 290 objective type questions and interview problems at the end of the book.

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About the Author

Harish Parthasarathy :- Harish Parthasarathy completed his B.Tech in Electrical Engineering from the Indian Institute of Technology, Kanpur in 1990 and his Ph.D. from the Indian Institute of Technology, Delhi in 1994. The author has taught at the Indian Institute of Technology, Bombay, and the Indian Institute of Technology, Kanpur. Since June 2000, he has been in the Division of Electronics and Communication at the Netaji Subhash Institute of Technology where he has been teaching courses on systems, linear algebra and electromagnetic field theory.