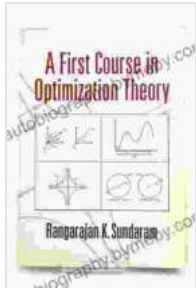


First Course In Optimization Theory: A Comprehensive Guide



A First Course in Optimization Theory

by Rangarajan K. Sundaram

★★★★☆ 4.3 out of 5

Language : English

File size : 9240 KB

Text-to-Speech : Enabled

Screen Reader : Supported

Enhanced typesetting : Enabled

Print length : 591 pages



Optimization theory is a branch of mathematics that deals with the problem of finding the best possible solution to a given problem. It is used in a wide variety of applications, including engineering, economics, finance, and operations research.

This book provides a comprehensive to the theory and applications of mathematical optimization. It covers a wide range of topics, including:

- Linear programming
- Nonlinear programming
- Convex optimization
- Dynamic programming
- Game theory

The book is written in a clear and concise style, and it is suitable for both undergraduate and graduate students. It is also a valuable resource for researchers and practitioners in the field of optimization theory.

Chapter 1:

This chapter provides an overview of optimization theory. It discusses the different types of optimization problems, and it introduces the basic concepts of optimization theory.

Chapter 2: Linear Programming

This chapter introduces linear programming, which is a type of optimization problem that involves optimizing a linear function subject to a set of linear constraints. Linear programming is used in a wide variety of applications, including scheduling, resource allocation, and transportation.

Chapter 3: Nonlinear Programming

This chapter introduces nonlinear programming, which is a type of optimization problem that involves optimizing a nonlinear function subject to a set of constraints. Nonlinear programming is used in a wide variety of applications, including engineering design, financial modeling, and operations research.

Chapter 4: Convex Optimization

This chapter introduces convex optimization, which is a type of optimization problem that involves optimizing a convex function subject to a set of constraints. Convex optimization is used in a wide variety of applications, including machine learning, signal processing, and finance.

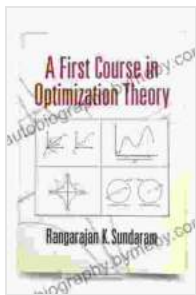
Chapter 5: Dynamic Programming

This chapter introduces dynamic programming, which is a technique for solving optimization problems that can be decomposed into a sequence of smaller subproblems. Dynamic programming is used in a wide variety of applications, including computer science, operations research, and economics.

Chapter 6: Game Theory

This chapter introduces game theory, which is a branch of mathematics that deals with the study of strategic decision-making. Game theory is used in a wide variety of applications, including economics, political science, and military strategy.

This book provides a comprehensive to the theory and applications of mathematical optimization. It is a valuable resource for both students and practitioners in the field of optimization theory.



A First Course in Optimization Theory

by Rangarajan K. Sundaram

★★★★☆ 4.3 out of 5

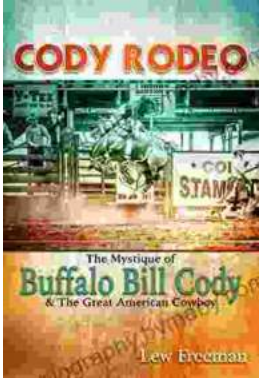
Language : English
File size : 9240 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Print length : 591 pages





Celebrate the Luck of the Irish: Unveiling Saint Patrick's Day Holidays and Traditions

As the verdant hues of spring brush across the landscape, the world gears up for an annual celebration that exudes both merriments and cultural significance: Saint...



Cody Rodeo: A Photographic Journey into the Heart of the Wild West

Step into the arena of the Cody Rodeo, where the spirit of the American West comes alive in a vibrant spectacle of skill, courage, and determination. Through...