

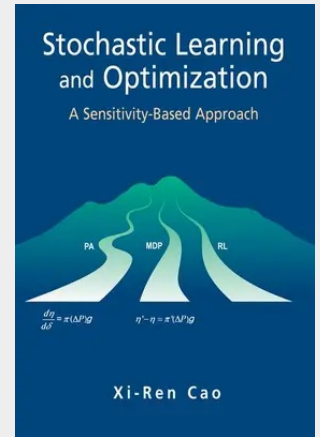
Stochastic Learning and Optimization

Performance optimization is vital in the design and operation of modern engineering systems, including communications, manufacturing, robotics, and logistics. Most engineering systems are too complicated to model, or the system parameters cannot be easily identified, so learning techniques have to be applied.

This is a multi-disciplinary area which has been attracting wide attention across many disciplines. Areas such as perturbation analysis (PA) in discrete event dynamic systems (DEDSs), Markov decision processes (MDPs) in operations research, reinforcement learning (RL) or neuro-dynamic programming (NDP) in computer science, identification and adaptive control (I&AC) in control systems, share the common goal: to make the "best decision" to optimize system performance.

This book provides a unified framework based on a sensitivity point of view. It also introduces new approaches and proposes new research topics within this sensitivity-based framework.

Performance optimization is vital in the design and operation of modern engineering systems, including communications, manufacturing, robotics, and logistics. Most engineering systems are too complicated to model, or the system parameters cannot be easily identified, so learning techniques have to be applied. This is a multi-disciplinary area which has been attracting wide attention across many disciplines. Areas such as perturbation analysis (PA) in discrete event dynamic systems (DEDSs), Markov decision processes (MDPs) in operations research, reinforcement learning (RL) or neuro-dynamic programming (NDP) in computer science, identification and adaptive control (I&AC) in control systems, share the common goal: to make the "best decision" to optimize system performance. This book provides a unified framework based on a sensitivity point of view. It also introduces new approaches and proposes new research topics within this sensitivity-based framework.



213,99 €

199,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9780387367873

Medium: Buch

ISBN: 978-0-387-36787-3

Verlag: Humana

Erscheinungstermin: 12.10.2007

Sprache(n): Englisch

Auflage: 2007

Produktform: Gebunden

Gewicht: 1039 g

Seiten: 566

Format (B x H): 160 x 241 mm

