Multi-Objective Optimization using Evolutionary Algorithms
Kalyanmoy Deb

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DESCRIPTION

Evolutionary algorithms are relatively new, but very powerful techniques used to find solutions to many real-world search and optimization problems. Many of these problems have multiple objectives, which leads to the need to obtain a set of optimal solutions, known as effective solutions. It has been found that using evolutionary algorithms is a highly effective way of finding multiple effective solutions in a single simulation run.

• Comprehensive coverage of this growing area of research
• Carefully introduces each algorithm with examples and in-depth discussion
• Includes many applications to real-world problems, including engineering design and scheduling
• Includes discussion of advanced topics and future research
• Can be used as a course text or for self-study
• Accessible to those with limited knowledge of classical multi-objective optimization and evolutionary algorithms

The integrated presentation of theory, algorithms and examples will benefit those working and researching in the areas of optimization, optimal design and evolutionary computing. This text provides an excellent introduction to the use of evolutionary algorithms in multi-objective optimization, allowing use as a graduate course text or for self-study.
ABOUT THE AUTHOR

Kalyanmoy Deb is an Indian computer scientist. Since 2013, Deb has held the Herman E. & Ruth J. Koenig Endowed Chair in the Department of Electrical and Computing Engineering at Michigan State University, which was established in 2001.

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