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Nota di contenuto	PRACTICAL GENETIC ALGORITHMS; CONTENTS; Preface; Preface to First Edition; List of Symbols; 1 Introduction to Optimization; 1.1 Finding the Best Solution; 1.1.1 What Is Optimization?; 1.1.2 Root Finding versus Optimization; 1.1.3 Categories of Optimization; 1.2 Minimum-Seeking Algorithms; 1.2.1 Exhaustive Search; 1.2.2 Analytical Optimization; 1.2.3 Nelder-Mead Downhill Simplex Method; 1.2.4 Optimization Based on Line Minimization; 1.3 Natural Optimization Methods; 1.4 Biological Optimization: Natural Selection; 1.5 The Genetic Algorithm; Bibliography; Exercises 2 The Binary Genetic Algorithm2.1 Genetic Algorithms: Natural Selection on a Computer; 2.2 Components of a Binary Genetic Algorithm; 2.2.1 Selecting the Variables and the Cost Function; 2.2.2 Variable Encoding and Decoding; 2.2.3 The Population; 2.2.4 Natural Selection; 2.2.5 Selection; 2.2.6 Mating; 2.2.7 Mutations; 2.2.8 The Next Generation; 2.2.9 Convergence; 2.3 A Parting Look; Bibliography; Exercises; 3 The Continuous Genetic Algorithm; 3.1 Components of a Continuous Genetic Algorithm; 3.1.1 The Example Variables and Cost Function; 3.1.2 Variable Encoding, Precision, and Bounds 3.1.3 Initial Population3.1.4 Natural Selection; 3.1.5 Pairing; 3.1.6 Mating; 3.1.7 Mutations; 3.1.8 The Next Generation; 3.1.9 Convergence; 3.2 A Parting Look; Bibliography; Exercises; 4 Basic

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Sommario/riassunto

* This book deals with the fundamentals of genetic algorithms and their applications in a variety of different areas of engineering and science* Most significant update to the second edition is the MATLAB codes that accompany the text* Provides a thorough discussion of hybrid genetic algorithms* Features more examples than first edition
