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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Introduction -- Optimum Design of Castellated Beams Using Tug of War Algorithm -- Optimum Design of Multi-Span Composite Box Girder Bridges Using Cuckoo Search Algorithm -- Sizing Optimization of Skeletal Structures Using Enhanced Whale Optimization Algorithm -- Size and Geometry Optimization of Double Layer Grids Using Colliding Body Optimization (CBO) and Enhanced Colliding Body Optimization (ECBO) Algorithms -- Sizing and Geometry Optimization of Different Mechanical System of Domes via ECBO Algorithm -- Optimal Design of Double Layer Barrel Vaults Using CBO and ECBO Algorithms -- Optimum Design of Steel Floor System Using ECBO -- Optimal design of the monopole structures using CBO and ECBO algorithms -- Damage Detection in Skeletal Structures Based on Charged System Search Optimization Using Incomplete Modal Data -- Enhanced Colliding Bodies Optimization for Modification of Ground Motions -- Bandwidth,

Profile and Wavefront Optimization Using PSO, CBO, ECBO and TWO Algorithms -- Optimal Analysis and Design of Large-Scale Domes with Frequency Constraints -- Cost and CO2 Emission Optimization of Reinforced Concrete Frames Using ECBO Algorithm -- Construction Site Layout Planning Problem Using CBO and ECBO.

Sommario/riassunto

The book presents recently developed efficient metaheuristic optimization algorithms and their applications for solving various optimization problems in civil engineering. The concepts can also be used for optimizing problems in mechanical and electrical engineering.
