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Soggetti	Computer science Computational intelligence Artificial intelligence Mathematical optimization Operations research Theory of Computation Computational Intelligence Artificial Intelligence Optimization Operations Research and Decision Theory
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Livello bibliografico	Monografia
Nota di contenuto	Introduction to Hyper-Heuristics -- Selection Constructive Hyper-Heuristics -- Selection Perturbative Hyper-Heuristics -- Generation Constructive Hyper-Heuristics -- Generation Perturbative Hyper-Heuristics -- Theoretical Aspect: A Formal Definition -- Vehicle Routing Problems -- Nurse Rostering Problems -- Packing Problems -- Examination Timetabling Problems -- Cross-Domain Hyper-Heuristics -- Advances in Hyper-Heuristics -- Conclusions and Future Research Directions.
Sommario/riassunto	This introduction to the field of hyper-heuristics presents the required foundations and tools and illustrates some of their applications. The authors organized the 13 chapters into three parts. The first, hyper-heuristic fundamentals and theory, provides an overview of selection constructive, selection perturbative, generation constructive and

generation perturbative hyper-heuristics, and then a formal definition of hyper-heuristics. The chapters in the second part of the book examine applications of hyper-heuristics in vehicle routing, nurse rostering, packing and examination timetabling. The third part of the book presents advanced topics and then a summary of the field and future research directions. Finally the appendices offer details of the HyFlex framework and the EvoHyp toolkit, and then the definition, problem model and constraints for the most tested combinatorial optimization problems. The book will be of value to graduate students, researchers, and practitioners.
