Foreword

The main aim of this book is to offer a state-of-the-art chapters’ collection that cover themes related to modern optimization algorithms and applications in engineering and economics that could be applied for different hard real problems solving.

Efficient solving of various real problems by computers may require different problem solving algorithms, adapted on the specific of the problems type, complexity and the known information about the problems. Computational Intelligence is one of the most successful paradigms used for different computational hard problems solving. But only a few chapters in the book use classical algorithms of Computational Intelligence, like Genetic Algorithms, Fuzzy Logic, or Swarm Intelligence. Most of them use a hybridization with other algorithms, in order to obtain their combined advantages. There are many other chapters that use recently proposed new algorithms, like Artificial Bee Colony Algorithm, Cuckoo Search Algorithm, or Gravitational Search Algorithm.

The book covers a large range of applications in the fields of power generation and distribution, manufacturing and supply chain management, vehicle routing problems, RFID applications, traffic networks design, local and global positioning, multiple sequence alignment, various mathematical problems or chemical models. In my opinion, this book is a must read for all the engineers and economists interested in the field of optimization.

Like other books edited or written by Prof. Pandian M. Vasant, this book is a delight for practitioners in the field of optimization and we must bring deep thanks to the Editorial Board, to the authors and to the publisher that have made possible the coming out of this book.

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