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Modeling, Analysis, and Applications in Metaheuristic Computing: Advancements and Trends

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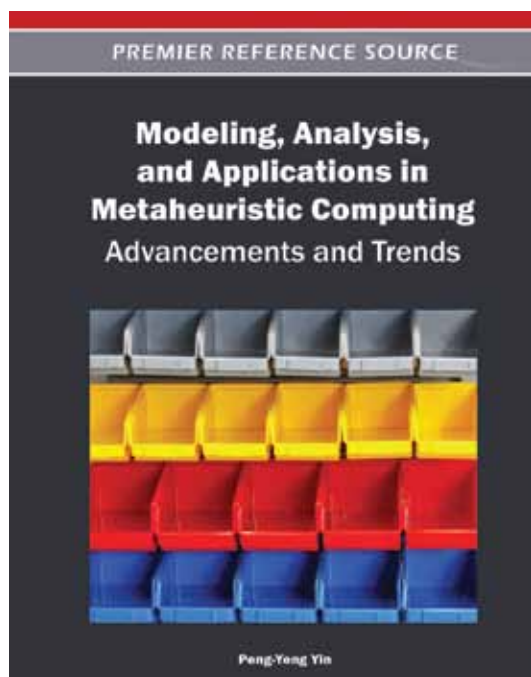
The engineering and business problems the world faces today have become more impenetrable and unstructured, making the design of a satisfactory problem-specific algorithm nontrivial.

Modeling, Analysis, and Applications in Metaheuristic Computing: Advancements and Trends is a collection of the latest developments, models, and applications within the transdisciplinary fields related to metaheuristic computing. Providing researchers, practitioners, and academicians with insight into a wide range of topics such as genetic algorithms, differential evolution, and ant colony optimization, this book compiles the latest findings, analysis, improvements, and applications of technologies within metaheuristic computing.

Topics Covered:

- Applications of metaheuristic computing
- Ant colony optimization
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- Hyper-heuristics
- Local search
- Memetic algorithm
- Particle swarm optimization
- Strategic oscillation
- Variable neighborhood search

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Peng-Yeng Yin received his BS, MS and PhD degrees in computer science from National Chiao Tung University (Hsinchu, Taiwan). From 1993 to 1994, he was a visiting scholar in the Department of Electrical Engineering at the University of Maryland (College Park, MD, USA) and in the Department of Radiology at Georgetown University (Washington D.C., USA). In 2000, he was a visiting professor in the Visualization and Intelligent Systems Laboratory (VISLab) in the Department of Electrical Engineering at the University of California (Riverside, USA). From 2006 to 2007, he was a visiting professor at Leeds School of Business, University of Colorado. From 2001 to 2003, he was a professor in the Department of Computer Science and Engineering, Ming Chuan University (Taoyuan, Taiwan). Since 2003, he has been a professor of the Department of information Management, National Chi Nan University (Nantou, Taiwan). Dr. Yin received the Overseas Research Fellowship from Ministry of Education (1993) and the Overseas Research Fellowship from National Science Council (2000). He has received the best paper award from the Image Processing and Pattern Recognition Society of Taiwan. He is a member of the Phi Tau Phi Scholastic Honor Society and listed in *Who's Who in the World*, *Who's Who in Science and Engineering* and *Who's Who in Asia*. Dr. Yin has published more than 100 academic articles in reputable journals and conferences including IEEE Trans. on Pattern Analysis and Machine Intelligence, IEEE Trans. on Knowledge and Data Engineering, IEEE Trans. on Education, Pattern Recognition, Annals of Operations Research, IEEE International Conference on Computer Vision, etc. He has been on the editorial board of the *International Journal of Advanced Robotic Systems*, the *Open Artificial Intelligence Journal*, the *Open Artificial Intelligence Letters*, the *Open Artificial Intelligence Reviews* and served as a program committee member in many international conferences. His current research interests include artificial intelligence, evolutionary computation, metaheuristics, pattern recognition, content-based image retrieval, relevance feedback, machine learning, computational intelligence, operations research and computational biology.

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