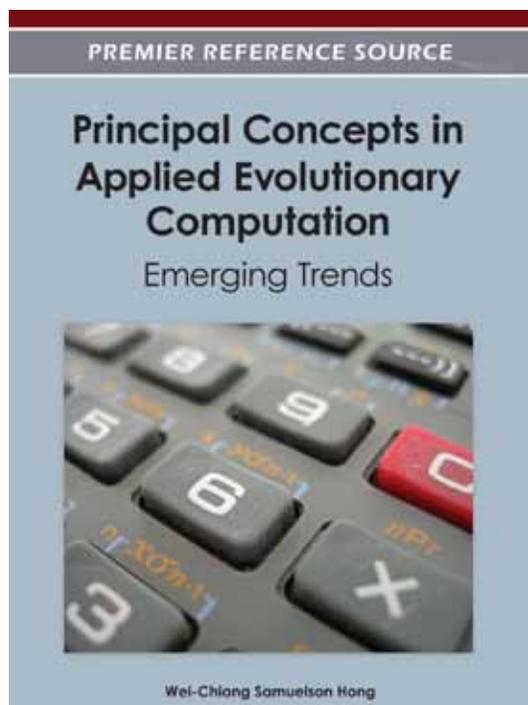


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## Principal Concepts in Applied Evolutionary Computation: Emerging Trends



Wei-Chiang Samuelson Hong (Oriental Institute of Technology, Taiwan)

Increasingly powerful and diverse computing technologies have the potential to tackle ever greater and more complex problems and dilemmas in engineering and science disciplines.

**Principal Concepts in Applied Evolutionary Computation: Emerging Trends** provides an introduction to the important interdisciplinary discipline of evolutionary computation, an artificial intelligence field that combines the principles of computational intelligence with the mechanisms of the theory of evolution. Academics and practicing field professionals will find this reference useful as they break into the emerging and complex world of evolutionary computation, learning to harness and utilize this exciting new interdisciplinary field.

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**Wei-Chiang Samuelson Hong** is an Associate Professor in the Department of Information Management at the Oriental Institute of Technology, Taiwan. His research interests mainly include computational intelligence (neural networks and evolutionary computation), and application of forecasting technology (ARIMA, support vector regression, and chaos theory), and tourism competitiveness evaluation and management. Dr. Hong's articles have been published in *Applied Mathematics and Computation*, *Applied Mathematical Modelling*, *Applied Soft Computing*, *Control and Cybernetics*, *Current Issues in Tourism*, *Decision Support Systems*, *Electric Power Systems Research*, *Energy*, *Energies*, *Energy Conversion and Management*, *Energy Policy*, *Hydrological Processes*, *IEEE Transactions on Fuzzy Systems*, *International Journal of Advanced Manufacturing Technology*, *International Journal of Electrical Power & Energy Systems*, *Journal of Systems and Software*, *Neural Computing and Applications*, *Neurocomputing*, and *Water Resources Management*, among others. Dr. Hong is currently on the editorial board of several journals, including *International Journal of Applied Evolutionary Computation*, *Neurocomputing*, *Neural Computing & Applications*, *Mathematical Problems in Engineering*, and *Energy Sources Part B: Economics, Planning, and Policy*. Dr. Hong presently teaches courses in the areas of forecasting methodologies and applications, hybridizing evolutionary algorithms, and conducts research in the areas of prediction modeling, simulation and optimization; artificial neural network, and novel forecasting development. Dr. Hong serves as the program committee of various international conferences including premium ones such as IEEE CEC, IEEE CIS, IEEE ICNSC, IEEE SMC, IEEE CASE, and IEEE SMCia, et cetera. He is a senior member of IIE and IEEE. He is indexed in the list of Who's Who in the World (25th-29th editions), Who's Who in Asia (2nd edition), and Who's Who in Science and Engineering (10th and 11th editions).



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