Neural Computing and Applications (2020) 32:7585
https://doi.org/10.1007/s00521-020-04902-x

EDITORIAL

Special issue on "Soft computing techniques: applications and challenges" neural computing and applications

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Received: 31 March 2020 / Accepted: 31 March 2020 / Published online: 13 April 2020

Editorial,

The modern era of advance computing is still striving to develop a consciousness-based machine. The used methods are quite close to the reasoning process of humans. The insidious use of soft computing (SC) in diversified engineering applications makes it an essential tool in the development of products that have implications for human society. The term "soft computing" refers to many useful techniques like fuzzy logic, neural computing, probabilistic reasoning, evolutionary computation, etc. These techniques are being increasingly applied to a variety of problems, ranging from practical applications in industry and commerce to leading-edge scientific research. In recent years soft computing has been extended by adding many other sub-disciplines and it became quite obvious that this has been frequently used in various research domains particularly in data analysis. Starting from various data mining applications to other analytical fields of research, soft computing has become one of the premier choices for all researchers to solve complex as well as uncertain problems. Its proliferation is significant in almost all fields of engineering. However, choosing a correct soft computing method for solving any particular problem is always been a challenging effort to obtain the desired solution.

This Special issue includes some of the interesting applications of soft computing like rough set-based approach and named entity for crime pattern analysis, an inclination of the artificial pancreas through PID tuning, the neuro-fuzzy network for fault detection, EEG analysis with neural computers, the interval-valued Pythagorean prioritized operator-based game theoretical framework in multicriteria group decision making, e-learning system based on fuzzy logic, Groundwater level forecasting, hybrid optimization approach for energy-efficient optimal cluster head selection in wireless sensor networks, etc. The efficiency of all these discussed methods can be analyzed through the wider use and flourishing applications in various diversified applications. Being the guest editors, we anticipate that the spectrum of research covered in this special issue will be of an asset for an entire host of readers/researchers working in the sphere of soft computing and related areas. We have tried the best to maintain the balance between the types of articles including the methods and their application domain. We are indebted to the authors of this issue for their valued research contributions and supportive toward the spirit for changing the paper as per the reviewer's comments. The technical standards and quality of published articles in this special issue are based on the strength and expertise of the reviewer board members who have been grossly involved in providing high-quality reviews for the submitted papers. Also, we are grateful to the editorial members and Editor in Chief for their constant support and cooperation in all possible ways for the successful completion of this issue.

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