
Editorial

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The modern era of advanced computing is still striving to develop consciousness-based machines. The methods used are quite close to the reasoning processes of humans. The insidious use of soft computing (SC) in diversified engineering applications makes it an essential tool in the development of products those have implications for human society. The term 'SC' refers to many useful techniques such as fuzzy logic, neural computing, probabilistic reasoning, evolutionary computation, etc. Since few decades, the dominance of SC techniques to solve real world problems is on the peak. Those methods are popular in context to their adaptability and suitability to apply in both theoretical analysis and industrial applications. Though optimisations like swarm and evolutionary-based methods are pretty interesting and angular for solving many complex problems, fuzzy logic and neural network has also been witnessed a great success in solving a number of engineering applications. SC has always been a cross platform-based technique applied in almost all engineering disciplines. in the areas ranging from computer science engineering to other engineering domains such as electrical, civil, mechanical, etc., SC has become one of the premier choices for all researchers for solving complex and uncertain problems.

This special issue is dedicated for reporting latest research and new developments in these multidisciplinary fields of SC. The main objective of this special issue is to cover both the theory and applications of various SC techniques embedded in diversified spanning fields of engineering and its subfields. It aimed to provide an intellectual forum for researchers in academia and scientists and engineers from a wide range of application areas to present their latest research findings in SC techniques and identify future challenges in this novel combination of research areas. This special issue contains some interesting articles about the problem solving approaches for trajectory planning of an autonomous mobile robot, adaptive pitch control, BLDC motor drive, distributed power system using swarm and nature inspired optimisations such as grasshopper optimisation algorithm, PSO, black hole optimisation, spider monkey optimisation, etc. The issue is a combination of both theory and applications of important SC approaches in solving real world problems. It offers readers reports on advances in the understanding and utilisation of systems, those are based on SC principles. The articles are well described and are real reflections of some recent advances of various SC approaches. The wider use and successful applications in various diversified problem domains discussed in this special issue show the efficiency of these methods. As guest editors, we hope that spectrum of research works covered under this special issue will be of value for whole host of readers/researchers working in the domain of evolutionary computing, swarm intelligence, fuzzy logic and related areas. We are grateful to our authors who have contributed their valued research to this special issue and always supported us during the reviewing of the articles. The technical standards and quality of published articles in this special issue is 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. We are thankful to the Editor-in-Chief of the *International Journal of Swarm Intelligence (IJSI)*, Dr. J.C. Bansal for all his continued guidance and input on the policies of the journal as well as for his volunteered significant time despite of his busy schedules.