
Editorial

Harish Sharma*

Department of Computer Science and Engineering,
Rajasthan Technical University,
Kota 324010, India
Email: harish.sharma0107@gmail.com
*Corresponding author

Wenyin Gong

School of Computer Science,
China University of Geosciences,
29 Xueyuan Rd, WuDaoKou, Haidian Qu,
Beijing Shi 100083, China
Email: wygong@cug.edu.cn

Shimpi Singh Jadon

Applied Mathematics Department,
Amity University Gwalior, MP
Maharajpura, Gwalior,
Madhya Pradesh-474020, India
Email: shimpisingh2k6@gmail.com

Mukesh Saraswat

Jaypee Institute of Information Technology,
Department of Computer Science and Engineering,
Noida, Uttar Pradesh 201304, India
Email: saraswatmukesh@gmail.com

Biographical notes: Harish Sharma is an Associate Professor at the Rajasthan Technical University, Kota in the Department of Computer Science and Engineering. He has worked at the Vardhaman Mahaveer Open University Kota, and Government Engineering College Jhalawar. He is a Secretary of Soft Computing Research Society of India. He is a life time member of Cryptology Research Society of India, ISI, Kolkata. He is an Associate Editor of *International Journal of Swarm Intelligence (IJSI)* published by Inderscience. He has edited special issues of the journals *Memetic Computing* and *Journal of Experimental and Theoretical Artificial Intelligence*. His primary area of interest is nature inspired optimisation techniques. He has contributed in more than 50 papers published in various international journals and conferences.

Wenyin Gong is a Professor with the School of Computer Science, China University of Geosciences, Wuhan, China. His research interests include evolutionary algorithms, evolutionary optimisation, and their applications. He

has published over 50 research papers in journals and international conferences. He served as a referee for over 20 international journals, such as *IEEE Transactions on Evolutionary Computation*, *IEEE Transactions on Cybernetics*, *IEEE Computational Intelligence Magazine*, *ACM Transactions on Intelligent Systems and Technology*, *Information Sciences*, *European Journal of Operational Research*, *Applied Soft Computing*, *International Journal of Hydrogen Energy*, and so on.

Shimpi Singh Jadon is currently working as an Assistant Professor in the Applied Mathematics Department at Amity University Gwalior, MP. He has received his MSc from the Jiwaji University Gwalior and PhD from the ABV-Indian Institute of Information Technology and Management, Gwalior, India. He has more than six years of teaching and research experience. He has published more than 15 research papers in international journals and conferences and is acting as a member of the editorial/reviewer board of various international journals and conferences. He has been an active member of many organising committees of various conferences and workshops. His research interests include soft computing, nature inspired algorithms and optimisation.

Mukesh Saraswat is working as an Assistant Professor in the Computer Science and Engineering Department at Jaypee Institute of Information Technology. He has received his MTech from the U.P. Technical University, Lucknow and PhD from the ABV-Indian Institute of Information Technology and Management, Gwalior, India. He has more than 15 years of teaching and research experience. He has published more than 20 research papers in international journals and conferences and is acting as a member of the editorial/reviewer board of various international journals and conferences. He was the part of successfully completed DRDE funded project on image analysis and currently running a project funded by SERB-DST (New Delhi) on histopathological image analysis. He has been an active member of many organising committees of various conferences and workshops. His research interests include image processing, pattern recognition, data mining, and soft computing.

Nature inspired optimisation algorithms (NIOA) are a set of biological tools and methodologies to address complex real-world problems to which traditional approaches may not be very effective. Major constituents of NIOA are neural networks, evolutionary algorithms, swarm intelligence algorithms, fuzzy systems, and hybrid intelligent systems. The applications of NIOA include bioinformatics and computational biology, brain-machine interface, digital eco-systems, healthcare and medical engineering, multi-media security and cyber security, robotics, design and manufacturing, energy and environment and many more. This special issue titled ‘Nature inspired optimisation algorithms’, of *International Journal of Swarm Intelligence* will provide a systematic overview of state-of-the-art research in the field of nature-inspired algorithms. This special issue aim to serve as a forum for facilitating and enhancing information sharing among researchers, with themes including the development of advanced nature-inspired algorithms and/or applying existing ones for solving problems in real world complex systems. It offers readers the articles on advances in the understanding and utilisation of systems those are based on the principles of nature inspired optimisation. Emphasis is given to such topics as evolutionary algorithms, swarm intelligence-based algorithms, hybridisation of nature-inspired optimisation algorithms, review and comparative studies of nature-inspired optimisation algorithms, new methodologies inspired from learning

behaviour of social insects/evolution processes, theory and practice of nature-inspired algorithms in different domains, and real-world problem solving using nature-inspired algorithms.

This special issue comprises of some interesting and important articles on the applications of swarm intelligence and evolutionary computation to solve some of the diversified problem domains such as constrained optimisation problems, contextual recommender systems, and QFT controller and pre-filter for buck converter. Further, an article gives proof of concept and compromises for total memory optimiser. The articles are well described and are the real reflections of some recent advances of nature inspired algorithms. Both the theory and applications of the above mentioned techniques are very well covered in this special issue which show the efficiency of these methods. As guest editors, we wish that the research works covered under this special issue will be valuable for relevant readers/researchers working in the domain of NIOA. This special issue comprises the articles from both the single objective and multi-objective domain of nature inspired algorithms. We are thankful to our authors for their contribution as research article to this special issue. We also appreciate the reviewers who provide their reviews for the submitted papers. 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. Our special thanks go 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.