# Editorial

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**Biographical notes:** Soniya Lalwani is a Postdoctorate from Science and Engineering Research Board (SEB), DST during September 2016–September 2018. She implemented her postdoctorate project at the Department of Computer Science, RTU, Kota. She received her PhD from the Department of Mathematics, MNIT, Jaipur. She is currently working as an Associate Professor with the Department of Mathematics, BKIT, Kota. She has published more than 35 research papers in reputed journals and 15 research papers in conferences. She has over 14 years of job experience at various research and teaching positions. Her research areas include swarm intelligence: particle swarm optimisation, multi-objective optimisation, bioinformatics: multiple sequence alignment of DNA/RNA sequences, sequence-structure alignment, ABS algorithm and clinical/medical biostatistics.

Anand Nayyar is a PhD in Computer Science in Wireless Sensor Networks, Swarm Intelligence, and Network Simulation from Desh Bhagat University, Mandi Gobindgarh in 2017. He is a certified professional with 75+ international and globally recognised professional certifications from various IT Giants. He has published 300+ research papers, 22 books and as program committee/organising committee/advisory committee/reviewer committee member for more than 300+ conferences across the globe. He has 16+ years of teaching and research experience. He is currently working as a Professor, scientist and researcher in Graduate School, Duy Tan University, Da Nang, Vietnam. He has guided two MS, seven MTech students and 30 MCA students for thesis and projects respectively and evaluated 12 PhD thesis from various universities of India in the area of computer science and information technology.

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Rajesh Kumar is working as a Professor with the Department of Electrical Engineering, MNIT, Jaipur. His research interests focus on intelligent systems, machine intelligence, power management, smart grid and robotics. He has published over 450 research articles, supervised 20 PhD and more than 30 MTech theses. He has 12 patents to his name. He received three academic awards, 12 best paper awards, six best thesis award, four professional awards and 25 student awards. He has received the Career Award for Young Teachers in 2002 from the Government of India. He is on 12 journal editorial boards. He is a senior member of IEEE (USA), Fellow of IET (UK), IE (INDIA), IETE, life member of CSI, senior member of IEANG and life member of ISTE.

This special issue entitled 'Advanced nature-inspired optimisation techniques for engineering applications' of *International Journal of Swarm Intelligence (IJSI)* contains a collection of four papers.

The four papers in this special issue cover a comprehensive survey on teaching learning-based optimisation algorithm; modelling of nature inspired modified Fourier elimination technique for quadratic optimisation; control approach of DC motor drive with optimisation techniques and; development of meta-heuristic for making profitable bidding strategy. In 'Teaching learning-based optimisation algorithm: a survey', authors provide a panoptic summary of correlated work in teaching-learning-based optimisation algorithm, applications, comparative-performance, present-future disputes and research possibilities. In 'Modelling of nature inspired modified Fourier elimination technique for quadratic optimisation', authors developed a time-efficient technique to find the solution of quadratic programming problem by developing model of modified Fourier elimination technique of inequalities and bounds. In 'A novel control approach of DC motor drive with optimisation techniques', authors tuned PID controller with nature-inspired algorithm for better dynamic and static performance with high accuracy evaluated by different error functions. In 'Application and development of improved meta-heuristic for making profitable bidding strategy in a day-ahead energy market under step-wise bidding scenario', authors proposed a hybrid model of whale optimisation algorithm and sine cosine algorithm to give Monte Carlo simulation-based solution for strategic bidding problem. The profit obtained by proposed approach found significantly higher for single-hourly and multi-hourly trading trends.

We hope that, this special issue will be a knowledge enhancing experience for the readers.