

Publication Details: Dr. Apu Kumar Saha

Number of publications:

| International Journal | National Journal | Conference | | Books | Books Chapter |
|-----------------------|------------------|---------------|----------|-------|---------------|
| | | International | National | | |
| 119 | 00 | 57 | 13 | 02 | 17 |

International Journal:

2023

1. S. Nama, **A. K. Saha**, S. Chakraborty, A. H. Gandomi, L. Abualigah, "Boosting particle swarm optimization by backtracking search algorithm for optimization problems", *Swarm and Evolutionary Computation* (2023). <https://doi.org/10.1016/j.swevo.2023.101304>. **IF = 10.267**
2. P. Chakraborty, S. Sharma, **A. K. Saha**, "Convergence Analysis of Butterfly Optimization Algorithm", *Soft Computing* (2023). <https://doi.org/10.1007/s00500-023-07920-8>. **IF: 3.643**.
3. S. K. Sahoo, S. Sharma, **A. K. Saha**, "A Novel Variant of Moth Flame Optimizer for Higher Dimensional Optimization Problems", *Journal of Bionic Engineering* (2023). <https://doi.org/10.1007/s42235-023-00357-7>. **IF: 2.995**.
4. S. Chakraborty, **A. K. Saha**, "Novel Fermatean Fuzzy Bonferroni Mean aggregation operators for selecting optimal health care waste treatment technology", *Engineering Applications of Artificial Intelligence* (2023). <https://doi.org/10.1016/j.engappai.2022.105752>. **IF: 7.802**
5. S. Chakraborty, **A. K. Saha**, A. Chhabra, "Improving whale optimization algorithm with elite strategy and its application to engineering-design and cloud task scheduling problems", *Cognitive Computation* (2023). <https://doi.org/10.1007/s12559-022-10099-z>. **IF: 4.890**

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6. S. Chakraborty, **A. K. Saha**, A. E. Ezugwu, J. O. Agushaka, R. A. Zitar, L. Abualigah, "Differential Evolution and its Applications in Image Processing Problems: A Comprehensive Review", *Archives of Computational Methods in Engineering* (2022). <https://doi.org/10.1007/s11831-022-09825-5>. **IF: 8.171**.
7. O. N. Oyelade, J. O. Agushaka, A. E. Ezugwu, O. Akinola, **A. K. Saha**, "Advanced dwarf mongoose optimization for solving CEC 2011 and CEC 2017 benchmark problems", *Plos One* (2022). <https://doi.org/10.1371/journal.pone.0275346>. **IF: 3.752**.
8. S. Sharma, N. Khodadadi, **A. K. Saha**, F. S. Gharehchopogh, S. Mirjalili, "Non-dominated Sorting Advanced Butterfly Optimization Algorithm for Multi-objective Problems", *Journal of Bionic Engineering* (2022). <https://doi.org/10.1007/s42235-022-00288-9>. **IF: 2.995**.

9. S. Choudhury, P. Howladar, M. Majumder, & **A. K. Saha**, "Application of novel MCDM for location selection of surface water treatment plant", *IEEE Transactions on Engineering Management*, 69 (5), 1865-1877 (2022). <https://doi.org/10.1109/TEM.2019.2938907>. **IF: 8.702.**
10. P. Chakraborty, S. Nama, **A. K. Saha**, "A Hybrid Slime Mould Algorithm for Global Optimization", *Multimedia Tools and Applications*, (2022). <https://doi.org/10.1007/s11042-022-14077-3>. **IF: 2.577.**
11. S. Chakraborty, **A. K. Saha**, "Selection of Forklift Unit for Transport Handling Using Integrated MCDM Under Neutrosophic Environment", *Facta Universitatis, Series: Mechanical Engineering*, (2022). <https://doi.org/10.22190/FUME220620039C>. **IF: 4.622.**
12. S. Chakraborty, **A. K. Saha**, "Selection of Optimal Lithium Ion Battery Recycling Process: A Multi-Criteria Group Decision Making Approach", *Journal of Energy Storage*, 55, 105557 (2022). <https://doi.org/10.1016/j.est.2022.105557>. **IF: 8.907.**
13. S. K. Sahoo, **A. K. Saha**, A. E. Ezugwu, J. O. Agushaka, B. Abuhaija, A. R. Alsoud, L. Abualigah, "Moth Flame Optimization: Theory, Modifications, Hybridizations, and Applications", *Archives of Computational Methods in Engineering* (2022). <https://doi.org/10.1007/s11831-022-09801-z>. **IF: 8.171.**
14. A. Soni, S. Chakraborty, P. K. Das, **A. K. Saha**, "Materials selection of reinforced sustainable composites by recycling waste plastics and agro-waste: An integrated multi-criteria decision making approach", *Construction and Building Materials*, 348, 128608 (2022). <https://doi.org/10.1016/j.conbuildmat.2022.128608>. **IF: 7.693.**
15. S. Chakraborty, **A. K. Saha**, "A framework of LR fuzzy AHP and fuzzy WASPAS for health care waste recycling technology", *Applied Soft Computing*, 127, 109288 (2022). <https://doi.org/10.1016/j.asoc.2022.109388>. **IF: 8.263**
16. **A. K. Saha**, "Multi-population-based adaptive sine cosine algorithm with modified mutualism strategy for global optimization", *Knowledge-Based Systems*, 251, 109326 (2022). <https://doi.org/10.1016/j.knosys.2022.109326>. **IF: 8.139**
17. S. K. Sahoo, **A. K. Saha**, S. Nama, M. Masdari, "An Improved Moth Flame Optimization Algorithm Based on Modified Dynamic Opposite Learning Strategy", *Artificial Intelligence Review* (2022). <https://doi.org/10.1007/s10462-022-10218-0>. **IF: 9.588.**
18. S. Sharma, **A. K. Saha**, S. Roy, S. Mirjalili, S. Nama, "A mixed sine cosine butterfly optimization algorithm for global optimization and its application", *Cluster Computing*, 25, 4573–4600 (2022). <https://doi.org/10.1007/s10586-022-03649-5>. **IF: 2.303**
19. S. Sharma, **A. K. Saha**, G. Lohar, "Optimization of weight and cost of cantilever retaining wall by a hybrid metaheuristic algorithm", *Engineering With Computers*, 38, 2897–2923 (2022). <https://doi.org/10.1007/s00366-021-01294-x>. **IF: 8.083.**

- 20.** S. Nama, **A. K. Saha**, S. Sharma, “A novel improved symbiotic organisms search algorithm. Computational Intelligence”, 38: 947– 977 (2022). <https://doi.org/10.1111/coin.12290>. **IF: 2.330.**
- 21.** S. K. Sahoo, **A. K. Saha**, “A Hybrid Moth Flame Optimization Algorithm for Global Optimization”, *Journal of Bionic Engineering*, 19, 1522–1543 (2022) (2022). <https://doi.org/10.1007/s42235-022-00207-y>. **IF: 2.995.**
- 22.** S. Nama, S. Sharma, **A. K. Saha** & A. Gandomi, “A quantum mutation-based backtracking search algorithm”, *Artificial Intelligence Review*, 55, 3019–3073 (2022). <https://doi.org/10.1007/s10462-021-10078-0>. **IF: 9.588.**
- 23.** S. Chakraborty, **A. K. Saha**, S. Sharma, S. Sahoo, G. Pal, “Comparative Performance Analysis of Differential Evolution Variants on Engineering Design Problems”, *Journal of Bionic Engineering*, 19, 1140–1160 (2022). <https://doi.org/10.1007/s42235-022-00190-4>. **IF: 2.995.**
- 24.** M. Kumar, R. S. Kumar, **A. K. Saha**, “Continuous review inventory system for intuitionistic fuzzy random demand under service level constraint”, *Sadhana*, 47, 103 (2022). <https://doi.org/10.1007/s12046-022-01869-4>. **IF: 1.188.**
- 25.** O. N. Oyelade, A. E. Ezugwu, M. S. Almutairi, **A. K. Saha**, L. Abualigah, H. Chiroma, “A generative adversarial network for synthetization of regions of interest based on digital mammograms”, *Scientific Reports*, 12(1), 6166 (2022). <https://doi.org/10.1038/s41598-022-09929-9>. **IF: 4.996.**
- 26.** S. Sharma, S. Chakraborty, **A. K. Saha**, S. Nama, S. K. Sahoo, “mLBOA: A Modified Butterfly Optimization Algorithm with Lagrange Interpolation for Global Optimization”, *Journal of Bionic Engineering*, 19, 1161–1176 (2022). <https://doi.org/10.1007/s42235-022-00175-3>. **IF: 2.995.**
- 27.** D. Bhowmik, A. K. Pramanik, J. Pal, P. Sen, A. R. Singh, **A. K. Saha** and B. Sen, “Regular Clocking-based Automated Cell Placement Technique in QCA Targeting Sequential Circuit”, *Computers and Electrical Engineering*, 98, 107668 (2022). <https://doi.org/10.1016/j.compeleceng.2021.107668>. **IF: 4.152.**
- 28.** S. Nama, **A. K. Saha**, “A bio-inspired multi-population based adaptive backtracking search algorithm”, *Cognitive Computation* (2021), 14, 900–925 (2022). <https://doi.org/10.1007/s12559-021-09984-w>. **IF: 5.418.**
- 29.** S. Chakraborty, S. Sharma, **A. K. Saha**, A. Saha, “A novel improved whale optimization algorithm to solve numerical optimization and real-world applications”, *Artificial Intelligence Review*, 55, 4605–4716 (2022). <https://doi.org/10.1007/s10462-021-10114-z>. **IF: 9.588.**
- 30.** S. Chakraborty, S. Nama, **A. K. Saha**, “An improved symbiotic organisms search algorithm for higher dimensional optimization problems”, *Knowledge-Based Systems*, 236, 107779 (2022). <https://doi.org/10.1016/j.knosys.2021.107779>. **IF: 8.038.**

- 31.** A. K. Pramanik, D. Bhowmik, J. Pal, P. Sen, **A. K. Saha** and B. Sen, “Towards the Realization of Regular Clocking Based QCA Circuits Using Genetic Algorithm”, *Computers and Electrical Engineering*, 97, 107640 (2022). <https://doi.org/10.1016/j.compeleceng.2021.107640>. **IF: 4.152.**
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- 33.** Bhowmik, J. Pal, M. Chandra, **A. K. Saha** and N. Kumar, “QCA based design of cost-efficient code converter with temperature stability and energy efficiency analysis”, *Materials Today: Proceedings*, 49 (8), 3585-3594 (2022). <https://doi.org/10.1016/j.matpr.2021.08.119>.
- 34.** S. Choudhury, A. Majumdar **A. K. Saha**, P. Majumdar, “Evaluating the Preparedness of Indian States against COVID-19 Pandemic Risk: A Fuzzy Multi-criteria Decision-Making Approach”, *Risk Analysis*, 42(1), 85-96 (2022). <https://doi.org/10.1111/risa.13808>. **IF: 4.000.**
- 35.** J. Pal, A. K. Pramanik, M. Goswami, **A. K. Saha** and B. Sen, “Regular Clocking based Emerging Technique in QCA Targeting Low Power Nano Circuit”, *International Journal of Electronics*, 109(9), 1550-1572 (2022). <https://doi.org/10.1080/00207217.2021.1972473>. **IF: 1.457.**
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- 37.** J. L. Sarkar, V. Ramasamy, A. Majumder, C. R. Panigrahi, B. Gomathy, B. Pati, **A. K. Saha**, “SensMask: An Intelligent Mask for Assisting Patients during COVID-19 Emergencies”, *Computación y Sistemas*, 25(3): 483–492 (2021). <https://doi.org/10.13053/CyS-25-3-3924>.
- 38.** S. Chakraborty, **A. K. Saha**, S. Nama, S. Debnath, “COVID-19 X-ray image segmentation by modified whale optimization algorithm with population reduction”, *Computers in Biology and Medicine*, 139, 104984 (2021). <https://doi.org/10.1016/j.combiomed.2021.104984>. **IF: 6.698.**
- 39.** S. Chakraborty, **A. K. Saha**, R. Chakraborty, M. Saha, “An enhanced whale optimization algorithm for large scale optimization problems”, *Knowledge-Based Systems*, 233, 107543 (2021). <https://doi.org/10.1016/j.knosys.2021.107543>. **IF: 8.038.**

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- 44.** S. Debnath, **A. K. Saha**, B. S. Mazumder, A. K. Roy, “Dispersion of Reactive Species in Casson Fluid Flow”, *Indian Journal of Pure and Applied Mathematics*, 51(4): 1451-1469. <https://doi.org/10.1007/s13226-020-0476-7>. **IF: 0.516.**
- 45.** J. Pal, M. Goswami, **A. K. Saha** and B. Sen, “CFA: Toward the Realization of Conservative Full Adder in QCA with Enhanced Reliability”, *Journal of Circuits, Systems and Computers*. <https://doi.org/10.1142/S0218126621501723>. **IF: 1.333.**
- 46.** J. Pal, A. K. Pramanik, J. S. Sharma, **A. K. Saha** and B. Sen, “An efficient, scalable, regular clocking scheme based on quantum dot cellular automata”, *Analog Integrated Circuits and Signal Processing*, 107(3), 659-670 (2021). <https://doi.org/10.1007/s10470-020-01760-4>. **IF: 1.337.**
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