

## ASSISTANT PROFESSOR



### Dr. SOMNATH MAJI

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#### RESEARCH INTERESTS:

Genetic Algorithm, TSP, Mathematical Modeling, Discrete Optimization, Fireworks Algorithm.

#### EXPERIENCE:

**Academics:** 8 YRS.

**Industry:** ---

#### EDUCATION:

PhD (CSE) MAKAUT.

M.Tech (CSE) MAKAUT.

MCA VIDYASAGAR UNIVERSITY.

B.Sc (MATH (H)) THE UNIVERSITY OF BURDWAN.

#### Courses Taught:

Database Management System

#### Projects Handled:

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#### Research Publications:

Maji, S., Maity, S., Nielsen, I. E., Giri, D., & Maiti, M. (2025). A multi-objective sustainable multipath delivery problem in hilly regions with customer-satisfaction using TLBO. Applied Soft Computing, SCIE, Impact factor 7.2, Elsevier, <https://doi.org/10.1016/j.asoc.2025.113100>

Maji, S., Pradhan, K., Maity, S., Nielsen, I. E., Giri, D., & Maiti, M. (2025). Emergent multipath COVID-19 specimen collection problem with green corridor through variable length GA. Expert Systems with Applications, SCIE, Impact factor 8.5, Elsevier, <https://doi.org/10.1016/j.eswa.2023.120879>.

Maji, S., Maity, S., Bsau, S., Giri, D., & Maiti, M. (2024). Varied offspring memetic algorithm with three parents for a realistic synchronized goods delivery and service problem. *Soft Computing*, SCIE, Impact factor 4.1, Springer, <https://doi.org/10.1007/s00500-023-09574-y>.

Maji, S., Pradhan, K., Maity, S., Nielsen, I. E., Giri, D., & Maiti, M. (2023). Emergent multipath COVID-19 specimen collection problem with green corridor through variable length GA. { *Expert Systems with Applications* }, SCIE, Impact factor 8.665, Elsevier, <https://doi.org/10.1016/j.eswa.2023.120879>.

Maji, S., Pradhan, K., Maity, S., Nielsen, I. E., Giri, D., & Maiti, M. (2023). Multipath TPP with time-dependent market structure using quantum-inspired variable length genetic algorithm. { *Computers & Industrial Engineering* }, SCI, Impact factor 7.9, Elsevier}

Thakur, K., Maji, S., Maity, S., Pal, T., & Maiti, M. (2023). Multiroute fresh produce green routing models with driver fatigue using Type-2 fuzzy logic-based DFWA. *Expert Systems with Applications*, SCIE, Impact factor 8.5, Elsevier, <https://doi.org/10.1016/j.eswa.2023.120300>.

Khatua, S., De, D., Maji, S., Maity, S., & Nielsen, I. E. (2024). A federated learning model for integrating sustainable routing with the Internet of Vehicular Things using genetic algorithm. *Decision Analytics Journal*, 100486, Scopus, Elsevier.

Maji, S., Maity, S., Giri, D., Castillo, O., & Maiti, M. (2023). A multi-path delivery system with random refusal against online booking using Type-2 fuzzy logic-based fireworks algorithm. { *Decision Analytics Journal* }, Scopus, Elsevier, <https://doi.org/10.1016/j.dajour.2022.100151>.

Title: - "Study of Swarm Intelligence Technology, Its Principals, Capabilities and Concepts for Algorithms." UNIVERSAL RESEARCH REPORTS | REFEREED | PEER REVIEWED ISSN : 2348 - 5612 | Volume : 04 , Issue : 04 | July - September 2017 (UGC APPROVED)

Title:- "Various Heuristic techniques used for problem solving : A Review" UNIVERSAL RESEARCH REPORTS | REFEREED | PEER REVIEWED ISSN : 2348 - 5612 | Volume : 04 , Issue : 06 | July - September 2017 (UGC APPROVED)

Title:- "Role, Effectiveness with Application of ICT in 21st Century's in Teacher Education " UNIVERSAL RESEARCH REPORTS | REFEREED | PEER REVIEWED ISSN : 2348 - 5612 | Volume : 04 , Issue : 07 | October - December 2017 (UGC APPROVED)

Title: - “A Genetic Algorithm for Constrained Solid Traveling Purchaser Problem”. Proceedings of the International Conference on Advancing Frontiers in Operational Research: Towards a Sustainable World (AFOR-2017)

Title:- “A modified Teaching-learning-based optimization algorithm for traveling salesman problem” in the 1st International Conference on Human-Centric Smart Computing (ICHCSC 2022) organized by: Department of Computer Application, University of Engineering & Management, Jaipur.

Title:- "An Opposition-based Genetic algorithm for multi-path routing problem with risk". in the Congress on Research in Engineering, Science & Management (CRESM 2022) ORGANIZED BY PADRE CONCEICAO COLLEGE OF ENGINEERING, VERNA, GOA Technically Sponsored by SOFT COMPUTING RESEARCH SOCIETY LOCATION: PADRE CONCEICAO COLLEGE OF ENGINEERING, VERNA, GOA, INDIA.

**Additional Responsibilities:**

NBA, Website Maintenance Committee.

**Awards Obtained:**

- Awarded "BRONZE MEDAL" from MAKAUT as third topper in M. Tech.
- Awarded "SILVER MEDAL" from VIDYASAGAR UNIVERSITY as second topper in MCA.