# SAYAN SEN SARMA

## PERSONAL DETAILS

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| **Office Address** | : | Department of Computer Science, Mahishadal Girls' College, P.O. & P.S. : Mahishadal, Dist. : Purrba Medinipur, 721628, West Bengal, India. |
| **Permanent Address** | : | 67 (47/4) Jaffarpore Road, Barrackpore, P.O. NCP, 24 PGS (N), 700122, West Bengal, India. |
| **Gender** | : | Male |
| **Nationality** | : | Indian |
| **Date of Birth** | : | 25.09.1988 |
| **Marital Status** | : | Unmarried |
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| **Contact Number** | : | +91 9804355649 |

## ACADEMIC QUALIFICATIONS

- **Doctor of Philosophy (Technology)** in Computer Science and Engineering

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  |---|---|---|
  | **University** | - | University of Calcutta |
  | **Thesis Title** | - | Optimal Distribution of Traffic in Transportation Networks |
  | **Advisor** | - | Prof. Bhabani P. Sinha, Advanced Computing and Microelectronics Unit, Indian Statistical Institute, Kolkata |
  | **Year** | - | 2022 |

- **Master of Technology** in Computer Science and Engineering

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  |---|---|---|
  | **University** | - | University of Calcutta |
  | **Thesis Title** | - | Design and Implementation of a Hierarchical CDNI Model |
  | **Advisor** | - | Prof. S. K. Setua, Department of Computer Science and Engineering , University of Calcutta |
  | **Year** | - | 2014 |

- **Bachelor of Technology** in ComputerScience and Engineering

    **University** - University of Calcutta

    **Thesis Title** - An Energy Efficient Routing Protocol for Wireless Sensor Network

    **Advisor** - Prof. S. K. Setua, Department of Computer Science and Engineering, University of Calcutta

    **Year** - 2012

- **Bachelor of Science** in Computer Science (Honours)

    **University** - University of Calcutta

    **Thesis Title** - Uniqueness of Graph Representation using Degree of its Nodes

    **Advisor** - Prof. Debiprasad Bhattacharya, Department of Computer Science, Barrackpore Rastraguru Surendrnath College (Affiliated to University of Calcutta).

    **Year** - 2009

- **Higher Secondary**

    **Board** - West Bengal Council of Higher Secondary Education

    **Year** - 2006

- **Secondary**

    **Board** - West Bengal Board of Secondary Education

    **Year** - 2004

## RESEARCH INTERESTS

    **Broad Area** - Network Algorithms

    **Specific Topics-** Vehicular Networks, Message Communication Networks, Content Delivarty Networks (CDN), Internet of Things (IoT).

## PROFESSIONAL EXPERIENCE

- Working as an **Assistant Professor** at **Mahishadal Girls' College,** Purba Medinipur,West Bengal since 21.12.2016 till date.

- Working as a **Guest Faculty** at **Department of Computer Science & Engineering, University of Calcutta,** West Bengal since July, 2023 till date.

- Working as a **Guest Faculty** at **Department of Business Administration, University of Kalyani,** West Bengal since May, 2021 till date.

- Was employed as a Project linked person at **Advanced Computing and Microelectronics Unit, Indian Statistical Institute, Kolkata,** in the project entitled **"Intelligent Transportation System"** from May, 2015 to December, 2016.

- Was employed as a Project linked person at **Advanced Computing and Microelectronics Unit, Indian Statistical Institute, Kolkata,** in the project entitled **"Power and Bandwidth Management in Wireless Networks-Phase 2"** from August, 2014 to March, 2015.

# ADDITIONAL QUALIFICATION / ACHIEVEMENTS / CERTIFICATIONS

- Awarded Rank Card by the University of Calcutta for achieving **3$^{rd}$ position in M.Tech** examination, 2014.
- Qualified **State Eligibility Test for Lectureship** (**SET**) in 2013**.**
- Awarded Rank Card by the University of Calcutta for achieving **6$^{th}$ position in B.Tech** examination, 2012.
- Qualified **Graduate Aptitude Test in Engineering (GATE)** in 2012.
- Qualified **Graduate Aptitude Test in Engineering (GATE)** in 2011.
- Awarded Rank Card by the University of Calcutta for achieving **10$^{th}$ position in B.Sc** examination, 2009.

## SKILLS

**Programming Languages:** C, C++, PYTHON, Simulation of Urban MObility **SUMO** (Basic)
**Database:** MySQL, Oracle
**Web tools:** HTML, PHP
**Software/Packages:** MS office 2003/2007, Adobe Photoshop CS, LATEX
**Operating Systems:** Windows 7/11/12, LINUX (Debian etch)

# ACADEMIC ACTIVITIES

- **Convener** of **One day International Webinar** on **"Innovations in Smart City",** Mahishadal Girls' College, West Bengal, India, 1$^{st}$ March, 2022.
- **Life member** of **Forum of Scientists, Engineers & Technologists** (FOSET).
- **Member** of **West Bengal Police Recruitment Board** as an **examiner** in recruitment to the post of Sub-Inspector of Police under West Bengal Police, Examination of 2020.
- **Convener** of Three day UGC Sponsored National Level Workshop on "Recent Trends in Computer Science & Information Technology ", Mahishadal Girls' College, West Bengal, India, 23-25 March, 2018.

# PUBLICATIONS
## Books

- **S. Sen Sarma (Ed.)**, "Recent Trends in Computer Science & Information Technology (Proceedings of RTCIT 2018 )", LAP Lambert Academic Publishing, Saarbrücken, Germany, ISBN: 978-613-9-82710-7, May, 2018.

## Journal Papers

- L. Dash, **S. Sen Sarma**, K. Sinha and B. P. Sinha, "A Novel Spatio-Temporal Data Redundancy Elimination Approach for RFID Systems with Multiple Readers", in International Journal of Wireless & Mobile Networks (IJWMN), Vol.14, No.2, pp. 1-15, April 2022.

- S. R. Das, **S. Sen Sarma**, M. Khuntia, I. Roy, K. Sinha and B. P. Sinha, ``A Novel Routing Strategy Towards

Achieving Ultra-Low End-to-End Latency in 6G Networks", in International Journal of Computer Networks & Communications (IJCNC), vol. 14, No. 1, pp. 1-24, 2022.

- **S. Sen Sarma**, K. Sinha, C. S. r pa, G. Chakraborty and B. P. Sinha, ``Optimal Distribution of Traffic in Manhattan Road Networks for Minimizing Routing-Time" in IEEE Transactions on Intelligent Transportation System, vol. 22, no. 11, pp. 6799-6820, Nov. 2021, doi: 10.1109/TITS.2020.2994836.

- **S. Sen Sarma**, "Recent Trends in Intelligent Transportation System and their Applications in a Smart City ", Focus, Progressive Publishers, Vol. 10, pp. 21-28, ISSN: 2231-1408, 2017.

- **S. Sen Sarma** and S. K. Setua, "Uniform Load Sharing on a Hierarchical Content Delivery Network Interconnection Model", in Innovations in Systems and Software Engineering, Springer, ISSN: 1614-5046, vol. 12, pp. 239-248, 2016.

## Conference Papers

- **S. Sen Sarma,** C. S. r pa, K. Sinha, "An Efficient Traffic Routing Algorithm for Fast Evacuation in Smart Cities", Communicated.

- **S. Sen Sarma,** "Blockchain as a Security Solution in the Internet of Vehicle : A Survey", in proceedings of International Conference on Security, Surveillance and Artificial Intelligence (ICSSAI-2023), pp. 51-58, Dec. 1-2, 2023.

- **S. Sen Sarma**, K. Sinha and B. P. Sinha, ``Efficient Traffic Routing in Smart Cities to Minimize Evacuation Time during Disasters", in proceedings of 18th International Conference on Distributed Computing and Intelligent Technology (ICDCIT-2022), pp. 185-197, Jan. 19-23, 2022.

- **S. Sen Sarma**, K. Sinha, S. R. Das and B. P. Sinha, "Fast Transportation in a Disaster Situation along Real-Life Grid-Structured Road Networks", in proceedings of IEEE 90th Vehicular Technology Conference (VTC2019 Fall), pp. 1-5, Sept. 22-25, 2019.

- **S. Sen Sarma**, K. Sinha, G. Chakraborty and B. P. Sinha, "Reduction of congestion in a Mahattan grid road network by detouring of vehicles", in proceedings of IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS 2017), pp. 1-6, Dec. 17-20, 2017.

- **S. Sen Sarma**, K. Sinha, G. Chakraborty and B. P. Sinha, "Distributed Algorithm for Traffic Dissemination in Manhattan Networks with Optimal Routing-Time", in proceedings of the Symposium on Applied Computing, SAC 2017, Marrakech, Morocco, 2017, pp. 499–505.

- **S. Sen Sarma** and S. K. Setua. "Design and Implementation of a Hierarchical Content Delivery Network Interconnection Model", in proceedings of International Conference on Advanced Computing, Networking and Informatics (ICACNI 2016), Springer, 2016, Vol. 44, pp. 71-82.

- **S. Sen Sarma** and G. Chakraborty, "Queuing model-based optimal traffic flow in a grid network", in proceedings of IEEE International Conference on Advanced Networking and Telecommunication Systems (ANTS 2015), 2015, Dec., 1-3.

# REFERENCES

Prof. Bhabani P. Sinha
IEEE Fellow
Professor (Retired)
Advanced Computing and Microelectronics Unit
Indian Statistical Institute (ISI)
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