Personal Profile

Name: Dr Sagarika Mandal

Contact: Department of Physics

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Academic Position: SACT in Physics, Bankura Zilla Saradamani Mahila Mahavidyapith, Bankura, West Bengal, India

Research Interests:

Working in the field of nonlinear physics, Optical Computing and optical soliton.

Education:

- **M.Sc. (2015 , Indian School of Mines, Dhanbad)**
- **B.ed (2017, Burdwan University**
- **Ph.D. (2025)**

Research Publications:

1. Mandal, S., & Sinha, A. (2022). An analytical approach of soliton-based binary code suppression and recovery by proper using of electro-optic modulator and Michelson interferometer. Journal of Optics, 51(2), 500-504.
2. Rajowar, C., Mandal, S., & Sinha, A. (2022). Some study on dark and bright optical solitons in a real system with periodically distributed dispersion and nonlinearity. Optoelectronics Letters, 18(10), 635-640.
3. Mandal, S., & Sinha, A. (2023). A novel security scheme for developing 6× 6 switch in WDM network to reduce crosstalk. Journal of Optics, 52(4), 2248-2252.
4. Mandal, S., Rajowar, C., & Sinha, A. (2023). A study on dark bright soliton conversion and its application in periodically distributed optical fibre. Pramana, 97(4), 184.
5. Mukherjee, C., Mandal, S., & Sinha, A. (2024). An Analytical Approach to Realize Hypersecant Optical Soliton Pulse Based HALF-ADDER. Proceedings of the National Academy of Sciences, India Section A: Physical Sciences, 94(2),269-278.
6. Mandal, S., & Sinha, A. (2024). A theoretical analysis of soliton pair conversion with variable coefficients in all optical communication. Pramana, 98(3),99.
7. Mandal, S., Layek, M., & Sinha, A. (2025). Chirped solitary pulse for nonlinear Schrödinger equation with fifth order nonlinearity.

Conferences/ Invited Presentations / Workshops / Other:

1. International Conference on Structural and Physical Properties of solids (SPPS,2013) held in ISM, Dhanbad