

Curriculum Vitae



Name: SUBRATA DEY

Designation: Assistant Professor in WBES

Highest qualification: Ph.D. in Mathematics from IIT Kanpur

Contact details/ Office address: Department of Mathematics, Darjeeling Govt. College, Darjeeling, WB-734101, Mob No.- 9614292064

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Date of joining to this institution: 09.01.2025

Date of joining W.B.E.S.: 09.01.2025

Previous position(s) held: N.A.

Teaching experience in years & months: 0 year 2 months

Awards, Recognition and Honours: N.A.

Courses taught: Mathematical Modelling, Ring Theory, Theory of real function, Real Analysis, Multivariable Calculus

Research area/ interest: Nonlinear Dynamics, Bifurcation Theory, Mathematical Modelling

Number of Publications-

*Peer reviewed journals: 10

*Conference proceedings: 0

*Chapters in books: 0

Detailed list of publications:

1. Spatio-temporal dynamics of an SIS epidemic model considering non-monotone and non-local incidence rates, Subrata Dey, Dhiraj Kumar Das, S. Ghorai, Malay Banerjee, *Communications in Nonlinear Science and Numerical Simulation*, 138(108238), 2024
2. Prey group defense and hunting cooperation among generalist-predators induce complex dynamics: A mathematical study, Jyotirmoy Roy, Subrata Dey, Bob W. Kooi, Malay Banerjee, *Journal of Mathematical Biology*, 89(22), 2024
3. Spatio-temporal steady-state analysis in a prey-predator model with saturated hunting cooperation and predator-taxis, Renji Han, Subrata Dey, Jicai Huang, Malay Banerjee, *Acta Applicandae Mathematicae*, 191(10), 2024
4. Spatio-temporal dynamics in a diffusive Bazykin model: effects of group defense and prey-taxis, Subrata Dey, Malay Banerjee and S. Ghorai, *Discrete and Continuous Dynamical Systems - B*, {29}(6), 2024
5. Analytical detection of stationary and dynamic patterns in a prey-predator model with reproductive Allee effect in prey growth, Subrata Dey, S. Ghorai, Malay Banerjee, *Journal of Mathematical Biology*, {87}(21), 2023

6. A mathematical modeling technique to understand the role of decoy receptors in ligand-receptor interaction, Subrata Dey, Aditi Ghosh, Malay Banerjee, *Scientific Reports*, {13}(1), 6523, 2023
7. Maturation delay induced stability enhancement and shift of bifurcation thresholds in a predator-prey model with generalist predator Jyotirmoy Roy, Subrata Dey, Malay Banerjee, *Mathematics and Computers in Simulation*, 211, 368-393, 2023
8. Spatio-temporal pattern selection in a Prey-Predator Model with Hunting Cooperation and Allee effect in prey, Renji Han, Subrata Dey, Malay Banerjee, *Chaos Solitons & Fractals*, 171, 113339, 2023
9. Analytical detection of stationary Turing pattern in a predator-prey system with generalist predator, Subrata Dey, Malay Banerjee and Saktipada Ghorai, *Mathematical Modelling of Natural Phenomena*, {17}, 33, 2022
10. Bifurcation analysis and spatio-temporal patterns of a prey-predator model with hunting cooperation, Subrata Dey, Malay Banerjee, and S. Ghorai, *International Journal of Bifurcation and Chaos*, {32}(11), 2250173, 2022

Google Scholar link: <https://scholar.google.com/citations?user=MtAl8VcAAAAJ&hl=en>

ResearchGate link: https://www.researchgate.net/profile/Subrata_Dey15

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Participation in Workshops/ Training programme/ Certificate course/ Conferences:

1. Presented a talk entitled with 'Update on RSV' in VPD - DSAG meeting, NDMC, IIT Bombay, 2024
2. Attended and presented a talk entitled with 'Analytical detection of stationary and dynamic patterns in a prey-predator model with reproductive Allee effect in prey growth' in DSABNS 2024, NOVA FCT, Portugal, 2024
3. Attended and presented a talk entitled with 'Spatio-temporal dynamics in a diffusive Bazykin model: effects of group defense and prey-taxis' in ICNAO 2023, NIT Durgapur, 2023
4. Attended and presented a talk entitled with 'Bifurcation and continuation of spatio-temporal pattern' in Annual Departmental Open House, IIT Kanpur, 2023
5. Attended and presented a poster entitled with 'The role of decoy receptors in cell migration through ligand-receptor interaction' in MLHD-2023, ICTS Bangalore, 2023
6. Attended and presented a talk entitled with 'Bifurcations of spatio-temporal patterns and continuation of bifurcating branches' in CNSD-2022, IISER Pune, 2022