

Dr. SWAPAN KR. GHOSH

Contact: trinil2003@gmail.com

Qualification: M.Sc ; Ph.D

Designation: Assistant Professor

Teaching Experience (in years): UG: 12 years

Research Experience (in years): 20 years

Date of Joining Present Institution: 06.04.2015

Institutions/Companies Previously Served:



Name of Institution/Company	Designation	Tenure	
		From (DD-MM-YYYY)	To (DD-MM-YYYY)
Saldiha College, Bankura	Assistant Prof	01.10.2008	01.10.2010
Darjeeling Govt. College	Assistant Prof	04.10.2010	04.04.2015

Specialization/Research Interest: Spl Paper:Elementary Particle Physics & Quantum Field Theory

Research Interest: Nonlinear Dynamics; Integrable Systems; Inverse Variational Problems

Courses taught

	B.Sc Honours	B.Sc. Program
Semester-I	Mathematical Methods-I	
Semester-II	Mathematical Methods-II	
Semester-III	Classical Mechanics	
Semester-IV		Thermal Physics
Semester-V	Quantum Mechanics	Quantum Mechanics
Semester-VI	Classical Dynamics	

Online Mode of Teaching:

1. Google classroom:
 - a. by uploading teaching videos
 - b. uploading teaching materials as pdf
 - c. uploading assignment to all students
 - d. Taking MCQ tests through Google form
2. Google Meet
 - a. Taking live classes in Google Meet
3. You tube live classes

Research publications:

1. S. Ghosh: Exact analytical solution of nonlinear evolution equations by the factorization method; *Godrag & Organisatie Review* Vol 33 issue 2 2020
2. S. K Gupta and S. Ghosh: Classification of Optimal Group-Invariant Solution: Cylindrical Korteweg-de Vries equation, *Jour. of Optim. Theo. And Appl.* Springer, DOI 10.007/s10957-017-1111-6 (2017)
3. K. Roy, S. Ghosh, and P. Chatterjee : *Two solitons and three solitons interaction of electron acoustic waves in quantum plasma*, *Pramana*, 2015, DOI 10.007/s12043-015-1097-2
4. S. Ghosh, S. K. Gupta and P. Chatterjee: Exact Solution of the Cylindrical Korteweg-de Vries equation for dust ion acoustic wave in unmagnetised plasma, *Physica Scripta* (Accepted-2015)
5. B. Talukdar, S. Ghosh, A. Saha and D. Pal: *Solutions of the coupled Higgs field equations*, *Phys. Rev. E* **88**, 015201 (2013)
6. A. Choudhury, B. Talukdar and S. Ghosh: *On the Super Symmetric nonlinear evolution equations*, *Nonlinear Dynamics* **58**, 249 (2009)
7. B. Talukdar, S. Ghosh, and U. Das: *Inverse Variational Problem and canonical structure of Burgers equations*, *J. Math. Phys.* **46**, 1 (2005)
8. U. Das, S. Ghosh, P. Sarkar and B. Talukdar: *Quantization of Dissipative Systems with Friction Linear in Velocity*, *Physica Scripta* **71**, 235 (2005)
9. S. Ghosh, U. Das and B. Talukdar: *Inverse Variational Problem for nonlinear evolution equations*, *Int. Jour. Theo. Phys.* **44**, 363 (2005)
10. B. Talukdar, S. Ghosh and J. Shamanna: *Canonical Structure of the coupled Korteweg-de Vries equations*, *Can. Jour. Phys.*, **82**, 1 (2004)
11. B. Talukdar, J. Shamanna and S. Ghosh: *Canonical Structure of evolution equations with non-linear dispersive terms*, *Pramana Jour. Phys.* **61**, 99 (2003)
12. S. Ghosh, B. Talukdar and S. Chakraborty: *Matrix Factorization method for the Hamiltonian structure of integrable systems*, *Pramana Jour. Phys.* **61**, 161 (2003)
13. S. Ghosh, B. Talukdar and J. Shamanna: *On the Bi-Hamiltonian Structure of the KdV hierarchy*, *Czech. Jour. Phys.* **53**, 425 (2003)
14. B. Talukdar, S. Ghosh, J. Shamanna and P. Sarkar: *Inverse Problem of the Variational Calculus for higher KdV Equations*, *Eur. Phys. Jour. D* **21**, 105 (2002)

Book Chapters:

1. S. Ghosh: A Brief Introduction to Soliton, *Recent Developments in Nonlinear Dynamics and its Applications*; ISBN: 978-81-944611-1-1; pp. 25-49 Publisher: Book Centre Santiniketan 731235 & Distributor: Aakar Books, Delhi 110091; (2020)

Edited Books:

1. *S. Ghosh: Nonlinear Dynamics and its Applications in Physical and Biological Sciences*; ISBN: 978-81-944611-0-4; Publisher: Book Centre Santiniketan 731235 & Distributor: Aakar Books, Delhi 110091; (2017)
2. *S. Ghosh: Nonlinear Dynamics and its Applications*: ISBN: 978-81-944611-2-8; Publisher: Book Centre Santiniketan 731235 & Distributor: Aakar Books, Delhi 110091; (2017)

Paper Presentation in seminar/conference/symposium/workshop/discussion meeting

1. Presented a paper Titled “*Analytical solution of some nonlinear Lienard type evolution equation*” in the **International Seminar on Advancements in Chemical Sciences: Issues and Challenges during 4-5 Feb. 2020** at the Bidhan Chandra College, Assansol.
2. Presented a paper Titled “*Exact analytical solitary waves solution of the dust acoustic waves in unmagnetised plasmain*” in the **International Seminar on Elements of periodic Table in the Chemical Avenues of Biological world held on 17th Dec. 2019** at the South Calcutta Girls College, Kolkata.
3. Participated in the three day workshop on **Telescope making and Science Popularization** during **18-20 March, 2019** organized by the Department of Physics, Visva-Bharati, Santiniketan-731235 in association with Inter University Centre for Astronomy and Astrophysics (IUCCA) Pune.
4. Presented paper titled “*Factorization method for nonlinear evolution equations*” in the **International Conference on Recent Developments in Nonlinear Dynamics and its Applications (CRDNDA-18) during 12-14 March. 2019**, in the Department of Physics, Durgapur Govt. College, Durgapur-713214.
5. Participated short duration Lecture Workshop on Recent Trends in Interdisciplinary Sciences during **12-14 Feb. 2018** organized by Integrated Science Education and Research Centre (ISERC), Visva-Bharati, Santiniketan-731235
6. Organized as Convener an **International Conference on Nonlinear Dynamics and its Applications in Physical and Biological Sciences (CNDAPBS-14) during 1-3 Nov. 2014**, in collaboration with **Bose Institute and St. Joseph’s College, Darjeeling** as a Convener at Department of Physics, Darjeeling Govt. College, Darjeeling funded by **UGC, DST, DAE, DRDO, CSIR, ICMR, DIT & INSA**.
7. Organized as Convener a **National Conference on Nonlinear Physics and its Applications (CNPA-2013) during 26-28 Nov. 2013**, in collaboration with **St. Joseph’s College, Darjeeling** as a convener at Department of Physics, Darjeeling Govt. College, Darjeeling funded by **UGC, DST, DAE, DRDO, CSIR & INSA**.
8. Presented a paper in the **International Conference on Nonlinear Dynamics and its Applications in Physical and Biological Sciences (CNDAPBS-14) during 01-03 Nov. 2014** at the Dept. of Physics, Darjeeling Govt. College, Darjeeling.
9. Participated **NMI Workshop on Nonlinear Integrable Systems and their Applications** (24th Feb. to 1st March 2014 at Bharathidasan University, Trichy)

10. Presented a paper in the National Conference on Nonlinear Physics and its Applications (CNPA-2013) during 26-28 Nov. 2013, Dept. of Physics Darjeeling Govt. College, Darjeeling.
11. Presented a paper in the National Seminar on Mathematics Phobia: Its Genesis and Remedies (MPGR-2010) at the Dept. of Mathematics, Visva-Bharati, Santiniketan.
12. Presented a paper in the International Conference on Recent Advances in Mathematics & Applications (ICRAMA-2010) at the Dept. of Mathematics, Burdwan University.
13. Presented a paper in the International Conference on Radiation physics and Applications (ICRPA-2010)
14. Presented a paper in the Conference on Laser Applications in Basic and in Applied Sciences (CLBAS-2009)
15. Presented a paper in the National Seminar on Advances in Mathematics and Applications (NSAMA-2006)
16. Participated the 3rd SERC School on Nonlinear Dynamics: held at the Theoretical Physics Department, IACS, Kolkata India during 4th Dec. 2006 to 23rd Dec. 2006
17. Presented a paper in the National Conference on Atomic and Molecular Physics (NCAMP-XIV-2003)

Participation in Faculty Development Programme:

1. Short term course on *Health and Stress: Problem and Remedies* from 18-24 Feb. 2020 organized by UGC-HRDC, the University of Burdwan
2. Short term course on *Moocs, E-Content Development and open Educational Resources*: from 19-25 July, 2019, organized by UGC-HRDC, the University of Burdwan

Organization of events (Durgapur Government College)

1. Organized as Convener an **International Conference on Recent Developments in Nonlinear Dynamics and its Applications (CRDNDA-18) during 12-14 March, 2019**, in the Department of Physics, Durgapur Govt. College, Durgapur-713214 funded by **DAE & CSIR**.
2. Organized as Convener a **National Conference on Nonlinear Dynamics and its Applications (CNDA-2016) during 07-09 Feb. 2017**, in collaboration with **M.M.M College, Durgapur** funded by **DST, DAE, DRDO & INSA**.

Participation in committees of Durgapur Government College since 2017

1. Convener of the Routine Sub-Committee: 2017-18
2. Member of Admission Sub-Committee: 2017-18, 2018-19, 2019-20
3. Member of NAAC Sub-Committee: 2016-17
4. Member of Student Union Election Sub-Committee: 2017-18
5. Convener of Exam Sub-Committee: 2017-18;2018-19