Dr. Dolan Champa Saha (M.Sc, Ph.D)

Assistant Professor

Department of Physics

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Education:

Ph.D. in Mathematical Physics , Jadavpur University, 1997

M.Sc. in Physics , Jadavpur University, 1988

B.Sc. in Physics Honours, Jadavpur University, 1986

H.S. , Lady Brabourne College, Kolkata, 1983

S.F., U.G.M.K. Girls' High School, Asansol, 1981

Teaching Experience:

2001-2002 : St. Xavier's College , Kolkata

2003 – till date: Prabhu Jagatbandhu College

Research Interest:

- **Non-linear Integrable Systems**
- **Non- linear Dynamics**
- **Non-linear Electronics Circuit**

Research Experience:

Research Associate	CSIR	01.10.1997 to 30.09.1999
Senior Research Fellow	CSIR	01.11.1992 to 31.10.1995
Junior Research Fellow	CSIR	01.11.1990 to 31.10.1992

Research Project:

Title	Agency	Period	Grant
Cryptography and Communication- A Study by Non-linear Electronic Chaotic Circuits	UGC	3rd Feb 2015 to 2nd Feb2017	Rs. 2,9600/-

List of Publication:

1. On some properties of memristive Lorenz equation – Theory and Experiment, A. Roy Chowdhury, P .Saha, D.C. Saha, A. Ray ; **Journal of Applied Nonlinear Dynamics, Volume 7, Issue 4, 413-423 (2018)**, ISSN: 2164-6457(Print) ; ISSN: 2164 -6473(Online); L&H Scientific Publisher,

2. Lorenz System, Synchronization, and Encryption of Signals and Images ; D. C. Saha, Anirban Ray, Rajarshi Middya, and A. Roy Chowdhury; **Chaos and   Complexity Letters**, **Volume 12, Number 1, 1-16, (2018**); ISSN: 1556-3995 ; Nova Science Publishers, Inc.

3. Generation of amplitude death and rhythmogenesis in coupled hidden attractor system with experimental demonstration, Anirban Ray, D.C.Saha, Papri Saha & A . Roy Chowdhury: **Nonlinear Dynamics** , **Vol.87** , 1393-1404 (**2017**): Springer

4. On the Synchronization of Synaptically Coupled Nonlinear Oscillators: Theory and Experiment, D.C.Saha, Papri Saha, Anirban Ray, A. Roychowdhury: **Annual Review of Chaos Theory, Bifurcations and Dynamical systems Vol 6**, 1-29 (**2016**) ; ISSN: 2253-0371

5. Memristive non-linear system and hidden attractor : P.Saha, D.C.Saha, A.Ray and A. R. Chowdhury: **Eur. Phys. J. Special Topics 224**, 1563-1574 (**2015**); EDP Sciences, Springer-Verlag

6. Multistability in a Single System with Hidden Attractors - Theory and Experiment: Papri Saha, Dolan Champa Saha Anirban Roy & A. Roy Chowdury: **International J   of Physics** ; vol 2, No 6, 217 -225; Science and Education Publishing (**2014**): ISSN (Print): 2333-4568. ISSN (Online): 2333-4576

7. Electronic Circuit Simulation of The Lorenz Model With General Circulation: D.C.Saha , A. Roy & A.Roy Chowdhury : **International J of Physics; (2014) ,** vol 2, No 5, 124 -128; Science and Education Publishing: ISSN (Print): 2333-4568. ISSN (Online): 2333-4576

8. On a Darboux – Backlund Transformation and Positon type Solution of Coupled Non-linear Optical Waves. D.C.Sen and A. R. Chowdhury: **Acta Physica Polonica A**, Vol. 98 No.1/2 , (July/August **2000**), pp 3-10; Polish Academy of Sciences,

9. On the Different Types of Superposed Solitonic Solutions in a Birefringent Optical Fibre. Dolan Champa Sen and A. Roy Chowdhury: **Physica Scripta**, Vol.60, No.4, pp351-355 (**1999**); Royal Swedish Academy of Sciences, IOP

10. On the Moyal Quantization of BKP type Hierarchies. D.C.Sen and A.Roy Chowdhury: **Journal of Non-linear Mathematical Physics. 1998**, Vol.5, No.1, pp 1-7; Ukranian Mathematical Society, Ukrain, Russia

11. Adler-Kostant-Syms Theorem and Super symmetric Integrable Systems. D.C. Sen and A.Roy Chowdhury: **Journal of Mathematical Physics**. Vol.34, No.5, April **1993**; American Institute of Physics, New York

12. Infinite Dimensional Lie Algebra and Symmetries of Non- linear Equations in Three Dimensions – An Overview. A.Roy Chowdhury ,D.C.Sen and S.Purakait: **Fortschritte Der Physik**,Vol. 41,No.3, (**1993**) , pp. 289-305; Akademic Verlag, Berlin

13. The Bucklund Transformation, Virasoro Algebra and symmetries related to the Cylindrically Symmetric Self-Dual Yangs-Mill Equation. A.Roy Chowdhury and D.C.Sen: **International journal of Modern Physics A**, Vol. 7 No. 3 (**1992**) pp. 631-638; World Scientific Publishing Company, Hongkong

14. Deformation of Integrable Systems Associated with symmetric space of the Lie Algebra. A.Roy Chowdhury and D.C.Sen : **Progress of Theoretical Physics**, Volume 86, Number 5, (**1991**), pp. 981-990; Physical Society of Japan, Kyoto.

15. On the Kac-Moody Algebra of Symmetries for a KdV Equation in Three Dimensions. A.Roy Chowdhury and D.C.Sen : **J.Phys. A : Math. Gen.** Vol.23 (**1990**) L1061-L1063, IOP Publishing Ltd., U.K.