Curriculum Vitae

Dr. AMAR NATH CHATTERJEE
Assistant Professor (Sr. Scale) and H.O.D,
Department of Mathematics
K.L.S COLLEGE,
A Constituent Unit under Magadh University
Bihar, India
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Email: anchaterji@gmail.com, amarnc@klscollege.ac.in

Website & Social Link:

Google Site: https://sites.google.com/view/amarnc/home,

Research Gate: https://www.researchgate.net/profile/Amar-Chatterjee?ev=hdr_xprf

Vidwan: https://vidwan.inflibnet.ac.in/profile/198083

Orcid ID: https://orcid.org/0000-0002-3007-0144

Google Scholar: https://scholar.google.com/citations?user=3lO-954AAAAJ&hl=en

- **PERSONAL DETAILS**: Date of Birth: 28th July 1979, Nationality: Indian
  Sex: Male, Marital Status: Married.

ACADEMIC QUALIFICATION (HIGHER DEGREE)

Examination passed	**Board/ University**	**Division / Class**	**Year of Passing**
Secondary	W.B.B.S.E.	1st	1996
Higher Secondary	W.B.C.H.S.E.	1st	1998
B.Sc. (Math-Hons)	Jadavpur University	1nd	2001
M.Sc. (Applied Math)	Jadavpur University	1st	2003
PhD (Mathematical Sc.)	Jadavpur University	-	2013

RESEARCH EXPERIENCE:

Name of the Institute/University	Jadavpur University
Title of the Thesis	***Mathematical Modeling on the Dynamics of HIV/ AIDS incorporating Control Theoretic Concepts and Studies on Relevant Aspects of the Model Dynamics***
Name of the Supervisor	**Prof (Dr.) Priti Kumar Roy,** Department of Mathematics, Jadavpur University, Kolkata-700032.
Area	Mathematical Biology

Teaching Experience

Eight years teaching experience at the Department of Mathematics, K.L.S. College, Nawada, Bihar-805110, Magadh University

Subject taught: Differential equation, Real analysis, Abstract and Linear Algebra, Integral transform, Numerical analysis, Vector calculus, Calculus.

Prospective Student

Awarded PhD Students

Sl No	Name	Thesis title	Year of Awarded
1	Dr. Sathosh Kumar Sharma	Mathematical Studies of Insight Control of Infectious Disease Modelling	2024
2	Dr. Suman Mehta	A Study on Impact of Artificial Intelligence on Healthcare	2024
3.	SM. Firdaus Zaki Rizvi	Study on Methods for Detection and Isolation of Zombic attack in cloud computing	Thesis Submitted
4.	Uma Shankar	Investigation on development of algorithm to determine surface area and volume of grocery item using image processing	Pursuing

Editorial Board Member

(1) ACADEMIC EDITOR of the journal International Journal of Differential Equations, Scopus Indexed, Willy publisher.

(2) REVIEW EDITOR of the journal Frontiers in Applied Mathematics and Statistics ESCI JOURNAL.

(3) Associate Editor of the Journal Clareus Scientific Science and Engineering (ISSN: 3065-1182) Clareus Scientific

BOOK PUBLISHED

1. ***Mathematical Modelling on the Dynamics og HIV/AIDS*** (2021), Lap Lamberd Academic Publication, Republic of Moldova Europe, ISBN : 978-620-4-19114-0.
2. ***Role of Vedic Mathematics in Indian Knowledge System*** (2025)**,** Yellowish Publication, Ghaziabad India, ISBN: 978-81-993042-2-2.
3. ***Easy way to learn SageMath toStudy Mathematical Models*** (2025), Amazon KDP, ISBN-13-979-8268056211.

PAPER PUBLISHED/ACCEPTED:

2025

1. A Hybrid AI-IoT Implemented Framework for Predictive Waste Management and Dynamic Route Optimization in Smart Cities" *accepted* in Int. J. of Environment and Waste Management.
2. Samui, Piu, Samapti Mondal, Jayanta Mondal, and **Amar Nath Chatterjee**. "Effect of vaccination to control measles epidemic in light of economic progression: P. Samui et al." *International Journal of Dynamics and Control* 13, no. 10 (2025): 359.
3. **Chatterjee, Amar Nath**, Santosh Kumar Sharma, Fahad Al Basir, and Aeshah A. Raezah. "A Dynamics and Control Study of the New H1N1 Influenza with Two Roots of Infection: The Impact of Optimal Vaccination and Treatment." *Mathematics* 13, no. 19 (2025): 3086.
4. Samui, Piu, Jayanta Mondal, and **Amar Nath Chatterjee**. "A delay differential equation model of SEIV in presence of media coverage." International Journal of Nonlinear Analysis and Applications 16, no. 6 (2025): 47-58.
5. Bag, Amit Kumar, Salil Ghosh, **Amar Nath Chatterjee**, and Priti Kumar Roy. "A mathematical framework investigating the impact of Chemo-iPSC therapy for the dynamics of cervical cancer." *Journal of Applied Mathematics and Computing* (2025): 1-33.
6. Das, Subhadipa, **Amar Nath Chatterjee**, and Sourav Rana. "Complex Dynamics of a Discrete Time One Prey Two Predator System with Prey Refuge." *International Journal of Applied and Computational Mathematics* 11, no. 3 (2025): 86.

7. Fahad Al Basir, KS Nisar, IM Alsulami, **Amar Nath Chatterjee** " Dynamics and optimal control of an extended SIQR model with protected human class and public awareness" *European Physical Journal Plus* (2025).
8. Samui, Piu, Jayanta Mondal, **Amar Nath Chatterjee**, and Fahad Al Basir. "Impact of awareness in self–monitoring of COVID-19: An optimal control approach." *Results in Control and Optimization* (2025): 100513.
9. **Amar Nath Chatterjee**, Teklebirhan Abraha, Fahad Al Basir, and Delfim FM Torres. "A model for the dynamics of COVID-19 infection transmission in human with latent delay." *Afrika Matematika* 36, no. 1 (2025): 1-23.
10. **Amar Nath Chatterjee** Santosh Kumar Sharma, Sourav Rana "Dynamic Analysis of Nonlinear Stochastic DENGUE Epidemic Model", Journal of Applied Nonlinear Dynamics, 14 (3) (2025).

2024

11. Mondal, J., Samui, P., **Amar Nath Chatterjee** and Ahmad, B., "Modeling hepatocyte apoptosis in chronic HCV infection with impulsive drug control", Applied Mathematical Modelling, 136 (2024).
12. **Amar Nath Chatterjee**, Santosh Kumar Sharma, and Fahad Al Basir. "A Compartmental Approach to Modeling the Measles Disease: A Fractional Order Optimal Control Model." *Fractal and Fractional* 8, no. 8 (2024): 446.
13. Bag, Avik, Jayanta Mondal, and **Amar Nath Chatterjee**. "Role of Environmental Contamination in Measles Transmission dynamics." *Corrosion Management ISSN: 1355-5243* 34, no. 1 (2024): 165-185.

2023

14. **Amar Nath Chatterjee**, Jayanta Mondal, and Piu Samui. "A delay differential equation model of SEIV in presence of media coverage." *International Journal of Nonlinear Analysis and Applications* (2023).
15. Sharma, Santosh Kumar, **Amar Nath Chatterjee**, and Fahad Al Basir. "Hopf bifurcation and optimal control of HCV/HIV co-infection dynamics within human: a theoretical study." *Results in Control and Optimization* 11 (2023): 100234.
16. **Amar Nath Chatterjee**, and Fahad Al Basir. "Modeling of the effects of media in the course of vaccination of rotavirus." In Advances in Epidemiological Modeling and Control of Viruses, pp. 169-189. Academic Press, 2023.
17. Suman Mehta, **Amar Nath Chatterjee**. "AN INVESTIGATION ON THE ARCHITECTURE OF PUBLIC HEALTH INFORMATION SYSTEM BY USING ARTIFICIAL INTELLIGENCE" The Seybold Report 11 (2023).
18. Suman Mehta, **Amar Nath Chatterjee**, " METHODS OF LUNGS DISEASE DIAGNOSIS THROUGH MACHINE LEARNING." *Jilin DaxueXuebao*42 (2023): 09-2023.

2022

19. Samui, Piu, Jayanta Mondal, Bashir Ahmad, and **Amar Nath Chatterjee**. "Clinical effects of 2-DG drug restraining SARS-CoV-2 infection: A fractional order optimal control study." Journal of Biological Physics 48, no. 4 (2022): 415-438.
20. **Amar Nath Chatterjee**, Fahad Al Basir, Dibyendu Biswas, and Teklebirhan Abraha. "Global Dynamics of SARS-CoV-2 Infection with Antibody Response and the Impact of Impulsive Drug Therapy." *Vaccines* 10, no. 11 (2022): 1846.
21. J. Mondal, Jayanta, P. Samui, and **Amar Nath Chatterjee** "Modelling of contact tracing in determining critical community size for infectious diseases." *Chaos, Solitons & Fractals* 159 (2022): 112141.
22. **Amar Nath Chatterjee**, F. A. Basir, B. Ahmad, A. Alsaedi. "A Fractional-Order Compartmental Model of Vaccination for COVID-19 with the Fear Factor." *Mathematics* 10, no. 9 (2022): 1451.
23. A. K. Roy, F. A. Basir, P. K. Roy, **Amar Nath Chatterjee** (2022) "A model analysis to measure the adherence of Etanercept and Fezakinumab therapy for the treatment of psoriasis", *Nonlinear Analysis: Modelling and Control*, 27, pp. 1-21.
24. B. Wanga, J. Mondal, P. Samui, **Amar Nath Chatterjee**, A. Yusuf, (2022) "Effect of an antiviral drug control and its variable order fractional network in host COVID-19 kinetics." *Eur. Phys. J. Spec. Top.* (2022).
25. J. Mondal, P. Samui, **Amar Nath Chatterjee**, "Dynamical demeanour of SARS-CoV-2 virus undergoing immune response mechanism in COVID-19 pandemic." *Eur. Phys. J. Spec. Top.* (2022).

2021

26. J. Mondal, P. Samui, **Amar Nath Chatterjee**. (2021) "Effect of SOF/VEL Antiviral Therapy for HCV Treatment". *Letters in Biomathematics* 8 (1), 191–213.
27. **Amar Nath Chatterjee**, F. A. Basir, MA. Almuqrin, J. Mondal, I. Khan. (2021) "SARS-CoV-2 infection with lytic and non-lytic immune responses: A fractional order optimal control theoretical study." *Results in physics*. 2021 Jul 1;26:104260.
28. **Amar Nath Chatterjee**, B. Ahmad. "A fractional-order differential equation model of COVID-19 infection of epithelial cells." *Chaos, Solitons & Fractals* 147 (2021): 110952.
29. S. Ghosh, **Amar Nath Chatterjee**, P. K. Roy, N. Grigorenko, E. Khailov, and E. Grigorieva. "Mathematical Modeling and Control of the Cell Dynamics in Leprosy." *Computational Mathematics and Modeling* (2021): 1-23.
30. **Amar Nath Chatterjee**, F. A. Basir, Y. Takeuchi, (2021) "Effect of DAA therapy in hepatitis C treatment—an impulsive control approach" [J]. *Mathematical BiosciencesandEngineering*, *18*(2),pp.1450-1464.

2020

31. J. Mondal, P. Samui, **Amar Nath Chatterjee**. "Optimal control strategies of non-pharmaceutical and pharmaceutical interventions for COVID-19 control." *Journal of Interdisciplinary Mathematics* (2020): 1-29.

32. **Amar Nath Chatterjee**, F. A. Basir, F., (2020) "A model for sars-cov-2 infection with treatment." *Computational and Mathematical Methods in Medicine*, *2020*.
33. **Amar Nath Chatterjee**, P. K. Roy "SMOKING HABIT: A BIO MATHEMATICAL STUDY*,"* Vol. (2020), Commun. Math. Biol. Neurosci.
34. **Amar Nath Chatterjee**, B. Kumar, "Cytotoxic T-lymphocyte Vaccination for Hepatitis C: A Mathematical Approach," Studies in Indian Place Names (UGC Care Journal),Vol-40(56),pp.769-779.

2019

35. **Amar Nath Chatterjee**, M. K. Singh, B. Kumar, "The Effect of Immune Responses in HCV Disease Progression'', Eng. Math. Lett. , Vol 2019(2019)..

a. 2018

36. **Amar Nath Chatterjee**, "The Effect of Pulse Vaccination on the Transmission Dynamics of Rotavirus Diarrhea. *Journal of Chemical, Environmental and Biological Engineering*.Vol.2,No.1,2018,pp.26-31."

2016

37. P. K. Roy, **Amar Nath Chatterjee**, X.-Z. Li, "The effect of vaccination to dendritic cell and immune cell interaction in HIV disease progression", *International Journal of Biomathematics*, 9(1) (2016).

2015

38. **Amar Nath Chatterjee**, S. Saha, P. K. Roy, "Human immunodeficiency virus/acquired immune deficiency syndrome: Using drug from mathematical perceptive", *World J Virol,* 2015; 4(4): 356-364.

2014

39. N. Sil, P. K. Roy, S. Nandi, **Amar Nath Chatterjee**, S. Mukhopadhyay, S. Bhattacharya, IL Hyo Jung, "Optimal Control Therapeutic Approach to Recovery of Infected Cells in HIV Model with Expected Time to Extinction of the Disease", *BER*, 2014, V3(2), pp. 47-63.
40. D. Biswas, D. Kesh, A. Datta, **Amar Nath Chatterjee**, Priti Kumar Roy, "A Mathematical Approach to Control Cutaneous Leishmaniasis Through Insecticide Spraying", *SOP Transactions on Applied Mathematics*, 2014, V1 (2), pp. 44-54.

2013

41. **Amar Nath Chatterjee**, P. K. Roy (2013), "NEGATIVE FEEDBACK EFFECT IN HIV PROGRESSION: AN OPTIMAL CONTROL THEORETIC APPROACH'', *Journal of Algorithms and Optimization*, V1 (1)(2013), pp. 1-12.
42. **Amar Nath Chatterjee**, P. K. Roy, S. Biswas Majee (2013), "Immune cell response to negative feedback effect in HIV'', BER, V 2(1), March 2013, pp 37-47.
43. P. K. Roy, S. Chowdhury, **Amar Nath Chatterjee**, J. Chattopadhyay, R. Norman (2013), "A Mathematical Model on CTL Mediated Control of HIV Infection in a Long Term Drug Therapy'', *Journal of Biological System*, Vol. 21, No. 3 (2013) 1350019 (25 pages)
44. P. K. Roy, **Amar Nath Chatterjee**, D. Greenhalgh, Q. J.A. Khan (2013), "Long Term Dynamics in a Mathematical Model of HIV-1 infection with delay in Different Variants of the basic drug the basic drug therapy", *Nonlinear* Analysis: RealWorldApplications14(2013),pp.1621 -1633

45. **Amar Nath Chatterjee**, P. K. Roy, J. Mandal (2013): "Mathematical Model for Suppression of Sand Flies through IRS with DDT in Visceral Leishmaniasis", *American Journal of Mathematics and Sciences*, Accepted, V2(1), Jan 2013 , pp. 105-112.
46. P. K. Roy, R. Bhattacharya, **Amar Nath Chatterjee**, M. K. Ghosh, S. Nandi (2013): "Optimisation of enzymatic product by mathematical control approach", *American Journal of Mathematics and Sciences*, V 2(1), Jan 2013, pp. 141-149.

2012

47. P. K. Roy, **Amar Nath Chatterjee** (2012) "Recovery of infected Jatropha Curcas plant cells: A control based theoretical approach", *International Journal on Mathematical Sciences and Applications*, Volume 2, No. 1, pp. 145- 153.
48. P. K. Roy, **Amar Nath Chatterjee**, S. Biswas Majee (2012): "Effect of Chemokine Analog through Perfect Adherence in HIV Treatment: A Model Based Study", *International Journal of Applied Mathematics and Applications*, 4(2), December 2012, pp. 121-145.
49. **Amar Nath Chatterjee**, P. K. Roy,(2012) :"Anti-viral drug treatment along with immune activator IL-2: A control based mathematical approach for HIV infection.'', *InternationalJournal of Control* , V85(2), pp.220-237.

2011

50. P. K. Roy, A. Datta, **Amar Nath Chatterjee** (2011), "Saturation Effects on Immunopathogenic Mechanism of Psoriasis: A Theoretical Approach'', *ACTA ANALYSIS FUNCTIONALIS APPLICATA*, Vol.13, No.3, pp. 310- 318.
51. S. Nandi, S. Khajanchi, **Amar Nath Chatterjee**, P. K. Roy (2011), "Insight of Viral Infection of Jatropha Curcas Plant (Future fuel)-A Control based Mathematical Study'', *ACTA ANALYSIS FUNCTIONALIS APPLICATA,* V13, No. 4, pp. 366- 374.

2010

52. P. K. Roy, **Amar Nath Chatterjee** (2010): Delay effect in a Mathematical model of HIV infected T-cell against killing by CTL. *"BULLETIN of the CALCUTTA MATHEMATICAL SOCIETY*", V 102(6), pp. 513-524.
53. P. K. Roy, **Amar Nath Chatterjee**, B. Chattopadhyay (2010): HIV infection in T-lymphocytes and Drug Induced CTL Response of a Time Delayed Model. .*Lecture Notes in Engineering and Computer Science*. WCE, London, UK. 1, 533-538.
54. P. K. Roy, **Amar Nath Chatterjee** (2010): T-cell proliferation in a Mathematical Model of CTL Activity Through HIV-1 Infection. *Lecture Notes in Engineering and Computer Science*. WCE, London, UK. 1, 615-620.

BOOK CHAPTER/ ARTICLE

1. **Amar Nath Chatterjee**, F. A. Basir, Role of Immune effector responses during HCV infection, Mathematical Analysis of Infectious Diseases (Edited by Praveen Agarwal, Juan J. Nieto, Delfim F. M. Torres), Elsevier Pub.

2. Al Basir, Fahad, and **Amar Nath Chatterjee**. "A mathematical model for the dynamics of visceral leishmaniasis disease with time delay." In *Mathematical Modeling in Bioscience*, pp. 107-121. Academic Press, 2025.

3. Bag, Amit Kumar, and **Amar Nath Chatterjee**. "The Role of Screening Programs." *Mathematical Analysis and Applications in Biological Phenomena through Modelling: ICMAAM-2023, Kolkata, India, October 9–11* 478 (2025): 211.

4. **Amar Nath Chatterjee**, F. A. Basir, Modelling of the effects of media in the course of vaccination of rota virus, "Recent studies in mathematical modeling and control of the dynamics of human viruses", Elsevier Pub.

5. S. Mehta, **Amar Nath Chatterjee**, AN INSIGHT LOOKS AT THE OPPORTUNITIES OF AI IN THE HEALTHCARE SYSTEM, IIP.

6. S. M. Firdaus Zaki Rizvi, **Amar Nath Chatterjee**, COMPUTING SECURITY IN E-COMMERCE FROM ZOMBIE ATTACK, IIP

7. P. K. Roy, S. Chowdhury, **Amar Nath Chatterjee**, S. B. Majee (2012): "Mathematical Modelling of IL-2 based Immune Therapy of T cell Homiostasis in HIV'', Book Chapter in Insight In Control of Infectious Disease in Global Scenario, Chapter 5, pp 79-96.

8. P. K. Roy, **Amar Nath Chatterjee** (2011), "REDUCTION OF HIV INFECTION THAT INCLUDES A DELAY WITH CURE RATE DURING LONG TERM TREATMENT: A MATHEMATICAL STUDY", *Book Chapter in "Electrical Engineering and Applied Computing", Springer*, 2011, V 90., pp. 699-673.

9. P. K. Roy, **Amar Nath Chatterjee** (2011), "Effect of HAART on CTL Mediated Immune Cells: An Optimal Control Theoretic Approach", *Book Chapter in "Electrical Engineering and Applied Computing", Springer*, V 90, pp. 595-607.

10. **Amar Nath Chatterjee** Fahad Al Basir "A mathematical model for the dynamics of visceral leishmaniasis disease with time delay", Mathematical Modeling in Bioscience Theory and Applications, (2025)

11. **Amar Nath Chatterjee**., Amit Kumar Bag. "The Role of Screening Programmes in Cervical Cancer Prevention: A Mathematical Study" *Mathematical Analysis and Applications in Biological Phenomena through Modelling* 478, no. 1 (2025): 211-226.

PARTICIPATION AS A RESOURCE PERSON

1. Two days International Seminar on "The Legal Landscape of Artificial Intelligence in the Global South", Nawada Vidhi Mahavidyalaya, Nawada and delivering a lecture entitled "Importance of AI in Teaching and Research" on 13/12/2025.
2. 19th Faculty Induction program organized by UGC-HRDC, Dr.Harisingh Gour Vishwavidyalaya, Sagar (M.P), and delivering a lecture entitled "**Writing Research Proposals in Science**" on 19/07/2025.
3. 18th Faculty Induction program organized by UGC-HRDC, Dr.Harisingh Gour Vishwavidyalaya, Sagar (M.P), and delivering a lecture entitled "**Writing Research Proposals in Science**" on 12/12/2024.

4. 17th Faculty Induction program organized by UGC-HRDC, Dr.Harisingh Gour Vishwavidyalaya, Sagar (M.P), and delivering a lecture entitled "**Writing Research Proposals in Science**" on 02/07/2024.
5. 16th Faculty Induction program organized by UGC-HRDC, Dr.Harisingh Gour Vishwavidyalaya, Sagar (M.P), and delivering a lecture entitled "**Writing Research Proposals in Science**" on 18/01/2024.
6. 15th Faculty Induction program organized by UGC-HRDC, Dr.Harisingh Gour Vishwavidyalaya, Sagar (M.P), and delivering a lecture entitled "**Writing Research Proposals in Science**" on 16/10/2023.
7. 14th Faculty Induction program organized by UGC-HRDC, Dr.Harisingh Gour Vishwavidyalaya, Sagar (M.P), and delivering a lecture entitled "**Writing Research Proposals in Science**" on 19/11/2022.
8. 13th Faculty Induction program organized by UGC-HRDC, Dr.Harisingh Gour Vishwavidyalaya, Sagar (M.P), and delivering a lecture entitled "**Writing Research Proposals in Science**" on 19/11/2022.
9. 12th Faculty Induction program organized by UGC-HRDC, Dr.Harisingh Gour Vishwavidyalaya, Sagar (M.P), and delivering a lecture entitled "**Writing Research Proposals in Science**" on 19/11/2022.
10. 11th Faculty Induction program organized by UGC-HRDC, Dr.Harisingh Gour Vishwavidyalaya, sagar (M.P), and delivering a lecture entitled "**Research Methodology in Science**" on 12/09/2022.
11. One day Seminar & Science Exhibition under 137th Birth Ceremony Function of Shri Sri Niwas Ramanujan organized by Dr. C. V. Raman University, Vaishali (Bihar), and delivering a lecture entitled "**Mathematical Modelling through ordinary Differential Equations Dynamical System**" on 22/12/2024.
12. Two day National Webinar on "**Mathematics and its Application**" held at Moyna College, Moyna, West Bengal on 30th September, 2020 and 1st October, 2020 and delivered a talk on "**Modern Mathematical Tools**" as a resource Person.
13. National Seminar on "**Application of Technical Terms in Research and Teaching in Computer Science and Mathematics**" held at Department of Mathematics, Magadh University, Bodh Gaya Sponsored by CSTT on 18-19Th September, 2018) participated as delegate.
14. One day International Webinar on "**Growing Impact of Ethical and Trusted Artificial Intelligence/ML in Public health Care Systems**" held at A.M College, Gaya, Bihar and delivered a talk on "Application of Sage Math" on 27/09/2021.

PARTICIPATION IN SCHOOLS/WORKSHOP/CONFERENCES

1. National Conference on "**Recent Trends in Mathematics and Computational Sciences**" held at Department of Mathematics, Magadh University, Bodh Gaya on 28-29 November, 2025 and presented a talk on "Mathematical Modelling of Biological Dynamics: From Cells to Ecosystems using ODEs and PDEs**.**"
2. International Conference on "**Virtual International Conference on PHYSICAL SCIENCE (ICPS-2021)**" held at Sardar Vallabhbhai NIT Surat on 05-06 February, 2021 and presented a talk on " A**fractional order modelling and analysis of COVID-19.**"
3. International Conference on "**Applied Nonlinear Analysis & Soft Computing** (**ANASC-2021**)" held at Gauhati University, Gauhati on 22-23 December, 2020 and presented a talk on " A**fractional order differential equation model of COVID-19 infection on .**"
4. International Conference on "**Recent Trends and Innovations in Multidisciplinary Research** (**ICRTIMR-2020**)" held at IEC University, Baddi, H.P in Association with GMREA on 14th March, 2020and presented a talk on "**Cytotoxic T Lymphocyte Vaccination for Hepatitis C: A Mathematical Approach.**"
5. National Seminar on "**Contemporary Research in Theoretical and Applicable Mathematics 2018 (CRTAM 2018)**" held at Dept. of Mathematics, The Bhawanipur Educational Society College, Kolkata on 14-15th September, 2018) and presented a talk on "**The Effect of Immune Responses in HCV Disease Progression.**"
6. International Conference on "**Dynamical Systems and Mathematical Biology (ICDSMB 2014)**" held at Jadavpur University on 17-19th Nov, 2014 and presented a talk on "**Anti-viral drug treatment along with immune activator IL-2: A control based mathematical approach for HIV infection**".
7. National Conference on "**Mathematical and Theoretical Biology (NCMTB 2014)**" held at Jadavpur University on 20-21 Feb, 2014 and presented a talk on "**Effect of Pulse CTL Vaccination in HIV Treatment: A Mathematical Study**".
8. **India Biodiversity Meet 2013 (IBM 2013)** held at Indian Statistical Institute, Kolkata on 14th -16th March, 2013 and presented a talk on **"The Impact of pulse vaccination on the transmission dynamics of Rotavirus diarrhea''.**
9. 2nd International Conference on "**Mathematical Sciences and Applications**", 15th to 16th December 2012 New Delhi, India, Presented a talk on **"Mathematical Model for Suppression of Sand Flies through IRS with DDT in Visceral Leishmaniasis''.**
10. "**International conference on Dynamical System (ICDS 2012)**''held at Jadavpur University, Kolkata on 11th -14th January, 2012 and presented a talk on **" The Effect of Perfect Drug Adherence to Dendritic Cell and Immune Cell Interaction in HIV Disease Progression''.**
11. **Seminar on Mathematical Biology**.(Organized by Department of Computing Science and Mathematics, **University of Stirling, Stirling, UK**, September, 2011) Presented a talk on **"Effect of perfect adherence of chemokine analog in HIV infection: A model based study''**.

12. **Seminar on Mathematical Biology** organized by Department of Mathematics & Statistics, **University of Stratclyde, Glasgow, UK** and presented a talk **on " Effect of perfect adherence of chemokine analog in HIV infection: A model based study'' on September, 2011.**
13. **National Conference on Mathematical Science and Applications: State of the Art (NCMSA 2011) h**eld at Jadavpur University, Kolkata on 13th -14th January, 2011.
14. **IMSc. Conference on Modeling Infectious Diseases** held at The IMSc , Chennai on 20th -22th September,2010 and presented a paper entitled **"Delay effect in a mathematical model of HIV infected T- Cells against killing by CTL"**.
15. **National conference on mathematical Science and Applications: State of the Art (NCMSA 2010)** held at Jadavpur University, Kolkata on 14th -16th March, 2010 and presented a paper entitled **"Delay effect in a mathematical model of HIV infected T- Cells against killing by CTL"**.
16. **One Day Colloquium on Mathematical Biology and Ecology** held at Department of Mathematics, J.U, Kol-32 on 20th February, 2009).

PARTICIPATION IN OP/RC/SCHOOLS/WORKSHOP

1. UGC-Sponsored Refresher Course in "**Advance Science & Technology for a Sustainable Future (Multidisciplinary)**", held at UGC-MMTTC, Indira Gandhi Natation Tribal University, Amarkantak. from 18.07.2025 to 31.07.2025 and obtained Grade A+).
2. UGC-Sponsored Refresher Course in "**Advance Science & Technology for a Sustainable Future (Multidisciplinary)**", held at UGC-MMTTC, Indira Gandhi Natation Tribal University, Amarkantak. from 18.07.2025 to 31.07.2025 and obtained Grade A+).
3. UGC-Sponsored FDP on "**NEP-2020: Orientation and Sanitization**", held at UGC-MMTTC, JNV University, Jodhpur. from 05.04.2025 to 12.04.2025 and obtained Grade A+).
4.
5. UGC-Sponsored Short term Course on "**Academic Leadership and Institutional Development (online mode)**", held at UGC-MMTTC, Iswar Saran PG College, Prayagraj. from 04.06.2025 to 13.06.2025 and obtained Grade A+).
6. AICTE Training and Learning (ATAL) Academy Sponsored FDP on "**Advanced Computational Techniques in Machine Learning: A Comprehensive Faculty Development Program Utilizing R Software**", held at UNIVERSITY OF ENGINEERING AND MANAGEMENT KOLKATA. from 25.11.2024 to 30.11.2024.
7. AICTE Training and Learning (ATAL) Academy Sponsored FDP on "**Recent Trends in Biological Systems for Sustainable Development**", held at ANAND INTERNATIONAL COLLEGE OF ENGINEERING. from 03.02.2025 to 08.02.2025.
8. UGC-Sponsored Short term Course on "**Professional development for IQAC Coordinator**", held at UGC-MMTTC, Panjabi University, Patiala. from 01.08.2024 to 08.08.2024 and obtained Grade A+).

9. UGC-Sponsored Refresher Course on "**Mathematics and Statistic Science**", held at UGC-MMTTC, Panjabi University, Patiala. from 04.12.2023 to 16.12.2023 and obtained Grade A).
10. UGC-Sponsored Refresher Course on "**Computational Mathematics**", held at UGC-MMTTC, Dr. Harisingh Gour Vishwa, Patiala. from 01.08.2024 to 08.08.2024 and obtained Grade A+).
11. Govt. of India, MHRD Sponsored Two Weeks Refresher Course/faculty development Programme on "**ADVANCED RESEARCH METHODOLOGY Tools and Techniques**" from 30/01/2021-14/02/ 2021, held at Teaching Learning Centre, Ramanujan College, University of Delhi.
12. Five day Short term Training Programme on "**Modern Mathematical Tools in Calculus and Analysis**" organised by Dept of Science/ Mathematics, KUMARAGURU College of Technology/ Coimbatore, 10 to 14 August, 2020.
13. One week short term training programme on "**Matlab-Statistic And Data Science**" organised by Department of Applied Science on 27th July to 1st August, 2020, Organised by Department of Applied Science, Sagar Institute of Technology, Bhopal.
14. Govt. of India, MHRD Sponsored Two Weeks faculty development Programme on "**ADVANCED CONCEPTS FOR DEVELOPING MOOCS**" from July 02-July 17, 2020, held at Teaching Learning Centre, Ramanujan College, University of Delhi.
15. Govt. of India, MHRD Sponsored Two Weeks faculty development Programme on "**Open Source Tools for Research**" from June 08-June 14, 2020, held at Teaching Learning Centre, Ramanujan College, University of Delhi.
16. Govt. of India, MHRD Sponsored Two Weeks faculty development Programme on "**Managing Online Classes and Cocreating MOOCS:2.0**" from May 18-June 03, 2020, held at Teaching Learning Centre, Ramanujan College, University of Delhi.
17. UGC-Sponsored "**95th Orientation Programme**", held at UGC-HRDC, Ranchi University, Ranchi. from 10.06.2019 to 30.06.2019 and obtained Grade A).
18. Workshop on "**Growth Curve Models in Population Dynamics using R for Biologists**'' organised by the Agricultural and Ecological Research Unit, ISI, Kolkata February 12 - 13, 2019**.**

Reviewer:

1. Advances in complex systems: a multidisciplinary journal
2. Advances in Differential Equations (SPRINGER)
3. Applied mathematics in Science in engineering (Taylor & Francis)
4. Applied Mathematical Modelling (ELSEVIER)
5. Axioms (MDPI)
6. Bioengineering (MDPI)
7. Computer methods in biomechanics and biomedical engineering (Taylor & Francis)
8. Computers in biology and medicine. (ELSEVIER)
9. Chaos, Soliton & Fractals (ELSEVIER)

10. Energy Ecology and Environment (ELSEVIER)
11. Engineering Applications and Artificial Intelligence (ELSEVIER)
12. Fractal and fractional (MDPI)
13. International Journal of Applied and Computational Mathematics (SPRINGER)
14. International Journal of Control (Taylor & Francis)
15. International Journal of Dynamics and Control(SPRINGER)
16. Infectious Disease Modelling (ELSEVIER)
17. International Journal of Modeling, Simulation, and Scientific Computing (World Scientific)
18. ISA Transitions (ELSEVIER)
19. Journal of Advance Mathematics and Computer Science
20. Journal of Applied Mathematics and Computing (SPRINGER)
21. Journal of Biological Dynamics (Taylor & Francis)
22. Journal of Computational Science (ELSEVIER)
23. Letters in Biomathematics (Illinois State University)
24. Life (MDPI)
25. Mathematics (MDPI)
26. Mathematical methods in Applied Science (Wiley)
27. Modeling Earth Systems and Environment (SPRINGER)
28. Results in control and optimization (ELSEVIER)
29. Results in Applied Mathematics (ELSEVIER)
30. Scientific African (ELSEVIER)
31. Scientific report. (SPRINGER)
32. Sustainability (MDPI)
33. Symmetry (MDPI)
34. Journal on Control and Optimization (SIAM)
35. Tropical Medicine and Infectious disease (MDPI)
36. International Journal of Numerical Methods for Calculation and Design in Engineering (CIMNE)
37. PLOS Global Public Health Staff
38. IEEE Internet of Things Journal
39. Engineering Applications of Artificial Intelligence
40. Computer methods and programs in Biomedicine Update
41. Modelling and Simulation in Engineering
42. Journal of Mathematics

Other Academic Activity:

1. IQAC Coordinator-K.LS College, Nawada, Bihar.
2. Nodal Officer-NIRF, K.LS College, Nawada, Bihar.
3. Coordinator-Vocational Department, K.L.S. College, Nawada, Bihar

4. Prof. In Charge - AAPAR Cell, K.L.S. College, Nawada, Bihar.
5. Prof. In Charge, SAMARTH Portal, K.L.S. College, Nawada, Bihar
6. Deputy Proctor-K.L.S. College, Nawada, Bihar
7. Professor In Charge for ABC Account for K.L.S. College

Professional Memberships

1. Bio mathematical Society of India, 2010-Present.
2. Indian Society of Industrial and Applied Mathematics, 2018-Present.
3. Bharata Ganita Parishad, 2022-Present.
4. Asian Council of Science Editors, 2025 -Present. Membership No: 242616180
5. MTTF, STEM Advisor, Registration No.: AD220140.
6. The Indian Mathematics and Science Association, 2028 -Present.

DECLARATION

I do hereby declare that the above information is true to the best of my knowledge.

Amar Nath Chatterjee