

Curriculum Vita of Dr. Shariful Alam



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Personal Data

Date of Birth: 21 January 1973

Gender: Male

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Current position:

Associate Professor,
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Indian Institute of Engineering Science and Technology, Shibpur
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Howrah - 711 103 (India)

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Education and Achievement

- **Ph. D. (2011) in Mathematics** from Bengal Engineering and Science University, Shibpur, Howrah, India.
- **M. Sc. (Engineering) (2001-2003)** from Indian Institute of Science, Bangalore.
- **M. Sc. (Mathematics)(1995-97)** from Indian Institute of Technology, Kanpur, India.
- Received National Scholarship from Govt. of India.
- Received SBF Scholarship from I.I.T., Kanpur.
- Qualified at joint UGC –CSIR NET (JRF) Examination, June 2000.
- Qualified at GATE – 2000, Examination.

Brief Academic Description

Research publication: Published more than **115 research papers** in reputed journals, mostly in Scopus/SCI-indexed journals and written some books chapters. At present number of **h-index publication is 24; i10-index is 42 and paper citation is 1470.**

Research Guidance: **10 students** have been completed their Ph. D. degrees and 8 more are currently working under my supervision.

Lecture delivered: Visited several countries in connection to research activities and delivered more than 20 invited lectures both at National and International levels.

Member of Academic body: Life member of ISI, Kolkata and Life member of Calcutta Mathematical society.

Present position: Associate Professor, Department of Mathematics, IEST, Shibpur, Howrah - 711 103

Experience: **More than 19 years** teaching experience at UG & PG level.

Past Positions:

- i) Visiting Faculty, Indira Gandhi National Open University (IGNOU), REGIONAL CENTRE, KOLKATA-700091
- ii) Statistical Analyst, Risk Management Division, Credit Rating Information System India Limited (CRISIL), Mumbai, India.
- iii) Lecturer in Mathematics, R. K. Mission College of Education, Rahara, Kolkata – 700 118, India.

Academic-administrative involvements

- A) Member, Reservation Cell, IEST, Shibpur
- B) Convenor, Departmental Post Graduate Committee, Dept of Mathematics, IEST, Shibpur
- C) Member, Senate Post Graduate Committee, IEST, Shibpur
- D) Member, Stock Verification Committee, IEST, Shibpur

My further details can be seen at : <https://www.iiests.ac.in/IEST/Faculty/math-salam>

Complete List of Publication of S. Alam

1. Shovonlal Roy, S. Alam and J Chattopadhyay, Role of nutrient bound of prey on the dynamics of predator-mediated competitive- coexistence, 82, 143 – 153, Biosystems, 2005, <https://doi.org/10.1016/j.biosystems.2005.06.007>
2. Shovonlal Roy, S. Alam and J Chattopadhyay, Competing Effect of Toxin Producing Plankton on the overall Plankton population in the bay of Bengal, 68, 2303 – 2320, Bulletin of Mathematical Biology, 2006, Bull Math Biol, 2006, Nov;68(8):2303-20. doi: 10.1007/s11538-006-9109-5. Epub 2006 Jun 28.
3. A. K. Chongdar and S. Alam, **On generating functions of modified Bessel polynomials by Weisner's group theoretic method**, XVIII (1-2), 79-90, Rev. Acad. Canar. Cienc, 2006
4. S. Alam and A. K. Chongdar, On generating functions of modified Laguerre polynomials, Rev, 62, 91–98, Academia de Ciencias. Zaragoza, 2007, Web link: <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.505.5921&rep=rep1&type=pdf>
5. S. Alam, Prediction of bond ratings using statistical and neural networks techniques, 7, Proc. Appl. Math. Mech, 2007, PAMM Proc. Appl. Math. Mech. 7, 2080023–2080024 (2007) / DOI 10.1002/pamm.200700992
6. S. Mazumder, S. Bose, A. Bandopadhyay, S. Alam and M. Mukherjee, Study of laccase production by *Pleurotus ostreatus* in a 5 l bioreactor and application of the enzyme to determine the antioxidant concentration of human plasma, 47, 355 -360, The Society for Applied Microbiology Letters in Applied Microbiology, 2008, *First published: 20 September 2008*, <https://doi.org/10.1111/j.1472-765X.2008.02418.x>
7. S. Alam and A. K. Chongdar, **On the unification of a class of mixed trilateral generating relations for certain special functions**, 40 (2), 33-45, Journal of Technology, 2008
8. S. Alam and A. K. Chongdar, **On an extension of a bilateral generating function of modified Jacobi polynomial**, 20(2), 497-500, Ultra Science, 2008
9. S. Alam and N. N. R. Ranga Suri, **Use of Asset Correlation in Risk Based Pricing and Portfolio Management**, 40 (2), 17-31, Journal of Technology May 2008, 2008
10. SHARIFUL ALAM, Risk of Disease-Selective Predation in an Infected Prey-Predator System, 17(1), 111 – 124, Journal of Biological System, 2009, <https://doi.org/10.1142/S0218339009002703>
11. S. Alam and A.K. Chongdar, **An extension of a bilateral generating functions on modified Jacobi polynomials**, 102(1), 83-88, Bull. Cal. Math. Soc, 2010
12. B. C. Chandra S. Alam and A. K. Chongdar, Application of group theory to generating relations for special functions, 4(3), 29-37, Journal of Inequalities and Special Functions, 2013

13. S. Alam and A. K. Chongdar, On Some Mixed Trilateral Generating Functions of Modified Jacobi Polynomials by Group Theoretic Method, 1(2), 63-71, Universal Journal of Applied Mathematics, 2013, Universal Journal of Applied Mathematics 1(2): 63-71, 2013 DOI: 10.13189/ujam.2013.010205, Web link: <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.911.4133&rep=rep1&type=pdf>
14. S. Alam and A. K. Chongdar, On generating functions of modified Gegenbauer polynomials, 85(5), 819-832, International Journal of Pure and Applied Mathematics, 2013, Web link: <https://ijpam.eu/contents/2013-85-5/1/>, url: <http://www.ijpam.eu> doi: <http://dx.doi.org/10.12732/ijpam.v85i5.1>
15. S. Matia and S. Alam, Prey-Predator dynamics under hard behavior of prey, 1(4), 251 – 257, Universal Journal of Applied Mathematics, 2013, Universal Journal of Applied Mathematics 1(4): 251-257, 2013 DOI: 10.13189/ujam.2013.010408
16. Tanima Saha, Soumya Sasmal, Shariful Alam, Nirmalendu Das, Tamarind Kernel Powder: A Novel Agro-residue for the Production of Cellobiose Dehydrogenase under Submerged Fermentation by *Termitomyces clypeatus*, 62(15), 3438-3445, JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY (A Journal of AMERICAN CHEMICAL SOCIETY), 2014, Publication Date: March 28, 2014
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17. N. Das, S. Mishra, P. Chowdhury, T. Roy, S. Alam, Comparative study of fruiting body production of some oyster mushroom in two different temperatures, 29(1), 16-21; Article DOI :10.5958/2229-4473.2016.00005.7, VEGETOS: An International Journal of Plant Research, 2016
18. M.A. Biswas, Bachchu Sk, A.Maiti, S. Alam, Large advantage of herd behavior of prey in Prey Predator dynamics with disease in predator, 3(4), 114 – 120, International journal of advance in applied mathematics and mechanics, 2016, Int. J. Adv. Appl. Math. and Mech. 3(4) (2016) 114 - 120 (ISSN: 2347-2529), Web link: http://www.ijaamm.com/uploads/2/1/4/8/21481830/v3n4p13_114-120.pdf
19. Bachchu Sk, S. Alam, M. A. Biswas, A. Maiti, **PREY-PREDATOR DYNAMICS UNDER HERD BEHAVIOR OF PREY AND DISEASE IN PREDATOR**, 5 (9), International journal of science technology and management, 2016, Web link: http://www.ijstm.com/images/short_pdf/1473842930_1015ijstm.pdf
20. S. Pramanik, S. Dalapati, S. Alam and TK Roy, **Some Operations and Properties of Neutrosophic Cubic Soft Set**, 4(2), 1-8, Global Journal of Research and Review, 2017, DOI: 10.21767/2393-8854.100014 Web Link: <https://www.imedpub.com/articles/some-operations-and-properties-of-neutrosophic-cubic-soft-set.pdf>
21. Bachchu SK and S Alam, **Dynamics of a Food Chain Model and Impact of Maximum Sustainable Yield Policy**, 6 (10), 1961-1967, International journal of advance research in science and engineering, 2017, Web link: http://ijarse.com/images/fullpdf/1509007634_780ijarse.pdf
22. Bachchu SK and S Alam, **MODELLING AND ANALYSIS OF A PREDATOR-PREY SYSTEM UNDER HERD-BEHAVIOR OF PREY**, 6(8), 5110-5113, International Journal of Current Advanced, 2017, Volume 6; Issue 8; August 2017; Page No. 5110-5113 DOI:

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23. S. Pramanik, S. Dalapati, S. Alam and TK Roy, **NC-TODIM-Based MAGDM under a Neutrosophic Cubic Set Environment**, 8(4), 149; <https://doi.org/10.3390/info8040149>, Information, 2017

24. Bachchu SK and S Alam, **Harvesting policy and stability analysis of a food chain model**, 6(2), 678-682, International Journal of Advanced Research and Development, 2017, web link: <http://www.advancedjournal.com/archives/2017/vol2/issue6/2-6-227>

25. S. Pramanik, S. Dalapati, S. Alam and TK Roy, **TODIM Method for Group Decision Making under Bipolar Neutrosophic Set Environment**, Vol-II, pp 140-155, New Trends in Neutrosophic Theory and Applications, 2017

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30. S. Dalapati, S. Pramanik, S. Alam, F. Smarandache, T. K. Roy, **In-cross Entropy Based MAGDM Strategy under Interval Neutrosophic Set Environment**, Vol. 18, pp. 43-57, Neutrosophic Sets and Systems, 2017

31. Bachchu SK and S Alam, **A tri-neuron network model and bifurcation phenomenon with respect to synaptic weight and time delay**, 3(1), 335-339, International Journal of Statistics and Applied Mathematics, 2018, Web Link: <https://www.mathsjournal.com/pdf/2018/vol3issue1/PartE/2-6-61-430.pdf>

32. S. Pramanik*, S. Dalapati, S. Alam, F. Smarandache and TK Roy, **NC-Cross Entropy Based MADM Strategy in Neutrosophic Cubic Set Environment**, Accepted: 26 April 2018 / Published: 29 April 2018, Mathematics 2018, Vol-6, Article ID: 67; <https://doi.org/doi:10.3390/math6050067>

33. S. Pramanik, S. Dalapati S. Alam and TK Roy, **NC-VIKOR Based MAGDM Strategy under Neutrosophic Cubic Set Environment**, Neutrosophic Sets and Systems, vol. 20, 2018, pp. 95-108, Neutrosophic Sets and Systems, 2018, April 28, 2018
DOI: <https://doi.org/10.5281/zenodo.1235367>

34. Surapati Pramanik, Shyamal Dalapati, Shariful Alam, Tapan Kumar Roy, VIKOR based MAGDM strategy under bipolar neutrosophic set environment, 19, 57-69, Neutrosophic Sets and Systems, Publish date : April 28, 2018, DOI: <https://doi.org/10.5281/zenodo.1235341>

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36. S .Pramanik, S. Dalapati, S. Alam, F. Smarandache and TK Roy, NS-Cross Entropy-Based MAGDM under Single-Valued Neutrosophic Set Environment, **Accepted: 6 February 2018 / Published: 9 February 2018**, *Information* 2018, 9(2), 37; <https://doi.org/10.3390/info9020037>

37. Surapati Pramanik, Shyamal Dalapati , Shariful Alam and Tapan Kumar Roy , NC-TODIM-Based MAGDM under a Neutrosophic Cubic Set Environment, *Accepted: 14 November 2017; Published: 18 November 2017*, *Information* 2017, 8, 149; doi:10.3390/info8040149

38. A. Chakraborty, S. Mondal, S. Alam, Ali A., N. Senu, D. De and S. Salahshour, Pentagonal Fuzzy number Its Different Representation, Properties, Ranking, Defuzzification and Application in Game problem, *Accepted: 15 January 2019; Published: 16 February 2019*, *Symmetry* 2019, 11, 248; doi:10.3390/sym11020248

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41. Suklal Tudu, Shariful Alam, Tapan Kumar Roy, **The solution of first-order fuzzy differential equation in the intuitionistic fuzzy environment using the Inverse Laplace transform technique**, 9(1), 204-209, International Journal of Mathematical Archive, 2018

42. S.N.Matia, **A.Mahata**, S.Alam , B.Roy, Persistence of a Generalized Prey-Predator Model with Prey Reserved and Herd Behavior of Prey in Unreserved Zone, Where Both side Prey Migration Rate Is Predator's Density Dependent Function, *IJESI*(2018), 7(3), *ISSN (Online): 2319 – 6734, ISSN (Print): 2319 – 6726*, pp-40-48

43. T. Roy, A. Bandopadhyay, P. J. Sonawane, S. Majumdar, N. R. Mahapatra, S. Alam and N. Das , Bio-effective disease control and plant growth promotion in lentil by two pesticide degrading

44. A. Mahata, S. P. Mondal, S. Alam., A. Chakraborty, S. K De, A. Goswami, **Mathematical model for diabetes in fuzzy environment with stability analysis**, *Journal of Intelligent & Fuzzy Systems*, vol. 36, no. 3, pp. 2923-2932, 2019, **Published:** 26 March 2019 (SCI) , DOI: [10.3233/JIFS-171571](https://doi.org/10.3233/JIFS-171571)
45. Avishek Chakraborty, Sankar Prasad Mondal, Shariful Alam , Ali Ahmadian, Norazak Senu, Debasish De and Soheil Salahshour, **Disjunctive Representation of Triangular Bipolar Neutrosophic Numbers, De-Bipolarization Technique and Application in Multi-Criteria Decision-Making Problems**, 11(7), 932-, *Symmetry*, 2019, DOI: [10.3390/sym11070932](https://doi.org/10.3390/sym11070932)
46. Jyotirmoy Roy and Shariful Alam, **Dynamics of an autonomous food chain model and existence of global attractor of the associated non-autonomous system**, 12(8), <https://doi.org/10.1142/S1793524519500827>, *International Journal of Biomathematics*, 2019
47. Jyotirmoy Roy and Shariful Alam, **Fear factor in a prey–predator system in deterministic and stochastic environment**, 541, <https://doi.org/10.1016/j.physa.2019.123359>, *Physica A: Statistical Mechanics and its Applications*, 2019
48. Jyotirmoy Roy, Shariful Alam, **Study on autonomous and nonautonomous version of a food chain model with intraspecific competition in top predator**, 43 (6), 3167-3184; DOI: 10.1002/mma.6109, *Mathematical Methods in the Applied Sciences*, 2020
- A. Chakraborty, S.P Mondal, A. Ahmadian, N. Senu, D. De, S. Alam and S. Salahshour, **"The Pentagonal Fuzzy Number: Its Different Representations, Properties, Ranking, Defuzzification and Application in Game Problem"**, Accepted: 15 January 2019; Published: 16 February 2019, *Symmetry* (SCI), Vol-11(2), Article ID: 248; (2019), DOI: <https://doi.org/10.3390/sym11020248>, I.F- 2.71 . (Repeat with paper
49. Suman Maity, Avishek Chakraborty, Sujit Kumar De, Sankar Prasad Mondal and Shariful Alam, **A comprehensive study of a backlogging EOQ model with nonlinear heptagonal dense fuzzy environment** ,*Rairo Operations Research* (SCI), Vol-54 (1), (2020); 267-286; DOI: <https://doi.org/10.1051/ro/2018114>, I.F - 1.85.
50. Avishek Chakraborty, Baisakhi Banik, Sankar Prasad Mondal and Shariful Alam, **Arithmetic and Geometric Operators of Pentagonal Neutrosophic Number and its Application in Mobile Communication Based MCGDM Problem**, *Neutrosophic Sets and System* (ESCI/SCOPUS), Vol-32, pp: 61-79, 2020, DOI: <https://doi.org/10.5281/zenodo.3723145>.
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58. Dipesh Barman, Jyotirmoy Roy, Shariful Alam, Trade-off between fear level induced by predator and infection rate among prey species, Published 10 June 2020, [*Journal of Applied Mathematics and Computing*, volume 64 \(Journal issue, Oct. 2020\)](#), pages635–663 (2020) <https://doi.org/10.1007/s12190-020-01372-1>, Journal of Applied Mathematics and Computing, Springer, 2020
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61. ABDUL ALAMIN, SANKAR PRASAD MONDAL, SHARIFUL ALAM, ADRIJIT GOSWAMI, Solution and stability analysis of non-homogeneous difference equation followed by real life application in fuzzy environment, *Accepted 23 June 2020*, Published: 21 July, 2020, *Sādhanā* volume 45, Article number: 185 (2020), Sadhana, A journal of Indian Academy of Sciences, 2020, DOI: <https://doi.org/10.1007/s12046-020-01422-1>

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Title: Manifestation of Interval Uncertainties for Fractional Differential Equations under Conformable Derivative

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Status: Accepted , September, 2022.