

Dr. NAILA NASREEN

Date of Birth: 23 January 1989 (Pakistan)



+86-18505246675



+92-323-5026344



Naila8992



naila_nasreen@hotmail.co.uk

nailanasreen89@ujs.edu.cn



School of Mechanical Engineering, Shandong University, Jinan, China.



PROFILE

I have more than five years teaching and Research experience in Pakistan and China. Currently I am working on Nonlinear dynamical system, NLPDEs, Fractional calculus, Schrodinger problems, coupled system, Analytical methods for nonlinear models, Wave theory, Soliton and lump type solutions. Furthermore, I am interested to do work in Financial Mathematics, Financial system modelling machine learning and deep learning.



EDUCATION

- 2024-till dated **Post-Doctoral Fellowship (Mechanical Engineering)**
School of Mechanical Engineering, Shandong University, Jinan, China.
- 2022-24 **Post-Doctoral Fellowship (Mechanical Engineering)**
School of Mathematical Science, Jiangsu University, China.
- 2017-20 **PhD Applied Mathematics (Control science and engineering)**
School of Mathematical Science, Jiangsu University, China.
(Outstanding/Excellent Student award from CSC & Jiangsu Province)
- 2015-17 **Bachelor's in education (B.Ed. Professional Degree) 1st Division**
Allama Iqbal Open University Islamabad, Pakistan.
- 2011-13 **Master of Science (Applied Mathematics) 1st Division**
COMSATS Institute of Information Technology Islamabad, Pakistan.
- 2007-11 **B. S. Hons. (Mathematics) 1st Division**
Fatima Jinnah Women University Rawalpindi, Pakistan.
- 2005-07 **HSSC (Math Physics & Computer) 1st Division**
F. G. College Mangla Cantt, Islamabad, Pakistan



TEACHING EXPERIENCE

- May 2023-till dated Academic Advisor for foreigner students at Jiangsu University.
- Mar 2022 to Sep 2022 Assistant Prof. (IPFP Fellowship HEC Pakistan) at PUTR.
- Mar 2020 to July 2021 Visiting AP, Riphah International University Islamabad. Pakistan.
- Oct 2020 to July 2021 Visiting AP, University of Sargodha, Pakistan.



AWARDS & HONORS

1. **CSC Outstanding Student** of the Year Award 2019-2020 (Award amount 30Thousand RMB).
2. Awarded Jiangsu **Provincial scholarship** of the year 2019 (Award amount 30Thousand RMB).
3. Award of **Outstanding graduate student** of the year 2020
4. **Best paper award** in 8th sino conference Jiangsu university China.
5. Awarded **Presidential Scholarship** 2017-2020.
6. **Excellent Doctoral thesis Award** (with 10000 RMB cash prize) June 2020.
7. Received Merit based **Laptop from Punjab Govt of Pakistan**.
8. **IPFP Fellow Ship (Project)** from HEC Pakistan January 2022.
9. **HEC Approved Supervisor**, Pakistan



LANGUAGES

Urdu, English, TEFL, Chinese (HSK 2)



SKILLS & TOOLS

Microsoft Office, SPSS, Mathematica, Latex



CONFERENCES AND SEMINAR

1. Presented article in 6th International Conference on pure & Applied Mathematics (ICPAM023) at **University of Sargodha Pakistan, December 06-07, 2023.**
2. Conference on Advances in Computing, Communication and Information Technology - CCIT 2019, **Institute of Research Engineers and Doctors, April 23-24, 2019, Birmingham, UK.**
3. Eight Sino-foreign Postgraduate Academic Forum of **Jiangsu University, October 28-29, 2018, China.**
4. 5th International Conference on “Recent Developments in Fluid Dynamics, **Quaid-e-Azam University, May 28-29, 2015, Islamabad, Pakistan.**
5. Workshop on Recent Advances in Computational Fluid Dynamics at **COMSATS Institute of Information and Technology, 2015, Islamabad, Pakistan.**



Research-based IDs information

ORCID: [0000-0001-7613-2681](https://orcid.org/0000-0001-7613-2681)

Google Scholar: [Dr. Naila Nasreen \(Google Scholar\)](#)

Research Gate: [Naila Nasreen \(Researchgate.net\)](#)

Co. Supervision: 1 PH. D Student

Co. Supervision: 2 Master Student

Publications: 37

Citation: 740

h-index: 17

I 10-index: 22



RESEARCH WORK

- Thesis** Flow of a nanofluid past through a stretching/ shrinking sheet with convective boundary condition. (MS)
- Thesis** The analytical wave solutions of some class of nonlinear evaluation equations and their stability analysis. (Ph.D.)
- On the study of wave's structures to the nonlinear systems arising in diversity of fields (Postdoc Report)



VISITED COUNTRIES

Germany, Malaysia, China, UK, Siri Lanka, Saudi Arabia, Hong Kong, Turkey, Doha Qatar, Japan, Italy, Switzerland, Spain, Poland.



REVIEWER OF THE JOURNAL

1. Nonlinear Dynamics
2. International Journal of Modern Physics B
3. Journal of Taibah University for Science
4. Qualitative Theory of Dynamical Systems
5. MDPI: Fractal, Mathematics, Symmetry
6. Advances in Mathematical Physics
7. Scientific Report
8. Optical and Quantum Mechanics
9. International Journal of Theoretical Physics
10. The European Physical Journal Plus
11. International Journal on Geomathematics
12. Symmetry in the Soliton Theory (**Guest Editor**)



REFERENCES

- Dr. Dianchen Lu** (Professor)
Jiangsu university, Zhenjiang, China
Email: dclu@ujs.edu.cn
- Dr. Zhengdi Zhang** (Professor)
Jiangsu university, Zhenjiang, China
Email: dyzhang@ujs.edu.cn
- Dr. Muhammad Qasim** (Associate Professor)
Comsats University Islamabad, Pakistan
Email: mqasim@comsats.edu.pk
- Dr. Muhammad Arshad** (Associate Professor)
University of Agriculture Faisalabad, Pakistan
Email: muhammad.arshad18@yahoo.com



PUBLICATIONS

1. **Naila Nasreen**, Aly R. Seadawy, Dianchen Lu, Muhammad Arshad, Construction of modulation instability analysis and optical soliton solutions of perturbed nonlinear Schrödinger dynamical equation with power law nonlinearity in non-kerr medium, *Results in Physics* 13 (2019) 102263. <https://doi.org/10.1016/j.rinp.2019.102263>
2. **Naila Nasreen (Corresponding author)**, D. Lu, M. Arshad, Optical soliton solutions of nonlinear Schrödinger equation with second order spatiotemporal dispersion and its modulation instability. *Optik* 161 (2019) 221–229. <https://doi.org/10.1016/j.ijleo.2018.02.043>
3. Aly R. Seadawy, **Naila Nasreen**, D. Lu, S. Nasreen, Structure of optical solitons of resonant Schrödinger equation with quadratic cubic nonlinearity and modulation instability analysis, *Physica A* 534 (2019) 122155. <https://doi.org/10.1016/j.physa.2019.122155>
4. **Naila Nasreen**, Aly R. Seadawy, D. Lu, Study of modulation instability analysis and optical soliton solutions of higher-order dispersive nonlinear Schrödinger equation with dual-power law nonlinearity, *Modern Physics Letters B*, 33(2019) 25 -1950309. <https://doi.org/10.1142/S0217984919503093>
5. **Naila Nasreen**, Aly R. Seadawy, D. Lu, W. A. Albarakati, Dispersive Solitary Wave and Soliton Solutions of the Generalized Third Order Nonlinear Schrödinger dynamical Equation By modified analytical Method, *Results in Physics* 15 (2019) 102641. <https://doi.org/10.1016/j.rinp.2019.102641>
6. **Naila Nasreen**, Aly R. Seadawy, D. Lu, M. Arshad, Arising wave propagation in nonlinear media for the (2+1)-dimensional Heisenberg ferromagnetic spin chain dynamical model, *Physica A* 538(2020) 122846. <https://doi.org/10.1016/j.physa.2019.122846>
7. Rehman, M., Majeed, D., **Naila Nasreen**. & Tabassum, S. (2017). Commutating structure singular values for delay and polynomial eigen value problems. *Open Journal of Applied Sciences*, 7, 384-364.
8. **Naila Nasreen**, Aly R. Seadawy, D. Lu, M. Arshad, Solitons and elliptic function solutions of higher-order dispersive and perturbed nonlinear Schrödinger equations with the power-law nonlinearities in non-Kerr medium, *Eur. Phys. J. Plus* (2019) 134: 485. DOI 10.1140/epjp/i2019-12836-2
9. **Naila Nasreen**, D. Lu, Soliton solutions of Schrodinger Equation with Quadratic Cubic non linearity and its Stability, Proc. of the *Eighth Intl. Conf. on Advances in Computing, Communication and Information Technology - CCIT 2019* ISBN: 978-1-63248-169-6 [10.15224/978-1-63248-169-6-11](https://doi.org/10.15224/978-1-63248-169-6-11)
10. C. Yue, D. Lu, M. Arshad, **Naila Nasreen**, X. Qian, Bright-Dark and Multi Solitons Solutions of {(3+1)-Dimensional Cubic-Quintic Complex Ginzburg--Landau Dynamical Equation with Applications and Stability, *Entropy* 22 (2020) 202. <https://doi.org/10.3390/e22020202>
11. Aly R. Seadawy, D. Lu, **Naila Nasreen**, Construction of solitary wave solutions of some nonlinear dynamical system arising in nonlinear water wave models, *Indian J Phys* (2020). <https://doi.org/10.1007/s12648-019-01608-2>
12. **Naila Nasreen**, Aly R. Seadawy, D. Lu, Construction of soliton solutions for modified Kawahara equation arising in shallow water waves using novel techniques, *Int. Journal of Modern Physics B* (2020) 205004(18 pages). <https://doi.org/10.1142/S0217979220500459>
13. **Naila Nasreen**, Aly R. Seadawy, D. Lu, Complex model ultra-short pulses in optical fibers via generalized third-order nonlinear Schrödinger dynamical equation, *Int. Journal of Modern Physics B* (2020) 2050143. [10.1142/S021797922050143X](https://doi.org/10.1142/S021797922050143X)
14. X Hu, M. Arshad, L. Xiao, **Naila Nasreen**, A. Sarwar, Bright-dark and multi wave novel solitons structures of Kaup-Newell Schrödinger equations and their applications, *Alexandria Engineering Journal*, Volume 60, Issue 4, August 2021, Pages 3621-3630. <https://doi.org/10.1016/j.aej.2021.02.018>
15. Aly R. Seadawy, **Naila Nasreen**, S. Althobaiti, S. Sayed, A. Biswas, Soliton solutions of Sasa–Satsuma nonlinear Schrödinger model and construction of modulation instability analysis, *Optical and Quantum Electronics*, Feb (2021). [10.1007/s11082-021-02785-3](https://doi.org/10.1007/s11082-021-02785-3).

16. **Naila Nasreen**, Aly R. Seadawy, Dianchen Lu, Optical soliton and elliptic functions solutions of Sasa- satsuma dynamical equation and its applications, *Applied Mathematics-A Journal of Chinese University*, 36 (2021)229–242. <https://doi.org/10.1007/s11766-021-3844-0>.
17. **Naila Nasreen**, D. Lu, Z. Zhang, A. Akgul, U. Younas, S. Nasreen, Al-Ahmadi, A. N, Propagation of optical pulses in fiber optics modelled by coupled space-time fractional dynamical system. *Alexandria Engineering Journal*, 73 (2023) 173-187. <https://doi.org/10.1016/j.aej.2023.04.046>
18. H.F. Ismael, U. Younas , T. A. Sulaiman , **Naila Nasreen** , Non classical interaction aspects to a nonlinear physical model, *Results in Physics*, 10, 106520 (2023). <https://doi.org/10.1016/j.rinp.2023.106520>
19. **Naila Nasreen**, U. Younas, T. A. Sulaiman, Z. Zhang, D. Lu, A variety of M-truncated optical solitons to a nonlinear extended classical dynamical model, *Results in Physics*, 51 (2023) 106722. <https://doi.org/10.1016/j.rinp.2023.106722>
20. **Naila Nasreen**, U. Younas, D. Lu, Z. Zhang, H. Rezaadeh, M. A. Hosseinzadeh, Propagation of solitary and periodic waves to conformable ion sound and Langmuir waves dynamical system, *Optical and Quantum Electronics* 55 (2023) 868. <https://doi.org/10.1007/s11082-023-05102>.
21. **Naila Nasreen**, M. N. Rafiq, U. Younas, D. Lu, Sensitivity analysis and solitary wave solutions to the (2+1)-dimensional Boussinesq equation in dispersive media, *Modern Physics Letters B* 38 (2024) 3 - 2350227. <https://doi.org/10.1142/S0217984923502275>
22. S. Ahmad, M. Alammari, A. Ullah, S. Ahmad, **Naila Nasreen (Corresponding author)**, Exploring optical soliton solutions of a self-focusing nonlinear Schrödinger equation by two effective techniques, *Optical And Quantum Electronics*,56, (2024) 339. <https://doi.org/10.1007/s11082-023-05936-w>
23. U. Younas, F. Yao, **Naila Nasreen(Corresponding author)**, A. Khan, T. Abdeljawad, Dynamics of M-truncated optical solitons and other solutions to the fractional Kudryashov's equation, *Results in Physics* 58 (2024) 107503. <https://doi.org/10.1016/j.rinp.2024.107503>
24. U. Younas, F. Yao, **Naila Nasreen**, A. Khan, T. Abdeljawad, On the dynamics of soliton solutions for the nonlinear fractional dynamical system: Application in ultrasound imaging, *Results in Physics* 57 (2024) 107349. <https://doi.org/10.1016/j.rinp.2024.107349>
25. J. Muhammad, MB Riaz, U. Younas, **Naila Nasreen**, A. Jahangir, D. Lu, Extraction of optical wave structures to the coupled fractional system in magneto–optic waveguides, *Arab Journal of Basic and applied sciences*, April 2024. <https://doi.org/10.1080/25765299.2024.2337469>
26. **Naila Nasreen**, MN Rafiq, U. Younas, M. Arshad, M. Abbas, Mohamed R. Ali, Stability analysis and dynamics of solitary wave solutions of the (3+1)-dimensional generalized shallow water wave equation using the Ricatti equation mapping method, *Results in Physics*, 56 (2024) 107226. <https://doi.org/10.1016/j.rinp.2023.107226>
27. **Naila Nasreen(Corresponding author)**, D. Lu, U. Younas, Aly. R. Seadawy, M. Iqbal, Dynamics of optical pulses with the effect of second-order spatiotemporal dispersion, *Optical and Quantum Electronics*, 56 (2024) 853. <https://doi.org/10.1007/s11082-023-05864-9>
28. J. Muhammad, U. Younas, F. Yao, **Naila Nasreen**, A. Khan, T. Abdeljawad, Multicomponent nonlinear fractional Schrödinger equation: On the study of optical wave propagation in the fiber optics, *Partial Differential Equations in applied Mathematics*. 11 (2024) 100805.
29. **Naila Nasreen**, Aly R. Seadawy, D. Lu, M. Arshad, Optical fibers to model pulses of ultrashort via generalized third-order nonlinear Schrödinger equation by using extended and modified rational expansion method, *Journal of Nonlinear Optical Physics & Materials*, 33-4 (2024) 2350058. [10.1142/S0218863523500583](https://doi.org/10.1142/S0218863523500583)
30. U. Younis, J. Muhammad, **Naila Nasreen**, A. Khan, T. Abdeljawad, On the comparative analysis for the fractional solitary wave profiles to the recently developed nonlinear system, *Ain Shams Engineering journal*. Available online 16 July 2024, 102971. <https://doi.org/10.1016/j.asej.2024.102971>
31. J. Muhammad, S.U. Rehman **Naila Nasreen**, M. Bilal, Younas, Exploring the fractional effect to the optical wave propagation for the extended Kairat-II equation, *Nonlinear Dyn* (2024). <https://doi.org/10.1007/s11071-024-10139-3>
32. J. Muhammad, M. Bilal, S.U. Rehman, **Naila Nasreen**, U. Younis, Analyzing the decoupled nonlinear Schrodinger equation: Fractional optical wave patterns in the dual-core fibers, *Journal of Optics* (2024). <https://doi.org/10.1007/s12596-024-02236-8>
33. **Naila Nasreen**, J. Muhammad, A. Jahangir, U. Younis, Dynamics of fractional optical solitary waves to the cubic quintic coupled nonlinear Helmholtz equation, *Partial Differential Equations in applied Mathematics*. 11 (2024) 100812. [10.1016/j.padiff.2024.100812](https://doi.org/10.1016/j.padiff.2024.100812)

34. J. Muhammad, **Naila Nasreen**, U. Younis, On the study of exact soliton solutions and interaction aspects to the Estevez Mansfield Clarkson equation arising in diversity of fields, *Physica scripta*. 99 (2024) 115221 DOI [10.1088/1402-4896/ad804b](https://doi.org/10.1088/1402-4896/ad804b)
35. **Naila Nasreen**, A. Yadav, S. Malik, E. Hussain, Phase trajectories, Chaotic behaviour, and solitary wave solutions for (3+1)-dimensional integrable Kadomtsev-Petviashvili equation in fluid dynamics, *Chaos soliton & Fractals*, 188 (2024) 115588. <https://doi.org/10.1016/j.chaos.2024.115588>
36. Usman Younas, Tukur A. Sulaiman, A. A. Rahimzai, Hajar F. Ismael, **Naila Nasreen**, A. Jhangeer, Dynamics of thermophoretic waves in graphene sheets: on the study of interaction phenomena. *Discover Applied Sciences* 7 (3) 172, 2025. <https://doi.org/10.1007/s42452-024-06452-6>
37. **Naila Nasreen**, MAB Iqbal, MZ. Raza, M. Yousaf, Z. Jiang, Optical soliton solutions of the coupled equation in a stratified deep-sea environment with engineering application, *Ocean Engineering*, 327 (2025) 120966. <https://doi.org/10.1016/j.oceaneng.2025.120966>
38. **Naila Nasreen**, I. Latif, K. Basheer, M. Arshad, Z. Jiang, Conservation Laws, Soliton Dynamics, and Stability in a Nonlinear Schrödinger Equation with Second-Order Spatiotemporal Dispersion, 14 (2026) 54, *Mathematics*. <https://doi.org/10.3390/math14010054>