

Md. Habibul Bashar

(B.Sc. in Mathematics & M.Sc. in Applied Mathematics)

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This is Md. Habibul Bashar. Currently, He is working as a **Lecturer**, Department of Mathematics at **European University of Bangladesh**. He has just completed his B.Sc. and M.Sc. program in Mathematics and Applied Mathematics from Pabna University of Science & Technology Pabna-6600, Bangladesh. He has completed successfully one year of research work (**M.Sc. Thesis**) on **water wave** under the direct supervision of **Dr. Md. Azizur Rahman** and completed project work on **nonlinear partial differentia equation** under **S.M. Rayhanul Islam**. He has a vision to see himself as a **highly efficient executive of a dynamic organization where he can utilize his learning, interpersonal skill, analytical ability, and adaptability for further development as well as** will be able to enhance and share his knowledge in the field of **Computational and Applied Mathematics** for the sake of mankind. Already, He has made some world-class research on his preferred applied branches of mathematics that are published in high impact factor, **Q1, Q2, Scopus** related journals. For your kind consideration his research information's are given below:

Research Project:

1. The M.Sc. project entitled “**A study on the surf zone wave**” is supported and funded by National Science and Technology (NST) under the Ministry of Science and Technology, Government of the People's Republic of Bangladesh.

Published Papers:

1. **Md. Habibul Bashar**, S. M. Rayhanul Islam and Saiful Islam, “Exact traveling wave solution of the nonlinear evolution equations by (G'/G) -expansion method in mathematical physics”, International Research Journal of Nature Science and Technology (IRJNST), 2019, 1(4).
2. Roshid M, **Bashar H.** Breather Wave and Kinky Periodic Wave Solutions of One-Dimensional Oskolkov Equation. Mathematical Modelling of Engineering Problems. 2019;6(3):460-466. doi:<https://doi.org/10.18280/mmep.060319> (**Scopus, h indexed, IF 1.659, Q2**)
3. **Habibul Bashar Md**, Mamunur Roshid Md. Rouge wave solutions of a nonlinear pseudo-parabolic physical model through the advance exponential expansion method. International Journal of Physical Research. 2020;8(1):1. doi:<https://doi.org/10.14419/ijpr.v8i1.30475>
4. Nur Hasan Mahmud Shahan, Foyjonnesa, **Md Habibul Bashar**. Exploration on traveling wave solutions to the 3rd-order klein–fock-gordon equation (KFGE) in mathematical physics. 2020;8(1):14-21. doi:<https://doi.org/10.14419/ijpr.v8i1.30711>

5. **BASHAR MdH**, ROSHĪD M. Exact Travelling Wave Solutions of the Nonlinear Evolution Equations by Improved F-Expansion in Mathematical Physics. Communications in Advanced Mathematical Sciences. Published online September 29, 2020:115-123. doi:<https://doi.org/10.33434/cams.659225>
6. **Bashar MH**, Islam SMR. Exact solutions to the (2 + 1)-Dimensional Heisenberg ferromagnetic spin chain equation by using modified simple equation and improve F-expansion methods. Physics Open. 2020;5: <https://doi.org/10.1016/j.physo.2020.100027> (**Scopus , h indexed, Q3**)
7. Nur, Foyjonnesa, **Md Habibul Bashar**, Md. Shuzon Ali, Abdulla Al Mamun. Dynamical analysis of long-wave phenomena for the nonlinear conformable space-time fractional (2+1)-dimensional AKNS equation in water wave mechanics. 2020;6(10):e05276-e05276. doi:<https://doi.org/10.1016/j.heliyon.2020.e05276> (**Scopus , h indexed, Q1 IF-3.77**)
8. **Md. Habibul Bashar**, S.M. Rayhanul Islam, Dipankar Kumar, Construction of traveling wave solutions of the (2+1)-dimensional Heisenberg ferromagnetic spin chain equation, Partial Differential Equations in Applied Mathematics, Volume 4, 2021, 100040, <https://doi.org/10.1016/j.padiff.2021.100040>. (**Scopus, h indexed, Q2**)
9. Islam SMR, **Bashar MH**, Muhammad N. Immeasurable soliton solutions and enhanced (G'/G)-expansion method. Physics Open. 2021;9: 100086. doi:<https://doi.org/10.1016/j.physo.2021.100086> (**Scopus, h indexed, Q3**)
10. **Md Habibul Bashar**, Tasnim Tahseen, Nur. Application of the Advanced $\exp(-\varphi(\xi))$ -Expansion Method to the Nonlinear Conformable Time-Fractional Partial Differential Equations. Published online June 30, 2021. doi:<https://doi.org/10.47000/tjmcs.725815> (**TR Dizin**)
11. Shahen NHM, Foyjonnesa, **Bashar MH**, Tahseen T, Hossain S. Solitary and Rogue Wave Solutions to the Conformable Time Fractional Modified Kawahara Equation in Mathematical Physics. Fellah ZEA, ed. Advances in Mathematical Physics. 2021;2021:1-9. doi:10.1155/2021/6668092 (**Scopus, h indexed, IF-1.364 , Q3**)
12. Arafat SMY, SMR Islam, **Bashar MH**. Influence of the free parameters and obtained wave solutions from CBS equation. Int. J. Appl. Comput. Math. 2022; 8(3): 1-17. <https://doi.org/10.1007/s40819-022-01295-4>. (**Scopus, h indexed, IF-1.767, Q3**)
13. **M. H. Bashar**, S. M. Y. Arafat, S. M. R. Islam, M. M. Rahman, Wave solutions of the couple Drinfel'd–Sokolov–Wilson equation: New wave solutions and free parameters effect, Journal of Ocean Engineering and Science (2022). <https://doi.org/10.1016/j.joes.2022.05.003> (**Scopus, h indexed, IF-4.803, Q2**)

14. S M Rayhanul Islam, **Md Habibul Bashar**, S M Yiasir Arafat, Hanfeng Wang, Md Mamunur Roshid, Effect of the free parameters on the Biswas-Arshed model with a unified technique, Chinese Journal of Physics, 77, 2022, <https://doi.org/10.1016/j.cjph.2022.04.022>. (IF-3.957, Q2)
15. **Bashar MH**, Arafat SMY, Islam SMR, Islam S, Rahman MM. Extraction of some optical solutions to the (2+1)-dimensional Kundu–Mukherjee–Naskar equation by two efficient approaches. Partial Differential Equations in Applied Mathematics. 2022;6:100404. doi:<https://doi.org/10.1016/j.padiff.2022.100404> (Scopus, h indexed, Q2)
16. **Md. Habibul Bashar**, Mustafa Inc, S. M. Rayhanul Islam, K.H. Mahmoud, M Ali Akbar, Soliton solutions and fractional effects to the time-fractional modified equal width equation. Alexandria Engineering Journal. 2022;61(12):12539-12547. <https://doi.org/10.1016/j.aej.2022.06.047> (Scopus, h indexed, IF-6.626, Q1)
17. **Bashar MH**, Mawa HZ, Biswas A, Rahman MM, Roshid MM, Islam J. The modified extended tanh technique ruled to exploration of soliton solutions and fractional effects to the time fractional couple Drinfel'd–Sokolov–Wilson equation. Heliyon. 2023;9(5):e15662. doi:<https://doi.org/10.1016/j.heliyon.2023.e15662> (Scopus, h indexed, Q1 IF-3.776)

M.Sc. Thesis Title:

“A study on the surf zone wave”

B.Sc. Project Thesis Title:

“Find the Exact Traveling Wave Solutions of Nonlinear Evaluation Equations Using Enhanced (G'/G) -Expansion Method in Mathematical Physics”

His **M.Sc. thesis** was on Water wave. It is an applied branch of applied and computational mathematics deals with planetary cosmology. This research work is related to simulate and explore the initial configuration of protoplanets. Here his concern is to analyze the initial configurations (Temperature, Density, Mass, and Volume) inside the protoplanet. For this thesis, he got the **National Science and Technology (NST) Fellowship Award 2018** from our Ministry of National Science and Technology, Government of the People’s Republic of Bangladesh.

Nowadays **Md. Habibul Bashar** does research in Mathematical Physics with Investigation of Optical and Solitary Wave Solutions of NPDES, and Astrophysics. He is open to doing collaborative researches with other groups or individuals.

You can find him in the following links:

ResearchGate: https://www.researchgate.net/profile/Habibul_Bashar

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