Curriculum Vitae
of
MD. ENAMUL HAQUE

Present status

Assistant professor

Department of Biotechnology and Genetic Engineering

Gopalganj Science and Technology University, Gopalganj-8105

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Research Interest

- Plant biotechnology
- Plant stress biology
- Nanobiotechnology
- Microbiology

Academic background

Exam. Name	Subject	University/Board	Passing Year	Result
Doctorate	Biochemistry and Molecular Biology	University of Chinese Academy of Sciences, China	2019	Awarded
Master of Science (M.S.)	Genetic Engineering and Biotechnology	Rajshahi University	2008, held in 2011	CGPA-3.950 (out of 4.0)
Bachelor	Agriculture	Rajshahi University	2006, held in 2008	First Class

Job experience

Position	Organization	Department	Duration
Assistant Professor	Gopalganj Science and Technology University	Biotechnology and Genetic Engineering	30 June 2025-continue
Lecturer	Gopalganj Science and Technology University	Biotechnology and Genetic Engineering	03 October, 2023-29 June 2025
Plant Breeder	Lal Teer Seed Limited	Rice R&D	01 November 2020-02 October 2023

Research Assistant	Rajshahi University	Genetic Engineering and Biotechnology	1 June, 2011-30 June, 2014

Investigating Research Project and Supervision of Students

Research project	**Title:** Biosynthesis of Zinc and Silver Nanoparticles and Evaluation of Their Potentials in Enhancing Salt Tolerance and Crop Health of Brinjal for Sustainable Agriculture **Funding agency:** UGC/Research Center-Gopalganj Science and Technology University **Project period:** 2025-2026 **Status:** Running
	Title: Green synthesis and characterization of ZnO nanoparticles using *Leonurus sibiricus*: evaluation of antimicrobial, anticancer and antioxidant potential **Funding agency:** Ministry of Science and Technology, Bangladesh (R&D) **Project period:** 2025-2026 **Status:** Completed
	Title: Screening of Natural Bioactive Compounds in Identifying Potential Antiviral Drug Candidates Against White Spot Syndrome Virus of Shrimp: An In Vivo and In Silico Study **Funding agency:** UGC/Gopalganj Science and Technology University **Project period:** 2024-2025 **Status:** Completed
	Title: Understanding Virulence Gene Expression in Uropathogenic *E. coli*: Correlation with Antibiotic Resistance and Phenolic Compound Response **Funding agency:** Gopalganj Science and Technology University **Project period:** 2023-2024 **Status:** Completed
Research student supervision	**Master's thesis: 5** completed, 1 running

Professional training

Title of the course	**Duration**	**Organizing Institute**
Rice breeding training course	04 Sep-18 Sep, 2022	IRRI Education Department, IRRI HQ, Phillipines
Combining ability analysis for the development of heterotic pool	23-24 Nov, 2022	IRRI, Bangladesh

Training on data collection using digital tools and statistical data analysis	06 June-07 June, 2022	IRRI, Bangladesh
Modern rice breeding strategies for enhancing genetic gain and efficiency	24-25 Feb, 2021	IRRI, Bangladesh
2016 Winter School on Frontier and Inter disciplinary Science	8-13 Jan, 2017	Shenzhen Institutes of Advanced Technology (SIAT)

List of publications

1. Z Hossen, M N U Forhad, M R B Ayez, S Karmaker, M N Islam, M S Hossain, **M E Haque**, M N Hasan, M M Islam (2026). Artificial intelligence-driven advancements in agricultural biotechnology. Journal of Genetic Engineering and Biotechnology, 24(3): 100749.

2. Z Hossen, M S Hossain, M N U Forhad, M Hasan, Abdullah-Al-Jubayer, A K Lisa, M M Islam, N J Nur, S Rahman, M R Islam, M F Hasan, **M E Haque** (2026). Multi-target inhibitors of white spot syndrome virus envelope proteins (VP28, VP26, and VP24) to protect shrimp (*Penaeus monodon)*: An integrated virtual screening, pharmacokinetic, and molecular dynamics study. Microbial Pathogenesis, 216: 108517.

3. M M Islam, M Z Hasan, M T T Tusar, M Y Hossain, M M Hossain, M A A Jubayed, M Jubaer-Al-Abedin, S Soikot, S Akther, J Bhuyian, H R Gazi, B M M Hasan, M S Azam, **M E Haque**, Abdullah-Al-Jubayer, M F Hasan, F M A Haydar, M Khalekuzzaman, M T Islam, S Hasan (2026). Molecular Mechanisms of Resistance and Treatment Efficacy of Delamanid Against Mycobacterium tuberculosis: A Systematic Review. Health Science Reports, 9: e72481.

4. M A Mas-ud, C Yin, S A Juthee, M Hosenuzzaman, **M E Haque**, Y Zhu, M A Haque, M N Matin (2025). Comprehensive genome-wide identification and analysis of MYB transcription factors related to abiotic and biotic stress regulation in rice. Scientific Reports, **15**, 44024.

5. M A Mas-ud, C Yi, S A Juthee, Y Zhu, M Hosenuzzaman, M N Matin, **M E Haque** (2025). Small heat shock proteins: key genes for regulating heat stress responses in rice. Discover Plants, 2: 267.

6. M T T Tusar, N Haq, H R Gazi, R Farazi, M Bhuya, **M E Haque**, M G Hossain, Abdullah-Al-Jubayer (2025). Designing a Multi-Epitope Vaccine Against HPV16, 18, 33, and 45 Targeting L1 and E7 Proteins: An Immunoinformatics Approach for Cervical Cancer Prevention and Therapy. Bioinformatics and Biology Insights, 19.

7. M A Mas-ud, S A Juthee, M Hosenuzzaman, M S Islam, **M E Haque**, M N Matin (2025). Current understanding of heat shock protein-mediated responses to heat stress in rice. Environmental and Experimental Botany, 237: 106192.

8. H B Sujaye, A Khan, **M E Haque**, M A Momin, B Sikdar, M F Hasan (2025). Exploring the Phytochemicals, Antioxidant Capacity and Cytotoxicity of *Abroma augustum* (L.) L.f. Seed Extract, an *In vitro* Study Plant Tissue Cult. & Biotech. 35(1): 219-227.

9. M T T Tusar, Z Hossen, H R Gazi, N Haq, Abdullah-Al Jubayer, M M Islam, A K Lisa, B Sikdar, **M E Haque** (2024). High-throughput screening of natural antiviral drug candidates against white spot syndrome virus targeting VP28 in *Penaeus monodon*: Computational drug design approaches. Journal of Genetic Engineering and Biotechnology, 23 (1): 100455.

10. F Tasnim, ME Hosen, **M E Haque**, A Islam, M N Nuryay, J Mawya, N Akter, D Yesmin, M M Hossain, N Rahman, B M M Hasan, M N Hassan, M M Islam, M Khalekuzzaman (2024). Glucosinolates and Indole-3-carbinol from *Brassica oleracea* L.

as inhibitors of *E. coli* CdtB: insights from molecular docking, dynamics, DFT and in vitro assay. In Silico Pharmacology, 12:95

11. **Md. Enamul Haque**, Homayra Binta Sujaye, Biswanath Sikdar. Uzzal Kumar Acharjee, Md. Khalekuzzaman and Md. Faruk Hasan (2024). Effects of plant growth regulators on virus-free plantlet regeneration from Abroma augustum (L.) seeds. World Journal of Biology Pharmacy and Health Sciences, 19(03), 176–183.

12. Q Tan, B Han, **M E Haque**, Y-L Li, Y Wang, D Wu, S-B Wu, A-Z Liu (2023). The molecular mechanism of WRINKLED1 transcription factor regulating oil accumulation in developing seeds of castor bean. Plant Diversity, 45: 469-478.

13. **M E Haque**, B Han, B Wang, Y Wang, A Liu (2018). Development of an efficient chromatin immunoprecipitation method to investigate protein-DNA interaction in oleaginous castor bean seeds. PLoS ONE, 13(5): e0197126.

14. D C Roy, S K Biswas, M M Sheam, M R Hasan, A K Saha, A K Roy, **M E Haque**, M M Rahman, S-S Tang (2020). Bioremediation of Malachite Green dye by two bacterial strains isolated from textile effluents. Current Research in Microbial Sciences, 1:37-43.

15. Habiba, D Sarkar, **M E Haque**, M A Islam, A Mukherjee, B Sikdar (2019). Assessment of genetic diversity and phenetic relationships among some Bangladeshi cultivars of cucumber (*Cucumis sativus* L.) using isozyme and protein profiling. Vegetos, 32 (4): 494-507.

16. B Wang, Y Zhang, **M E Haque**, W Xu, F Li, A Liu (2018). Transcriptomic analyses reveal complex and interconnected sucrose signaling cascades in developing seeds of castor bean. Journal of Plant Physiology, 22:1-10.

17. Y Wang, W Xu, Z Chen, B Han, **M E. Haque**, A Liu (2018). Gene structure, expression pattern and interaction of Nuclear Factor-Y family in castor bean (*Ricinus communis*). Planta, 247:559-572.

18. J Wang, R Xu, R Wang, **M E Haque,** A Liu (2016). Overexpression of ACC gene from oleaginous yeast enhanced the lipid accumulation in *Saccharomyces cerevisiae* with increased levels of glycerol 3-phosphate substrates. Bioscience, Biotechnology, and Biochemistry, 80 (6): 1214-1222.

19. S M M Alam, S Siddika, **M E Haque**, M A Islam, A Mukherjee, B Sikdar (2016). Genetic diversity of some upland and lowland rice cultivars in Bangladesh using RAPD, ISSR and SSR markers. The Nucleus, 59(1):15-23.

20. **M E HAQUE**, D REZWANA, M I ISLAM, B SIKDAR (2013). *In vitro* regeneration in snake gourd (*Tricosanthes anguina*) from shoot apical meristem and young leaves. Journal of Crop and Weed, 9(1):124-127.

21. M M ISLAM, **M E HAQUE**, A K DUTTA, D M A ISLAM, D M KHALEKUZZAMAN, D B SIKDAR (2013). A COMPUTATIONAL STUDY ON METALLOPROTEINASE IN THE SNAKE VENOMOUS OF DIFFERENT RATTLE SNAKE SPECIES IN COMPARISON WITH THE ASIAN SNAKE SPECIES. International Journal of Pharma and Bio Sciences, 4(4): (B) 741-748.

22. M H Madina, **M E Haque**, A K Dutta, M A Islam, A C Deb, B. Sikdar (2013). Estimation of Genetic Diversity in Six Lentil (*Lens culinaris* Medik.) Varieties using Morphological and Biochemical markers. International Journal of Scientific & Engineering Research, 4(9): 819-825.

23. M M Islam, **M E Haque**, S M M Alam, M A Islam, M Khalekuzzaman, B Sikdar (2013). Morphological and Histological Observation of Embryogenic Calli Derived from Immature Embryo of BRRI Dhan28 (*Oryza sativa* L.) Variety. Research in Plant Biology, 3 (5): 21-27.

24. **M E Haque**, M A Islam, B Sikdar (2011). MOLECULAR DIVERGENCE OF LOCALLY GROWN PUMPKIN (*CUCURBITA MAXIMA*) CULTIVARS THROUGH SOME ISOZYME TESTS. Journal of bio-science, 19: 89-93.

25. M Kausar, S Parvin, **M E Haque**, M Khalekuzzaman, B Sikdar, M A Islam (2013). EFFICIENT DIRECT ORGANOGENESIS FROM SHOOT TIPS AND NODAL SEGMENTS OF ASH GOURD (*BENINCASA HISPIDA* L.). Journal of Life and Earth Science, 8: 17-20.

26. M A Rahman, **M E Haque**, B Sikdar, M A Islam, M N Matin (2013). CORRELATION ANALYSIS OF FLAG LEAF WITH YIELD IN SEVERAL RICE CULTIVARS. Journal of Life and Earth Science, 8: 49-54.

27. S Parvin, M Kausar, **M E Haque**, M Khalekuzzaman, B Sikdar, M A Islam (2013). *In vitro* propagation of muskmelon (*Cucumis melo* L.) from nodal segments, shoot tips and cotyledonary nodes. Rajshahi University Journal of Life & Earth and Agricultural Sciences, 41: 71-77.

28. F T Zohura, **M E Haque**, M A Islam, M Khalekuzzaman, B Sikdar (2013). Establishment Of An Efficient *In Vitro* Regeneration System Of Ridge Gourd (*Luffa Acutangula* L. Roxb) From Immature Embryo And Cotyledon Explants. INTERNATIONAL JOURNAL OF SCIENTIFIC AND TECHNOLOGY RESEARCH, 2 (9): 33-37.

29. **M E Haque**, D Rezwana, M A Islam, B Sikdar (2010). *IN VITRO* REGENERATION OF PUMPKIN (*CUCURBITA MAXIMA*) THROUGH SHOOT APICAL MERISTEM. Journal of bio-science, 18: 104-107.

30. E Nahar, **M E Haque**, B Sikdar (2010). COMPARISON OF THE EFFECTS OF GROWTH REGULATORS ON *IN VITRO* REGENERATION OF RIDGE GOURD AND SPONGE GOURD THROUGH SHOOT. Journal of bio-science, 18: 88-93.

31. **M E Haque**, M A R Sarkar, M A Mahmud, D Rezwana, B Sikdar (2008). *IN VITRO* PROPAGATION OF PUMPKIN AND ASH GOURD THROUGH NODAL SEGMENTS. Journal of bio-science, 16: 67-71.

Conference/Seminar's paper presentation

1. *In vitro* Propagation of Pumpkin and Ash Gourd Through Nodal Segments. **M. E. Haque**, M. A. R. Sarkar, M. A. Mahmud, D. Rezwana and B. Sikdar. 4th International Botanical Conference. Held on 16-18 January 2009, Dhaka, Bangladesh. (Oral)
2. Investigation of Genetic Diversity using RAPD, ISSR and SSR Markers of Some Upland and Lowland Rice Varieties in Bangladesh. Sadia Siddika, **Md. Enamul Haque**, Asura Khanam Lisa, Sarwat Tazrian, Biswanath Sikdar, Md. Asadul Islam. Proceedings of 61 Years of DNA: Diamond Jubilee Celebration of DNA Discovery. Held on 25 April 2014, Young Biotechnologist of Bangladesh. (Oral)
3. Phyto-fabrication of Zinc Oxide Nanoparticles using *Trewia nudiflora*: Assessment of Antimicrobial, Anticoagulation, and Antioxidant Potentials. M. S. Hossain, N. J. Nur, S. N. Islam, Z. Hossain, M. Hasan, Abdulla-al-Jubayer, M. A. Momin, M. F. Hasan and **M. E. Haque.** NYBB 6th International Young Biotechnologist Congress, 2026, organized by NYBB. (Poster)
4. Green Synthesis of ZnO Oxide Nanoparticles by *Trewia nudiflora* (L.) and Assessments of their Antimicrobial, Anticancer and Herbicide Potentials. S. N. Islam, M. A. Momin, A. A. Jubayer, M. F. Hasan, B. Sikder and **M. E. Haque**. 3rd ICALS, 11-12 January 2025, organized by Mawlana Bhashani Science and Technology University, Bangladesh. (Poster)
5. Expression and purification of SIRT1 with METTL3 binding insights: Screening Medicinal Plant Phytochemicals for SIRT1 inhibitors to treat cancer. M. N. H. Joy, M. K. E. Hasan, M. S. Hassan, M. N. Rahman, S. Shahriar, M. M. H.

Sourov, S. Tasnime, M. F. Hasan, **M. E. Haque**. National Conference and Training on Emerging Trends in Biotechnology. Held on 31 May 2025, organized by the Department of Genetic Engineering and Biotechnology, Jashore University of Science and Technology, Bangladesh. (Poster)

6. Biological and molecular characterization of groundnut bud necrosis virus (GBNV) infecting tomato in Bangladesh. Sayed Ala Moududee, Md. Shamim Akhter, **Md. Enamul Haque**, Biswanath Sikdar and Md. Khalequzzaman. Conference on Biotechnology for Better Tomorrow, 29 March, 2014. Institute of Biological Sciences, University of Rajshahi, Bangladesh. (Poster)
7. *In vitro* regeneration of snake gourd (*Trichosanthes anguina* L.) from shoot apical meristem and leaves derived callus. D. Rezwana, **M. E. Haque**, U. K. Acharjee, M. A. Islam, M. Khalekuzzaman and B. Sikdar. Zoha Memorial Symposium, 15 Feb 2012, Department of Chemistry, University of Rajshahi. (Poster)
8. *In vitro* direct regeneration and polymorphism analysis of locally grown cucumber cultivars (*Cucumis sativus* L.). Z. A. Khatun, M.H.A. Rashid, **M.E. Haque**, U.K. Acharjee, M.F. Hasan, M.A. Islam and B. Sikdar. Zoha Memorial Symposium, 15 Feb 2012, Department of Chemistry, University of Rajshahi. (Poster)

Academic Award/Fellowship

1. CAS-TWAS President's Fellowship-2014 for PhD research.
2. Outstanding Student Award-2018 from University of Chinese Academy of Sciences, Kunming Institute of Botany, CAS, China.
3. NSICT fellowship 2010-2011 for M. S. Thesis work.
4. University merit scholarship for academic records.

Personal details

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References

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