

# Sayed Huzaifa Mumit

Chittagong, Bangladesh | [sayedhmumit.github.io](https://sayedhmumit.github.io) | [shmumit.scientist@proton.me](mailto:shmumit.scientist@proton.me)

## Education

**University of Science and Technology Chittagong (USTC), Bangladesh** [Ongoing]  
Major in B.S. (Hons.) in **Biochemistry and Biotechnology**  
Supervisor: **Dr. Md. Monirul Islam**  
Affiliation: Bangladesh Bioscience Research Group(BBRG)  
UG Research : Computational Biology

Courses	
Minors in	Biophysical Chemistry
	Computer Science
	Spectroscopy
	Biostatistics
	Pharmaceutical Chemistry

## Profile Summary

*I am an undergraduate student in Biochemistry and Biotechnology with ongoing research involvement in RNA biology, genomics, immunology, and phytochemistry. Alongside my academic work, I have been independently exploring theoretical astrophysics since high school, focusing on gravitational dynamics, black hole behavior, and the relationship between spacetime geometry and matter. My goal is to build a solid mathematical foundation in classical mechanics, general relativity, and quantum theory so I can formalize these theoretical ideas into a testable framework. I have presented research in multiple national and international conferences and have experience publishing interdisciplinary projects in environmental sustainability and renewable energy. I am motivated by long-term curiosity, self-driven learning, and a commitment to connecting scientific understanding across fields.*

## Research Experiences

**Bangladesh Bioscience Research Group -(BBRG)** **October, 2024 - Present**  
Undergraduate Research & Primary Affiliation

RNA Biology, Genomics & CRISPR, Immunology , Computational Biology.

**Independent School Researcher** **2019- Present**

Theoretical Astrophysics (Quantum Gravity), Renewable Energy, Environmental Science

Course	Focus
Classical Mechanics	Lagrangian and Hamiltonian formalisms
Electromagnetism	Vector fields, Maxwell equations
Quantum Mechanics	Operator formalism, Hilbert spaces, wave dynamics
General Relativity	Spacetime curvature and gravity as geometry
Differential Geometry	Manifolds, tensors, and curvature tools for GR

## Academic Volunteering

**Panelist , The Cambridge Panel : Academic,** **October, 2025- Present**

Cambridge University Press (2025–Present) — Participating in shaping academic publishing practices through feedback on research and author experience.

## Digital Footprint

ResearchGate: [Sayed Huzaifa Mumit](#) , Google Scholar: [Sayed Huzaifa Mumit](#),  
ORCID: [0000-0003-1048-4072](#), LinkedIn: [Sayed Huzaifa Mumit](#), GitHub: [sayedhmumit](#)  
Academia.edu: [Sayed Huzaifa Mumit](#), Web of Science: [Sayed Huzaifa Mumit](#)

## Publications & Preprints

- 1\* Methane Production via Sabatier Reaction Using Hydrogen from Rainwater Electrolysis and Captured Carbon Dioxide v1:(2023)|v2:(2025); DOI: <https://doi.org/10.33774/coe-2025-lk4r7>
- 2\* Eco-Friendly Water Purification Using Solar-Powered Distillation and Activated Carbon (2024) [*Expected Publication in 2026*]; Preprint: DOI: [10.33774/coe-2024-ztkpb](https://doi.org/10.33774/coe-2024-ztkpb)
- 3\* Reduction of Irrigation Water in Agriculture Using Eco-Friendly Biological Sponge from Luffa (2024); DOI: [10.13140/RG.2.2.17062.13123](https://doi.org/10.13140/RG.2.2.17062.13123)
- 4\* Sustainable Diapers and Pads from Water Hyacinth and Coconut Coir v1:(2024) | v2:(2025); DOI: [10.21203/rs.3.rs-5453339/v2](https://doi.org/10.21203/rs.3.rs-5453339/v2)
- 5\* Investigation of the Effectiveness of Using Luffa Cylindrica to Reduce Water Consumption in Agriculture (2024); DOI: [10.62622/TEIEEE.024.2.4.18-27](https://doi.org/10.62622/TEIEEE.024.2.4.18-27)

## Conference Papers (Presenting Author)

- 1\* **6th International Conference on Biotechnology in Health and Agriculture** by Global Network of Bangladeshi Biotechnologist- Prevalence of Iron Deficiency Anemia and Evaluation of Corrected Calcium as a Biochemical Parameter Among Young Adults in Chattogram, Bangladesh.
- 2\* **RURS 1st International Students Conference 2024** - Trends in Microbial Culture and Antibiotic Sensitivity in Pediatrics
- 3\* **XYLEM GLOBAL WATER CHALLENGE 2024, Stockholm, Sweden** - Using Sponge Gourd for Purifying Microplastics
- 4\* **Stockholm Junior Water Prize 2023** - Methane Gas Production from Rainwater and CO<sub>2</sub>
- 5\* **American Physical Society Physics Summit 2025, Anaheim, California, USA** - Graviton and Anti-Graviton Charges on Space-Time Curvature and Gravitational Dynamics [Acceptance only not attended]

## Peer Reviewer

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International Peer-Reviewer of Manuscript for the International Journal 2025

Manuscript: Optimizing Sponge Gourd Cultivation: Effects of Chemical Hybridizing Agents on Morphological Traits and Flower Development

[E-Line](#) International Journal of Plant and Soil Science

## Books

- 1\* From Concept to Publication: A Comprehensive Guide to Preparing a High-Quality Research Manuscript for International Journals. [VISIT](#)
- 2\* Meta Analysis of Skills An All Inclusive Manual. [VISIT](#)

## Skills :*Status:Underway*

Soft	Hard	Computational Tools
Leadership	Research	R & Python
Public Speaking	Phytochemical Analysis	Linux/UNIX Shell
Conflict Resolution	Molecular Docking	LaTeX
Adaptability	Network Pharmacology	Cytoscape, AutoDock, SwissADME

## Languages

English	Bengali	Chittagonian	Arabic
Intermediate Proficiency	Native Fluency	Native Fluency	Reading Proficiency

## Entrepreneurial & Leadership Experience

- 1\* Co-Founder, A TimesM Global - A Multiple Sector Based Startup.
- 2\* Co-Founder, Manoshota (2021-2022) - Contributed to global mental health consulting, assisting 5,700 individuals in 13 hours.

## Scholarships & Fellowships /Grant

- 1\* APS Diversity Forum Scholarship | American Physical Society (2024)
- 2\* Wiki Scientist Summer Program Scholarship | Wikipedia (2024)
- 3\* Oxbridge Scholarships | University of Oxford & Cambridge (2022 & 2023)
- 4\* Academia Engineering Publication Grant (2024)
- 5\* Trends in Ecological & Environmental Engineering Journal (2024)
- 6\* AB Memorial Fellowships (2022)

## Awards & Recognitions :*(Selective-only)*

- 1\* Medalist, 16th National Bangladesh Astro-Olympiad (2022)
- 2\* Finalist, Stockholm Junior Water Prize (2023)
- 3\* Top-Ranked, People's Choice - Xylem Global Innovation Challenges (2024)
- 4\* Jamboree Award, 10th Bangladesh & 3rd South Asian Association of National Scouts Jamboree.

## Professional Memberships

National	International
Graduate Member, BYLC Graduate Network (2021–Present)	Member, Astrophysics Division, American Physical Society (2024–Present)
Alumni Member, House of Volunteers Bangladesh (2023–Present)	Member, Biophysical Society (2025–Present)
	Wiki Scientist, Wikimedia Foundation (2024–Present)
	Member, American Society for Microbiology (2024–2025)
	Singapore Global Network (2025– present)

## Special Academic Acceptances

- 1\* Aspire Leaders Program, Harvard University (2024)
- 2\* Wiki Scientist Summer Program, APS (2024)
- 3\* Oxbridge Scholars Program, University of Oxford & Cambridge (2022 & 2023)

## Teaching

- 1\* APS Wiki Scientist, Wikipedia (2024–Present)
- 2\* IAU OAO Venture Translator, International Astronomical Union (2024)
- 3\* Academic Olympiad Trainer, Deviation Scientific Society (2023–Present)
- 4\* Senior Patrol Leader, Chattogram Metropolitan Scouts (2018–2021)

## Competitions & Research Challenges

Actively participated as a contestant in multiple national and international competitions and research challenges. Selected highlights include:

- 1\* International Contestant at MIT SOLVE 2024
- 2\* International Contestant at CERN Beamline for Schools (BL4S) 2024
- 3\* International Contestant at 3rd SAANSO & 10th Bangladesh Scouts Jamboree (2019)
- 4\* Regional Round, Bangladesh Mathematical Olympiad
- 5\* Regional Round, Bangladesh Physics Olympiad

## References

### **Dr. Md. Monirul Islam**

Faculty Member, Biochemistry & Molecular Biology, NSTU, Bangladesh.

Postdoc, Aichi Medical University, Japan.

Tutor and Supervisor in College & Research.

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[monirul.bmb@nstu.edu.bd](mailto:monirul.bmb@nstu.edu.bd)

### **Dr. Jeffrey M. Keefer**

Adjunct Assistant Professor,

Project Management &

Information Technology Education,

New York University, USA.

Advisor at Wikipedia | Mentored during

APS Wiki Scientist Course.

[jk904@nyu.edu](mailto:jk904@nyu.edu)

### **Md. Monsurul Islam**

Assistant Professor, Department of Physics,

Satkania Govt. College, Chittagong, Bangladesh.

PhD Candidate, University of Nottingham.

Taught Physics in 12th grade.

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