PARTHO SARKER DHRUBO

GRADUATE RESEARCHER,
SOIL & MOLECULAR BIOLOGY

CONTACT

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SKILLS

- Graphic Design (Photoshop & AI Tools usage)
- Pesticide Application Technology
- Youth Wellbeing Facilitator
- Basic R programming
- Business case study
- Silicon Mitigation and Trait Analysis
- Treatment setup and application
- Data Exploration & Analysis
- Research Design, Pot Experiment
- Reference management software (Zotero, EndNote)

LANGUAGE

English — Excellent, C1 (IELTS - 7)

Listening- 8,
Reading- 7,
Speaking- 6.5,
Writing - 6

ABOUT ME

Driven and enthusiastic student looking for a scholarship opportunity advance my studies in agriculture. Passionate about achieving high standards and positively impacting the university community through academic and extracurricular successes. Currently graduated with a Bachelor of Science in Agriculture from Patuakhali Science and Technology University, Dumki, Patuakhali–8602. Proven track record in coastal area management and hypothetical protein analysis, as well as presenting at conferences and constructing research papers.

WORK EXPERIENCE

RESEARCH ASSISTANT, Department Of Soil Science (Internship program under BAS-USDA PSTU CC Project)

- Funded by Bangladesh Academy of Sciences.
- Project specialization on managing saline soil and nutrient management in the coastal unfavorable ecosystem.
- Gained hands-on experience in sample collection, analysis, research layout design, treatment setup, trait analysis, chemical analysis, data analysis, silicon mitigation, treatment application.

Department Of Genetics & Plant Breeding

- Characterized the hypothetical protein using an in-silico method to determine its structural and functional characteristics and evaluate its potential as a therapeutic target.
- In silico techniques typically involve steps such as physicochemical property prediction, secondary structure analysis, and tertiary structure modeling.
- Computational analyses, including multiple sequence alignment (MSA), structural modeling, and molecular docking, have been successfully applied.

EDUCATION

BSc Degree in Agriculture
of Patuakhali Science and Technology University, Dumki, Patuakhali - 8602, Bangladesh (2020-2025) | Final grade: 3.547 out of 4.00 I Number of credits: 180 | Website: https://www.pstu.ac.bd/

HSC- Cantonment Public School and College, Rangpur (2016-2018) I Field(s) of study: Science | Final grade: 5.00 out of 5.00 | Level in EQF: 4 | Website: https://dinajpureducationboard.gov.bd/

SSC- Thakurgaon Government Boys' High School, Thakurgaon (2014-2016) I Field(s) of study:Science | Final grade: 5.00 out of 5.00 | Level in EQF: 3 | Website: https://dinajpureducationboard.gov.bd/

PROJECTS

Crop yields and heavy metal concentrations in saline soils as affected by exogenous silicon application at coastal region of Bangladesh .Funded by Bangladesh Academy of Sciences.

Exploring Yield Ability of the BRRI-developed Submergence Tolerant Rice Genotype under Coastal Tidal Ecosystem

Empowering Agricultural and Fisheries Research using the integration of Bioinformatics Tools. Funded by RTC (Research and Training Centre), Patuakhali Science and Technology University

PUBLICATIONS

REMEDIATION OF LEAD TOXICITY BY EXOGENOUS APPLICATION OF SILICON IN RICE. Pranto, S., Haque, M. A., Islam, S., Dhrubo, P. S., Soha, M. M., Lamia, F. N., & Rahman, M. L. (2025). Bangladesh Journal of Agriculture , 50(1), 1–19. https://doi.org/10.3329/bjagri.v50i1.82829

SILICON SUPPLEMENTATION BOOSTS SALT RESILIENCE IN COASTAL TRADITIONAL RICE. (Under review in Heliyon) MANUSCRIPT NUMBER HELIYON-D-25-11148

Decoding the Structural Stability and Ligand Binding Mechanism of a Hypothetical Protein from *Fusarium graminearum* through Molecular Docking and Dynamics Simulations, Poster presentation on 11th International Plant Tissue Culture & Biotechnology Conference, University of Dhaka, Bangladesh.
Date: 24 - 26 January, 2026

In silico structural and functional characterization of an uncharacterized protein from *Arabidopsis thaliana* involved in phosphate transport, (Under review in Journal of Genetic Engineering and Biotechnology)
Manuscript Number: JGEBIO-D-26-00036

Comparative Effectiveness of Basal and Foliar Silicon Application on Wheat Productivity in Coastal Saline-Prone Soils (Under review in
Journal of Soil Science and Plant Nutrition)
Manuscript Number: EMID:6e17009eea1db52b

PRESIDENCY AND VOLUNTEERING

PSTU Research Society (March 2025- 1 December, 2025)
Founding President
-Collaboratively with the largest job-seeking platform in BD – "bdjobs", a seminar titled Journey to Career was successfully done under my presidency on 26 Aug 2025.
-A project on: "Exploring Yield Ability of the BRRI-developed Submergence Tolerant Rice Genotype under Coastal Tidal Ecosystem" is being conducted in the Agronomy field, PSTU, which is supervised by Prof. Gopal Saha, and 15 PSTURS members are getting their hands-on experience. After a long 6-month internship, they will receive joint certification by the Agronomy Dept, PSTU, and the Bangladesh Rice Research Institute, Satellite Station, Patuakhali.
- Received special permission to conduct one year of field data collection on poultry and antimicrobial resistance from Upazila Livestock office, Babuganj, Barishal division and highly significant AST test will be conducted free of cost.

Bioinformatics Club, PSTU (July 16,2025 - current)
CO-founder
-A course on "Bioinformatics for Beginners" is being conducted by our team and various workshops were done previously.
-Empowering Agricultural and Fisheries Research using the integration of Bioinformatics Tools. Funded by RTC (Research and Training Centre), Patuakhali Science and Technology University

IAAS Bangladesh National Congress 2021 (21 Aug- 31 Aug, 2021)
- Fullest participation on nationwide 11 days long national congress.

United Nations Youth and Students Association of Bangladesh
Executive member at PSTU

Up Health – A Platform for Ensuring Healthy Lifestyle (January 2024- current)
Youth Wellbeing Facilitator

Syngenta (2 October,2024)
Trainee- Pesticide Application Technology

Enhancing Digital Government and Economy (EDGE) Project of Bangladesh Computer Council, Division (February 2024- March 2024)
Trainee- Graphic Design (Photoshop & AI Tools usage)

Agri-Mechanization Idea Contest by FMDP, BARI & Patuakhali Science and Technology University,9 December 2024
Participant – Poster presentation on "Krishi Bondhu App- Agricultural transformation and farmer empowerment".

Rangpur Divisional student's association, PSTU
Secretary

Sanatan Sangha, PSTU (Hindu Religious organization) 2024- September 2025
Vice-President

AWARDS

1.Education Board Scholarship (SSC) [Grade: General, Board: Dinajpur, Year: 2014]
2.Merit Scholarship from BRAC (Bangladesh Rural Advancement Committee) [August, 2014-April, 2016]
3.Primary School Scholarship [Grade: General, Board: Dinajpur, Year: 2008]
4.Qamarun Agro Farm (4th youth business conference)
-Winner (Team Sabuj Pathik - Green Travelers) of a business case study competition.

FIELD EXPERIENCE

1. Agricultural Extension Tour [10/08/2025- 15/08/2025] Extension field trip, Department of Agricultural Extension and Rural development, PSTU
2. In-Country Study Tour [20/12/2024-31/12/2024] Visited different areas in Bangladesh to understand the agricultural practices in hazard prone areas to develop sustainable management practices. Acquainted with organizational set-up, activities and working procedure of upazila level agricultural and rural organizations to learn how to transfer agricultural knowledge, inputs and technology among farmers.
3. Industry visit [09/02/2024-13/02/2024] Visited Sugandha Feed Mills Ltd. (Nalchity, Jhalokathi, Bangladesh) and observed feed production stages, from raw material sourcing to packaging and enriched the understanding of chemistry and technology in agricultural industries.
4. Seed Farm Visit [25/03/2020] Visited the seed producing and processing farm at the regional station of BARI (Bangladesh Agricultural Research Institute), BRRI (Bangladesh Rice Research Institute), BADC (Bangladesh Agricultural Development Corporation), and Cold Storage of Potato in Barishal, Bangladesh to deepen the understanding of seed quality maintenance.

RECOMMENDATIONS

Prof. Dr. Gopal Saha
Teacher, BRRI project inspector
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Prof. Dr. Mohammad Asadul Haque
Teacher, Principal investigator of the project funded by BAS-USDA-PSTUCC
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Professor Md. Shariful Islam, PhD
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All Certificates are available in
https://docs.google.com/document/d/1Zxd6dZAOycUE41a6DmpfQhjg4swVyKnUQLUYHE7EV1E/edit?usp=sharing