CURRICULUM VITAE OF
SHARMIN ISLAM

MAILING ADDRESS

Engr. Sharmin Islam
Agriculture Engineer
Farm Machinery and Postharvest Technology Division
Bangladesh Rice Research Institute
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PERSONAL DETAILS

Name	:	Sharmin Islam
Father's name	:	Md. Rafiqul Islam
Mother's name	:	Monuara Begum
Husbands name	:	Md. Motiur Rahman
Date of birth	:	19th January, 1985
Place of birth	:	Jamalpur
Nationality	:	Bangladeshi (by birth)
Permanent address	:	Vill.-Tetulia , Post Office- Jamalpur, Upazilla -Jamalpur Sadar, District-Jamalpur
Marital status	:	Married
Sex Blood Group	: :	Female O Positive (O+)
Religion	:	Islam

EDUCATIONAL QUALIFICATION

Name of the Degree	Institution/University	Year of Passing	Division/Class/ CGPA	Marks Obtained (%)
Ms in Irrigataion and Water Management	Bangladesh Agricultural University , Mymensingh	2009	3.561 (out of 4.00)	71.22
B. Sc. Agricultural Engineering	Bangladesh Agricultural University (BAU), Mymensingh	2008	3.379 (out of 4.00)	67.58
H.S.C (Higher Secondary Certificate)	Govt. Ashek Mahmud College, Jamalpur Dhaka Board	2002	First	69.7
S.S.C (Secondary School Certificate)	Jamalpur Govt Girls' High School, Dhaka Board	2000	First	79.1

EMPLOYMENT HISTORY

Name of the Institute	Name of the post	Tenure of Service		Service Length	Objective/ activities
		Form	To		
Bangladesh Rice Research Institute (BRRI)	Agriculture Engineer	23/09/ 2014	Till	-	**Responsibilities:** To research on post harvest technology and to development, modification and extension of agricultural Machinery for Bangladesh Agriculture. **Regular activities:** i) Research program development, design, setup and execution; ii) Data collection, analysis and report writing; iii) Research activities supervision and management; iv) Farmer training and technical support; v) Office Administration, farm and financial management.
Department of Agriculture Extension(DAE), Ministry of Agriculture	Agricultural Engineer	15March, 2009	30 June, 2011	27 Months	• Introduction of Agricultural Machinery viz. Power tiller, Reaper, Thresher, Drier to the farmers' level. • Extension of Drip, Hand shower and Buried pipe irrigation application method in the field. • Demonstration of irrigation technology like Pre-cast concrete channel, improved earthen canal • Dissemination of water saving technology i.e. Alternate Wetting and Drying (AWD) method. • Organizing farmers training, Field day, Rally, Agricultural Engineering technology fair and Workshop • Farm machinery demonstrations including farmers training.

PERSONAL SKILL AND COMPETENCE

Language proficiency:	**Mother tongue:** Bengali **Other language:** English
Social and organizational skill and competence:	1. Member, Institution of Engineers, Bangladesh (**IEB**); 2. Member, Bangladesh Society of Agricultural Engineers (**BSAE**); 3. Krishibid Institution, Bangladesh **(KIB)**; 4. Bangladesh Rice Research Institute Scientist's Association **(BRRISA)**
Computer skill and competence:	**1.** Competent in Microsoft Operating Systems and Microsoft Office package **2.** Familiar software: Operating software Windows-10, Windows-98, Windows-XP and Arc view (GIS), **3.** Basic Knowledge on Hardware and competent in using internet

MASTER OF ENGINEERING THESIS

- Carried out six Credit thesis work under the guidance of Prof. Dr. Md. Rafiqul Hoque, Department of Irrigation and Water Management, Bangladesh Agricultural University (BAU), Mymensingh entitle **'Assessment of Upward Flux from Shallow Water-table Using a Simulation Model'.**

SCIENTIFIC PUBLICATION(S)

1. **S Islam**, M D Huda, MGK Bhuiyan, M A hossen, H Paul, M Ahiduzzaman. 2019. Prospect of rice straw biomass briquette production: An alternative source of energy**.** Journal of Agricultural Engineering, IEB, Vol-42/AE, No.3. pp: 79-86.
2. **S Islam**, H Paul, F Akter, M G K Bhuiyan, S Paul. 2019. Performance evaluation of a deep tubewell irrigation scheme: A case study in Sutiakhali of Mymensingh district. Journal of Agricultural Engineering, IEB, Vol-42/AE, No.3. pp: 63-68.

3. M H Ali, I Abustan and **S Islam**. 2013. Simulation of upward flux from shallow water-table using UPFLOW model. Journal of Natural Resources and Development, 03:123-127.

4. H Paul, S Paul, M A Hossen, M D Huda, **S Islam**, M G K Bhuiyan, B C Nath, M A. Rahman. 2019. Performance evaluation of power operated automatic seed sower machine of mat type rice seedling raising. Journal of Agricultural Engineering, IEB, Vol-42/AE, No.3. pp: 69-77.

5. H Paul, B C Nath, M G K Bhuiyan, S Paul, **S Islam**, M D Huda, H B Shozib. 2019. Effect of degree of milling on rice grain quality. Journal of Agricultural Engineering, IEB, Vol-42/AE, No.4. pp: 69-76.

6. H Paul, M A Hossen, **S Islam**, S Paul, M G K Bhuiyan. 2019. Evaluation of brri multi-rows power weeder: A case study under silty loam soil at sadar, Gazipur. Journal of Agricultural Engineering, IEB, Vol-42/AE, No.4. pp: 77-83.

7. M D Huda, MGK Bhuiyan, BC Nath, MK Millon**, S Islam**, H Paul, MM Islam, MM Rahman. 2019. Performance evaluation and economics of the reaper binder for harvesting paddy in Bangladesh. Journal of Agricultural Engineering, IEB, Vol-42/AE, No.4. pp: 61-67.

8. M D Huda, B C Nath, S Paul, M G K Bhuiyan, **S Islam**, M M Islam. 2019. Design and development of a head feed mini combine harvester suitable in Bangladesh condition. Journal of Agricultural Engineering, IEB, Vol. 42/AE, No. 2. pp: 73-92

9. M G K Bhuiyan, MD Huda, BC Nath, AKMS Islam, MM Islam, **S Islam**. 2020. Performance evaluation of modified rubber roll de-husker. Journal of Agricultural Engineering, IEB, Vol. 43/AE, No. 1. pp: 31-39

10. H Paul, M A Hossen, **S Islam**, M M Rahman and M A Rahman. 2020. Ergonomic study of BRRI multi-row power weeder for rice cultivation. J. Sci. Technol. Environ. Inform. 10(01): 685-693. EISSN: 2409-7632.

11. S Paul, A Akhter, BC Nath, MD Huda, MGK Bhuiyan, H Paul, **S Islam**. 2020. Nutritional elements assessment in selected traditional local vegetables. Journal of Agricultural Engineering, IEB, Vol-43/AE, No.1. pp: 51-59.

12. M A Hossen, **S Islam**, H Paul and M M Shahriyar. 2021. Design, fabrication, and performance evaluation of a multi-rows power operated weeder for line transplanted rice field in Bangladesh. Asia-Pacific Journal of Science and Technology. Vol: 27. Issue: 03. Article ID.: APST-27-03-11.

13. M A Hossen, M M Shahriyar, **S Islam**, H Paul and M M Rahman. 2022. Rice Transplanting Mechanization in Bangladesh: Way to make it Sustainable. Agricultural Sciences, 13,130-149.

14. Hossen, M.A., Kamruzzaman, M., **Islam, S**., Paul, H., Shahriyar, M.M. and Khan, A.U. 2022. Determination of Optimum Seed Rate of Hybrid Rice (*Oryza sativa* L.) Varieties in Mat-Type Seedling Raising for Mechanical Transplanting. Agricultural Sciences, 13, 1031-1047.

15. S Paul, B C Nath, M D Huda, H Paul, M M Rahman, and **S Islam**. 2022. An Improved Rickshaw Van with Added Two-Speed Gear, Suspension, and Foot Wooden Brake. United International Journal for Research & Technology (UIJRT). 03(12), 2022. ISSN: 2582-6832.

Booklets: 01 (One)
(a) Booklets as Principal Author:
(b) Booklets as Co-author: 01 (One)

1. Dr. Md. Durrul Huda, Bidhan Chandra Nath, Subrata Paul, Dr. Md. Golam Kibria Bhuiyan, **Sharmin Islam** (2018). Booklet on ব্রি- হেডফিড কম্বাইন হারভেস্টার চালনা ও রক্ষণাবেক্ষণ নির্দেশিকা, Farm Machinery and Post-Harvest Technology Division, Bangladesh Rice Research institute, Gazipur, Bangladesh.

Bulletins: 03 (Three)

Bulletins as Principal Author: 01(One)

1. **Sharmin Islam,** Dr. Md. Durrul Huda, Dr. Md. Anwar Hossen, Dr. Md. Golam Kibria Bhuiyan, Dr. Muhammad Abdur Rahman (2020). রাইস ট্রান্সপ্লান্টার ব্যবহার উপযোগী চারা উৎপাদন কলাকৌশল (www.ais.gov.bd/site/view/krishi_kotha_details/১৪২৭/জৈষ্ঠ/ রাইস ট্রান্সপ্লান্টার ব্যবহার উপযোগী চারা উৎপাদন কলাকৌশল)

Bulletins as Co-author: 02 (Two)

1. Dr. Md. Durrul Huda, Bidhan Chandra Nath, Dr. Md. Golam Kibria Bhuiyan, Subrata Paul and **Sharmin Islam** (2020). কম্বাইন হারভেস্টার যন্ত্রের ব্যবহার ও গুরুত্ব (www.ais.gov.bd/site/view/krishi_kotha_details/১৪২৭/শ্রাবণ/ কম্বাইন হারভেস্টার যন্ত্রের ব্যবহার ও গুরুত্ব)

2. Dr. Md. Anwar Hossen, Md. Monirul Islam, Md. Ashraful Alam, **Sharmin Islam**, Haimonti Paul and Dr. Muhammad Abdur Rahman (2019). ব্রি শক্তি চালিত আগাছা নিড়ানি যন্ত্র, Farm Machinery and Post-Harvest Technology Division, Bangladesh Rice Research institute, Gazipur, Bangladesh.

Number of technology developed: 05 (Five)

As Principal author

Sl. No.	Title of experiment	Findings/Technology

As Co-author

Sl. No.	Title of experiment	Findings/Technology
1	Design and development of head feed mini combine harvester	BRRI Head feed mini combine harvester
2	Design and development of whole feed mini combine harvester	BRRI Whole feed mini combine harvester

3	Development of manual seed sower machine for raising mat type seedling	BRRI Manual seed sower machine
4	Development of manual rice transplanter	BRRI Manual rice transplanter
5	Design and development of head feed power thresher	BRRI Head feed power thresher

Research as Principal Investigator/Co-investigator

l. No	**Research programme name**	**PI**	**CI**	**Remarks**
1	Evaluating and modifying of BRRI developed machines		CI	Executed
2	Effect of settling period of soil on performance of Rice Transplanter	-	CI	Executed
3	Design and development of a head feed power thresher		CI	Executed
4	Design and development of bin type dryer	-	CI	Executed
5	Development of a metal storage structure		CI	Executed
6	Design and development of whole feed mini combine harvester		CI	Supervised, Continued
7	Test, evaluation and modification rubber roll de-husker		CI	Executed
8	Development of manual seed sower machine for raising mat type seedling	-	CI	Supervised, Executed
9	Performance evaluation of power operated seed sower machine		CI	Developed, Supervised, Executed
10	Test and modification of reaper binder		CI	Supervised, Executed
11	Study the milling recovery of long grain rice varieties in commercial mill		CI	Supervised, Executed
12	Design and development of head feed mini combine harvester		CI	Developed, Supervised, Continued
13	Study the briquette production from rice byproduct	PI		Developed, Supervised, Executed
15	Development of manual rice transplanter		CI	Supervised, Executed
16	Design and development of USG deep placement mechanism in the rice transplanter		CI	Supervised, Executed
17	Effect of ageing on milling performance of premium quality rice	PI	CI	Developed, Supervised, Executed
18	Design and development of a reaper binder		CI	Supervised, Continued
19	Study the effect of polishing on rice grain quality		CI	Developed, Supervised, Executed
20	Identification of agricultural residues for maximizing biogas production		CI	Supervised, Continued

21	Design and development of a compact rice mill		CI	Supervised, Continued
22	Design and development of walking type power operated rice transplanter		CI	Supervised, Continued
23	Development, validation and adoption of power weeder for wet land rice cultivation		CI	Supervised, Executed
24	Design and development of a rice husk-straw pellet machine.	PI		Developed, Supervised, Continued
25	Design and development of power operated seed sower machine for raising mat type seedling		CI	Supervised, Continued
26	Industrial and farm level extension of BRRI machinery and Postharvest technology		CI	Developed, Supervised, Continued
27	Training on operation, repair and maintenance of farm machinery		CI	Developed, Supervised, Continued
28	Design and development of a diesel engine operated high speed hydro-tiller for marshy land	PI	CI	Developed, Supervised, Continued
29	Postharvest loss assessment of whole and head feed combine harvester under different soil condition		CI	Developed, Supervised, Continued
30	Determination of optimum seed rate for Hybrid rice variety for mechanical transplanting in Bangladesh		CI	Supervised, Executed
31	Effect of different storage structure of milled rice in long-term storage		CI	Supervised, Continued
32	Feasibility of combine harvester in different eco-condition in Bangladesh		CI	Supervised, Continued
33	Performance evaluation of a rice husk-straw pellet machine	PI	CI	Developed, Supervised, Continued
34	Adaptive trial of newly developed farm machinery and technology		CI	Developed, Supervised, Continued
35	Identification and fabrication of fast-moving spare parts of combine harvester and rice transplanter enhancing sustainable mechanization in Bangladesh		CI	Developed, Supervised, Continued
36	Design and development of a single row wet land power weeder		CI	Supervised, Continued
37	Design and development of a self-propelled multi-rows power weeder for both wet and dry land condition		CI	Supervised, Continued
38	Drying and tempering effect on Kernel Strength and milling recovery of the parboiled and un-parboiled Paddy		CI	Developed, Supervised, Continued

TRAINING COURSES COMPLETEDS

(a) In country

Sl. no.	Organization	Year	Duration		Name of Program
			From	To	
1	National Agriculture Training Academy (NATA), Gazipur	2022	16 October	20 October	Public Financial Management
2	Bangladesh Rice Research Institute (BRRI), Gazipur	2022	28 May	29 May	Public Service Innovation
3	Greenland Technologies Limited, 26 Shyamoli, B.U.A.W Chowdhury Road, Dhaka	2021-22	12 December, 2021	10 March, 2022	Solid works and CNC programming master CAM
4	BLC Tool Room and Engineering Works 46/1, B.K. Ganguly Lane, Kayettuli, Dhaka	2022	06 March	10 March	Operation of Hass CNC Machining Center and Hass CNC Turning Center
5	Bangladesh Rice Research Institute (BRRI), Gazipur	2021	30 October	04 November	Advanced Research Data Management using R Studio and Refresher of Scientific Report Writing
6	Bangladesh Rice Research Institute (BRRI), Gazipur	2019-20	28 December 2019	02 January 2020	Rice Physiological Development Through Trait Discovery Training Course
7	Bangladesh Rice Research Institute (BRRI), Gazipur	2019	16 November	20 November	Agricultural Research Methodology
8	Bangladesh Agriculture Research Institute (BARI), Gazipur	2019	30 March	03 April	Farm Mechanization and Conservation Agriculture, 30 march-03 April 2019 , BARI
9	Graduate Training Institute(GTI),Bangladesh Agricultural university (BAU)	2018	03 October	15 October	Research Methodology

Sl. no.	Organization	Year	Duration		Name of Program
			From	To	
10	Bangladesh Rice Research Institute (BRRI), Gazipur	2017	01 April	03 April	Experimental Design and Data Analysis Training Course
11	Bangladesh Rice Research Institute (BRRI), Gazipur	2017	04 March	06 March	Modern Rice Production Training Course
12	Bangladesh Rice Research Institute (BRRI), Gazipur	2017	12 February	16 February	Programming R for Experimental Design and Data Analysis
13	Bangladesh Rice Research Institute (BRRI), Gazipur	2016	29 February	28 April	Rice Production and Communication Training Course
14	Bangladesh Agriculture Research Institute (BARI), Gazipur	2016	22 February	25 February	Food security
15	Bangladesh Agriculture Research Institute (BARI), Gazipur	2015	26 April	30 April	Use of Farm Machinery and Irrigation System Management
16	Rural Development Academy (RDA), Bogra	2011	01 June	15 June	Operation and Maintenance of Agricultural Machinery
17	Central Extension Resources & Development Institute (CERDI), Gazipur	2009	23 July	27 July	Project Implementation Technique
18	Graduate Training Institute(GTI),Bangladesh Agricultural university (BAU)	2008	28 June	10 July	Basics of MS Office
19	Rural Development Academy (RDA), Bogra	2008	25 February	28 February	RDA-developed Irrigation and Water Management Technology

(b) Abroad

Sl. no.	Country	Year	Duration		Name of Program
			From	To	

01	CAAMS, Beijing, China	2016	21 July	10 August	2016 Official Seminar on Agricultural Mechanization for Developing Countries

MAJOR SUBJECT STUDIED

Course work in B.Sc. Agricultural Engineering	
Level: 1 Semester: 1 Physics Chemistry Soil Science English Mathematics I Engineering Shop Engineering Drawing (Civil)	**Level: 1 Semester: 2** Agronomy Mathematics II Computer Science Workshop Technology Engineering Drawing (Mechanical) Engineering Mechanics Surveying
Level: 2 Semester: 1 Mathematics III Agricultural Economics Computer Application Thermodynamics Engineering Materials Food Science Fluid Mechanics	**Level: 2 Semester: 2** Electrical Engineering Hydraulics Heat Engines Strength of Materials Material and Cost Estimation Horticultural Science Rural Sociology Statistics
Level: 3 Semester: 1 Agricultural Power Electrical Machinery Irrigation and Drainage Engineering Groundwater Engineering Soil Mechanics Concrete Structure Design	**Level: 3 Semester: 2** Agricultural Extension Education Agricultural Machinery Rural Electrification Engineering Environmental Engineering Hydraulic Engineering Agricultural Meteorology
Level: 4 Semester: 1 Accountancy Computer Aided Design Agricultural Mechanization Pumps and Wells Soil and Water Conservation Engineering Hydrology Hydraulic Machinery Project Work and Seminar	**Level: 4 Semester: 2** Engineering Management On-Farm Water Management Irrigation Structure Flood Control and River Training Land and Watershed Management Aquacultural Engineering Project Work and Report

Master of Science in Irrigation and Water Management	
Semester: 1	Irrigation System Design Surface Water Hydrology Economics of Water Resources Projects Soil-Water-Plant Relationship River Engineering and Flood Management Mathematics for Water Engineering
Semester: 2	Drainage Engineering Ground Water Development Open Channel Flow Irrigation System Planning and Management Crop Climatology Water Resources Planning
Semester: 3	Research

REFERENCES

1. **Dr. Md. Durrul Huda**
   Chief Scientific Officer
   Farm Machinery and Postharvest Technology (FMPHT) Division,
   Bangladesh Rice Research Institute (BRRI),
   Gazipur-1701, Bangladesh

2. **Dr. Md. Anwar Hossen**
   Principal Scientific Officer
   Farm Machinery and Postharvest Technology (FMPHT) Division,
   Bangladesh Rice Research Institute (BRRI),
   Gazipur-1701, Bangladesh

Sincerely

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