CURRICULUM VITAE OF HAIMONTI PAUL

MAILING ADDRESS

Haimonti Paul Agriculture Engineer Farm Machinery and Postharvest Technology Division Bangladesh Rice Research Institute Gazipur-1701, Bangladesh Cell phone: +880-1735364662 E-mail: paulhaimonti@yahoo.com

PERSONAL DETAILS

Name	:	Haimonti Paul
Father's name	:	Pratap Chandra Paul
Mother's name	:	Shafali Paul
Spouse's Name	:	Sanjoy Kumar Paul
Date of birth	:	23 th December, 1984
Nationality	:	Bangladeshi (by birth)
Permanent address	:	C/O- Sanjoy Kumar Paul, Vill.: Singaria, P.O.: Munsurabad, P.S.: Bhanga, Dist.: Faridpur-7830
Marital status	:	Married
Sex	:	Female
Blood Group	:	A Positive (A+)
Religion	:	Sanaton (Hindu)
National ID No.	:	4631486992

RESEARCH INTEREST

- Agricultural Machinery Technologies and Design
- Agricultural Information System
- Remote Sensing for Crop Production
- Postharvest Technology
- Food security
- Renewable Energy
- Conservation Agriculture
- Water Management



EDUCATIONAL QUALIFICATION

Name of the Degree	Institution/University	Year of Passing	Division/ Class/ CGPA
M.S in Irrigation and Water Management	Bangladesh Agricultural University	2009	3.689 (out of 4)
B. Sc. Agricultural Engineering	Bangladesh Agricultural University	2008	3.489 (out of 4)
H.S.C (Higher Secondary Certificate)	Siddheswari Girls' College	2002	First
S.S.C (Secondary School Certificate)	Motijheel Govt. Girls' High School	2000	First

EMPLOYMENT HISTORY

Name of the	Name of the post	Tenure of Service		Service Length	Objective/ activities
Institute	Ĩ	Form	То		
Bangladesh Rice Research Institute (BRRI)	Agriculture Engineer	23/09/2014	Till		 Responsibilities: To design, development, modification and extension of agricultural machinery and to research on rice postharvest technology, utilization of agro-residues technologies as well as renewable energy. 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.

PERSONAL SKILL AND COMPETENCE

Language proficiency:	Mother tongue: Bengali Other language: English
Professional Affiliations:	 Member, Institution of Engineers, Bangladesh (IEB); Member, Bangladesh Society of Agricultural Engineers (BSAE); Member, Krishibid Institution, Bangladesh (KIB); Member, Bangladesh Rice Research Institute Scientist's Association (BRRISA)
Computer skill and competence:	 Competent in Microsoft Operating Systems and Microsoft Office package Familiar software: Operating software Windows-7, Windows-98, Windows-XP and Arc view (GIS), 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, Mymensingh entitle **"Studies on Field Water Balance Using a Simulation Model"**.

SPECIAL ACQUISITION

- Award of Certificate of Appreciation for Development and Implementation of "Annual **Performance Agreement (APA) 2020-21**" from Farm Mechanization and Postharvest Technology (FMPHT) Division at Bangladesh Rice Research Institute (BRRI).
- Achieved a fellowship by "National Science and Information and Communication Technology (NSICT) Fellowship 2009-2010", an institute of the Government of Bangladesh for Research Work of MS (Master of Science) level.

SCIENTIFIC PUBLICATION (S)

Full paper as Principal Author (04)

- <u>H Paul</u>, 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.
- <u>H Paul</u>, 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.
- <u>H Paul</u>, M A Hossen, S Islam, S Paul, M G K Bhuiyan. 2019. Evaluation of brri multirows 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.
- <u>H Paul</u>, 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.

Full paper as Co-author (11)

- M H Ali, <u>H Paul</u> and M R Haque. 2011. Estimation of Evapotranspiration Using a Simulation Model. Journal of the Bangladesh Agricultural University. 9(2). Pp 257-266.
- S Islam, M D Huda, M G K Bhuiyan, M A hossen, <u>H Paul</u>, 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.
- S Islam, <u>H Paul</u>, 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.
- 4. M D Huda, M G K Bhuiyan, B C Nath, M K Millon, S Islam, <u>H Paul</u>, M M Islam, M M 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.
- 5. M G K Bhuiyan, A K M S Islam, M Kamruzzaman, M A Alam, <u>H Paul</u>, M M Islam. 2020. Opportunity of local service provider on custom hiring business of combine harvester for small holder famrers' in haor areas. Journal of Agricultural Engineering, IEB, Vol-43/AE, No.1. pp: 85-94.
- 6. S Paul, A Akhter, B C Nath, M D Huda, M G K Bhuiyan, <u>H Paul</u>, S Islam. 2020. Nutritional elements assessment in selected traditional local vegetables. Journal of Agricultural Engineering, IEB, Vol-43/AE, No.1. pp: 51-59.
- M G K Bhuiyan, M D Huda, B C Nath, A K M S Islam, M M Islam, <u>H Paul</u>, S Paul. 2020. Improvement of air blow type engelberg huller for processing un-parboiled paddy. Journal of Agricultural Engineering, IEB, Vol-43/AE, No.1. pp: 21-30.

- M A Hossen, S Islam, <u>H Paul</u> 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.
- M A Hossen, M M Shahriyar, S Islam, <u>H Paul</u> and M M Rahman. 2022. Rice Transplanting Mechanization in Bangladesh: Way to make it Sustainable. Agricultural Sciences, 13,130-149.
- 10. M A Hossen, M Kamruzzaman, S Islam, <u>H Paul</u>, M M Shahriyar and A U Khan. 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.
- 11. S Paul, B C Nath, M D Huda, <u>H Paul</u>, 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.

BULLETIN

i) Md. Anwar Hossen, Md. Monirul Islam, Md. Ashraful Alam, Sharmin Islam, <u>Haimonti</u> <u>Paul</u> and Muhammed Abdur Rahman. (2019). Fact-Sheet on ব্ৰি শক্তি চালিত আগাছা নিড়ানি যত্ৰ. Farm Machinery and Post-Harvest Technology Division, Bangladesh Rice Research institute, Gazipur, Bangladesh.

ABSTRACT

 Bidhan Chandra Nath, G. Kibria Bhuiyan, <u>Haimonti Paul</u>, Mohammad Abdur Rahman, Mizanur Rahman, Md. Abdul Mazid, Zakiul Hasan. 2019. Lower degrees of milling embed food and nutrition security in Bangladesh. 33rd EFFoST International Conference. 12-14 November 2019. Postillion Convention Centre, WTC Rotterdam, The Netherlands.

TECHNOLOGY DEVELOPED

- **1.** BRRI Power Weeder
- 2. BRRI Conical Weeder
- 3. BRRI Manual Rice Transplanter
- 4. BRRI head feed power thresher
- 5. BRRI Manual Seed Sower Machine
- 6. BRRI Power Operated Rice Transplanter

Sl. 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.	Industrial and farm level extension of BRRI machinery and Postharvest technology		CI	Executed
4.	Design and development of Single and double row conical weeder		CI	Supervised, Executed
5.	Design and development of bin type dryer		CI	Executed
6.	Development of a manual rice transplanter		CI	Supervised, Executed
7.	Development of a metal storage structure		CI	Executed
8.	Performance evaluation of power operated automatic seed sower machine	PI		Developed, Supervised, Executed
9.	Test and modification of reaper binder		CI	Supervised, Executed
10.	Design and development of bin type dryer			Supervised, Executed
11.	Design and development of power weeder		CI	Supervised, Executed
12.	Study the milling recovery of long grain rice varieties in commercial mill		CI	Supervised, Executed
13.	Study the briquette production from rice byproduct		CI	Supervised, Executed
14.	Effect of ageing on milling performance of premium quality rice		CI	Supervised, Continued
15.	Test and evaluation of BRRI developed power weeder		CI	Developed, Supervised, Executed
16.	Design and development of walk behind type power operated rice transplanter		CI	Developed, Supervised, Executed
17.	Development, validation and adoption of power weeder for wet land rice cultivation		CI	Supervised, Executed
18.	Study the effect of polishing on rice grain quality P			Developed, Supervised, Executed
19.	Development and performance evaluation of a hand operated compression type briquetting machine		CI	Developed, Supervised, Continued
20.	Design and development of a head feed power thresher		CI	Developed, Supervised, Continued
21.	Identification of agricultural residues for maximizing biogas production	PI		Developed, Supervised, Continued
22.	Design and development of a rice husk-straw pellet machine.		CI	Developed, Supervised, Continued

RESEARCH AS PRINCIPAL INVESTIGATOR/CO-INVESTIGATOR

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

TRAINING COURSES COMPLETED

➢ In Country

Sl.	l. Organization Year D		Dura	ation	Place	Name of Program
no.			From	То		
1.	Bangladesh Rice Research Institute (BRRI) Cabinet Division and a2i Programme, ICT Division	2022	28 May	29 May	Gazipur	Public Service Innovation
2.	BLC Tool Room and Engineering Works	2022	06 March	10 March	Dhaka	Operation of Haas CNC Machining Center and Haas CNC Turning Center
3.	Bangladesh Rice Research Institute (BRRI)	2021- 22	12 December	10 March	Gazipur	Solidworks and CNC programming masterCAM
4.	Bangladesh Rice Research Institute (BRRI)	2021	23 October	28 October	Gazipur	Advance Research Data Management using R Studio and Refresher of Scientific Report Writing Training
5.	Bangladesh Rice Research Institute (BRRI)	2020	15 November	19 November	Gazipur	Scientific Report Writing Training Course
6.	Bangladesh Rice Research Institute (BRRI)	2019- 20	28 December	02 January	Gazipur	Rice Physiological Development Trait Discovery Training Course
7.	Bangladesh Rice Research Institute (BRRI)	2019	16 November	20 November	Gazipur	Agricultural Research Methodology
8.	Bangladesh Agricultural Research Institute (BARI)	2019	30 March	3 April	Gazipur	Farm Mechanization and Conservation Agriculture
9.	Bangladesh Agricultural University (BAU)	2018	05 September	17 September	Mymensi ngh	Research Methodology
10.	Bangladesh Agricultural Research Council (BARC)	2018	4 March	8 March	Dhaka	Use of farm Machinery and Irrigation System Management

Sl.	Organization	Year	Duration		Place	Name of Program
no.			From	То		
11.	Bangladesh Rice Research Institute (BRRI)	2017	7 March	9 March	Gazipur	Modern Rice Production Training Course
12.	Bangladesh Rice Research Institute (BRRI)	2017	12 February	16 February	Gazipur	Programming R for Experimental Design and Data Analysis
13.	Bangladesh Rice Research Institute (BRRI)	2016	29 February	28 April	Gazipur	Two- month Rice Production and Communication Training Course
14.	Bangladesh Agriculture Research Institute (BARI)	2015	26 April	30 April	Gazipur	Use of farm Machinery and Irrigation System Management

PROJECT WORKS

- Development, validation and adoption of power weeder for wet land rice cultivation (DPWRC)- worked as a **working scientist.**
- HarvestPlus Project- worked as a **working scientist**.
- Validation and Upscaling of Rice Transplanting and Harvesting Tecnology in the selected sites of Bangladesh (VRTHB)- working as a **working scientist**.
- Strengthening Farm Machinery Research Activity for Mechanized Rice Cultivation Project (SFMRA)- continuing as a **working scientist**.

MAJOR SUBJECT STUDIED

> Course work during MS and BSc Degree

Course	Major Subject				
First Semester	Irrigation System Design, Surface Water Hydrology, Economics of Water Resources Projects, Soil-Water-Plant Relationship, River Engineering and Flood Management, Mathematics for Water Engineering				
Second Semester	Drainage Engineering, Ground Water Development, Open Channel Flow, Irrigation System Planning and Management, Crop Climatology, Water Resources Planning				
Thesis Semester	Thesis Title: Studies on Field Water Balance Using a Simulation Model.				

Master of Science (MS) in Irrigation and Water Management

Course	Major Subject
Level One	
Semester: 1	Physics, Chemistry, Soil Science, English, Mathematics I, Engineering Shop, Engineering Drawing (Civil)
Semester: 2	Agronomy, Mathematics II, Computer Science, Workshop Technology, Engineering Drawing (Mechanical), Engineering Mechanics, Surveying
Level Two	
Semester: 1	Mathematics III, Agricultural Economics, Computer Application, Thermodynamics, Engineering Materials, Food Science, Fluid Mechanics
Semester: 2	Electrical Engineering, Hydraulics, Heat Engines, Strength of Materials, Material and Cost Estimation, Horticultural Science, Rural Sociology, Statistics
Level Three	
Semester: 1	Agricultural Power, Electrical Machinery, Irrigation and Drainage Engineering, Groundwater Engineering, Soil Mechanics, Concrete Structure Design
Semester: 2	Agricultural Extension Education, Agricultural Machinery, Rural Electrification Engineering, Environmental Engineering, Hydraulic Engineering, Agricultural Meteorology
Level Four	
Semester: 1	Accountancy, Computer Aided Design, Agricultural Mechanization, Pumps and Wells, Soil and Water Conservation Engineering, Hydrology, Hydraulic Machinery, Project Work and Seminar
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 Project Title: Performance Evaluation of a Deep Tubewell Irrigation Project

Bachelor of Science (BSc) in Agricultural Engineering

REFERENCES

1. Dr. Md. Durrul Huda

Chief Scientific Officer and Head 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

(Haimonti Paul) Agriculture Engineer Farm Machinery and Postharvest Technology Division Bangladesh Rice Research Institute Gazipur-1701, Bangladesh