

CURRICULUM VITAE OF DR. SARIFUL HAQUE BHUIYA

Chief Scientific Officer

Electronics and Health Physics Section
Bangladesh Institute of Nuclear Agriculture (BINA)
Mymensingh - 2200, Bangladesh

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AREA OF INTERESTS/FIELD OF SPECIALIZATION

- ❖ Nuclear and Analytical Instrumentation;
- ❖ Radiation Safety, Safeguard and Protection;
- ❖ Radiation Detection and Measurement;
- ❖ Dosimetry and dose mapping;
- ❖ Agricultural Process Engineering (Postharvest loss reduction).

EDUCATION

- ❖ March 2010
Doctor of Philosophy (Ph. D)
Department of Fusion Science, The Graduate University of Advanced Studies, Japan
Thesis title: “Development of an energy independent spherical type neutron dose monitor”
- ❖ December 1999
Master in Farm Power and Machinery (Major: Power System)
Bangladesh Agricultural University, Bangladesh
Thesis title: “Simulation of Electric Power Requirements and Supply Strategies: The Case of Bangladesh”
Major courses studied: Instrumentation, Agricultural Process Engineering, Agricultural Systems Engineering, Plant Protection Machinery and Equipment, Farm Machinery, Farm Power, Agricultural Machinery Testing, Evaluation and Maintenance, Engineering Mathematics.
- ❖ May 1990
Bachelor of Science in Engineering (Major: Electrical and Electronic Engineering)
Bangladesh University of Engineering and Technology (KUET), Bangladesh
Undergraduate Project: “Versatile Telecommunication System”.
Major courses studied: Electrical and Electronics Circuits, Communication Engineering, Electrical Machines, Electrical Measurements and Measuring Instruments, Servomechanism and Control System, Power System Switchgear and Protection, Power Station, Energy Conversion, High Voltage Engineering/Circuits Switching, Electromagnetic Fields, Engineering Mathematics, Physics and Chemistry.
- ❖ October 1985
Higher Secondary Certificate (HSC) (Science Group)
Govt. Ananda Mohon College, Mymensingh, Bangladesh
Board of Intermediate and Secondary Education, Dhaka, Bangladesh
Major courses studied: Mathematics, Physics and Chemistry
- ❖ June 1983
Secondary School Certificate (SSC) (Science Group)
Mymensingh Zilla School, Mymensingh, Bangladesh
Board of Intermediate and Secondary Education, Dhaka, Bangladesh
Major courses studied: Mathematics, Physics and Chemistry

JOB DUTIES AND RESPONSIBILITIES

- ❖ To ensure the peaceful use of atomic energy at Bangladesh Institute of Nuclear Agriculture (BINA) in conducting agricultural research;
- ❖ Nuclear and analytical Instrumentation;
- ❖ Planning and administrative works.

PROJECT FORMATION AND IMPLEMENTATION

- ❖ Formulation of project titled “Establishment of Gamma Irradiation Center”;
- ❖ Involved in the technical aspects of the ongoing Feasibility Study of “e-Beam/X-Ray Technology” Project with the support of Texas A & M University and Department of Energy (DoE), USA;
- ❖ Provided technical assistance in preparation/implementation of completed/ongoing projects of BINA since June 1994.

WORK EXPERIENCE

Name of post	Work place	Duration	Comments
Scientific Officer (SO)	Electronics and Health Physics Section, BINA, Mymensingh	8 Years o Month (01-06-1994 To 09-06-2001)	Recruitment
Senior Scientific Officer (SSO)	Electronics and Health Physics Section, BINA, Mymensingh	7 Years 11 Months (10-06-2001 To 17-05-2009)	Promotion
Principal Scientific Officer (PSO)	Electronics and Health Physics Section, BINA, Mymensingh	10 Years 0 Month (18-05-2009 To 23-05-2019)	Recruitment
Chief Scientific Officer (CSO)	Electronics and Health Physics Section, BINA, Mymensingh	4 Years 5 Months (24-05-2019 To date)	Promotion

FORMULATION OF VARIOUS POLICIES OF THE ORGANIZATION

- ❖ “Condemnation and disposal Policy” of miscellaneous goods including research equipment, promulgated on July 7, 2010;
- ❖ Job description and Delegation of Power formulation of BINA (draft), June 2019;
- ❖ Formulation of Higher Education and Training Policy-2020 of BINA (draft), June, 2020.

FOCAL POINT OF BINA

- ❖ “Establishment of Gamma Irradiation Center”, Strategic partner of PARTNER Program;
- ❖ “Integrated Digital Service Delivery Platform of Ministry of Agriculture (MoA)” for National Agricultural Research System (NARS).

DATE OF BIRTH AND NATIONALITY

- ❖ **Date of birth** : November 27, 1967
- ❖ **Nationality** : Bangladeshi

FELLOWSHIP AWARDS AND HONORS

- ❖ February 2006–May 2006
International Atomic Energy Agency (IAEA) Fellowship
Wagramer Strasse 5, P. O. Box 1000, A-1400, Vienna, Austria
Fellowship Training at National Nuclear Energy Agency, Yogyakarta, Indonesia.
- ❖ 1986-1989
Technical Merit Scholarship
Department of Electrical and Electronic Engineering, KUET, Bangladesh
- ❖ **March 2007 – March 2010**
YUKWAI & JASSO Scholarship, Japan
Ph.D. study
NIFS, SOKENDAI, 322-6, Oroshi-cho, Toki-city, Gifu, Japan
- ❖ **June 2016 – December 2016**
SRSD Project, BINA
Fellowship on “Radiation Health Hazard and Protection”.
Malaysian Nuclear Agency, Bangi, Malaysia

PROFESSIONAL EXPERIENCES/DUTIES AND RESPONSIBILITIES

Electronics, Irradiation and Health physics related works are mandatory for any kind of nuclear activity. BINA has been conducting research and development works in the field of agriculture by peaceful use of atomic energy since 1975. The Institute has got/brought a huge number of sophisticated nuclear and analytical instruments from different sources; like International Atomic Energy Agency (IAEA), SIDA, USAID and GOB (Revenue and development) funds. The success of the Institute’s research depends on proper functioning of the nuclear, scientific and analytical equipment. At present, the small manpower (CSO-1, SSO-2, SO-2, SAE-1) of Electronics and Health Physics section have been working on planning, installation, calibration, operation, repair & maintenance of sophisticated nuclear equipment such as; Gamma Irradiators, Neutron Gauges, Isotope Ratio Mass Spectrometer (IRMS), N-15 analyzer as well as analytical instrument, Atomic Absorption Spectrometer (AAS), High Performance Liquid Chromatography (HPLC), Gas Chromatography (GC), Gel Doc, DNA Sequence analyzer, Particle size analyzer etc. Following the Bangladesh Atomic Energy Regulatory Authority (BAERA) acts 2012, rules & regulations as well as the International Atomic Energy Agency (IAEA) rules and guidelines, the section also engaged on radiation safety and health measures activities i.e. workplace and personnel monitoring, radiation detection and measurement, safeguards, physical protection of nuclear facilities, protection, health surveillance etc. against radiation coming from different radio-isotopes (Co-60, Am-Be-241, P-32, Zn-65, C-14, S-35) for ensuring/confirming the peaceful use of nuclear techniques at BINA. Besides these, the section has also been doing the works related to small design, design modification of nuclear and analytical equipment as and when required. The Head of the section also remain engage with day

to day works of the section and administrative & Planning works. The working area and activities of Electronics and Health Physics are mentioned below.

Irradiation and Health Physics related activities

This includes peaceful use of nuclear energy, radiation protection and safeguard of nuclear facilities of BINA including policy formulation of radiation safety and protection at Institutional, national and international level as well as planning, coordination, management and implementation of all activities related to nuclear facilities and safety measures. These are as follows:

Institutional Responsibilities

- ❖ Pursuant to section 18(b) & 21(1) of the Bangladesh Atomic Energy Regulatory Act No. 19 of 2012 and subject to the conditions and limit for getting the license (C-class) of Co-60 Irradiator and nucleonic gauges of irradiation practices at BINA.
- ❖ Directly engage on renewal of 'C-class' and 'E-class' Licenses of Irradiator and Nucleonic gauges used at BINA which is mandatory for the use of nuclear equipment and importing of the nuclear equipment from abroad.
- ❖ Prepare and submit the yearly report of Institute's nuclear activities to BAERA that is mandatory for renewal of the Licenses of Research Irradiators and Nucleonic gauges practices of BINA.
- ❖ Pursuant to rule 54.2 of the NSRC rules-97 (SRO No. 205-law/97) for getting and renewal of the certificate as Radiation Control Officer (RCO) of the Institute.
- ❖ Engaged for getting permission of importing of radioactive materials and import & export license (A & E-class)-NSRC Rules-97 (SRO No. 205-law/97) for procuring and install the nuclear facilities like Co-60 research and industrial Irradiator.
- ❖ Any type of nuclear practices, there must have the certified Radiation Control Officer (RCO). The RCO of BINA is solely responsible for the peaceful use of nuclear energy.
- ❖ Engaged on planning, installation, calibration, repairing and maintenance of isotopic as well as detection and measuring of radiation coming from different equipment and isotope.
- ❖ Ensure physical protection, security and safeguard of all sorts of nuclear equipment of BINA.
- ❖ Responsible for the safe and sound operation of Gamma Irradiators, Neutron moisture meters and other equipment as well as radio-isotopes using for agricultural research at BINA.
- ❖ Routine radiation survey in and around the nuclear facilities of the Institute.
- ❖ Ensure protection radiation occupational worker, general public and environment from radiation hazards.
- ❖ Estimate radiation dose and irradiation time of various samples requesting from different research divisions for irradiation.
- ❖ Arrange/ensure health surveillance of the manpower engaged in the nuclear activities of the Institute.
- ❖ TLD management for Personal monitoring of manpower engaged in nuclear activities of the Institute.
- ❖ Planning, operation, data analysis and supervision of overall matters of Isotope Ratio Mass Spectrometer (IRMS).
- ❖ All types of nuclear activities and monitoring of the organization (gamma radiator, neutron moisture meter, TLD etc.). Also prepare annual report in order to send to BAERA.
- ❖ Conduct and implement research activities related to calibration of nuclear facilities as well as radiation safety and health.
- ❖ Controlling/assuring the quality for all kinds of nuclear equipment of the Institute through testing/verification as per tender supply order and invoice in procurement of equipment (both for national and international tender).
- ❖ Provide technical comments/feedback on the declaration of nuclear analytical and office equipment as useless (for condemnation).
- ❖ Arrange training course/seminar/workshop on radiation protection for awareness creation among Scientists, Officer and Staffs of BINA as well as radiation worker;
- ❖ Providing Physical protection services to radiation installations as per rules and regulation of BAERA and IAEA.
- ❖ Recording of applied radiation data including gamma source management, repair and maintenance.

National Responsibilities:

- ❖ Responsible for agricultural countermeasures against ingestion and longer term protective actions under Ministry of Science Technology (MOST) (National Nuclear and Radiological Emergency Preparedness and Response Plan (NNREPRP), বাংলাদেশ গেজেট, অতিরিক্ত, নভেম্বর ৩০, ২০২০, পৃষ্ঠা-১২৮৭৯)।
- ❖ Prepare/update the document of countermeasures i.e. remediation of radioactive contamination methods for the effect of nuclear accident in agriculture sector
- ❖ Responsible for the collection and analysis of agricultural produce, insects, soil and water samples related to radiation and Physio-Chemical Analysis under MoA (National Nuclear and Radiological Emergency Preparedness and Response Plan (NNREPRP), বাংলাদেশ গেজেট, অতিরিক্ত, নভেম্বর ৩০, ২০২০, পৃষ্ঠা-১২৯৩৭)।

Analytical and Lab Equipment

At BINA, scientists actively seek to develop new crop varieties/technologies that will increase crop yields, improve farmland productivity, reduce loss due to disease, insects and post-harvest as well as increase overall food quality. In agricultural R & D, analytical and lab equipment provides the vital role to analyze essential technical data on plant, soil, water, disease, insect etc. The activities of the Electronics and Health Physics section ensuring the planning, installation, standard operating procedure (SOP), coordination, management and implementation related to analytical and lab equipment of the Institute. The activities are as follows:

- ❖ Devoted to planning, installation, repair and maintenance works of all sorts of analytical equipment like AAS, HPLC, GC, UV-VIS spectrophotometers etc.
- ❖ Minor design, design modification and fabrication work of different equipment as and when required.
- ❖ Arrange training program/delivered lecture through seminar related to analytical and laboratory equipment as and when required.
- ❖ Quality Assurance in planning, supply/acceptance of all analytical equipment (AAS, HPLC, GC etc.) both for national and international tender.
- ❖ Supervision/implementation of installation, repair and maintenance work.
- ❖ Research work related to design/design change of analytical/laboratory equipment.

- ❖ Repair and maintenance of various lab microprocessor/micro-controller based equipment with installation plan supervise the work.
- ❖ Installation, calibration, repair and maintenance of all types of analytical and laboratory equipment.
- ❖ Performing/implementing installation, up-gradation, repair and maintenance of electrical/electronic equipment.

Office Equipment and services

- ❖ Engaged on assembling, hardware and software installation, up-gradation, repair and maintenance of personal computers, auto-attendance networking system, Video conferencing system, photocopiers, Fax machines, public address (PA) system and their related accessories.
- ❖ Planning, installation, supervision, repair & maintenance and troubleshooting of computerized digital PABX (8+384 lines) as well as software and its related accessories.
- ❖ Installation, up-gradation, repair and maintenance of all types of lab/scientific (analytical and digital) equipment
- ❖ Installing, supervising, repairing, maintaining photocopy machines, printers etc.
- ❖ Installation, repair and maintenance of IP based surveillance network cameras at BINA Head Quarter and outer sub-stations.
- ❖ Implement management, repair and maintenance of Auto/Normal generator (IRMS and Electronics Branch).
- ❖ Management, monitoring, report preparation, etc. as admin of digital attendance system.
- ❖ Installation, repair and maintenance of audio-visual equipment of BINA.
- ❖ Provide/implement audio-visual supports for smooth conduct of various meetings, seminars, trainings, workshops etc.

Training, seminar and workshop

- ❖ Arrange/provide special/awareness seminar/training/workshop for Scientists, Officers and Staffs on radiation protection and safety when as required as well as Nuclear, Electronics, ICT, e-nothi, e-GP etc.
- ❖ Provide necessary guidance and advice to the junior officers/staff to enhance their work skills.
- ❖ Deliver lecture in-house training program of BINA as required.
- ❖ Provide instruction and advice as required to enhance the work skills of subordinates.
- ❖ Assist in the management and alerting of the users of nuclear equipment and in daily maintenance, training etc.
- ❖ Training of all types of analytical and laboratory users (Scientists/Technician) on management, precautions and day-to-day maintenance.

Administrative and others activities

- ❖ Engage with day to day works of the Electronics and health physics related works as well as some administrative and planning works as required.
- ❖ As a president/member secretary/member of different committee time to time formed by the authority, have performed some development works as technical evaluation, price estimation, monitoring of development works, extra-curricular activities, etc. as per office orders by the authority.
- ❖ Prepare and submit all sorts of reports as asked by the Ministry of agriculture (MoA), Prime Minister's Office (PMO), Bangladesh Agricultural Research Council (BARC) etc.
- ❖ Prepare technical specification, technical evaluation, market price evaluation as and when required.
- ❖ Provide technical support for condemnation of equipment as and when required.
- ❖ Quality control for procuring all sorts of equipment by checking/testing as per supply order and invoice.
- ❖ Deliver lecture on different training programs on instrumentation and radiation safety at BINA, FRI and other NARS Institutes for scientists, officers and staff.
- ❖ Assuming administrative responsibility of the branch, planning, development, management and operation of all activities including electronics and health materials to be implemented.
- ❖ Assist Director General/Directors for various development plans including equipment for the smooth implementation of the research of the organization.
- ❖ Keep records and save all types of documents /registers in the section.

Activities are in progress/Future plan

Facility development

- ❖ Enhancing nuclear (atomic energy and radiation monitoring) and analytical instrumental facilities both for hardware and software through the project (ADP) of "Strengthening Research Activities of BINA".
- ❖ Post-harvest loss reduction of agricultural produce by establishing "**Gamma Irradiation Center**" at BINA regional Station, Bhabanipur, Gazipur through the financial support of "PARTNER Program".
- ❖ Induced mutation Breeding, Post-harvest loss reduction, safe food and export of agricultural produce by establishing "**e-Beam/X-ray Irradiation Center**" at BINA regional Station, Bhabanipur, Gazipur through the technical support of Texas A & M University, US Department of Energy (UD-DoE) and RCA.

Research and development activities

- ❖ Measurement of background radiation levels at and around BINA and different sub-stations;
- ❖ Analyses of different radio-nuclides in environmental samples, such as, soil, water, air, vegetation, plant etc. both qualitatively and quantitatively;
- ❖ Analysis of the radioactivity level of BINA released varieties according to the intervention of Nuclear Safety & Radiation Control Rules -1997.
- ❖ Measurement of gross alpha and gross beta activity in environmental samples;
- ❖ Small design and development of equipment as required by BINA etc.;
- ❖ High dose dosimetry for the calibration of commercial Gamma Irradiator;
- ❖ High dose dosimetry for the calibration of commercial e-Beam/X-ray Irradiator and
- ❖ Dosimetry of agricultural produce and food samples after irradiation (Absorbed dose determination)

PROFESSIONAL TRAINING

In Country Training:

Sl. No.	Name of Training	Duration		Total		Organization	Comments
		From	To	Month	Day		
1.	Nuclear Agriculture	01-08-1995	31-08-1995	01	-	BINA, Mymensingh	
2.	Operation & Maintenance of Micro Computer	04-07-1996	25-07-1996	-	22	Institute of Engineers, Dhaka	
3.	Automatic Computer Aided Design	25-03-1997	25-04-1997	01	-	Institute of Engineers, Dhaka	
4.	Fourth Training Programme of NITUB on “Ultra-Violet, Visible and Infrared Spectrophotometry”	01-06-1997	05-06-1997	-	05	Dhaka University	
5.	Advanced agricultural research and environment friendly improved crop production packages	06-10-1997	15-10-1997	-	10	BINA, Mymensingh	
6.	Foundation training	06-02-2000	21-05-2000	03	20	BARD, Comilla	
7.	Motor Driving	04-04-2000	29-04-2000	-	25	BARD, Comilla	Part of Foundation training
8.	Computer Training	08-04-2000	29-04-2000	-	21	BARD, Comilla	Part of Foundation training
9.	The 3 rd National Training Workshop for the Radiation Control Officers (RCO) of Industrial Practices”,	20-07-2002	01-08-2002	-	13	Bangladesh Atomic Energy Commission, Dhaka	
10.	Micro-Controller and Micro Computer based Instrumentation	15-03-2003	10-04-2003	-	25	Bangladesh Atomic Energy Commission, Dhaka	
11.	Web Page Programming	11-08-2010	11-08-2010	-	01	Korean Internet Volunteers	
12.	9th National Training Course on Radiation Protection for the Radiation Control Officers (RCO) of Industrial Practices”,	27-09-2010	30-09-2010	-	04	Bangladesh Atomic Energy Commission, Dhaka	
13.	Technical Report Writing	20-08-2011	24-08-2011	-	05	BINA, Mymensingh	
14.	Training course on “Search and Secure”.	09-09-2012	13-09-2012	-	04	Bangladesh Atomic Energy Commission, Dhaka	
15.	e-filling	13-03-2017	14-03-2017	-	02	BINA, Mymensingh	
16.	Innovation	02-06-2017	03-06-2017	-	02	BINA, Mymensingh	
17.	Shuddachar	09-06-2017	09-06-2017	-	01	BINA, Mymensingh	
18.	Project Development and Management	14-10-2018	18-10-2018	-	05	BIM, Dhaka	
19.	Governance and ICT Infrastructure for Implementation of Digital Bangladesh	14-01-2018	25-01-2018	-	12	BIM, Dhaka	
20.	Digital Service Roadmap - 2021	23-04-2019	28-04-2019	-	06	NATA, Gazipur	
21.	সেবা প্রদান প্রতিশ্রুতি	28-03-2022	-	-	01	BINA, Mymensingh	
22.	শুদ্ধাচার পরিকল্পনা প্রনয়ণ ও বাস্তবায়ন	27-04-2022	-	-	01	BINA, Mymensingh	
23.	ই-গভর্ন্যান্স ও উদ্ভাবক কর্মপরিকল্পনা বাস্তবায়ন	02-06-2022	-	-	01	BINA, Mymensingh	
24.	Radiation Safety of Import-Export Control of Radioactive Material, Radiation Generating Equipment and Uses of Radiation Sources in Bangladesh	06-06-2022	-	-	01	BAERA, ঢাকা	
25.	আর্থিক ব্যবস্থাপনা ও সরকারী ক্রয়	12-09-2022	14-09-2022	-	03	BINA, Mymensingh	
26.	অভিযোগ প্রতিকার ব্যবস্থাপনা ও জিআরএস সফটওয়্যার	29-11-2022	-	-	01	BINA, Mymensingh	

27.	‘কৃষিতে চতুর্থ বিপ্লব এবং ভবিষ্যৎ করণীয়’ বিষয়ক কর্মশালা			01	BINA, Mymensingh	
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Higher Education/Foreign Training:

Sl. No.	Name of Training	Duration		Total		Organization	Comments
		To	Month	Day	To		
1.	Nuclear Instrumentation, Electronics and Radiation Safety	06-02-2006	05-05-2006	03	-	BATAN, Yogyakarta, Indonesia	IAEA fellowship
2.	Seminar on accelerator technology and its application	17-02-2006	17-02-2006	-	01	BATAN, Yogyakarta, Indonesia	Part of IAEA training of sl. No. 01
3.	Ph.D. Course	10-01-2007	30-03-2010	38	20	NIFS, SOKENDAI, Gifu, Japan	Scholarship & RA
4.	11 th Neutron and Ion Dosimetry Symposium: NEUDOS-11	11-10-2009	11-10-2009	-	06	iThemba LABS, Cape Town, South Africa	Part of Ph.D. course
5.	Repair and Maintenance of Gamma Irradiator	05-11-2012	10-11-2012	-	06	BRIT, Navi Mumbai, India	Pre-shipment inspection of GC-5000
6.	Nuclear techniques in Agricultural Research	17-06-2013	28-06-2013	-	12	CASS, Beijing, China	SRSD
7.	Training on “Isotope Ratio Mass Spectrometer”	21-10-2015	23-10-2015	-	03	Thermo Fisher, Bremen, Germany	PSI
8.	Radiation Health Hazards and Protection	20-06-2016	19-12-2016	06	-	Nuclear Malaysia, Bangi, Malaysia	SRSD fellowship
9.	Workshop on Accelerating the Adoption of Electron Beam and X-ray Technologies in Asia and the Pacific	14-11-2022	18-11-2022	-	05	Daejeon, South Korea	Texas A&M University, US DoE and RCA

AFFILIATION OF PROFESSIONAL ORGANIZATIONS/SOCIETY MEMBERSHIP:

- ❖ Life Fellow, Institution of Engineers, Bangladesh (IEB);
- ❖ Associate Member, Bangladesh Computer Council (BCC);
- ❖ Member, Bangladesh Association for the Advancement of Science (BASS);
- ❖ Member, Bangladesh Association for the Environmental society (BAED);
- ❖ Member, The BINA Scientist Association (BINASA).

FOREIGN LANGUAGE PROFICIENCY

- ❖ English Speaking (Fluent), Reading (Fluent), Writing (Fluent);
- ❖ Japanese Speaking (Fair)

COMPUTER LITERACY

- ❖ Operating system : DOS and Windows;
- ❖ Internet : Browsers;
- ❖ Circuit simulation : BASCOM;
- ❖ Package : MS Office, KaleidaGraph, Isodat NT, MCNP;
- ❖ Hardware : Experienced in Assembling, Upgradation, trouble shooting, repair & Maintenance of IBM/IBM compatible Computer/Laptop and their related accessories.

LIST OF PUBLICATIONS

Scientific Articles

International Journal:

1. S. H. Bhuiya, H. Yamanishi and T. Uda, Design of an energy-independent spherical-type neutron dose monitor, Nucl. Instrum. Meth. A 607, pp.629-633 (2009).
2. S. H. Bhuiya, H. Yamanishi and T. Uda, Evaluation of H*(10) measurement using the developed neutron dose monitor, Radiat. Prot. Dosim. 141, pp. 217-221 (2010).
3. S. H. Bhuiya, H. Yamanishi and T. Uda, Method of H*(10) evaluation considering practical neutron field by the developed monitor, Radiation Measurements, 45, pp.1096-1102 (2010).
4. Md. Saikat Hossain Bhuiyan, M. A. Malek and Sariful Haque Bhuiya, Mutation determination of rice using RAPD primers, International Journal of Agricultural Research, Innovation and Technology, (2018).
5. Md. Rayhan Sikder, Md. Abul Kalam Azad, Sariful Haque Bhuiya, Khondakar Sumsul Arefin, Md. Mahbulul Hasan Sohag & Mohannad Avwar Hossain, (2021). COMBINING ABILITY AND HETEROSIS ANALYSIS FOR OIL AND HEALTHY FATTY ACID CONPOSITION IN GROUNDNUT (Arachis hypogaea L.). PLANT SCIENCE TODAY. 8(3): 732-740.

National Journal:

6. B. K. Bala, **S. H. Bhuiya** & B. K. Biswas. Simulation of Electric Power Requirements and Supply Strategies: The Case of Bangladesh. *Journal of Energy & Environment*. pp 85-92, 1 (1999).
7. A. A. Hassan, M. H. Ali, **S. H. Bhuiya** and M. S. Ullah, Design and Construction of Ground Water level indicator for geo-hydrologic studies. *Bangladesh J. Agril. Engg.* 14 (1 & 2) pp. 1-7 (2003).
8. M. H. Ali, A. K. M. R. Islam, M. Hassanuzzaman and **S. H. Bhuiya**, Adaptation of FAO temperature method for estimating reference crop evapotranspiration (ET₀) under Bangladesh condition. *Bangladesh J. Env. Sci.* 11(1): pp. 22-24 (2005).
9. M. H. Ali, **S. H. Bhuiya** and F. Khanam. Evaluation of agro-climatic condition for rice cultivation in different regions of Bangladesh. *Bangladesh J. Env. Sci.* 11(1): pp. 16-21 (2005).
10. M. H. Ali, A.K.M. Adham and **S. H. Bhuiya**, Simulation of solar radiation from temperature at Mymensingh, Bangladesh. *J. Bangladesh Agril. Univ.* 3(2): 327-332, (2005).
11. N. N. Karim, K. A. Hoque and **S. H. Bhuiya**, SOLAR AND WIND ENERGY RESOURCE IN BANGLADESH, *Bangladesh J. Agri. Engg.* 16 (1 & 2) pp.1-17 (2005).
12. M. M. Islam, **S. H. Bhuiya**, S. A. Fakir and K. Begum, Chickpea Seed Quality as affected by radiation level and types of storage container, *Bangladesh J. Environ. Sci.* 24, pp.172-175 (2013).
13. **S. H. Bhuiya**, H. Yamanishi, T. and N. Sultana, Development of an Energy and Directional Independent Neutron Dose Monitor, *Bangladesh Journal of Nuclear Agriculture* 30, pp. 1-12 (2014).
14. K. S. Arefin, M. M. H. Sohag and **S. H. Bhuiya**, Graphical User Interface based Radiation Monitoring System, *Bangladesh Journal of Nuclear Agriculture*, 30, pp.1-12 (2014).
15. Effect of potassium fertilization on the growth yield and root quality of carrot, Fouzia Sultana Shika, Nargis Sultana, Md. Arifur Rahman, **Sariful Haque Bhuiya**, *International Journal of Applied Research* 2(3) 151-156 (2016).
16. K. S. Arefin, M. M. H. Sohag and **S. H. Bhuiya**, N. Sultana and J. A. B. Murshidi, SOIL ELEMENTS CHARACTERIZATION BY X-ray FLUORESCENCE, *Bangladesh J. Environ. Sci.*, 34, pp. 19-26 (2018).
17. K. S. Arefin, M. M. H. Sohag and **S. H. Bhuiya**, N. Sultana and J. A. B. Murshidi, SOIL TEXTURE ANALYSIS USING PARTICLE SIZE ANALYZER, *Bangladesh J. Environ. Sci.*, 34, pp. 27-30 (2018).
18. **S. H. Bhuiya**, M. M. H. Sohag, K. S. Arefin, H. Yamanishi, T. Uda and N. Sultana Neutron energy response at different layers of moderator and absorber, *Bangladesh Journal of Nuclear Agriculture* 31 & 32, pp. 33-38 (2018).
19. **S. H. Bhuiya**, M. M. H. Sohag, K. S. Arefin, Sham Hasan, Ahmad Bazlie Abdul Kadir and N. Sultana, CDR evaluation of GC-5000 using Ci-Ce and Gamma chrome dosimeters, *Bangladesh Journal of Nuclear Agriculture* 31 & 32, pp. 93-98 (2018).

Bulletin/ newsletter/annual report:

20. (1-11) 中性子線量測定器の応答特性試験 自然科学研究機構 核融合科学研究所 山西弘城、三宅 均、塚田 究 総合研究大学院大学 物理科学研究科 **Bhuiya, S.H.**, Annual Report of Cooperative Researches at Kinki University Reactor, 2007, Graduate School of Engineering, Osaka University
21. (1-11) 中性子線量測定器の応答特性試験 自然科学研究機構 核融合科学研究所 山西弘城、三宅 均、塚田 究、磯部光孝 総合研究大学院大学 物理科学研究科 **Bhuiya, S.H.**, Annual Report of Cooperative Researches at Kinki University Reactor, 2008, Graduate School of Engineering, Osaka University, pp.61-65.
22. **S. H. Bhuiya**, H. Yamanishi and T. Uda, Demonstration of $H^*(10)$ measurement by the monitor using reference radiation of FRS, JAEA, Annual report, 2008, NIFS, Japan
23. **S. H. Bhuiya**, H. Yamanishi and T. Uda, Method of $H^*(10)$ evaluation using a developed spherical type neutron dose monitor, Annual report, 2009, NIFS, Japan.
24. Annual Radiation of Control Officer (RCO) report 2010 to 2022 at Bangladesh Atomic Energy Regulatory Authority (BAERA), Dhaka, Bangladesh.

Note: Annual Radiation of Control Officer (RCO) reports (2010-2021) submitted to Bangladesh Atomic Energy Regulatory Authority (BAERA). This is mandatory for getting the license renewal of the class-C for two gamma irradiators and eleven neutron moisture meters.

Papers presented in the seminar/symposium/workshop:

25. **S. H. Bhuiya**, H. Yamanishi and T. Uda, Design of an Improved Neutron Dose Monitor, 16th Pacific Basin Nuclear Conference (16PBNC), Aomori, Japan, Oct. 13-18, 2008, Paper ID P16P1166.
26. **S. H. Bhuiya**, H. Yamanishi and T. Uda, Design optimization for energy independent spherical type neutron dose monitor, Atomic Energy Society of Japan, Chubu Regional Meeting, Nagoya University, 11-12 December, 2007.
27. **S. H. Bhuiya**, H. Yamanishi and T. Uda, Development of a spherical type neutron dose monitor using multiple TLD detectors Atomic Energy Society of Japan, Chubu Regional Meeting, Nagoya University, 9-10 December, 2008.
28. **S. H. Bhuiya**, H. Yamanishi and T. Uda, Method of $H^*(10)$ evaluation using spherical type energy-independent neutron dose monitor, 11th Neutron and Ion Dosimetry Symposium, iThemba Laboratory for Accelerator based Sciences, Cape Town, South Africa, 12-16 October, 2009.
29. **Dr. Sariful Haque Bhuiya**, Radiation Health Hazards and Protection, Frontier seminar, BINA, BAU Campus, Mymensingh-2002, 19 January, 2017.

Monographs:

30. **Sariful Haque Bhuiya**, Development of an energy independent spherical type neutron dose monitor, Doctor of Philosophy, Department of Fusion Science, School of Physical Sciences, The Graduate University for Advanced Studies, Japan, pp. 1-174 (2010).
31. **Sariful Haque Bhuiya**, Simulation of Electric Power Requirements and Supply Strategies: The case of Bangladesh, Master of Science (M.S.), Farm Power and Machinery, Bangladesh Agricultural University, Mymensingh, pp. 1-61 (1999).

Booklet/Leaflets:

32. ড. শরিফুল হক ভূঞা ও অন্যান্যজন, তথ্য অবমুক্তকরণ নির্দেশিকা ২০১৫, বাংলাদেশ পরমাণু কৃষি গবেষণা ইনস্টিটিউট, প্রথম সংস্করণঃ এপ্রিল, ২০১৫খ্রি. (৩০০ কপি)।
33. কৃষিতে পরমাণু শক্তির শান্তিপূর্ণ ব্যবহার, ২০২১খ্রি.

প্রতিষ্ঠানের বিভিন্ন নীতিমালা প্রণয়ন:

34. বাংলাদেশ পরমাণু কৃষি গবেষণা ইনস্টিটিউট (বিনা) এর মটরযান, বৈজ্ঞানিক/পারমাণবিক/ ফার্ম যন্ত্রপাতি, কম্পিউটার, অফিসে ব্যবহৃত যন্ত্রপাতি ও সরঞ্জামাদি, আসবাবপত্র ইত্যাদি সহ উৎপাদিত শস্যাদি, বীজ এবং গাছপালা অকেজো/ ব্যবহৃত অনুপযোগীকরণ ও নিষ্পত্তির নীতিমালা, ০৭ জুলাই, ২০১০ প্রণয়ন।
35. বিনা'র Job description (কাজের বিবরণী) এবং Delegation of Power প্রণয়ন, জুন, ২০১৯
36. বিনা'র উচ্চশিক্ষা ও প্রশিক্ষণ নীতিমালা-২০২০ (খসড়া) প্রণয়ন, জুন, ২০২০

OTHER CURRICULAR AND CO-CURRICULAR ACTIVITIES

1. **Executive Member** (2004–2005), Institute of Engineers, Bangladesh, Mymensingh Center.
2. **Played First Division Cricket League** (1989), in Khulna District.
3. **Played First Division Cricket League** (1991), at Mymensingh District.
4. **Played Second Division Foot Ball League** (1991), at Mymensingh District.
5. **Played** inter Hall and inter Department Cricket and Foot ball tournaments of KUET, Bangladesh.

SELF-ASSESSMENT

- Excellent leadership, communication and interpersonal skills.
- Self-motivated, resourceful, practical and logical thinker.
- Ambitious, goal oriented with a clear and concise vision of future objectives.
- Capable of successfully completing a research project.

PRESENT ADDRESS (Until May 5, 2006)

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Mymensingh-22200
Bangladesh

PERMANENT ADDRESS

411, West Rampura
Mokki Mosque Lane, Dhaka-1219
Bangladesh

HOBBIES AND INTERESTS

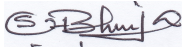
Sports (Cricket, Football, Table Tennis), Scientific article reading, Cooking

COUNTRY VISITED (PROFESSIONAL)

Indonesia, Japan, South Africa, India, China, Malaysia, Singapore, Turkey, Germany, South Korea.

DECLARATION

I hereby clearly certify that all information of this CV is complete and true to the best of my knowledge.



Dr. Sariful Haque Bhuiya

October 23, 2023