

CURRICULUM VITAE
OF
MD. ISMAIL HOSSAIN



Home Address: Village- South Sreepur (Kazi Bari), P.O.- DEPZ,
P.S.- Ashulia, Upazila: Savar, District: Dhaka-1349, Bangladesh.

Official Address: Chief Scientific Officer and Head, Agricultural Statistics Division
Bangladesh Rice Research Institute (BRI),
Joydebur, Gazipur-1701, Bangladesh.

Telephone and Mobile: +88-02- 49272053; 01716124943

E-mail: mihossain2@yahoo.com; head.stat@bri.gov.bd
<https://www.researchgate.net/profile/M-Hossain-12>

Fax: +88-02- 49272000

Nationality: Bangladeshi

Date of birth: 28 February 1973

EDUCATION

- **Ph.D in Statistics 2011.** Jahangirnagar University, Savar, Dhaka, Bangladesh.
Dissertation: Comparative Study of Predictive Estimators and Classical Estimators for finite population mean using different sampling schemes. Ph.D thesis (2011), Department of Statistics, Jahangirnagar University (JU), Savar, Dhaka Bangladesh.
- **M.phil in Statistics 2000.** Jahangirnagar University, Savar, Dhaka, Bangladesh.
Dissertation: The class of Generalized estimators for finite population mean under different sampling schemes. M.Phil. thesis (2000), Department of Statistics, Jahangirnagar University, Savar, Dhaka Bangladesh.
- **M.Sc in Statistics, 1993.** Jahangirnagar University, Savar, Dhaka, Bangladesh.
Dissertation: Comparison of some estimators using simulation technique. M.Sc. Report (1993). Jahangirnagar University, Dhaka, Bangladesh.
- **B.Sc (Hons) in Statistics, 1992.** Jahangirnagar University, Savar, Dhaka, Bangladesh.
- **Higher Secondary Certificate (HSC/Alim-Science Group), Equivalent to O Levels. 1989,** Bangladesh Madrasha Education Board, Dhaka, Bangladesh. (Including Physics, Chemistry and Mathematics)
- **Secondary School Certificate (SSC/Dakhil-Science Group), Equivalent to A Levels. 1987,** Bangladesh Madrasha Education Board, Dhaka, Bangladesh. (Including Physics, Chemistry, Mathematics and Biology)

Field of Specialization

- **Statistics:** Agriculture Statistics, Sampling Design, Sampling and survey, Experimental Design and GIS

PROFESSIONAL EXPERIENCE

- **November 21, 2019 to till date:** Have been working as a Chief Scientific Officer and Head, Agricultural Statistics Division, BRRI, Gazipur, Bangladesh.
- **July 19, 2013 to November 21.2019:** Principal Scientific Officer and Head, Agricultural Statistics Division, BRRI, Gazipur, Bangladesh.
- **June 29, 2009 to November 11.2011:** Senior Scientific Officer and Head, Agricultural Statistics Division, BRRI, Gazipur, Bangladesh.
- **December 31, 2007 to July 18, 2013:** Senior Scientific Officer, Agricultural Statistics Division, BRRI, Gazipur, Bangladesh.
- **November 27, 1997 to December 30.2007:** Scientific Officer, Statistics Section, Agricultural Economics Division, BARI, Gazipur, Bangladesh.
- **July 30, 2008 to till date:** External in B.Sc (Ag.), M.Sc (Ag.) and Ph.D level, Bangabhandu Sheik Mujibur Rahman Agriculture University (BSMRAU), Salna, Gazipur, Bangladesh.
- **January 18, 2011 to till date:** Fellow Member of Syllabus committee of Agriculture Statistics Division in M.Sc (Ag.) level, Sher-e-Bangla Agriculture University (SAU), Sher-e-Bangla Nagar, Dhaka, Bangladesh.
- **February 02, 2016 to till date:** External in B.Sc (Ag.), M.Sc (Ag.) and Ph.D level, Hajee Mohammad Danish Science and Technology University (HSTU), Dinajpur, Bangladesh.

TEACHING EXPERIENCE

- **July 30, 2008 to till date:** Adjunct Faculty Member (Guest Teacher) in MS (ag.) and Ph.D Level. Bangabhandu Sheik Mujibur Rahman Agriculture University (BSMRAU), Salna, Gazipur-1706, Bangladesh.
- **November 25, 1997 to December 28.2000:** Part-time lecturer in Zirabu Dewan Idris Collage (HSC Level), Zirabu, Savar, Dhaka, Bangladesh.

THESIS AND REPORT:

- Hossain, M.I. (2011).** Comparative Study of Predictive Estimators and Classical Estimators for finite population mean using different sampling schemes, Unpublished Ph.D thesis, Department of Statistics, Jahangirnagar University (JU), Saver, Dhaka, Bangladesh.
- Hossain, M.I. (2000).** The class of generalized estimators for finite population mean under different sampling schemes, Unpublished M.Phil. thesis, Department of Statistics, Jahangirnagar University (JU), Saver, Dhaka, Bangladesh.
- Hossain, M.I. (1993).** Comparison of some estimators using simulation technique, Unpublished M.Sc. report (Partially Research), Department of Statistics, Jahangirnagar University (JU), Saver, Dhaka, Bangladesh.

HONORS AND AWARDS

- University Award-2011 at Ph.d level, Jahangirnagar University, Savar, Dhaka 1342, Bangladesh.
- University Award-2000 at M.Phil level, Jahangirnagar University, Savar, Dhaka 1342, Bangladesh.
- University scholarship at B.Sc. level, Jahangirnagar University, Savar, Dhaka 1342, Bangladesh.
- Board scholarship-1987, 12-th position in combined merit list from Bangladesh Madrasa Education Board, Dhaka, Bangladesh.

ACADEMIC AND RESEARCH EXPERIENCE

- Adjunct Faculty Member (Guest Teacher) in B.Sc (Ag.), M.Sc (ag.) and Ph.d Level, Bangabhandu Sheikh Mujibur Rahman Agriculture University (BSMRAU), Salna, Gazipur, Bangladesh.
- Experience as a Part-time lecturer in Zirabu Dewan Idris Collage, Zirabu, Savar, Dhaka, Bangladesh
- Experience as a resource speaker in computer training programme, Bangabhandu Sheikh Mujibur Rahman Agriculture University (BSMRAU), Salna, Gazipur, Bangladesh.
- Experience as a resource speaker in Statistical Analysis training programme (SATP), Hajee Mohammad Danish Science and Technology University (HSTU), Dinajpur, Bangladesh.
- Experience as a resource speaker in computer training programme on multivariate analysis, Jahangirnagar University (JU), Savar, Dhaka, Bangladesh.
- Experience as a resource speaker in Trail layout, design and randomization (sampling plots), IRRI, Bangladesh.
- Experience as a resource speaker in computer training programme, BARI, Gazipur, Bangladesh.
- Experience as a resource speaker in computer training programme, BRRI, Gazipur, Bangladesh.
- Experience as a resource speaker in computer training programme, BARC, Dhaka, Bangladesh.
- Experience as a resource speaker in computer training program, BCDB, Gazipur, Bangladesh.
- Experience as a resource speaker in computer training program, BLRI, Savar, Dhaka, Bangladesh.
- Experience as a resource speaker in computer training program, NATA, Gazipur, Bangladesh.

PROJECT EXPERIENCE IN COUNTRY

- Arsenic analysis and stability analysis of BRRI varieties under FFP (Food for Progress), worked as a Co-Investigator, Funded by Cornell University, USA and Duration June 2010-July 2013
- Analysis of relation between climate factors and rice production- sub project *under Impact assessment of climate change on production market of rice in Bangladesh-project*, worked as a Co-Investigator, Funded by JIRCAS, Japan, Duration August 2011-December 2016
- Integrated Agricultural Productivity Project (IAPP), worked as a Co-Investigator (Core Scientist), Funded by GOB and Duration July 2011-June 2016
- Stochastic Frontier Analysis and Data Envelopment Analysis for Efficiency and Environmental Awareness of Paddy Farmers in Bangladesh, Worked as a Principal Investigator (PI), Funded by MoST and Duration June 2013-July 2014
- Developing Mobile Apps for Enhancing Rice Productivity (DMAERP) project worked as a Principal Investigator, Funded by under NATP-Phase-II, Duration June 2017 to December 2018

- Development and economic evaluation of adaptation measures to extreme weather events in Bangladesh, worked as a Principal Investigator, Funded by JIRCAS, Japan, and Duration August 2016-December 2020.
- Transforming Rice Breeding (TRB)-BRRI Project- Agricultural Statistics Component (Stability, adaptability, heritability and genetic gain in yield of rice genotypes and database management system of TRB), worked as a Principal Investigator, Funded by IRRI and Bile gate & Malinda, USA, Duration August 2015-December 2021.

PROJECT EXPERIENCE IN BRRI

- Yield assessment through crop-cuts, worked as a Principal Investigator (PI), Funded by GOB and Duration June 2009-July 2011
- Development and modification of computer program (software), Worked as a Principal Investigator (PI), Funded by GOB and Duration June 2008-July 2013
- Probability mapping of weather variable, worked as a Co-Investigator, Funded by GOB and Duration June 2009-July 2016
- Genetic coefficient of BRRI varieties using crop modeling, worked as a Principal-Investigator, Funded by GOB and Duration June 2016-July 2021
- Spatial database on BRRI varieties, worked as a Principal Investigator, Funded by GOB and Duration June 2009-July 2016
- Multivariate analysis of BRRI varieties, worked as a Principal-Investigator, Funded by GOB and Duration June 2016-July 2021
- Statistical Methodology, worked as a Principal-Investigator, Funded by GOB and Duration June 2016-July 2021
- Agro-meteorology and crop modeling, worked as a Co-Investigator, Funded by GOB and Duration June 2018-July 2021
- Rice and related database, worked as a Principal-Investigator, Funded by GOB and Duration June 2018-July 2021
- Utilization of Geographical Information System (GIS) in Rice Research, worked as a Co-Investigator, Funded by GOB and Duration June 2016-July 2021
- Capacity building through training, worked as a Principal-Investigator, Funded by GOB and Duration June 2020-July 2024
- Computer Programming and Digitalization, worked as a Co-Investigator, Funded by GOB and Duration June 2020-July 2024
- Information and Communication Technology, worked as a Co-Investigator, Funded by GOB and Duration June 2018-July 2022

ADMINISTRATIVE EXPERIENCE

- Working as a head of Agricultural Statistics Division at BRRI, Gazipur, Bangladesh from June 29, 2009 to till date.
- Focal point of Annual Performance Agreement (APA) team of BRRI, Gazipur, Bangladesh
- Member of e-Governance and Innovation team of BRRI, Gazipur, Bangladesh
- Member of Citizen Charter Implementation team of BRRI, Gazipur, Bangladesh

- Member of verification of innovated technologies and useful scientific information of BRRI, Gazipur, Bangladesh.
- Member of National Integrity Strategy (NIS) team of BRRI, Gazipur, Bangladesh
- Member of Sustainable development goal (SDG) Implementation and monitoring of BRRI, Gazipur, Bangladesh

RELEVANT EXPERIENCE

a. Summary of the relevant research employment experiences:

- Digitalization of Salary Management System (SMS) of BRRI.
- Digitalization of Budget Management System (BMS) of BRRI.
- Digitalization of Labour Management System (LMS) of BRRI.
- Digitalization of Quota Management System (QMS) of BRRI.
- Digitalization of Casual Leave Application System (CLAS) of BRRI.
- Computerization of BRRI Research Management Information System (RMIS)
- Digitalization of Transport Management Information System (TMIS) of BRRI
- Computerization of data collection from Bangladesh Rice Research Institute (BRRI) research experiments.
- Computerization of the particulars of Bangladesh Rice Research Institute (BRRI) scientists.
- Documentation, Statistical and Socio-economic analysis and mapping of major cereal crops using GIS, RS and GPS, IT.
- Documentation, Statistical and Socio-economic analysis and mapping of major CDP crops using GIS, RS and GPS, IT.

b. Technology Developed:

- Development of a new model for stability analysis
- Developed a *new model for stability analysis*
- Developed “*mathematical models for producer’s and consumer’s preference*” to different rice varieties
- Developed “*Rice Knowledge Bank*” Mobile Apps
- Developed “*BRRI Rice Doctors*” Mobile and web Apps
- Developed “*Modern Rice Cultivation*” Mobile Apps
- Developed *dynamic website of “Bangladesh Rice Knowledge Bank (BRKB)”*
- Developed a computer programming for BRRI stability model using R
- Characterization of Rainfed T.Aman rice growing environment
- Characterization of Boro rice growing environment
- Characterization of Wheat growing environment
- Determination of the smallest plot size for estimating different plant characters and plot yield of transplanted rice
- Determination of environmental index of BRRI Experimental Stations with respect to BRRI varieties
- Delineation of suitable areas of growing BRRI Varieties
- Determination of the stability index of BRRI varieties
- Determination of the genetic coefficients of BRRI varieties
- Development of yield forecasting model for rainfed T.Aman rice
- Development of Geo-referenced database of BRRI varieties

- Construction of adoption and productivity maps of BRRRI varieties in Bangladesh
- Development of a GIS-based socio-economic data base for Bangladesh Country Almanac
- Identification of Arsenic risk area contaminated from ground water irrigation.
- Determination of spatial variability of soil arsenic contamination from irrigation water in the command areas and its effects on grain and straw.
- Extrapolation of domain of a proven resource conservation technology.
- Adoption and productivity maps of BRRRI varieties in Kapasia Upazila
- Probability mapping of minimum temperature during the period of Boro rice cultivation
- Estimation technique for estimating area and production of rice in Bangladesh.
- Probability of low temperature stress at different growth stages of Boro rice
- Determination of Stability and adaptability of BRRRI developed Aus varieties
- Determination of Seasonal weather forecasting for rice production
- Determine the Effects of the edaphic and climatic factors on yield of BRRRI released varieties
- Identification of drought prone areas through standardized precipitation index (SPI) and markov chain model (MCM)
- Identifying suitable area of irrigated rice (Boro) based on ground water level change
- Maintenance of rice and related database
- Integrated weather forecasting and rice advisory system (IWFRAS) for sustainable productivity in Bangladesh
- CV for estimating yield and yield contributing characters of BRRRI varieties

c. Field Research Experiment / Programme (Developed, Supervised and Executed):

- Optimum Sampling for Measuring Different Plant Characters of Brinjal (*Solanum melongena*).
- Optimum Sampling for Measuring Different Plant Characters of Okra (*Abelmoschus esculentus* L. Moench).
- Development/standardization of the model for stability analysis
- Characterization of Rainfed T.Aman rice growing environment
- Characterization of Boro rice growing environment
- Characterization of Wheat growing environment
- Determination of the smallest plot size for estimating different plant characters and plot yield of transplanted rice
- Comparison of traditional method with modified management of experimental plots
- Listing of the varieties with stability measures by season
- Listing of the varieties losing stability over time and location
- Identification of bio-physical factors affecting stability of varieties
- Development of season, year and location-wise database on yield of BRRRI varieties
- Determination of environmental index of BRRRI Experimental Stations with respect to BRRRI varieties
- Determination of the stability index of BRRRI varieties

- Determination of the factors affecting producer's decision on varieties for rice cultivation
- Determination of the factors affecting for consumer's preference to rice varieties
- Development of mathematical models for producer's, producers cum consumer's and consumer's preference to different rice varieties
- Determination of the genetic coefficients of BRRRI varieties
- Development of yield forecasting model for rainfed T.Aman rice
- Geo-referenced database of BRRRI varieties
- Adoption and productivity maps of BRRRI varieties in Bangladesh
- Development of a GIS-based biophysical and socio-economic data base for Bangladesh Country Almanac (BCA).
- Creation of the maps of the spatial variation of arsenic level in irrigation water (STW) in different project sites.
- Spatial variation of soil arsenic contamination resulting from irrigation water in the command areas and its effects on grain and straw.
- Identification of the low risk and high risk sites in the command areas.
- Integration of project results with AEZ database and secondary arsenic data of STW water and map the arsenic risk area for irrigated rice (Boro).
- Construction of micro elevation map of Faridpur command area
- Spatial database on soil chemical properties of Gazipur Upazilla
- A GIS-based analysis for increasing productivity of rice -wheat systems in Bangladesh
- Extrapolation of domain of a proven resource conservation technology-crop establishment by Chinese hand tractor seeder in rice-wheat systems
- Construction of adoption and productivity maps of BRRRI varieties in Kapasia Upazila
- Determination of the spatial dependency of adoption and yield on land soil and cropping pattern.
- Identification of the biophysical and socio-economic constrains to higher yield of early released BRRRI varieties
- Construction of suitability maps of BRRRI varieties
- Creating the map the submergence areas used for rice cultivation
- Delineation of submergence areas suitable for growing newly developed submergence tolerant BRRRI varieties
- Management and maintain ICT at Bangladesh Rice Research Institute
- Maintain updated research management information system at BRRRI
- Management and maintain BRRRI Website through regular updating the information and documents.
- Maintain information on genetic resources of BRRRI Gene Bank
- Make the information on genetic resources of BRRRI Gene Bank available to the users
- Probability mapping of minimum temperature during the period of Boro rice cultivation
- Stability Analysis of BRRRI Varieties
- Genotype x Environment interaction of BRRRI varieties
- Climate mapping of Temperature and Rainfall in Bangladesh
- Estimating area and production of rice in Bangladesh.

- Probability of low temperature stress at different growth stages of Boro rice
- Suitability mapping of BRRI released rice varieties
- Zoning of BRRI released rice varieties
- Season wise rice area mapping of Bangladesh
- Favorable and unfavorable rice cultivation area mapping of Bangladesh

d. Notable Research Contribution

- Major contributor for development of a new model for stability analysis
- Major contributor for characterization of Rainfed T.Aman rice growing environment
- Major contributor for characterization of Boro rice growing environment
- Major contributor for characterization of Wheat growing environment
- Major contributor for determination of the smallest plot size for estimating different plant characters and plot yield of transplanted rice
- Major contributor for determination of environmental index of BRRI Experimental Stations with respect to BRRI varieties
- Major contributor for determination of the stability index of BRRI varieties
- Major contributor for determination of the genetic coefficients of BRRI varieties
- Contributor for Development of yield forecasting model for rainfed T.Aman rice
- Major contributor for creating adoption and productivity maps of BRRI varieties
- Major contributor for identification of as risk area contaminated from ground water irrigation.
- Major contributor for relationship of as loading with micro elevation of soil
- Major contributor for probability mapping of minimum temperature during the period of Boro rice cultivation
- Contributor for Estimation technique for estimating area and production of rice in Bangladesh.
- Contributor of 25% rice increase action plan
- Major contributor for estimating temperature stress at different growth stages of Boro rice.

e. Additional activities:

- Providing training program for manpower development of Bangladesh rice Research Institute (BRRI) Scientists in Statistical analysis, computer processing and analysis of data.
- Developing a computer management database for all kind of records of experiments conducted by the section till to date to date in order to build data bank of research information and finally processing the information to produce reports for efficient and effective research management of the institute.
- Improving the statistical standards and application in agricultural research.
- Disseminating statistical method in almost all corners of agricultural research.
- Conducting biometrics analysis and develop appropriate experimental and data analysis techniques for agricultural research.
- Assisting Bangladesh Rice Research Institute (BRRI) scientists with design of experimental methodology, sample survey, statistical modeling, statistical design, analysis and interpretation of agricultural research and to advice on the collection and management of field data.

TRAINING EXPERIENCE

◆ In Country

- Computer Training on MS word, MS Excel, Fox pro and SPSS win (Jan. 1997 to December 31, 1997), Institute of Technology, Dhaka, Bangladesh.
- The Cost and Return Analysis in Agriculture (November 8. to November 17,1998), BJRI,Dhaka, Bangladesh.
- Induction Training (February 1 to March 25, 1999) BARI, Joydebpur, Gazipur,Bangladesh.
- Spread Sheet Analysis (September 25 to September 30, 1999) GTI, BAU, Mymensingh, Bangladesh.
- Data Management (October 23 to November 04, 1999) GTI, BAU, Mymensingh, Bangladesh.
- Application of GIS in Agriculture Planning (May 02 to June 30, 2000), BARC, Dhaka, Bangladesh.
- Foundation Training Course for NARS Scientists (November 05 to February 18, 2001), Bangladesh Academy for Rural Development (BARD), Comilla, Bangladesh.
- Computer Application Course on MS word, MS Excel, MS Power Point and SPSS win (Jan. 28, 2001 to February 21, 2001), Bangladesh Academy for Rural Development (BARD), Comilla, Bangladesh.
- Statistical Analysis by Using Computer Packages (April 17 to May 01, 2004) GTI, BAU, Mymensingh, Bangladesh.
- Training on Web site Designing and Publishing (December 14 to February 18, 2004), APTECH Computer Center, Uttara, Dhaka, Bangladesh.
- Training workshop on Metadata (May 14 to May 17, 2006) , NAWG, SAAKTI, Rajshahi, Bangladesh.
- Training Course on AWhere-ACTA & GIS based Bangladesh Country Almanac (BCA), (May 29 to May 30, 2006), BARI, Joydebpur, Gazipur, Bangladesh.
- Short Course on Remote Sensing and GIS in Water Management (September 02 to September 06 2006), DCA, BUET, Dhaka, Bangladesh.
- Training Course on Hybrid Rice Development and Seed Production (November 02 to November 04, 2009), BRRI, Joydebpur, Gazipur, Bangladesh.
- Training Course on Spatially Explicit Analysis: Dealing with Survey, Census data and Maps (December 23 to December 31, 2009), BARC, Dhaka, Bangladesh.
- Training Program on Statistical Analysis of Field Experiment Data Using CROPSTAT (January 11 to January 13, 2010), IRRI-BRRI, Joydebpur, Gazipur, Bangladesh.
- Econometric Analysis through different computer software's (May 16 to May 20, 2010), BARC, Dhaka, Bangladesh.
- Breeder seed production and preservation of Rice (June 18 to June 20, 2011), BRRI, Joydebpur, Gazipur, Bangladesh.
- Research Methodology (September 10 to September 22, 2011) GTI, BAU, Mymensingh, Bangladesh.
- "e-Governance" (April 01 to April 05, 2012), BARC, Farmgate, Dhaka, Bangladesh.
- Training course on (A) Server Administration (Linux Track), (B) Server Administration (Windows Track) and (C) Network Administration (July 08 to July 30, 2012), BARC, Farmgate, Dhaka, Bangladesh.
- Capacity Development for Farm Management Strategies to Improve Crop-Water Productivity Using AquaCrop Model(October 8 to October 12, 2012), BRRI, Joydebpur,Gazipur, Bangladesh.

- Application Software for Agricultural Research and Development for NARS Scientist (November 18 to November 29, 2012), BARI, Joydebpur, Gazipur, Bangladesh.
- E-File Management System (January 13 to January 17, 2013), PACC, Ministry of Public Administration, Dhaka, Bangladesh.
- Decision Support System for Agrotechnology Transfer (DSSAT) Training Course (February 09 to 13, 2013), BRRI, Joydebpur, Gazipur, Bangladesh.
- Training course on Website Development and Red Hat Linux (RHCE-6) (March 03 to March 14, 2013), BARC, Farmgate, Dhaka, Bangladesh.
- Open-Source Biometrical Computing with R (June 15 to 17, 2013), BARI, Joydebpur, Gazipur, Bangladesh.
- Administrative and Financial Management (October 27 to November 09, 2013), Bangladesh Academy for Rural Development (BARD), Comilla, Bangladesh.
- Characterization of Rice Growing Environments for Dissemination of Stress Tolerant Varieties in South Asia (March 27 to 29, 2014), IFAD, IRRI, Chittagong, Bangladesh.
- Project Development and Management (April 20 to 24, 2014), BARC, Dhaka, Bangladesh.
- Green Super Rice (GSR) Training course on Crop management Skills (September 06 to 07, 2015), BARC, Dhaka, Bangladesh.
- Training course on Financial management (November 23 to 26, 2015), National Agriculture Training Academy (NATA), Gazipur, Bangladesh.
- Training course on Advance Microsoft Excel & Advance Microsoft Power Point (June 03 to 05, 2016), Bangladesh Institute of Management (BIM), Dhaka, Bangladesh.
- Training of Organizational Admin on e-GP/e-Tendering system (April 20, 2016), CPTU, Planning Ministry, Sher-e-Bangla Nagar, Dhaka.
- Training course Change management through ICT (November 20 to 24, 2016), National Agriculture Training Academy (NATA), Gazipur, Bangladesh.
- Training course on “Design and analysis of breeding trials using plant breeding tools (PBTools) (January 15 to 18, 2017), IRRI-BRRI collaboration, BRRI, Gazipur, Bangladesh.
- Training workshop on “Innovation Project Design” (March 21 to 23, 2017), Cabinet Division and A2i programme collaboration, KIB, Khamarbari, Dhaka, Bangladesh.
- Training “workshop on Documentation and Dissemination of Innovation” (August 09 to 10, 2017), Cabinet Division and A2i programme collaboration, KIB, Khamarbari, Dhaka, Bangladesh.
- Training “workshop on “Innovation in Public Service” (September 22 to 26, 2018), Cabinet Division and A2i, BRRI, Gazipur, Bangladesh.
- Training program on “Digital Service Design Lab for Training, e-learning and Venue Management System” (April 23 to 28, 2019), A2i programme, NATA, Gazipur.
- Training workshop on “Data Analytics for Public Service Specialists” (August 09 to 10, 2019), Cabinet Division and A2i programme collaboration, KIB, Khamarbari, Dhaka, Bangladesh.
- Training workshop on “Decision Support System for Agro-Technology Transfer (DSSAT)” (May 26 to 29, 2019), BRRI, Gazipur, Bangladesh.
- Online training course on “Digital Security Essentials” (October 30, 2019), Cabinet Division and A2i programme collaboration, Dhaka, Bangladesh.
- Online training course on “Rice Disease Management” (December 30, 2019), Cabinet Division and A2i programme collaboration, Dhaka, Bangladesh
- Training workshop on “Data Analysis for Crop Modeling” (January 06 to 08, 2020), BRRI, Gazipur, Bangladesh.
- Training course on “Innovation in Public Service” (March 08 to 12, 2020), A2i programme, NATA, Gazipur, Bangladesh.

- Online e-learning course on “CV Writing” (June, 2021), MuktoPaath and A2i programme collaboration, Dhaka, Bangladesh
- Online e-learning course on “Troubleshooting 4: Processing and Sharing” (June, 2021), ICT Division and A2i programme collaboration, Dhaka, Bangladesh

◆ In Aboard

- Training on Geographical Information System (GIS) (June 17 to July 18, 2012) Environmental Science Research Institute (ESRI), Singapore.
- Participation in discussion meeting on joint research project between BRRI and JIRCAS and paper presented on “Development of Agricultural Technologies in Developing Countries to Respond to Climate Change”, 15-19th February, 2016, JIRCAS, Tsukuba, Japan.
- Participation in discussion meeting on joint research project between BRRI and JIRCAS and paper presented on “Development of Agricultural Technologies in Developing Countries to Respond to Climate Change”, 11-17th December, 2016, JIRCAS, Tsukuba, Japan.
- Participation in discussion meeting on joint research project between BRRI and JIRCAS and paper presented on “Development and economic evaluation of adaptation measures to extreme weather events in Bangladesh”, 10-16th December, 2017, JIRCAS, Tsukuba, Japan.
- Participation in discussion meeting on joint research project between BRRI and JIRCAS and paper presented on “Development and economic evaluation of adaptation measures to extreme weather events in Bay of Bengal”, 28 October to 03 November, 2018, JIRCAS, Tsukuba, Japan.
- Participation in discussion meeting on joint research project between BRRI and JIRCAS and paper presented on “Development and economic evaluation of adaptation measures to extreme weather events in Bangladesh”, 02 February to 08 February, 2020, JIRCAS, Tsukuba, Japan.

OTHER EXPERIENCE

Reviewer of the Journal:

- **Reviewer:** *Bangladesh Rice Journal*. BRRI, Gazipur, Bangladesh.
- **Reviewer:** *Bangladesh Journal of Agricultural Research*. BARI, Gazipur, Bangladesh.
- **Reviewer:** *International Journal of Bio Research*. BRRI, Gazipur, Bangladesh.
- **Reviewer:** *Eco-Friendly Agriculture Journal*. BRRI, Gazipur, Bangladesh.

Reviewer of the Thesis:

- **Reviewer:** Thesis review in B.Sc (Ag.), M.Sc (Ag.) and Ph.D level, HSTU, Dinajpur, Bangladesh.
- **Reviewer:** Thesis review in B.Sc (Ag.), M.Sc (Ag.) and Ph.D level, Bangabhandu Sheikh Mujibur Rahman Agriculture University (BSMRAU), Salna, Gazipur, Bangladesh

SESSION CHAIRED

- Chaired a Session entitled Sustainable Development Goal-IV and Agricultural Statistics-II. 7th National Statistical Conference on Data Science and SDGs: Challenges, Opportunities and Realities, December 18-19, 2019. University of Rajshahi, Rajshahi-6025, Bangladesh.

COURSE DIRECTOR AND ADVISER

- Course Adviser in two day long “Monitoring workshop”, October 12 to 13, 2020, Collaboration with ICT Division and A2i, BRRI, Gazipur, Bangladesh.
- Course Director on two day long “Service Process Simplification (SPS)”, February 29 to March 1, 2020, Collaboration with ICT Division and A2i, BRRI, Gazipur, Bangladesh.
- Course Director on two day long “Innovation in Public Service”, October 12 to 13, 2020, Collaboration with ICT Division and A2i, BRRI, Gazipur, Bangladesh.
- Course Director in training program on “Experimental Data Analysis”, 2019, 2020 and 2021, BRRI, Gazipur, Bangladesh.
- Course Director in training program on “Multivariate Data Analysis”, 2019, 2020 and 2021, BRRI, Gazipur, Bangladesh.
- Course Director in training program on “Experimental field layout, data collection and data preparation”, 2019, 2020 and 2021, BRRI, Gazipur, Bangladesh.
- Course Director in training program on “Basis Computer Operation”, 2019, 2020 and 2021, BRRI, Gazipur, Bangladesh.

EXTERNAL AND EXPERT MEMBERSHIPS:

- External in B.Sc (Ag.), M.Sc (ag.) and Ph.D Level, Bangabhandu Sheikh Mujibur Rahman Agriculture University (BSMRAU), Salna, Gazipur, Bangladesh.
- Expert member of Syllabus committee in B.Sc (Ag.), M.Sc (ag.) level, Department of Agricultural Statistics Sher-e-Bangla Agriculture University (SAU), Sher-e-Bangla nagar, Dhaka, Bangladesh.
- Expert member of Syllabus committee, BBA and MBA level in Agribusiness, Faculty of Agribusiness, Sher-e-Bangla Agriculture University (SAU), Sher-e-Bangla nagar, Dhaka, Bangladesh.
- External in B.Sc (Ag.), M.Sc (Ag.) and Ph.D level, Hajee Mohammad Danesh Science and technology University (HSTU), Dinajpur, Bangladesh.
- Expert member of thesis evaluation in B.Sc (Ag.), M.Sc (Ag.) and Ph.D, level. Hajee Mohammad Danesh Science and technology University (HSTU), Dinajpur, Bangladesh.
- Expert member of Technical Evaluation Committee of Integrated Agricultural Productivity Project (IAPP-BRRI), Bangladesh Rice Research Institute (BRRI), Gazipur, Bangladesh.
- Expert member of different Examination and Evaluation Committee BRRI, Gazipur, Bangladesh.
- Expert member of Taskforce Committee of ASICT, BARI, Gazipur, Bangladesh.

SUPERVISION OF GRADUATE AND POST-GRADUATE STUDENTS

- *MS Thesis/PhD Dissertation supervised– as Major Professor/ Research Supervisor/ Supervisor/Co-supervisor*
- Supervised 02 MS students of Hajee Mohammad Daesh Science and Technology University, Dinajpur-5200, Bangladesh as Co-supervisor. The title of Thesis is-
 - ‘A Study of Life Style of Civil Servant after Retirements in Kano State Nigeria’
 - ‘An Analysis of Acculturation Stress and Sociocultural Adoption among International Student in Hajee Mohammad Daesh Science and Technology University’
- *MS/B.Sc(Ag.) /Diploma Internship supervised– as Supervisor/Co-supervisor*
 - Supervised 01 MS students in the Department of Applied Statistics of East West University, Dhaka as supervisor.
 - Supervised 04 Diploma in Engineering (Computer Technology) students of Dhaka Mohila Polytechnic Institute, Sher-e-Bangla Nagar, Dhaka-1207, Bangladesh as Co-supervisor

RESEARCH/AREA OF INTEREST

- Sampling Design
- Sampling and Survey
- Methods of Statistics
- Research Methodology
- Econometrics
- Economics
- Design of Experiment
- Statistical Inference
- Mathematical Statistics
- Agricultural Statistics
- Stochastic Process
- Demography
- Bio-Statistics
- Geo-statistical analysis, GIS and Remote sensing
- Crop Modeling

KEY SKILLS & COMPETENCIES

Research Knowledge:

- Knowledge of research methodology and techniques.
- Knowledge of research in field experiment on experimental design and sampling design.
- Knowledge of Analytical approach to work
- Knowledge of project preparation and management.
- Knowledge of statistical analysis, economic and socio-economic analysis etc by using computer software.
- Knowledge of Agro-meteorology and crop modeling

Technical:

- Knowledge and experience of website designing and publishing, email and internet.
- Knowledge and experience of Geographical information system (GIS), Remote Sensing (RS) and Geo-statistical Analysis
- Knowledge and experience of Management information system (MIS) and IT.
- Technical knowledge and experience of R Software, SAS, SPSS, STATA, MS Word, MS Excel, MS Power Point, MS Access, MSTAT, GenStat, CropStat, DSSAT and ArcGIS.
- Knowledge of Server Administration (Windows and Linux Track) and Network Administration

Special Skills:

Teamwork: I have successfully undertaken various team project/report within both academic and non-academic environment.

Project and Report:

Report: Hossain, M.I., M.F. Karim and M.M.Rouf (2000). Recommended cropping patterns for farms of Magura sadar thana based on soil properties. A report on the application of GIS in agricultural planning. Organized by BARC, Dhaka. 2 May-30 June, 2000.

Project: Hossain, M.I., N.M.F. Rahman (2014). Stochastic Frontier Analysis and Data Envelopment Analysis for Efficiency and Environmental Awareness of Paddy Farmers in Bangladesh. Founded by Ministry of Science and Technology under Special Allocation for Science and Technology, Bangladesh, Held on June, 2013 to July, 2014.

PROFESSIONAL MEMBERSHIPS

a. Life Member

- Bangladesh Statistical Association, Bangladesh
- Alumni Association, Department of Statistics, J.U., Bangladesh
- Associate Member, Bangladesh Computer Society (BCS), Bangladesh (AM-BCS, No. 06272)
- Registered Graduate Member, Reg. No. 3740, Jahangirnagar University, Dhaka, Bangladesh.

b. Ordinary Member

- Bangladesh Assoc. for the Advancement of Science (BAAS).
- Bangladesh Biggani Somitee (Bangladesh Scientist Association).
- Bangladesh Rice Research Institute Scientist Association (BRRISA)

FOEIGN TRAVEL

- Saudi Arab, Holly Hajj (01 January to 14 February, 2005)
- Saudi Arab, Holly Hajj (16 October to 15 October, 2011 and 09 July to 14 August, 2020)
- Singapore (12 January to 19 January, 2020)
- Indonesia (15 January to 19 January, 2020)
- Malaysia (19 January to 24 January, 2020)

PRESENTATIONS

a. International:

- Fourth International Symposium on Optimization & Statistics “Annual Conference of Information Theory & Applications” on December 8-10, 1998. Department of Statistics & Operation Research, Aligarh Muslim University, Aligarh-202002, India.
- Sixth Islamic Countries Conference on Statistical Sciences (ICCS-VI) and All Pakistan Statistical Conference, University of the Punjab, Lahore on August 27-31, 1999, Pakistan.
- International Rice Congress (IRC 2014), Bangkok, Thailand on October 27 to November 1, 2014. The paper entitle “Forecasting Aus Rice Production in Bangladesh using Box Jenkins Approach” and authors Niaz Md. Farhat Rahman, **Hossain M.I** and Md. Shahjahan Kabir.
- International Conference on “Development of Agricultural Technologies in Developing Countries to Respond to Climate Change”, 11-17th December, 2016, JIRCAS, Tsukuba, Japan.
- International Conference on “Development of Agricultural Technologies in Developing Countries to Respond to Climate Change”, 10-16th December, 2017, JIRCAS, Tsukuba, Japan.
- International Conference on Climate Change, Biodiversity and Sustainable Agriculture (ICCBSA-2018), Assam agricultural University, Asam, India on December 13 to 16, 2018. The paper entitle “Effects of climate change on rice yield in Bangladesh” and authors **Hossain M.I** Niaz Md. Farhat Rahman, and Md. Shahjahan Kabir.
- International Conference on “Development of Agricultural Technologies in Developing Countries to Respond to Climate Change”, 28 October to 03 November, 2018, JIRCAS, Tsukuba, Japan.
- 7th National Statistical Conference on Data Science and SDGs: Challenges, Opportunities and Realities, December 18-19, 2019. University of Rajshahi, Rajshahi-6025, Bangladesh.
- International Conference on “Development of Agricultural Technologies in Developing Countries to Respond to Climate Change”, 02 February to 08 February, 2020, JIRCAS, Tsukuba, Japan

b. National:

- 20th Bangladesh Science Conference on November 27-30, 1998. Bangladesh Engineering University of Technology (BUET), Dhaka, Bangladesh.
- 7th National Statistical Conference-Statistics in the New Millennium on December 01-02, 2000. Bangladesh National Museum Auditorium, Dhaka, Bangladesh.
- 8th National Statistical Conference on January 07-08, 2003. Bangladesh National Museum Auditorium, Dhaka, Bangladesh.
- Role of BARI in Agriculture Development of Bangladesh on October 17, 2002. Bangladesh Agricultural Research Institute (BARI), Gazipur-1701, Bangladesh.
- Asia Regional Conference on October 02-04, 2002. Bangladesh Chin Maitry Bhaban, Dhaka, Bangladesh.

A. PUBLICATIONS

(i). SCIENTIFIC JOURNALS

Publication:

International = 21

National = 41

= 11

(ii) SHORT COMMUNICATION/ABSTRACT

(iii) BOOKS/MONOGRAPH/BULLETINS/ARTICLE/LEAFLET/BOOKLET = 10

(iv) PROCEEDINGS OF SEMINAR/WORKSHOP

Poster = 02

Total = 85

(a) Paper published in Per Reviewed Reputed International Journal: (21)

Principal author: 04

Hossain, M.I., Ahmed, M.S and Rahman, M.H. (2002.) “Beta Mixture of Transformed Chi-Square family of Distributions.” *The Egyptian Statistical Journal*, [Cairo University, Egypt](#). Vol.45 No.1, pp.26-31,

Hossain M.I. and Ahmed, M.S. (2001). “A Class of Predictive Estimators in two-stage Sampling Using Auxiliary Information.” *Journal of Information and Management Sciences*, [Tamkang University, Taiwan](#), Vol.12, No.1, pp.49-55, March, 2001.

Hossain, M.I., Ahmed, M.S, Hossain, M.Z. and Ali,M.A. “A Class of Predictive Estimators in Multi-stage Sampling Using Auxiliary Information.” *International Journal of Information and Management Sciences*, [Tamkang University, Taiwan](#), Vol.14, No.1, pp.79-86, March, 2003.

Hossain, M.I., M.I, Rahman, M.S and Ahmed, M.S. (2003). Second Order Properties of some Estimators Under Double Sampling. “STATISTICS IN TRANSITION”, Journal of the Polish Statistical Association, Warsaw School of Economics, [Warszawa, Poland](#). Vol. 6, N0.4, pp. 543-554.

Co-author: 17

AENSI Journal:

Ahmed, M.S. Rahman, M.S. and **Hossain M.I.** (2000). “Some Estimators of Finite Population variance Using Multivariate Auxiliary Information.” *International Journal of Information and Management Sciences*, [Tamkang University, Taiwan](#), Vol.11, No.1, pp.49-54, March, 2000.

Aziz, M.A, M.A.K Majumder, M. S. Kabir, **Hossain M.I.**, and Rahman N.M.F, Farhana Rahman and Shakir Hosen (2015). “Groundwater Depletion with Expansion of Irrigation in Barind Tract: A Case Study of Rajshahi District of Bangladesh”. *International Journal of Geology, Agriculture and Environmental Sciences*, WOAR Journals, India, Volume-3, Issue-1 February 2015, Page 32-38, IJGAES ISSN: 2348-0254, Website: www.woarjournals.org.

M. S. Kabir, M. A. Salam, D. N. R. Paul, **M. I. Hossain**, N. M. F. Rahman, Abdullah Aziz and M. A. Latif (2016). Spatial Variation of Arsenic in Soil, Irrigation Water, and Plant Parts: A Micro level Study. Hindawi Publishing Corporation, *The Scientific World Journal*, Volume 2016, Article ID 2186069, 14 pages, <http://dx.doi.org/10.1155/2016/2186069>.

- M. S. Kabir, M. A. Salam, D. N. R. Paul, **M. I. Hossain**, N. M. F. Rahman and M. A. Latif (2017). Geo-Statistical models for determining spatial variation and spatial dependency of soil arsenic in Bangladesh . J.Natn.Sci.Foundation Sri Lanka 2017 45 (2): 179-191.DOI: <http://dx.doi.org/10.4038/jnsfsr.v45i2.8035>
- A. K. M Saiful Islam, M. S. Kabir and **M. I. Hossain** (2017). Present land size with shape and effect on the operational efficiency of rice transplanter. Journal of Science Technology Environment Informatics. Volume: 05(02), Page 402-412. EISSN: 2409-7632, www.journalbinet.com, <http://doi.org/10.18801/jstei.050217.43>
- Abdullah Al-Mamun¹, Md. Niaz Farhat Rahman, M.A Aziz, Md. Abdul Qayum, **Md. Ismail Hossain**, Sheikh Arafat Islam Nihad and Md. Shahjahan Kabir (2018). Identification of Meteorological Drought Prone Area in Bangladesh using Standardized Precipitation Index. Journal of Earth Science & Climatic Change, Volume 9, Issue 3, Page 1-8, ISSN: 2157-7617, DOI: [10.4172/2157-7617.1000457](http://doi.org/10.4172/2157-7617.1000457).
- Md. Abdullah Al Mamun, Sheikh Arafat Islam Nihad, Md. Abdur Rouf Sarkar, Md. Abdullah Aziz, Md. Abdul Qayum, Rokib Ahmed, Niaz Md Farhat Rahman, **Md. Ismail Hossain**, Md. Shahjahan Kabir (2021). Growth and trend analysis of area, production and yield of rice: A scenario of rice Security in Bangladesh. *PLOS ONE* | <https://doi.org/10.1371/journal.pone.0261128> December 10, 2021. *PLoS ONE* 16(12): e0261128. <https://doi.org/10.1371/journal.pone.0261128>, page 1-18.
- Niaz Md. Farhat Rahman, **Hossain M.I**, Aziz M.A, Baten M.A, and Kabir M.S. “Prospect of Boro Rice Production in Bangladesh” (2013). *Advance in Environmental Biology*, 7(14) December 2013, Pages:4542:4549, home page: <http://www.aensiweb.com/aeb.html>.
- Kulsum M.U, Hasn M.J, **Hossain M.I**, and Rahman N.M.F (2014). “Stability of BRRI Developed Promising Hybrid Rice for Yield and it’s Related Traits”. *Journal of Applied Science and Agriculture*, 9(1) January 2014, Pages:56-62, home page: <http://www.aensiweb.com/jasa/index.html>.
- Zakaria M, Aziz M.A, **Hossain M.I**, and Rahman N.M.F (2014). “Effects of Rainfall and Maximum Temperature on Aman Rice Production of Bangladesh: A case study for last decade”. *International Journal of Science and Technology Research*, Volume 3, Issue 2, February 2014, Pages:56-62, home page: <http://www.ijst.org>.
- Md. Abdul Qayum, **Md. Ismail Hossain**, Niaz Md. Farhat Rahman, Md. Abdullah Aziz, Md. Abdullah Al Mamun, Rokib Ahmed and Md. Shahjahan Kabir (2019). Region specific BRRI variety adoption: A simple way of increasing national production. 7th Int. Conf. on Data Science & SDGs, December 18-19, 2019, pp 755-764, Dept. of Statistics, University of Rajshahi, Bangladesh. <https://www.researchgate.net/publication/344042278>.
- Md. Abdullah Aziz, **Md. Ismail Hossain**, Rokib Ahmed, Niaz Md. Farhat Rahman, Md. Abdul Qayum, Md. Abdullah Al Mamun, Md. Shahjahan kabir (2019). Edaphic Suitability Mapping of BRRI dhan50 and BRRI dhan72. 7th Int. Conf. on Data Science & SDGs, December 18-19, 2019, pp 735-742, Dept. of Statistics, University of Rajshahi, Bangladesh. <https://www.researchgate.net/publication/344042281>.
- Md Abdullah Al Mamun, **Md Ismail Hossain**, Md Shahjahan Kabir, Niaz Md Farhat Rahman, Md Abdul Qayum, Md Abdullah Aziz and Rokib Ahmed (2019). GGE biplot and Stability Analysis for Yield Performance of Rice Genotypes across Different Environments in Bangladesh. 7th Int. Conf. on Data Science & SDGs, December 18-19, 2019, pp 743-750, Dept. of Statistics, University of Rajshahi, Bangladesh. <https://www.researchgate.net/publication/343988290>.

- Md. Abdullah Aziz, Md. Moniruzzaman, Akshar Tripathi, **Md. Ismail Hossain**, Saleh Ahmed, Khan Rubayet Rahaman, Farhana Rahman, Rokib Ahmed (2022). Delineating Flood Zones upon Employing Synthetic Aperture Data for the 2020 Flood in Bangladesh. *Earth Systems and Environment*, <https://doi.org/10.1007/s41748-022-00295-0>, <http://www.Researchgate.net/Publication/358361226>. King Abdulaziz University and Springer Nature Switzerland AG 2022.
- Md. Abdullah Aziz, Niaz Md. Farhat Rahman, Hasib Us Shahid Shohan, Mohammad Chhiddikur Rahman, Sheikh Arafat Islam Nihad, Md. Abdul Qayum, Md. Abdullah Al Mamun, Farhana Rahman, Md. Bazlur Rashid, Md. Ismail Hossain and Md. Shahjahan Kabir (2022). Present Scenario and Future Projection of Precipitation in Bangladesh at Rabi Season. Research Square, DOI: <https://doi.org/10.21203/rs.3.rs-1392014/v1>.
- MA Aziz, HUS Shohan, NMF Rahman, MC Rahman, SAI Nihad, SMQ Hassan, MS Kabir, **MI Hossain**, R Ahmed, MA Qayum, MAA Mamun, F Rahman, and Z Rukshanara (2022). Projection of Future Precipitation in Bangladesh at Kharif-II Season Using Geospatial Techniques. *Earth Systems and Environment, A Springer Journal*. 09 June, 2022. <https://doi.org/10.1007/s41748-022-00319-9>
- Niaz Md. Farhat Rahman, Waqas Ahmed Malik, Md. Shahjahan Kabir, Md. Azizul Baten, Md. Ismail Hossain, Debi Narayan Rudra Paul, Rokib Ahmed, Partha Sarathi Biswas, Md. Chhiddikur Rahman, Md. Sazzadur Rahman, Khandakar Md. Iftekharuddaula, Steffen Hadasch, Paul Schmidt, Md. Rafiqul Islam, Md. Akhlausur Rahman, Gary N. Atlin, Hans-Peter Piepho. (2023). *50 years of rice breeding in Bangladesh: genetic yield trends*. Theoretical and Applied Genetics (2023) 136:0 <https://doi.org/10.1007/s00122-023-04260-x>, License- [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)

(b) Paper published in the Reputed National Journal: (41)

Principal author: 10

- Hossain, M.I.**, Ali, M.A. and Ahmed, M.S. (2001). Predictive Estimation of Finite Population Mean Under Regression Estimator in Multi-stage Sampling Using Auxiliary Information. *Jahangirnagar University Journal of Science*, Savar, Dhaka, Bangladesh Vol. 24, pp.207-214.
- Hossain M.I.**, Hossain, M.A. Baset, M.A. and Ahmed, M.S. (2000). Predictive Estimation of Finite Population Mean Under Regression Estimator in two-stage Sampling Using Auxiliary Information. *The Bangladesh Journal of Scientific Research*. The Bangladesh Association for the Advancement of Science, Dhaka, Bangladesh Vol.18, No.2, pp.185-190, December, 2000.
- Hossain M.I.**, Hossain, M.A, Begum, M, Ahmed, M.S. and Fakir, H.K (2003). Second Order Biases and Mean Square Errors of Some Estimators Under Double Sampling. “Bangladesh Journal of Agricultural Science”, Bangladesh Agricultural University, Mymensingh, Bangladesh. Vol. 30 (2), pp. 271-280.
- Hossain M.I.** and Ahmed, M.S., Miah, A.B.M.A.S and Ali, M.A. (2004). A Class of Predictive Estimators in Three-stage Sampling. “*Journal of Statistical Studies*”. Jahangirnagar University, Savar, Dhaka, Bangladesh. Vol.24, pp.19-30.
- Hossain, M.I.**, Islam, M.S, Hossain M.A, Nasrin, S. and Yesmin, S. (2005). Determination of Optimum Sampling Plant Characters of Brinjal (*Solanum indicum*). “International Journal of Sustainable Agricultural Technology (IJSAT), GPRI, Satkhira, Bangladesh. Vol. 1(16), pp.25-29.
- Hossain M.I.**, M.I.Rahman, M. Tareq (2006). Second Order Biases and Mean Square Errors of Some Estimators Using Single Auxiliary Variabl. “Daffodil International University Journal of Business and Economics, DIU, Dhaka, Bangladesh. Vol. 1 (1), pp. 37-46.

- Hossain M.I.**, S. Ahmed, Muhammad Tareq, M.J.U. Khan and M.B. Islam (2007). Application of GIS Technology in Mapping of Chilli Growing Area. *Bangladesh Journal of Agriculture and Environment*". Bangladesh Fertilizer Association (BFA), Bangladesh Vol.03, No.2, pp.23-29.
- Hossain M.I.**, S. Ahmed, Muhammad Tareq, M.Z. Hasan, and M.I. Hossain (2008). Application of GIS Technique in Mapping of Onion Growing Area. *International Journal of Bio Research*". BRRI, Gazipur, Bangladesh. Vol.05, No.3, pp.32-36.
- Hossain, M.I.**, Muhammad Shuaib, Kabita, Muhammad Tareq, M.S. Kabir and M.A. Uddin (2008). Optimum Sampling for Measuring Different Plant Characters of Teasle Gourd. *Eco-Friendly Agriculture Journal*, BRRI, Gazipur, Bangladesh. Vol. 1, No. 3, pp.172-175.
- Hossain M.I.**, Hossain, Niaz Md. Farhat Rahman, M.S Kabir, Md Abu Bakr Siddique and Muhammad Tareq (2015). "Development and validation of producer and consumer preference models for rice varieties in Bangladesh". *Bangladesh Rice Journal*, Vol. 19(1), Page-63-71.

Co-author: 31

- Rahman, M.H and **Hossain, M.I.**, Ahmed, M.S. (2001). A class of Beta Mixture Distribution. *"Journal of Statistical Studies"*. Jahangirnagar University, Savar, Dhaka, Bangladesh. Vol.21, pp.45-59.
- Ahmed. Selim., Gomasta. A.R., Islam. M.S., Hossain.M.A, and **Hossain, M.I** (2002). Effect of Low Temperature and External-Internal Nitrogen and Phosphorous Status on Adventitious Root Growth of Rice Varieties. *"Journal of Biological Science, Rajshahi University, Rajshahi, Bangladesh. Vol.10, pp. 41-45.*
- Hossain, M.Abul, Hossain, M.A. and **Hossain,M.I.** (2003). Performance of Sesame Genotypes for Yield and Yield Contributing Characters in Flood Plain Soil of Rajshahi. *"Bangladesh Journal of Genetics and Biotechnology"*, Bangladesh Genetical Society, Rajshahi University, Bangladesh, Vol.4 (1&2): pp.7-10.
- Begum, Sl, Sultana, R., Khatun, F., Yasmin, S and **Hossain, M.I.** (2003). Variability and Character Association in Sorghum (*Sorghum bicolor* L.) Moench. *"Bangladesh Journal of Genetics and Biotechnology"*, Bangladesh Genetical Society, Rajshahi University, Bangladesh, Vol.4 (1&2): pp.11-13.
- Biswas, G.C., Hossain, M.Abul, Hossain.M.A, Yasmin, S. and **Hossain, M.I** (2003). Incidence and Damage of Hairy Caterpillar (*Spilarctia Obliqua* Wlk. Lepidoptera: Arctiidae) in Sesame Genotypes. *Bangladesh Agriculturist*" A Journal of Krishi Foundation, Bangladesh. Vol.1, pp. 27-29.
- Hossain M. Abul, Hossain, M.A., **Hossain, M.I.**, Nasrin, S. Ahmed, S. (2005). Performance of Promising Genotypes of Sesame (*Seasamum indicum*). *"International Journal of Sustainable Agricultural Technology (IJSAT), GPRI, Satkhira, Bangladesh. Vol. 1(16), pp.19-24.*
- Hossain, M.Abul, **Hossain,M.I.**, Hossain, M.A. Raquibullah, S.M and Tareq Muhammad (2005). Effect of Genotypes and row spacing on Growth and Yield of Sesame. *"Bangladesh Journal of Genetics and Biotechnology"*, Bangladesh Genetical Society, Rajshahi University, Bangladesh, Vol.6 (1&2): pp.5-10.
- H. Begum, A.K.M.M.Alam, M.J.A. Chowdhury and **Hossain,M.I.**, (2007). Genetic Divergence in Linseed (*Linum usitatissimum* L.) *"International Journal of Sustainable Crop Production"*, Green World Foundation, Vol.2 (1): pp.04-06.

- S.M. Zaman, M.R. Amin, D.A. Chowdhury, R.U. Chowdhury, and **Hossain, M.I.**, (2007). Yield Response of Boro and T. Aman Rice to NPKS Fertilizers in High Ganges River Floodplain Soil "International Journal of Sustainable Crop Production", Green World Foundation, Vol.2 (1): pp.18-22.
- M.N. Hasan, M.A. Monayem Miah, M.S. Islam, Q.M. Alam and **M.I. Hossain**. (2008). Change and Instability in Area and Production of Wheat and Maize in Bangladesh. *Bangladesh Journal of Agricultural Research*". Bangladesh Agricultural Research Institute (BARI), Bangladesh Vol.33, No.3, pp.409-417.
- A.S.M.K Khan, M.G. Rabbani, M.A. Siddique and M.I. Hossain. (2008). Study on Genetic Diversity of Pointed Gourd Using Morphological Characters. *Bangladesh Journal of Agricultural Research*". Bangladesh Agricultural Research Institute (BARI), Bangladesh Vol.33, No.4, pp.607-616.
- M.S. Haque, M.E. Haque, M.G. Mostofa, A.T.M.R Hoque, M. Tanvir and **M.I. Hossain** (2008). Performance Assessment of the High Value Crop (hves) Producers Under the North-West Crop Diversification Project (NCDP). *Eco-Friendly Agriculture Journal*, BRRI, Gazipur, Bangladesh. Vol. 1, No. 3, pp.137-143.
- M.A. Hossain, **M.I. Hossain**, **M Shuaib**, Kabita, M.M Rahman and M.A.B. Siddique (2008). Study on Intercropping Groundnut with Carrot. *International Journal of Bio- Research*". BRRI, Gazipur, Bangladesh. Vol.05, No.5, pp.48-52.
- M.A.B. Siddique, M.M. Rahman, Kabita, M.S. Islam and **M.I. Hossain** (2008). Costs, Margins and Price Spread of Rice Marketing Channel in Some Selected Areas of Bangladesh. *International Journal of BioResearch*". BRRI, Gazipur, Bangladesh. Vol.05, No.6, pp.36-45.
- M.A. Hossain, **M.I. Hossain**, M.U. Ahmed, M.A.B. Siddique, M.S. Kabir and M.A. Uddin (2008). Performance of Intercropping Groundnut with Linseed at Different Row Arrangement. *International Journal of BioResearch*". BRRI, Gazipur, Bangladesh. Vol.05, No.6, pp.6-9.
- M. Tanvir, A. Jinia, M.G. Mostofa, A.T.M. R. Hoque M.S. Haque and **M.I. Hossain** (2009). Effect of Different Concentrations of Three Botanical Extracts on Aphid Population in Yard Long Bean. *Eco-Friendly Agriculture Journal*, BRRI, Gazipur, Bangladesh. Vol. 2, No. 1, pp.339-345.
- A. Arif, M.G. Mostofa, A.T.M. R. Hoque M.I. Khalil, M.M.Rashid and **M.I. Hossain** (2009). An Economic Analysis of Potato Production in Some Selected Areas of Bangladesh. *Eco-Friendly Agriculture Journal*, BRRI, Gazipur, Bangladesh. Vol. 2, No. 9, pp.805-809.
- M.G. Mostofa, S.M.A. Al Mamun, A.T.M. R. Hoque A Arif, M.A Mazed and **M.I. Hossain** (2010). Analysis of Growth and Utilization of Maize in Bangladesh. *Eco-Friendly Agriculture Journal*, BRRI, Gazipur, Bangladesh. Vol. 3, No. 1, pp.62-66.
- A.T.M. R. Hoque, M.G. Mostofa, A.N.H. Luiza, M.A Islam, M.A. Mazed and **M.I. Hossain** (2010). Socio-Economic Impact of Organic Vegetables Production in Dinajpur District of Bangladesh. *Eco-Friendly Agriculture Journal*, BRRI, Gazipur, Bangladesh. Vol. 3, No. 1, pp.62-68.
- A. Arif, A.T.M. R. Hoque, F.M.M. Rahman, M.M.O. Rashid and **M.I. Hossain** (2010). Adoption Impact of Power Tillers on the Livelihoods of Landless Laborers, Sharecroppers and Cattle Producers in Some Selected Areas of Bangladesh. *International Journal of Bio-Research*". BRRI, Gazipur, Bangladesh. Vol.09, No.1, pp.14-24.

- M.M. Islam, M.F. Imtiaz, N.M.F Rahman, T. Farhat, M.M.U. Islam and, **M.I. Hossain** (2010). Effects of N Applied from Urea, Cowdung and Poultry Manure on the Yield and Yield Contributing Characters of BRRI dhan29. *International Journal of Bio-Research*". BRRI, Gazipur, Bangladesh. Vol.09, No.2, pp.15-18.
- A. Arif, A.T.M. R. Hoque, F.M.M. Rahman, M.M.O. Rashid, **M.I. Hossain** and M.K. Saha (2010). Effects of Shallow Tubewells on Farm Income and Labour Employment in Some Selected Area of Bangladesh. *International Journal of Bio-Research*". BRRI, Gazipur, Bangladesh. Vol.09, No.2, pp.26-32.
- A. Arif, A.T.M. R. Hoque, F.M.M. Rahman, M.M.O. Rashid and **M.I. Hossain** (2010). The Impact of Power Tiller on Productivity and Employment in Some Selected Areas of Sherpur District. *Eco-Friendly Agriculture Journal*, BRRI, Gazipur, Bangladesh. Vol.3, No.9, pp.447-451.
- A. Arif, A.T.M. R. Hoque, F.M.M. Rahman, M.M.O. Rashid and **M.I. Hossain** (2010). Exportable Vegetable Profitability and Problems of in Some Selected Vegetables in Bangladesh. *Eco-Friendly Agriculture Journal*, BRRI, Gazipur, Bangladesh Vol.3, No.9, pp.452-455.
- M. A, Hossain, A. Karim, P. Ray, M.Akhteruzzaman, **M.I. Hossain** and M.Z. Akond (2011). Effect of Row Spacing on yield response of soybean genotypes. *International Journal of Bio-Research*". BRRI, Gazipur, Bangladesh. Vol.10, No.2, pp.25-29.
- A. K, Obidul Huq, Dhaneswar Chandro Sarker, and **M.I. Hossain** (2012). Health and Nutritional Status and Food Intake Pattern of the Selected Elderly People: A case study in Dhaka City. *International Journal of Bio-Research*". BRRI, Gazipur, Bangladesh. Vol.11, No.2, pp.25-29.
- N M F Rahman, M M Hasan, **M I Hossain**, M A Baten, S Hosen, M.A Ali and M S Kabir (2016). "Forecasting Aus Rice Area and Production in Bangladesh using Box-Jenkins Approach". *Bangladesh Rice Journal*, Vol. 20(1), Page-1-10.
- M S Kabir, D N R Paul, **M I Hossain** and N M F Rahman (2016). "Estimating Area and Production of Rice under Different Crop-cut Methods in". *Bangladesh Rice Journal*, Vol. 20(1), Page-11-16.
- Niaz Md. Farhat Rahman, Mamun MAA, **Hossain M.I.**, Ahmed R, Qayum M A, Aziz MA, Hossain MA and Md. Shahjahan Kabir (2018). "Stability and Adaptability Analysis of BRRI Developed Aus Varieties in Different Location of Bangladesh". *Bangladesh Rice Journal*, Vol. 22(1), Page-65-72.
- N M F Rahman, M C Rahman, M A Baten, **M I Hossain**, S M Q Hassan, R Ahmed, M M Hossain, ABM Z Hossain, M A Aziz, M M Haque, T Halder, M A A Mamun, M K A Bhuiyan, M A I Khan, A Chowdhury, M A Qayum, M A R Sarkar, M U Salam and M S Kabir (2021). Weather Forecast Based Rice Advisory Services in Bangladesh. *Bangladesh Rice J.* Vol- 25 (1): page- 51-74, 2021, doi.org/10.3329/brj. v25i1.55179.

(ii) SHORT COMMUNICATION

ABSTRACT

Principal author: 02

Hossain M.I, Hossain, M.A, Islam, M.S, and Yasmin, S. "Optimum Sampling for Measuring Different Plant Characters of Brinjal." *8th National Statistical Conference*, January 7-8, 2003, Bangladesh National Museum Auditorium, Dhaka, Bangladesh.

Hossain M.I., Hossain, M.S Kabir, Niaz Md. Farhat Rahman and MA Aziz. “Effect of rainfall and maximum temperature on Aman rice production of Bangladesh for last decade”. Bangladesh Rice Research Abstract 2014, Page-104.

Co-author: 09

Islam M.S., Hossain **M.I.**, Hossain M.A. and Masud, A.T.M. Determination of optimum sampling for measuring different plant characters of Bottle Gourd at National Statistical Conference on April 15-16, 2005. Planning Commission, Sher-e-Bangla Nagar, Dhaka, Bangladesh.

Niaz Md. Farhat Rahman, **Hossain M.I.** and Md. Shahjahan Kabir. Forecasting Aus Rice Production in Bangladesh using Box Jenkins Approach. Paper presented (As a Poster) in International Rice Congress (IRC 2014) at Bangkok, Thailand on October 27 to November 1, 2014.

Kabir M S, DNR Paul, **Hossain M.I.** and Niaz Md. Farhat Rahman, “Estimating area and production of rice in Bangladesh”. Bangladesh Rice Research Abstract 2014, Page-105.

Niaz Md. Farhat Rahman, **Hossain M.I.** and Md. Shahjahan Kabir. “An Application of Box-Jenkins method for forecasting of Aus, Aman and Boro rice production in Bangladesh”. Bangladesh Rice Research Abstract 2014, Page-106.

Iftexharuddaula, K.M., **Hossain M.I.** and *et al.* (2018). “TRB-BRRI Experience in Bangladesh. Transforming Rice Breeding Cutting Edge Breeding Approaches” on October 23-24, 2017. Organized by IRRI, ACI center, Dhaka, Bangladesh.

Niaz Md. Farhat Rahman, **Hossain M.I.** and Md. Shahjahan Kabir. Weather Forecast based Rice Management System in Bangladesh: An Experimental Approach for T. Aus Season. Paper presented 7th National Statistical Conference on Data Science and SDGs: Challenges, Opportunities and Realities, December 18-19, 2019. University of Rajshahi, Rajshahi-6025, Bangladesh.

Aziz Md. Abdullah, **Hossain M.I.** and Md. Shahjahan Kabir. Edaphic Suitability Mapping of BRRI dhan50 and BRRI dhan72. Paper presented 7th National Statistical Conference on Data Science and SDGs: Challenges, Opportunities and Realities, December 18-19, 2019. University of Rajshahi, Rajshahi-6025, Bangladesh.

Mamun Md. Abdullah, **Hossain M.I.** and Md. Shahjahan Kabir. GGE Biplot and Stability Analysis for Yield Performance of Rice Genotypes Across Different Environments in Bangladesh. Paper presented 7th National Statistical Conference on Data Science and SDGs: Challenges, Opportunities and Realities, December 18-19, 2019. University of Rajshahi, Rajshahi-6025, Bangladesh.

Qayum Md. Abdul, **Hossain M.I.** and Md. Shahjahan Kabir. Region Specific BRRI Variety Adoption: A Simple Way of Increasing National Production. Paper presented 7th National Statistical Conference on Data Science and SDGs: Challenges, Opportunities and Realities, December 18-19, 2019. University of Rajshahi, Rajshahi-6025, Bangladesh.

(iii) BOOKS/MONOGRAPH/BULLETINS

(a) BOOKS

Principal author: 01

Hossain, M.I., M.S. Kabir, M. A. Aziz and Rokib Ahmed (2020). Suitable Area for Aus Rice Cultivation in Bangladesh. Publication No. 307, July, 2020, Funded by GoB, BRRI.

Co-author: 01

Aziz, M A., Rahman, N M F., Rahman, M C., Nihad S A I., Ahmed, R., Qayum, M A., Mamun, M A A., **Hossain, M I.**, Kabir, M S. (2023). Present and Future Precipitation Scenario of Bangladesh. Bangladesh Rice Research Institute (BRRI), Bangladesh. ISBN: 978-984-35-3975-5.

(b) MONOGRAPH**Principal author: 01**

Hossain, M.I., N.M.F. Rahman (2014). Stochastic Frontier Analysis and Data Envelopment Analysis for Efficiency and Environmental Awareness of Paddy Farmers in Bangladesh. Founded by Ministry of Science and Technology under Special Allocation for Science and Technology, Bangladesh,

Co-author: 01

M.F. Karim and M.M.Rouf and **Hossain, M.I.**, (2000). Recommended cropping patterns for farms of Magura sadar thana based on soil properties. A report on the application of GIS in agricultural planning. Organized by BARC, Dhaka.

(c-1) BULLETINS/ARTICLE**Principal author: 01**

Hossain M.I., Md. Shahjahan Kabir and M. A. Kashem. Digital Progress: What BRRI has done. BRRI NEWSLETTER (ARTICLE), Dhan Gobeshona Somachar, January-June/2017, No.1, Page No.2 & 4, Bangladesh Rice Research Institute (BRRI). Website: www.brri.gov.bd.

Co-author: -**(c-2) LEAFLET****Principal author: 01**

Hossain, M.I., S.M. M Rhman and M.I. U. Mollah (2017). Bangladesh Rice Knowledge bank (BRKB) Leaflet. Publication No. 245, December 2017, Number of copies 2500, Funded by GoB, BRRI.

Co-author: 03

Rahman S.M. M. and **Hossain, M.I.** (2017). BRRI Mobile APPS “Rice Knowledge bank (RKB)” Leaflet. Publication No. 244, December 2017, Number of copies 2500, Funded by GOB, BRRI.

Kabir M.S., **Hossain, M.I.**, Islam A. Aziz M.A., Zakaria M. and Panaullah G.M. (2017). Distribution of Soil and Water Arsenic in Gangetic Flood Plain (Leaflet). Publication No. 242, September 2017, Number of copies 2000, Funded by FFP, USDA.

Kabir M.S., **Hossain, M.I.**, Islam A. Aziz M.A., Zakaria M. and Panaullah G.M. (2017). Assessing Arsenic Status in Central-East and South-West Part of Bangladesh (A Sampling Protocol for Soil and Water Sampling (Leaflet). Publication No. 243, September 2017, Number of copies 2000, Funded by FFP, USDA.

(c-3) BOOKLET

Principal author: -

Co-author: 01

Md. Shahjahan Kabir, **Hossain M.I**, Niaz Md. Farhat Rahman and Yukiyo Yamamoto (2015). Effects of Climate Change on Rice Yield in Bangladesh (Booklet). Paper presented international workshop on impacts of climate change on agriculture and adaptation to extreme events in Bangladesh. BIRRI and JIRCAS (Japan) collaboration, BIRRI, Gazipur, October 05, 2015.

(iv) PROCEEDINGS OF SEMINAR/WORKSHOP

POSTER

Principal author: 01

Hossain M.I Niaz Md. Farhat Rahman, and Md. Shahjahan Kabir (2018). International Conference on Climate Change, Biodiversity and Sustainable Agriculture (ICCBSA-2018), Assam Agricultural University, Assam, India on December 13 to 16, 2018. The poster entitles “Effects of climate change on rice yield in Bangladesh.”

Co-author: 01

Niaz Md. Farhat Rahman, **Hossain M.I** and Md. Shahjahan Kabir (2014). Forecasting Aus Rice Production in Bangladesh using Box Jenkins Approach. Paper presented and published as a Poster-P602 in International Rice Congress (IRC 2014) at Bangkok, Thailand on October 27 to November 1, 2014.

PROFICIENCY IN LANGUAGES

LANGUAGE	Speaking	Reading	Writing
<i>Bengali</i>	Excellent	Excellent	Excellent
<i>English</i>	Good	Good	Good
<i>Arabic</i>	Fair	Good	Good
<i>Urdu</i>	Fair	Good	Good

COURSE WORK IN EDUCATION LEVEL

Master of Philosophy

Relevant Course work:

Sample Survey and Bio-statistics

Master of Science

Relevant Courses:

Theory of Inference, Design of Experiment, Demography, Sampling Techniques, Bio-Statistics, Research Methodology, Multivariate Analysis & Analysis of Categorical Data, Survey Sampling.

Bachelor of Science

Relevant Courses:

Descriptive Statistics, Elements of Probability, Statistical Inference, Linear Algebra, Mathematical Analysis, Design of Experiment, Economic & Official Statistics, Sampling Distribution, Distribution Theory, Operation Research, Non-Parametric Methods, Industrial & Educational Statistics, Computer Program and Data Analysis, Analysis of Variance, Regression Analysis, Sampling Methods, Demography, Econometrics & Income Distribution, Probability Theory & Stochastic Process, Calculus-1, Linear Algebra, Algebra, Calculus-11 & Differential Equations, Analytical Geometry of two and three Dimension, Mathematical Methods & Statistics, Micro Economics (General Economics-A), Micro Economics (General Economics-B), Agriculture Economics Development of Bangladesh.

REFEREES

Dr. Md. Forhad Hossain

Professor, Department of Statistics
Jahangirnagar University
Savar, Dhaka-1342, Bangladesh.
E-mail: mfhossain@juniv.edu
Fax: 880-2-9353069
Mobile: 01720-105692

Dr. Md. Shahjahan Kabir

Director General
Bangladesh Rice Research Institute
Gazipur-1701, Bangladesh.
E-mail: kabir.stat@gmail.com; dg@brrri.gov.bd
Phone: 88-02-49272040
Fax: 88-02-49272000
Mobile: 01712-280083

Date....14.02.2023.....

Signature..........