DR. MUHAMMED IRSHAD M
Research Associate,
Agro-Economic Research Centre
Ministry of Agriculture and Farmers' Welfare, Govt. of India
Visva Bharati, Santiniketan, West Bengal, 731235
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PERSONAL DETAILS

Date of Birth : 04/10/1994

Marital Status : Unmarried

Sex : Male

Nationality : Indian

Residential Address : Elakkadu House, Olakara P.O, Koomanna, Malappuram District, Kerala, Pin: 676306

ACADEMIC IDENTITIES

Google Scholar https://scholar.google.com/citations?user=o7VCdD4AAAAJ&hl=en&authuser=1&oi=ao

Research Gate https://www.researchgate.net/profile/Muhammed-Irshad-M?ev=hdr_xprf

ORCID 0009-0008-9965-7577
https://orcid.org/0009-0008-9965-7577

Web of Science NIV-0462-2025
https://www.webofscience.com/wos/author/record/NIV-0462-20252025

EDUCATION

Ph.D. in Agricultural Statistics	Visva-Bharati Central University	2025	82%
M.Sc. in Agricultural Statistics	Dr. Rajendra Prasad Central Agricultural University	2019	83.47%
B.Sc. (Hons.) in Agricultural Science	Bihar Agricultural University	2017	82.37%
10+2 (Science, PCMB)	Oriental Higher Secondary School	2012	82.90%
SSLC	Moonniyur High School	2010	98%

- Languages - Malayalam, English, Hindi, Bangla and Tamil
- Skills - Data Analysis and Programming
  - Proficient in SPSS, Amos, JAMOVI, R, and Python
  - MS Office (Excel, Word, PowerPoint)

WORK EXPERIENCE

1. **Research Associate, Agro-Economic Research Centre**
   Ministry of Agriculture and Farmers' Welfare, Government of India, Visva-Bharati | January 2025 – Present
   Key Responsibilities:
   - Conducting primary and secondary data collection and analysis
   - Preparing technical reports and policy briefs
   - Member Secretary, Website Information Management Committee of the Centre

2. **Livelihood Specialist, Bihar Rural Livelihood Promotion Society**
   Ministry of Rural Development, Government of Bihar | August 2019 – October 2021
   Key Responsibilities:
   - Promoted sustainable rural livelihoods through the integration of farm-based activities, livestock management, and small enterprises.
   - Conducted capacity-building programs for community members and local institutions.
   - Facilitated agricultural extension services and farmer outreach initiatives.
   - Supported community-driven development programs focused on social and economic empowerment.

RESEARCH ARTICLES

Roy, S., Adak, S., Chakraborty, S., Mukherjee, R., Hasan, M., Irshad, M.M, Acharyya, A., and Ghosh, S. (2025). Climate Resilient Farming: Influence of Livelihood Assets on Agrochemical vs Organic Input Use in Coastal India. *Indian Journal of Extension Education*. *61*(4), 120-127. https://doi.org/10.48165/IJEE.2025.61420

Irshad, M. M., Sarkar, K. A., Dhakre, D. S., and Bhattacharya, D. (2024). Forecasting of Coconut Price Using Time Series Modelling Technique. *Journal of Agricultural Development and Policy*. *34* (2), 223-231. https://doi.org/10.63066/23220457.34.2.005

Irshad, M. M., Sarkar, K. A., Dhakre, D. S., and Bhattacharya, D. (2024). Comparative analysis of statistical model and machine learning algorithms in forecasting black pepper price of Kerala. *Biological Forum – An International Journal*, *16*(8), 63–68.

Irshad, M. M., Sarkar, K. A., Dhakre, D. S., and Bhattacharya, D. (2024). Forecasting of monthly cardamom price using long memory time series modelling technique. *International Journal of Statistics and Applied Mathematics*, 9*(6)*, 121–126. https://doi.org/10.22271/maths.2024.v9.i6b.1906

Irshad, M.M., Kumar, M., and Kamat, D.N. (2024). Sugarcane Yield Prediction in Bihar using Biometric Characteristics. *Environment and Ecology*. *42* (3), 948-955. https://doi.org/10.60151/envec/WUMC4415

Irshad, M.M., Kumar, M., Ray and Sattar, A., Paswan, S. and Minnattulla (2023). Effect of meteorological elements on Sugarcane wilt in Bihar. *International Journal of Statistics and Applied Mathematics .8* (4), 128-133.

BOOKS

Adak, S.; Roy, S.; Hasan, M.; Mukherjee, R.; Chakraborty, S.; Irshad, M. M.; Acharyya, A. and Ghosh, S. (2026). Pradhan Mantri Kisan Samman Nidhi (PM-Kisan): Performance, Problems, and Prospects in West Bengal; Study No.-200, Agro-Economic Research Centre (For the States of West Bengal, Sikkim and Andaman & Nicobar Islands), Visva-Bharati, Santiniketan, West Bengal, pp. xix-162. https://www.visvabharati.ac.in/home/wp-content/uploads/2026/09/AERC_Study-200_02.pdf (ISBN: 978-81-989525-6-1)

Hasan, M.; Roy, S.; Adak, S.; Irshad, M. M.; Mukherjee, R.; Chakraborty, S. and Acharyya, A. (2026). An Assessment of Kisan Credit Cards (KCC) with special reference to Animal Husbandry in West Bengal; Study No.- 199, Agro-Economic Research Centre (For the States of West Bengal, Sikkim and Andaman & Nicobar Islands), Visva-Bharati, Santiniketan, West Bengal, pp. viii+82. https://www.visvabharati.ac.in/home/wp-content/uploads/2026/09/AERC_Study-199_02.pdf (ISBN: 978-81-989525-4-7)

Chakraborty, S.; Roy, S; Adak, S.; Hasan, M.; Mukherjee, R.; Irshad, M.M. and Acharyya, A. (2026). Rejuvenating Rice Fallow Lands in West Bengal Using Remote Sensing and GIS; Study No.- 198, Agro-Economic Research Centre (For the States of West Bengal, Sikkim and Andaman & Nicobar Islands), Visva-Bharati, Santiniketan, West Bengal, pp. xi+94. https://www.visvabharati.ac.in/home/wp-content/uploads/2026/08/AERC_Study-198_02.pdf (ISBN: 978-81-989525-2-3)

Irshad, M. M., Acharyya, A., & Ghosh, S. (Eds.). (2026). *Manual on Artificial Intelligence and Statistical Methods for Assessing Agricultural Performance*. Agro-Economic Research Centre (for the States of West Bengal, Sikkim and Andaman & Nicobar Islands), Visva-Bharati, Santiniketan, West Bengal, India. https://www.visvabharati.ac.in/home/wp-content/uploads/2026/03/AERC_Manual-2026_03.pdf (ISBN: 978-81-989525-0-9).

POPULAR ARTICLES

Irshad, M. M. (2026). The Future of Farming: Artificial Intelligence in Indian Agriculture. *Vigyan Varta* 7 (04): 37-40. https://www.vigyanvarta.in/ArticleDetails.aspx?id=3175

POLICY BRIEFS

Chakraborty, S., Roy, S., Adak, S., Mukherjee, R., Hasan, M., Irshad, M.M, Acharyya, A., and Ghosh, S. (2026). From Fallow to Fertile: Policy Insights on Rejuvenation of Rice Fallow Lands in West Bengal in Policy Brief 04, Agro Economic Research Centre, Visva-Bharati, Santiniketan, West Bengal, pp 1-8. https://www.visvabharati.ac.in/home/wp-content/uploads/2026/10/AERC_Policy-Brief_004.pdf

Adak, S., Chakraborty, S., Roy, S., Hasan, M., Mukherjee, R., Irshad, M.M, Acharyya, A., and Ghosh, S. (2026). Reviving the Dairy Industry in West Bengal: From Subsistence to Prosperity in Policy Brief 03, Agro Economic Research Centre, Visva-Bharati, Santiniketan, West Bengal, pp 1-8. https://www.visvabharati.ac.in/home/wp-content/uploads/2026/10/AERC_Policy-Brief_003.pdf

Roy, S., Adak, S., Chakraborty, S., Mukherjee, R., Hasan, M., Irshad, M.M, Acharyya, A., and Ghosh, S. (2025). From Vulnerability to Resilience: Policy Insights on Climate Smart Coastal Agriculture in Policy Brief 01, Agro Economic Research Centre, Visva-Bharati, Santiniketan, West Bengal, pp 1-8. https://www.visvabharati.ac.in/home/wp-content/uploads/2025/11/AERC_Policy-2025_01.pdf

CONFERENCE /SEMINAR PAPER PRESENTATION

February 2025
Title: *"Exploring Advanced Forecasting Models for Coconut Prices: A Comparative Study of Wavelet-Enhanced Models with Deep Learning Techniques"*
Event: National Seminar on "*Recent Trends in Modelling: Emphasis on Statistical Methods and Machine Learning Techniques*"
Date & Venue: 15th–16th February 2025, organized by the Department of Agricultural Statistics, Palli Siksha Bhavana, Visva-Bharati University.

February 2024
Title: *"Forecasting Rubber Prices in Kerala Using LSTM Deep Learning Techniques"*
Event: 74th Annual Conference of the Indian Society of Agricultural Statistics on *"Harnessing Statistics and Artificial Intelligence for Sustainable and Smart Agriculture"*
Date & Venue: 2nd– 4th February 2024, organized by Navsari Agricultural University, Navsari, Gujarat.

December 2023
Title: *"Forecasting of Cocoa Price Using Hybrid Long-Memory Time Series Model"*
Event: VIIIth International Conference on *"Global Research Initiatives for Sustainable Agriculture and Allied Sciences"*
Date & Venue: 18th–20th December 2023, organized by Astha Foundation, Meerut (UP) & University of Agricultural Sciences, Raichur (Karnataka).

PARTICIPATION IN WORKSHOPS/ TRAININGS

August 2026
Event: 5-day Lecture-cum-Hands-on Training Programme on "*Artificial Intelligence and Deep Learning for Pest and Disease Detection in Crops: From Image Data to Decision Support Systems*"
Date & Venue: 17th to 21st August 2026**,** ICAR- Indian Agricultural Statistics Research Institute (ICAR-IASRI), New Delhi

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July 2025
Event: 21-Day Training Program on "*Advanced Statistical and Machine Learning Techniques for Data Analysis Using Open-Source Software for Abiotic Stress Management in Agriculture***"**
Date & Venue: 16th July to 5th August 2025, ICAR- National Institute of Abiotic Stress Management (ICAR-NIASM), Baramati, Maharashtra

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February 2025
Event: Interaction Programme between the Scholars of AERC and Research Methodology Experts
Date & Venue: 24th–25th February 2025, Agro-Economic Research Centre, Ministry of Agriculture and Farmers Welfare, Government of India, Visva-Bharati, Santiniketan.

February 2024
Event: 14-Day National Workshop on "*Statistical Techniques and Practices for Applied Statisticians and Data Scientists*"
Date & Venue: 15th–28th February 2024, Department of Agricultural Statistics, Palli Siksha Bhavana, Visva-Bharati, Santiniketan.

July–August 2023
Event: 12-Day DST-SERB Sponsored High-End Workshop on "*Multivariate Statistical Machine Learning Methods for Modelling Agricultural Data*"
Date & Venue: 24th July–4th August 2023, ICAR–Indian Institute of Rice Research (ICAR-IIRR), Hyderabad, Telangana

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May 2023
Event: 5-Day Training Programme on "*Data Driven Agriculture: A Statistical Analysis Training Using R*"
Date & Venue: 23rd–27th May 2023, College of Agriculture, Sumerpur, Agriculture University, Jodhpur, Rajasthan.

January 2021
Event: 7-Day National Level Online Training Programme on "*Statistical Data Analysis using R Software*"
Date & Venue: 4th–11th January 2021, National Institute of Electronics & Information Technology (NIELIT), Guwahati.

January 2021
Event: 7-Day Short-Term Training Program on "*Bioinformatics*"
Date & Venue: 4th–11th January 2021, National Institute of Electronics & Information Technology (NIELIT), Guwahati.

September 2020
Event: Three-day National Webinar on "*Statistical Computing using R Software*"
Date & Venue: 28th to 30th September 2020, Department of Statistics and Computer Applications, Agricultural College Bapatla of Acharya NG Ranga Agricultural University, Andhra

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September 2020
Event: One-day Webinar on "*Drone Remote Sensing in Agriculture'*
Date & Venue: 9th September 2020, Indian Society of Agro Physics in association with Division of Agricultural Physics, ICAR-Indian Agricultural Research Institute, New Delhi

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February–March 2020
Event: 10-Day National Workshop on "*Data Analysis Using Statistical Tools, Techniques and Packages with Special Emphasis on SPSS and R*"
Date & Venue: 23rd February–3rd March 2020, Department of Agricultural Statistics, Palli Siksha Bhavana, Visva-Bharati University, Santiniketan.

AWARDS

Best Article of the Month Award for the article entitled "*The Future of Farming: Artificial Intelligence in Indian Agriculture"* in Vigyan Varta: An International E-Magazine for Science Enthusiasts (E-ISSN: 2582-9467) for the month of April 2026.

Best Oral Presentation Award for the paper titled "*Forecasting Rubber Prices in Kerala Using LSTM Deep Learning Techniques*" in the 74th Annual Conference of Indian Society of Agricultural Statistics on "*Harnessing Statistics and Artificial Intelligence for Sustainable and Smart Agriculture*" during 2nd – 4th February 2024, Organized by Navsari Agricultural University, Navsari (Gujarat).

SOFTWARE DEVELOPMENT

Irshad, M.M., Sarkar, K. A., Dhakre, D. S., and Bhattacharya, D. (2025). fracARMA: Fractionally Integrated ARMA Model (Version 0.1.0) [R package]. CRAN. https://doi.org/10.32614/CRAN.package.fracARMA

MEMBERSHIPS IN SCIENTIFIC BODIES

Life Member of the Indian Society of Agricultural Statistics, New Delhi