#### MUHAMMED IRSHAD M

#### Research Associate,

Agro-Economic Research Centre Ministry of Agriculture and Farmers' Welfare, Govt. of India Visva-Bharati, Santiniketan, WB-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

# **EDUCATION**

Ph. D. in Agricultural Statistics (Submitted) | Visva-Bharati University | 2025

M.Sc. in Agricultural Statistics | Dr. Rajendra Prasad Central Agricultural University | 2019

B.Sc. in Agricultural Science | Bihar Agricultural University | 2017

Languages : Malayalam, English, Hindi, Bangla and Tamil

Skills : - Data Analysis and Programming

- Proficient in SPSS, 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
- 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.

### **PUBLICATIONS**

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.

### **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**: 15<sup>th</sup>–16<sup>th</sup> 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:** 2<sup>nd</sup>–3<sup>rd</sup> 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 Agriculture and

Allied Sciences"

**Date & Venue:** 18<sup>th</sup>–20<sup>th</sup> December 2023, organized by Astha Foundation, Meerut (UP) &

University of Agricultural Sciences, Raichur (Karnataka)

# PARTICIPATION IN WORKSHOPS/ TRAININGS

### February 2024

**Event :** 14-Day National Workshop on "Statistical Techniques and Practices for Applied Statisticians and Data Scientists"

**Date & Venue :** 15<sup>th</sup>–28<sup>th</sup> February 2024, Department of Agricultural Statistics, Palli Siksha

Bhavana, Visva-Bharati University, 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**: 24<sup>th</sup> July–4<sup>th</sup> August 2023, ICAR–Indian Institute of Rice Research,

Hyderabad

### May 2023

**Event :** 5-Day Training Programme on "Data Driven Agriculture : A Statistical Analysis Training Using R"

**Date & Venue :** 23<sup>rd</sup>–27<sup>th</sup> 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 :** 4<sup>th</sup>–11<sup>th</sup> January 2021, National Institute of Electronics & Information Technology (NIELIT), Guwahati

#### January 2021

**Event :** 7-Day Short-Term Training Program on "Bioinformatics"

**Date & Venue :** 4<sup>th</sup>–11<sup>th</sup> January 2021, National Institute of Electronics & Information Technology (NIELIT), Guwahati

#### 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 :** 23<sup>rd</sup> February–3<sup>rd</sup> March 2020, Department of Agricultural Statistics, Palli Siksha Bhavana, Visva-Bharati University, Santiniketan

# **AWARDS**

**Best Oral Presentation Award** for the paper titled "Forecasting Rubber Prices in Kerala Using LSTM Deep Learning Techniques" in the 74<sup>th</sup> Annual Conference of Indian Society of Agricultural Statistics on "Harnessing Statistics and Artificial Intelligence for Sustainable and Smart Agriculture" during 02<sup>nd</sup> -03<sup>rd</sup> 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. <a href="https://doi.org/10.32614/CRAN.package.fracARMA">https://doi.org/10.32614/CRAN.package.fracARMA</a>

# MEMBERSHIPS IN SCIENTIFIC BODIES

Life Member of Indian Society of Agricultural Statistics, New Delhi