



Muhammad Hamza

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Home: Muhallah Green Town Malakwal Dist. (M.B.DIN), 50530 Mandi Bhuddin (Pakistan)

Work: C/O Prof.Dr Abdul Rauf Department of Zoology Govt. Asghar Mall College (Rawalpindi), 46030 Rawalpindi (Pakistan)

WORK EXPERIENCE

Visiting Statistical Lecturer at Federal Urdu University , Islamabad

[09/10/2024 – 03/03/2025]

City: Islamabad | Country: Pakistan

- Use a variety of teaching methods to cater to different learning styles, including lectures, interactive discussions, and practical exercises.
- Develop syllabi that outline the course objectives, structure, schedule, and assessment methods.

One Year experience In Spatial data Analysis and Statistical Computing

[10/05/2023 – 10/10/2024]

City: Islamabad | Country: Pakistan

EDUCATION AND TRAINING

M.Phil. (Statistics)

Quaid -I-Azam University Islamabad [19/09/2022 – 24/10/2024]

City: Islamabad | Country: Pakistan

BS (Statistics)

University of Sargodha [19/10/2018 – 24/06/2022]

City: Sargodha | Country: Pakistan

Intermediate

Govt. Degree College Malakwal (M.B.DIN) [15/09/2016 – 12/09/2018]

City: Malakwal | Country: Pakistan

Marticulation

Govt.Rafi-ul- Islam High School Malakwal (M.B.DIN) [19/07/2014 – 20/07/2016]

City: Malakwal | Country: Pakistan

PUBLICATIONS

Submitted Articles

- Integration of Analytic Hierarchy Process and Monte Carlo Feature Selection in Real-time Drought Monitoring Systems
- Development of a Novel Drought Index Using a Hybrid Weighting Scheme Integrating Principal Component Analysis and Analytic Hierarchy Process
- Integrating Entropy and Spatial Correlation for a Spatiotemporal Weighting Scheme to Monitor Drought Severity

PROJECTS

[19/09/2023 – 10/10/2024]

Integrating Various Hybrid Weighting Schemes for Improved Remote Sensing Drought Indices

This research aimed to develop hybrid weighting schemes to enhance the efficiency and effectiveness of meteorological drought monitoring. Research developed several frameworks that incorporate spatio-temporal information, providing more detailed and comprehensive data. Multidimensional methods allow us to better capture complicated spatio-temporal interactions, resulting in increased monitoring and analysis results. These methods—AHP, PCA, MCFS, MSC, and entropy-based, enhance real-time drought monitoring by refining data analysis and decision-making.

ADDITIONAL INFORMATION

Research Interest

During my M.Phil. research, I successfully integrated multiple hybrid weighting schemes to enhance the accuracy and reliability of drought indices derived from remote sensing data. My goal is to contribute to the body of knowledge in remote sensing and environmental science, providing innovative solutions to one of the most pressing challenges of our time. Through my Ph.D. research, I seek to bridge the gap between advanced technological developments and practical applications, ensuring that the tools and methodologies I develop can have a meaningful impact on drought management and environmental sustainability.

LANGUAGE SKILLS

Mother tongue(s): Urdu

Other language(s):

English

LISTENING C1 READING C1 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

DIGITAL SKILLS

Microsoft Word / Microsoft Excel / IBM Statistical package for Sciences (SPSS) / MINITAB software / Python / ArcGIS Desktop/Pro (advanced) / R/R Studio/ R Markdown / basic skills in graphic (canva)

CONFERENCES & SEMINARS

[09/05/2024 – 10/05/2024] Air University Islamabad Pakistan

Recent Trends In statistics Data Analysis with Application in Natural Sciences

[07/12/2023 – 07/12/2023] Quaid - I -Azam University Islamabad, Pakistan

International Islamic Economics And Development Conference

[16/11/2023 – 16/11/2023] Rawalpindi Women University, Pakistan

2nd International Conference of social Sciences" Contemporary World: Challanges and Transformation,2023"