

Hasnat Aslam

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About me: I am Graduate Research Assistant (PhD) in School of Natural Resources, UNL. My Research focus on Artificial Intelligence for redesign of Water Infrastructure under climate change.

● WORK EXPERIENCE

15/01/2019 – 15/11/2020 – Pakistan

GIS ANALYST – RESEARCH WING, PUNJAB AGRICULTURE DEPARTMENT

- Data Analytics and Spatial Analysis
- Web and Geospatial Application Development and Management
- Spatial Data Preparation and Management
- Geospatial Databases Design and Management
- Other Research Activities

Lahore, Pakistan

29/06/2018 – 30/12/2020 – Pakistan

CONSULTANT – FAATIR ENGINEERING

- Hydrologic Modelling for Reservoir Design
- Hydrologic and Time Series Analysis for Water Availability
- Mapping

05/07/2018 – 31/12/2018

FLOOD HAZARD MODELER/ SURVEYOR – PIU, PROVISIONAL DISASTER MANAGEMENT AUTHORITY

- Flood Hazard Modelling using Hydrologic and Hydraulic Models
- Spatial Data Preparation and Management
- Spatial and Statistical Analysis

Lahore, Pakistan

01/07/2016 – 30/06/2018

RESEARCHER – PCU, PLANNING AND DEVELOPMENT DEPARTMENT

- Hydrologic and Hydraulic Modelling
- Data Analytics
- Web Application Development
- Geospatial Databases Design
- GIS
- Studies Related to Climate Change

Lahore, Pakistan

01/06/2016 – 30/07/2017

RESEARCH STUDENT – PUNJAB UNIVERSITY COLLEGE OF INFORMATION TECHNOLOGY

- Research work of Mphil (Hydraulic Modelling, Hydrology, Statistics and Sensitivity Analysis)

Lahore, Pakistan

● EDUCATION AND TRAINING

28/10/2016 – 30/07/2017 – Old Campus, University of the Punjab, Lahore, Pakistan
M.PHIL (RS AND GIS) – Punjab University College of Information Technology

- Hydrology
- GIS and Fuzzy GIS
- Remote Sensing and Digital Image Processing
- Database Design and Management
- Disaster Management
- Geodesy

EQF level 7 | <https://pucit.edu.pk/>

28/10/2013 – 01/08/2015 – Lahore, Pakistan
M.SC (GIS) – Center for Geographical Information System, University of Punjab

- GIS
- Water Resource
- Remote Sensing and Digital Image Processing
- Statistics and Data Analysis
- Urban Planning and Land Record System
- Programming and Database Design

EQF level 6

15/10/2019 – CURRENT – Lahore, Pakistan
M.SC (COMPUTER SCIENCE) – Virtual University

- Discrete Mathematics
- Statistics and Probability
- Numerical Analysis
- Fundamentals of Algorithms
- Data Structure
- Business and Technical English Writing

EQF level 6

01/10/2011 – 30/03/2013 – Lahore, Pakistan
B.SC – University of the Punjab

- Mathematics
- Physics
- Chemistry

● LANGUAGE SKILLS

Mother tongue(s): URDU | PUNJABI

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2

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

● PUBLICATIONS

Publications

[1] Raheem, A., Sajid, M., Iqbal, M. S., **Aslam, H.**, Bilal, M., & Rafiq, F. (2019). Microbial Inhabitants of Agriculture Land Have Potential to Promote Plant Growth But They are Liable to Traditional Practice of Wheat (*T. Aestivum* L) Straw Burning. *Biocatalysis and Agriculture Biotechnology*, 18, 101060. <https://www.sciencedirect.com/science/article/abs/pii/S1878818118310193>

[2] **H. Aslam**, A. Ashraf, H. Yaseen and U. Zain, "Specific Sampling Strategy Significance and Impact on Bayesian Sensitivity Analysis for Hydraulic Model", in IUGG General Assembly, Montréal, Québec, Canada, 2019, p. 289. <http://iugg2019montreal.com/abstract-book.html>

● NETWORKS AND MEMBERSHIPS

Memberships

- IUCN, International Union for Conservation of Nature
- International Association of Hydrological Science.
- Mapping Science Institute Australia.
- Global Land Program.
- River Basin Management Society.
- Community Surface Dynamics Modelling System.
- International Commission of Statistical Hydrology.
- National Council for Geographic Education.
- Python Community

● CONFERENCES AND SEMINARS

Conferences

- International Conference on Hydrology. University of Engineering and Technology, Lahore.

● COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

- Good Communication gain through Job, Education, Collaboration and Supervision.

● COMPETENCE

Competence

- **Hydrologic and Hydraulic Modelling**

1D, 2D, 3D modeling for reservoir planning, flood analysis and management and for other applications.

- **GIS and RS**

Spatial Data preparation, management, mapping, Spatial analysis and RS data processing/Image processing using ArcGIS, QGIS, ERDAS, GRASS and other platforms.

- **Data Science and Machine Learning**

Statistical analysis using trivial methods and data analytics, data analysis tool development. Machine and deep learning model design.

- **Programming and Web**

Programming using different languages specially Python, Matlab, R and frame works. Databases Design and Management

● RESEARCH INTERESTS

Research Interests

- **Hydrology**
Hydrology, Hydrologic Modelling, Hydraulic Modelling, Water Resource Assessment and Management, Time Series Analysis
- **GIS and Programming**
Spatial Analysis, Machine learning and Data Analytics

● CERTIFICATIONS

Certifications

- **IBM DATA SCIENCE**
by Coursera and IBM, Online (Data Science, Artificial Intelligence and Machine Learning)

● POSTER PRESENTATIONS

Poster Presentations

- Identification of Suitable Location for Solar Panel Using 3D Model. University of the Punjab

● RESEARCH PROJECTS

Research Projects

- Sensitivity Analysis for Parameter Selection and Ranking of River Analysis System: A Case Study of River Indus Jinnah-Chashma Reach
- 3D Landuse Mapping by Using Ground Survey Techniques

● WORKSHOPS

Workshops

- Hydrology and Remote Sensing. Lahore University of Management Science, Lahore
- CPD Workshop on Hydrologic Modelling. University of Engineering and Technology, Lahore
- Hydrology. Lahore University of Management Science, Lahore
- Tectonic Plates. University of the Punjab, Lahore