

ADEEL AHMAD

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SKILL SETS

Imagery and Analysis	GIS/ RS Processing	Basic Programming Skills	Writing and Communication Skills
Landsat – 8, Sentinel-2 & SOT-5 Landuse/ Landcover Analysis Change Detection Watershed Modeling	Image Calibration Image Validation Image Classification Cartography/ Mapping	Google Earth Engine Python R IDL	Report Writing and Communication Presentation Preparation and Delivery Research Writing Literature Reviewing

EDUCATION

M.Phil. in Geomatics | CGPA : 3.87

2013

Thesis: Quantification of Carbon Stock using Geospatial Technology in the Moist Temperate Himalayan Forest in Pakistan
Term Project: *Species distribution modeling of Strix Varia (owl) in specific ecological settings using desktop GARP and GIS*

University of the Punjab, Lahore - Pakistan

B.S. in Geography | CGPA : 3.88

2010

Areas of Concentration: Physical Geography, Digital Cartography, GIS & Remote Sensing

AWARDS

1st Position Holder Certificate, M.Phil. Geomatics

January 2014

University Gold-Medalist, B.S. Geography

January 2012

Merit Scholarships, M.Phil. Geomatics

October 2011 – June 2013

Merit Scholarships, B.S. Geography

January 2007 – June 2010

TEACHING EXPERIENCE

Department of Geography, University of the Punjab

Lecturer

September 2018 – to-date

Currently teaching undergraduate and Master's classes the subjects related to Computer Mapping (Theory and Practical). Serving as internal and external examiner for different subjects at University Departments. Facilitating in organization of different curricular and extra-curricular events at the Department including sports weeks, seminars, guest lectures and field trips.

College of Earth & Environmental Sciences (CEES), University of the Punjab

Visiting Lecturer

September 2015 – June 2016

Taught two courses, one to undergraduate environmental sciences students the subject of "GIS & RS" and one to graduate (M.Phil.) Geomatics students the subject of "Environmental Modeling & Spatial Simulation". Major topics that were taught include "Multicriteria Analysis for Site Suitability", "Criteria Weighing using AHP technique", "Service Area analysis", "Watershed Analysis and Modeling" and "Android based GIS mobile data collection".

Forman Christian College (A Chartered University)

Lecturer – GIS/ Geography

August 2014 – September 2018

Developed syllabus of Geospatial concentration subjects in Geography stream and overall course structure, administered all grades, acting as advisor to Dean Geographical student Society (DGS), managed and supervised major events, seminars and open houses, introduced upgraded class activities to enhance learning, completed various learning and development courses at and outside university, linking academic activities and students to industries through field trips.

Undergraduate Research Supervisions:

- Baseer Ahmed (B.Sc. Hons. Geography/ GIS 2014-2018): *Assessing Groundwater Depletion in Quetta Valley using GIS Analysis and Its Impacts on local Residents*
- Nouman Afzal (B.Sc. Hons. Geography/ GIS 2014-2018): *GIS-based Landslide Susceptibility Mapping using AHP, A Case Study of Astore Region, Northern Area of Pakistan*

- Shah Rukh Khan (B.Sc. Hons. Geography/ GIS 2014-2017): *Impact Assessment of CPEC on the Urbanization using Geospatial Data and Techniques (A case study of Gwadar District)*

Research Associate**August 2012 – July 2013**

Took practical labs of GIS for Masters Geomatics and Undergraduate Geology classes, worked on different research articles, involved in assisting students regarding GIS mapping, managed geospatial data in Geomatics lab.

Department of Geography, University of the Punjab

Lecturer**February 2011 – March 2012**

Taught techniques in GIS/ RS (Practical), Fundamentals of GIS, Principles of Remote Sensing, Surveying, Map Reading & Interpretation and Global Positioning System (GPS) to undergraduate and master's classes, organized national event on disaster management and arranged field trips of students.

WORK EXPERIENCE

MM Pakistan Private Limited

GIS Analyst**August 2013 – August 2014**

Worked on various national and international projects . Key contributions involved development of Irrigation network, Landuse/ Landcover (LULC) mapping, resettlement plans and maps, drainage mapping, locational maps, EIA maps, irrigation mapping, watershed mapping and modeling, road and railway mapping using ArcGIS for mapping and ERDAS imagine for image classification.

Eycon Private Limited

GIS Associate**November 2010 – February 2011**

Worked on development of cartographic small and large scale maps from initial step of data collection, data management, geo-referencing of images, analysis (Proximity, Overlay, Feature extraction, spatial analysis, projection, transformation) to the final step of printing more than 1600 maps.

Grass-Root Human Deployment Organization (GODH)

GIS Resource Person**September 2010 – November 2010**

Responsibilities were to develop a botanical herbal distribution wall-size map of Punjab district (Urdu- Labeled) through primary data collection.

Directorate General of Mines & Minerals, Government of Punjab (GoP)

GIS Intern**February 2010 – March 2010**

Responsibilities were to develop spatial data of various geological sheets for the regions of Jhelum and Rawalpindi through digitization incorporating the snapping and tracing environment in ArcGIS v.9.3 software. The initial task was to geo-reference the geological sheets through absolute and relative Georeferencing techniques while coordinates were converted using the coordinate converter tool in Erdas Imagine v.9.1 software.

TRAINING EXPERIENCE

Kinnaird College for Women University, Lahore

Remote Sensing/ GIS Workshop Resource Person**November 2018**

Served as resource person for 1-day workshop on "Applications of Remote Sensing in Geography" for Department of Geography, Kinnaird College for Women University, Lahore. The main focus of the workshop was on "Landuse/ Landcover (LULC) Classification"

Water Management Training Institute (WMTI), Government of Punjab, Lahore

GIS Training Instructor**May 2017 and January 2018**

Trained over 50 government officers on basics of Global Positioning System (GPS), Field Data Collection using GPS, Geographical Information System (GIS) and advanced techniques on watershed modeling. The course was comprised of three weeks each year.

International Conference ETEES, University of the Punjab, Lahore

GIS Trainer (Pre-Conference Workshop)**May 2017 and January 2018**

Trained the participants of first international conference on Emerging Trends in Earth and Environmental Sciences (ETEES) organized by the College of Earth and Environmental Sciences (CEES), University of the Punjab, Lahore on hands-on exercises of GIS software.

Map Give Pakistan, U.S. Consulate, Lahore

Mapping Co-Trainer

November 2015

In the context of Humanitarian Mapping, participated as co-trainer for online mapping for humanitarian disaster responses. The training took place at Kinnaird College for Women University (KCWU) and Forman Christian College University (FCCU). The certificate distribution ceremony took place at U.S. Consulate Lahore Office.

University of the Punjab

GIS Short Course Training Instructor

February 2011 – August 2016

Conducted one-month short course on basics of Geographical Information System (GIS) six times at University of the Punjab. All short courses included hands-on practice on ESRI's ArcGIS (9x – 10x) software as well as theoretical lectures.

PROJECT CONTRIBUTIONS

- Monitoring & Evaluation of Punjab Agriculture Productivity Improvement Project (PIPIP) | Donor Agency : **World Bank**
- Planning and Preparation of Detailed Design and PC-1 of 7 Number Medium Dams in Khirtar Mountains In Kohistan Region Sindh | Donor Agency : **World Bank** and Irrigation and Power Department, Government of Sindh, Pakistan
- Feasibility Study for Rehabilitation & Modernization of Guddu Barrage – Assignment A | Donor Agency : **World Bank**
- Planning, Design and Project Management Consultancy Services for Zarkon Hills Project | Donor Agency : Zarkon International (Pvt) Ltd.
- Consultancy Services for Feasibility Studies, PC-1, Tender Documents, Procurement of Plant and Construction Supervision of 50 MW Imported Thermal Power Projects on EPC Basis at Industrial Estates (i) Sunder Lahore (ii) M-3 Industrial City Faisalabad | Donor Agency : Punjab Power Development Company Limited (PPDCL), Pakistan
- Construction Supervision of Kurram Tangi Dam | Donor Agency : **World Bank** and WAPDA, Pakistan
- Preparing Irrigation Master Plan for SATPARA Dam Command Area Projects | Donor Agency : **Asian Development Bank (ADB)** and Agha Khan Foundation, Pakistan
- Punjab Barrages Improvement Project Phase 2 (PBIP - II) | Donor Agency : **World Bank**
- Sediment Management Study of Tarbela Reservoir | Donor Agency : **World Bank** and WAPDA, Pakistan
- Solid Waste Management Studies of Towns of Central Cluster of Province of Sindh under Sindh Cities Improvement Program Phase - 04 (SCIP-IV) | Donor Agency: **Asian Development Bank (ADB)** and Brisbane City Enterprises Pvt. Ltd.
- District-wise Socio-Economic ATLAS Development of Balochistan Province, Pakistan | Donor Agency : **UNICEF**

CERTIFICATIONS

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| • ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE (ESRI) - MOOC
Cartography | May 2018 - Jun 2018 |
| • ELSEVIER PUBLISHING CAMPUS
Making Sense of Science Stories, Preparing Your Manuscript | Jul 2017 - Jul 2017 |
| • PMAS - ARID AGRICULTURE UNIVERSITY, RAWALPINDI.
Mobile GIS Data Collection and Management | Dec 2015 - Dec 2015 |
| • NASA – APPLIED REMOTE SENSING TRAINING (ARSET)
Introduction to Global Precipitation Measurement (GPM) Data and Applications | Mar 2015 - Apr 2015 |
| • THE CANVAS NETWORK
Introduction to Geospatial Technology using QGIS | Feb 2015 - Mar 2015 |
| • ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE (ESRI)
ESRI Web Courses | Jan 2012 - Jul 2012 |
| • EYCON PRIVATE LIMITED.
Web GIS (Beginner's Level) | Sep 2011 - Nov 2011 |
| • UNIVERSITY OF THE PUNJAB, LAHORE.
Remote Sensing | Nov 2009 - Dec 2009 |
| • UNIVERSITY OF THE PUNJAB, LAHORE.
Global Positioning System (GPS) | Sep 2009 - Sep 2009 |
| • UNIVERSITY OF THE PUNJAB, LAHORE.
GIS and Map Surfer | Jul 2009 - Aug 2009 |

PUBLICATIONS AND PAPERS**Book Chapter**

- Akram, W., **A. Ahmad**, M.A. Javed, and A. Raoof. 2017. "Exploring Existing Spatial Patterns of Diarrhea and Proposing New Health Unit Using GIS in District Vehari, Punjab Pakistan." In *Geo-Spatial Technologies and Earth Resources (GTER 2017)*, by N.Q. Long, P.T. Lan, N.V. Nghia, K.T. Hung, L.T.T. Ha and L.P. Hien, 83-90. Hanoi: Publishing House for Science and Technology.

Book

- **Ahmad, A.** (2017) *Estimating Forest Tree Carbon using Remote Sensing Data and Techniques*. Submitted to GRIN Publishers.

Journal Articles [Published]

- Jahan, Z., F. Sarwar, I. Younes, R. Sadaf, and **A. Ahmad**. 2019. "Assessment of Smog Pattern and its Effects on Visibility in Lahore Using Remote Sensing and GIS." *International Journal of Economic and Environmental Geology* 10 (2): 55-59. <http://www.econ-enviro-geol.org/index.php/ojs/article/view/263>
- Nguyen, L.Q., **A. Ahmad**, C.X. Cao, and C.V. Le. 2018. "Designing observation lines: a case study of the G9 seam in the Mong Duong colliery." *Journal of Mining and Earth Sciences* 59 (6): 28-34. <http://tapchi.humg.edu.vn>.
- **Ahmad, A.**, Javaid, U., Javed, M., Ahmad, S., Jaffri, M. and Ashfaq, M. (2016) *Landfill Sites Identification Using GIS and Multi-Criteria Method: A Case Study of Intermediate City of Punjab, Pakistan*. *Journal of Geographic Information System*, 8, 40-49. doi: 10.4236/jgis.2016.81004.
- U. Javaid, Ahmad S.R., **A. Ahmad**, M.A. Javed and A.A. Taj. "Assessment of Transit Stops Service Area Using GIS-A Case Study of Punjab University Transportation." *Pakistan Journal of Science* 67, no. 4 (December 2015): 350 - 358.
- Javed, M. A., S. R. Ahmad, **A. Ahmad**, A. A. Taj, and A. Khan. "Assessment of Neighborhood Parks using GIS Techniques in Shekhupura City." *Pakistan Journal of Science* 65, no. 2 (June 2013): 296 - 302.

Conference Presentations [Oral]

- **A. Ahmad**, S.R. Ahmad, U. Javaid, M.A. Javed. "Above Ground Carbon Quantification in a Moist Temperate Himalayan Forest." *First International Conference on Emerging Trends in Earth and Environmental Sciences (ETEES)*. Lahore, 2017.
- Ahmad, S.R., **A. Ahmad**, U. Javaid, and M.A. Javed. "Multi-Criteria based Landfill Sites Identification by using GIS: A Case Study of Sahiwal Tehsil, Pakistan." *International Conference on Aerospace Science and Engineering (ICASE)*. Islamabad: IEEE, 2013.
- Ahmad, S.R., U. Javaid, **A. Ahmad**, and A.A. Taj. "Assessment of Transit Stop Service Area using GIS: A Case Study of Punjab University Transportation." *International Conference on Aerospace Science and Engineering (ICASE)*. Islamabad: IEEE, 2013.
- **A. Ahmad**. "Analyzing health facility localities in relation with population distribution using GIS techniques for Lahore city." 5th National Undergraduate Medical Research Fair. Peshawar, 2012.

Conference Presentations [Poster]

- Ali, M., S.R. Ahmad, M.A. Javed, **A. Ahmad**, and M. Waqas. "A GIS Based Water Loss Assessment and Real Time Leakage Detection in Water Supply Pipelines of Faisalabad City." *The First International Conference on Emerging Trends in Earth and Environmental Sciences*. Lahore, 2017.
- Sanaullah, M., and **A. Ahmad**. "Morphometric Relation to the Geological Structures of Haro River Drainage Basin, Northern Pakistan." *10th Meeting of the Saudi Society for Geosciences: Geosciences for Sustainable Development*. Dhahran, 2013.

Magazines

- Gilani, H. & **Ahmad, A.** (2018, October). *Lahore is losing its green cover - fast*. *MIT Technology Review*, <http://www.technologyreview.pk/lahore-is-losing-its-green-cover-fast/>

PERSONAL INFORMATION

Father's Name: Zahid Naeem
 Date of Birth: 8th December, 1987
 Domicile: Punjab (Lahore)
 CNIC: 35202-5625036-7
 Passport Number: MH11603

COUNTRIES VISITED

Saudi Arabia | Vietnam

LANGUAGES

English - Working Efficiency | Urdu – Native | Punjabi – Moderate in writing, proficient in speaking and listening

REFERENCES

Will be furnished upon request