



## Prof. Dr. Isma Younes

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**Website:** <https://pu.edu.pk/faculty/detail/isma-younis>

### Professional EXPERIENCE:

<b>Director</b> Institute of Geography University of the Punjab	11.03.2024 till to date
<b>Professor</b> Institute of Geography University of the Punjab, Lahore	13-12-2021 till to date
<b>Associate Professor</b> Department of Geography University of the Punjab, Lahore	10-03-2020 to 13-12-2021
<b>Assistant Professor</b> Department of Geography University of the Punjab, Lahore	06-06-2013 to 10-03-2020
<b>Lecturer</b> Department of Geography University of the Punjab, Lahore	11-11-2005 to 06-06-2013
<b>Lecturer</b> Department of Geography Government College University for Women, Sialkot	07-2002 to 11-11-2005

### Academic Profile

2012-2016	<b>PhD in Geography</b> Department of Geography University of the Punjab	(3.93)CGPA
2006-2008	<b>M.Phil. In Geography</b> Department of Geography University of the Punjab	(3.7)CGPA
2003-2005	<b>M.Phil. In Regional Geography</b> Centre for South Asian Studies University of the Punjab	(3.3)CGPA

1998-2000	<b>M.Sc. in Geography</b> Department of Geography University of the Punjab	747 marks
1996-1998	<b>B.Sc.</b> University of the Punjab	484 marks
1994-1996	<b>F.Sc.</b> Lahore College for Women, Lahore	684 marks
1991-1993	<b>Matriculation</b> Government Girls High School	581 marks

#### **Research Interests:**

Remote Sensing and GIS for environmental hazard assessment and spatial patterns identification of environmental variables such as Atmospheric Pollution, Groundwater assessment, Vegetation Health, Urban Heat Island effect, forestry, climate change and its impact on crops and Satellite based environmental Indices etc.

#### **TASKS:**

1. Administrative head of the Institute of Geography
2. Convener
3. Teaching: Classes of BS, M.Sc, M.Phil, PhD.
4. Research Supervision of BS, M.Sc, M.Phil and PhD.
5. Member Doctoral Program Coordination Committee, CIMR, University of the Punjab.
6. Member DTRC, Department of Geography, University of Faisalabad.
7. Member DTRC, Centre for South Asian Studies.
8. Coordinator MPhil. & PhD. Program 2023-2024
9. Member Academic Council, PU, Lahore.
10. Member Board of Faculty of Geo-Sciences.
11. Organizer of formal trainings/workshops and conferences.
12. Convener & Member Board of Studies of Institute of Geography.
13. Member Board of Faculty of Science.
14. Member National Curriculum Revision Committee in BS, MS and PhD in Geography
15. Convener & Member Doctoral Program Coordination Committee (DPCC), Institute of Geography.
16. Member All Pakistan Geographical Association
17. Member Old Geographic Students Association
18. Member Scholarship Committee of Institute of Geography
19. Member Sports Committee of Institute of Geography
20. Member Board of Studies, Centre for Integrated Mountain Research (CIMR), University of the Punjab, Lahore.

21. Convener & member of DTRC, Institute of Geography, University of the Punjab.
22. Controller of Examination (Institute of Geography), 2007-2020.
23. Coordinator BS Program 2015-2023.

#### **RESEARCH WORKS:**

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|----------------|---|
| <b>Ph.D.</b>   | Spatial Patterns and Effects of Public Water Supply System on Human Health in Lahore.       |
| <b>M.Phil.</b> | Spatial Pattern of noise pollution and its effects on hearing of population in Lahore City. |
| <b>M.Phil.</b> | Prospects of Gwadar Port for Pakistan's Future.   |
| <b>M.Sc.</b>   | Spatial patterns of Air Pollution in Lahore city 1991-2000.                                 |

#### **Project:**

1. Issues of noise pollution in environmental impact assessment of construction of Orange Line Train in Lahore city 2016.

#### **PUBLICATIONS:**

1. Isma Younes & Somia Asraf, 2024, Use of Geospatial techniques for rapid flood damage assessment in disaster-prone regions: A case study of Pakistan's Lower Indus Region flood 2022 (Submitted and under review).
2. H.Yaqub, I. Younes, K.Mehmood & S. Mehmood, 2023, A case study of dust storm events in Pakistan using Normalized Dust Detection Index. Pakistan Journal of Science, Vol. 75 (1), 78-87.
3. Syed Javed Hussain Shah & Isma Younes, 2023, Spatio-temporal analysis of Lahore's resilience against heat wave by using remote sensing and GIS, Pakistan Journal of Humanities and Social Sciences, 11(3), 3117-3130.

4. Mubarra Noreen & Isma Younes 2023, Wastewater irrigation and its impact on crop in major cultivated belt of Rechna Doab, Pakistan, Kuwait Journal of Science, **Impact Factor: 1.4**. Elsevier, 50, 783-789.
5. Anum Liaqut, Salman Tariq & Isma Younes, 2023, A study on optical properties, classification and transport of aerosols during the smog period over South Asia using remote sensing, Environmental science and pollution research, **Impact Factor: 5.8**. Springer, 30, 69096-69121.
6. Anum Liaqut, Isma Younes & Salman Tariq 2022. Seasonal Aerosol Classification Over South Asia by Satellite based Atmospheric Optical Data, IJEEG, Vol. 13 (3).
7. Nouman Afzal, Adeel Ahmad, Safdar Ali Shirazi, Isma Younes, Ha Le Thi Thu, (2022). GIS-based landslide susceptibility mapping using analytical hierarchy process: a case study of Astore region, Pakistan, International Journal of Environmental Quality. Vol. 48. DOI: 10.6092/issn.2281-4485/12600.
8. Mubarra Noreen & Isma Younes, 2021, Appraisal of water quality measurements for canal and tube well water systems for agriculture irrigation in Rechna Doab, Pakistan, IJEEG, Vol 12(1), 60-66.
9. Isma Younes, (2022). GIS-based landslide susceptibility mapping using analytical hierarchy process: a case study of Astore region, Pakistan, International Journal of Environmental Quality. Vol. 48. DOI: 10.6092/issn.2281-4485/12600.
10. Isma Younes, Rabia Jabbar, Anum Iqbal & Anum Liaqut, 2021, Factors Affecting Homelessness in Pakistan: A Case Study of Shelter Homes in Lahore, Pakistan, Journal of Punjab University Historical Society, Vol. 34, No. 01, January-June.
11. Syed Javed Hussain Shah & Isma Younes, 2021, Spatio-Temporal Analysis of Aerosol Optical Depth (AOD) Pattern and Vulnerable Areas in Punjab Using Remote Sensing and GIS, Sindh University Research Journal.
12. Isma Younes, Anum Iqbal, Abdul Ghaffar, Anum Liaqut & Ammara Shahid, 2021, Impact Assessment of Orange Line Train during Construction Phase in Lahore Using 'R', Journal of the research society of Pakistan, vol 58(2), 195-205.
13. Hammad Gilani, Adeel Ahmad, Isma Younes, and Sawaid Abbas, 2021, Estimation of annual soil erosion dynamics (2005 - 2015) in Pakistan using Revised Universal Soil Loss Equation (RUSLE), Land Degradation and development. **Impact Factor: 2.775**.

14. Syed Afsar Ali Shah Tirmzi, Arif Iqbal Umar, Syed Hamad Shirazi, Malik Abid Hussain Khokhar, Isma Younes, 2021, Modified genetic algorithm for optimal classification of abnormal MRI tissues using hybrid model with discriminative learning approach, *Computer Methods in Biomechanics and Biomedical Engineering*, **Impact Factor: 2.77**. Vol 9.
  
15. Qamaruz Zaman, Bushra Nazir, Faisal Mahmood, Samiah.H.AlMijalli, Munawar Iqbal, Isma Younes & Arif Nazir 2021, Versatility and effectiveness of the commercial composts for ecological restoration of heavy metal contaminated soil for sunflower crop, *Biocatalysis and Agricultural Biotechnology*, **Impact Factor: 2.14**. Vol **34**, 2021
  
16. S Hussain, A Liaqut, S Siddiqui, I Younes & M Shafiq, 2020, Landuse and Community-based Assessment of 2014 Flood Damages in Tehsil Phalia, Punjab, *International Journal of Economic and Environmental Geology (IJEEG)*, ISSN: 2223-957X, Vol.:11(2) 55-60, 2020.
  
17. Younes, I; 2020, Unsung Heroes of Pakistan Movement: Reimagining the role of Mian Muhammad Mumtaz Daultana in Colonial and Post-colonial Punjab, *Journal of the research society of Pakistan*. Volume No. 57, Issue No.1.
  
18. Zartab Jahan, Faiza Sarwar, Isma Younes & Rakhshanda Sadeq, 2019, Assessment of smog pattern and its effects on visibility in Lahore using remote sensing and GIS, *International Journal of economics and environmental geology*, 50-54.
  
19. Nafeesa Maqsood, Isma Younes, 2019, Industrial Noise pollution and its impact on the hearing capacity of workers: A case study of Gujranwala city, Pakistan, *International Journal of Economics and environmental geology*, Vol 10(2) 45-49.
  
20. Younes, I; 2019, Analytical Review of Land Use Changes by Remote Sensing and GIS Techniques in District Gujrat, Pakistan, *International Journal of Economics and environmental geology* Vol. 10 (2) 115-120.
  
21. Rakhshanda Sadaf, Abel Ramoelo, Rana Zain Nabi Khan, Isma Younes, 2019, Quantitative Assessment of Hab Watershed Using Geo-informatics, *Land Science*, Vol.1, No.1.

22. Naheeda Khatoon & Isma Younes, 2019, Pakistan's Interest/Opportunities and constraints in Central Asian States, *Journal of the Punjab University Historical Society*, Vol. 32(2).
23. Isma Younes, 2018, Spatial Patterns of Escherichia Coli in Public Water Supply System of Lahore, *Pakistan Journal of Scientific and Industrial Research* (**X-Category**).
24. Rakhshanda Sadaf & Isma Younes, 2018, Appraisal of Ground Water Potential through Remote Sensing in River Basin, Pakistan, *International Journal of economics and environmental geology*. 2018..
25. Muhammad Shafiq & Isma Younes, 2018, Comparative analysis of different remote sensing techniques for mapping of supraglacial lakes on Hispar Glacier. *International Journal of economics and environmental geology*. Vol.9; No. 3, 2018.
26. Anum Liaqut, Isma Younes, & Haris Zafar, 2018, Impact assessment of urbanization growth on land surface temperature through RS & GIS: A Case study Gujranwala City, Punjab, Pakistan. *International Journal of economics and environmental geology*. Vol.9; No. 3, 2019.
27. Isma Younes, Rabiah Naseem, Rakhshanda Sadaf, Muhammad Shafiq, 2017, Monitoring and Impact Assessment of Land Use Change on Environment in Burewala, Punjab through Geo-Informatics. 2017, *International Journal of economics and environmental geology*. Vol.8(2) Apr- June.
28. Anum Liaqut & Younes,I 2017, Spatial Distribution of Noise Released from Iron and Steel Industry and their Effects on Human Health in the Lahore City, Pakistan, *Journal of Basic and Applied Sciences*, Vol.13.
29. Younes,I; 2017, River Etai fishes Morphometric characteristic and KP, Pakistan physiochemical analysis of water with respect to fish survive in district Shangla, *Journal of Entomology and zoology studies*, 5(6), 1062-1067.
30. Syed Hussain Haider Rizvi, Saleha Mehmood, Isma Younes, Muhammad Shafiq, Jawad Nasir & Muhammad Mansha, 2017, Review of lead poisoning in children of Pakistan: A geographical Perspective, *Pakistan Geographical Review*, Vol 72(1), 23-41.

31. Rakhshanda Sadaf, Jamil H Syed, Jamil Kazmi & Isma Younes, 2017, Delineation and Assessment of Hab Watershed, Balochistan, Pakistan through Geo-Spatial Technology, *International Journal of Economic and Environmental Geology*. Vol.8(2).
32. Muhammad Irfan, Muhammad Shafiq, Syed Hussain Haider Rizvi, Jawad Nasir, Isma Younes, Fouzia Yaqub, Zahir Uddin Khan & Rakhshanda Sadaf, 2016, Spatiotemporal variations in water quality of Rawal Lake, *PAKISTAN GEOGRAPHICAL REVIEW*, Vol.71.
33. Isma Younes & Abdul Ghaffar 2016, Spatial patterns of arsenic in drinking water supply and its effects on human health. *PAKISTAN GEOGRAPHICAL REVIEW*, Vol.71.
34. Younes,I; 2016, Regional Bonds between Central Asia and South Asia: With special reference to Pakistan, 2016, *Journal of the University of the Punjab University Historical Society*, Vol. 29, No.2.
35. Younes,I; 2015. Spatial analysis of educational facilities: A comparative study of Tehsils of Jhang District, *PAKISTAN GEOGRAPHICAL REVIEW*, Vol. 70.
36. Younes,I; 2015, Spatiotemporal variation of indoor fungal bioaerosols: A baseline study at Azad Jammu & Kashmir (AJK), PAKISTAN. *PAKISTAN GEOGRAPHICAL REVIEW*, Vol. 70.
37. Younes,I; 2014, Socio-economic conditions of child labor in Lahore District, 2014, *PAKISTAN GEOGRAPHICAL REVIEW*, June 2014, Vol 69, No. 1.
38. Younes,I; 2013, The Impact of Road Traffic Noise Pollution on Hearing Loss of Population in Lahore City 2011-2013, *PAKISTAN GEOGRAPHICAL REVIEW*, Volume 68 No. 1 June.
39. Ibtisam Butt & Isma Younes, 2013, Spatio-Temporal Gender Variations in the incidence of Lung Cancer in Punjab (2008-2012), *PAKISTAN GEOGRAPHICAL REVIEW*, Volume 68 No. 2 December.
40. Younes,I; 2013, Supervised Versus Unsupervised classification of Land Cover: A case study of Abbottabad, *PAKISTAN GEOGRAPHICAL REVIEW*, Volume 68,No.2, December.

41. Isma Younes & Abdul Ghaffar, 2012, Spatial Patterns of Noise Pollution in Lahore City, Asian Journal of Social Sciences and Humanities, Japan. Vol.1 (2), (ISSN: 2186-8492).
42. Ibtisam Butt & Isma Younes, 2011, Assessment of Ground Water Quality near Municipal Dumpsite: A case-study of Bagrian Village, Lahore, *PAKISTAN GEOGRAPHICAL REVIEW* Volume 66 No. 1 & 2 June & December.
43. Isma Younes & Oujala Bokhari, 2009, Air Pollution Patterns Identification in Lahore City Using GIS (1999-2007), *PAKISTAN GEOGRAPHICAL REVIEW* Volume 64 No. 1 & 2 June & December.
44. Isma Younes, 2008, Geo-Strategic Importance of Gwadar Port for Pakistan and its Neighboring Countries, *PAKISTAN GEOGRAPHICAL REVIEW* Volume 63 No. 1 & 2 June & December.
45. Muhammad Shafiq & Isma Younes, 2004, Air Quality in Lahore City: A study of pollutant Gaseous Emissions at Lahore. *Acta scientia*, 2004, UGC Journal.

#### **Participation in Seminars/Workshops/Conferences/Trainings:**

1. Participated in **12<sup>th</sup> All Pakistan Geographical Conference** held on 19<sup>th</sup> – 21<sup>st</sup> March, 2007. and organized by Department of Geography, P.U. Lahore
2. Presented papers at **13<sup>th</sup> All Pakistan Geographical Conference** held in December, 2008, at Department of Geography, Karachi University.
3. Presented papers at National level in the **14<sup>th</sup> All Pakistan Geographical Conference** held on 05<sup>th</sup> - 7<sup>th</sup> March 2013 and organized by Department of geography, P.U. Lahore.
4. Participated in **1 day training workshop on research management**, Nov 12, 2010 organized by HEC quality enhancement cell and institute of quality and technology management.
5. Participated in **Two Days Training workshop on “Disaster Risk Management”** at the Department of Geography, University of the Punjab, Lahore on April 11-12, 2011.
6. Participated in **Workshop on Satellite Altimetry and Hydrological Applications**, 26-29 September, 2016, IST, Islamabad.



7. Participated in an **international conference on Kashmir in focus: avoiding conflict and quest for peace**, Feb 21-22<sup>nd</sup>, 2017, Pakistan Study Centre, PU. Lahore.
8. Attended a workshop on Advanced Techniques for Reservoir Sediment Management (MATLAB), 26-12-2018 to 27-12-2018, University of Engineering and Technology.
9. Participated and presented paper in an **International conference on Emerging trends in Earth and Environmental Sciences** march 09-10, 2017, CEES.
10. Attended three-day workshop on **National Curriculum Revision Committee in BS & MS Geography**, held on 6-8 December, 2017.
11. Successfully completed a training course on ‘**Qualitative and Quantitative estimates of vegetation using hyperspectral & multispectral Remote sensing**’, 12-15 December, 2017, IST Karachi.
12. One-day workshop for the editors of **multidisciplinary and natural sciences journals**, 9<sup>th</sup> Jan, 2018, HEC, Islamabad.
13. Training course on “**Tidy Verse for Data Science**”, at Punjab Bureau of Statistics, Lahore, 15<sup>th</sup> to 20<sup>th</sup> July 2019.
14. **16<sup>th</sup> All Pakistan Geographical Conference: Globalization, Environmental Challenges and changing paradigms of Geography in Pakistan**, 11-13 March 2021. Participated.
15. Online training on **Environmental and climate change analysis using Google Earth Engine**, online by Geo-Spatial Works, Lahore, Pakistan, 25-12-2020 to 27-12-2020.
16. Organized a workshop: Introduction to Google Earth Engine: A hands-on workshop for Beginners.
17. Organized 5-Day workshop on climate data analysis using Python, 7 to 11 May, 2024.

#### **Paper Presentation:**

1. Geo-strategic Importance of Gwadar Port for the Economic Development of Pakistan. The paper was presented at 12<sup>th</sup> **All Pakistan Geographical Conference** held at University of the Punjab, Lahore, Pakistan.
2. “A GIS Based Model for Cropping Pattern Identification in Thal Desert” The paper was presented at 13<sup>th</sup> **All Pakistan Geographical Conference** held at University of the Karachi, Karachi, Pakistan, on Dec. 21-23, 2008.

3. Air Pollution Patterns Identification in Lahore City Using GIS 1999- 2007. The paper was presented at **13<sup>th</sup> All Pakistan Geographical. Conference** held at University of the Karachi, Karachi, Pakistan, on Dec. 21-23, 2008.
4. Spatial patterns of noise pollution in Lahore city (2012) **14<sup>th</sup> All Pakistan Geographical Conference** held at University of the Punjab, Lahore.
5. Spatial Patterns and trends of Escherichia Coli in public water supply system of Lahore, Participated and presented paper in an **International conference on Emerging trends in Earth and Environmental Sciences March 09-10, 2017, CEES.**
6. Geostatistical analysis on underground water level and its impact on cropping pattern in District Chiniot, Punjab, Pakistan. The paper was presented (Oral) in **16<sup>th</sup> All Pakistan Geographical Conference: Globalization, Environmental Challenges and changing paradigms of Geography in Pakistan, 11-13 March 2021**

#### **Conferences Organized:**

1. 14<sup>th</sup> All Pakistan Geographical Conference, 05<sup>th</sup> - 7<sup>th</sup> March 2013.
2. 16<sup>th</sup> All Pakistan Geographical Conference: Globalization, Environmental Challenges and changing paradigms of Geography in Pakistan, 11-13 March 2021.
3. Organized 16th All Pakistan Geographical Conference, 11-13th March, 2021.
4. Participated and Presented Paper in 16th All Pakistan Geographical Conference, 11-13th March, 2021, Geostatistical analysis on underground water level and its impacts on cropping pattern in District Chiniot, Punjab, Pakistan.
5. Attended a workshop on GNSS in collaboration with Sundar Trading Co.
6. Attended A series of webinars during GIS Week.
7. Three days online training on “Application of Remote Sensing using GEE. 24-26<sup>th</sup> June, 2022.
8. 1<sup>st</sup> International Virtual Symposium on Historical and Geographical Linkages between Turkey and Pakistan: Past, Present and Future Prospects. 3-4 June, 2022.
9. Water Scarcity Challenges in Pakistan, 1<sup>st</sup> September 2022.

#### **Research Supervision (Ph.D.):**

1. Impact assessment of irrigation water on crop yield in Rechna Doab Pakistan.
2. Assessment of Aerosols over South Asia by using Geospatial techniques.
3. Impact assessment of climate change on water scarcity of Lahore District.
4. Geospatial assessment of dust storms over the Punjab: A geospatial perspective.
5. Urban resilience and sustainability against disasters: A case study of Lahore Pakistan.
6. Estimation of Glacial Dynamics and surface run-off modeling with its hydropower potential under climate change scenario using Machine Learning techniques.
7. Assessment of forest biodiversity under climate change scenario in Khyber Pakhtunkhwa, Pakistan.

**Research Supervision**  
**(M.Phil./MS.):**

1. M.Sc. Air pollution patterns identification using GIS in Lahore City.
2. M.Phil. Spatial pattern of Arsenic contamination in groundwater of Lahore city.
3. M.Phil. Spatial Patterns of crime incidence in Lahore using GIS.
4. M.Phil. Spatial analysis of educational facilities: A Comparative study of Jhang and Chiniot.
5. M.Phil. Health Disparity due to socio-economic and Environmental differentials and their impact on mortality: A case study of Quaid- i-Azam Town.
6. M.Phil. Land use change detection and analysis: A case study of Burewala (1999-2014).
7. M.Phil. The impact of land use on spatial variations of Begging in Lahore in 2015.
8. M.Phil. Geographical Distribution of Poverty in Lahore, 2016.
9. M.Phil. Spatial patterns of dairy farming in district Chiniot.
10. M.Phil. Spatial Distribution of pollutants released from iron and steel industry and their effects on human health in Lahore, 2016.
11. M.Phil. Monitoring of flood hazards in District Mandi Bahauddin: A comparative study between 2010-and 2014.
12. M.Phil. Assessment of spatial variation of water quality and its impacts on health in Toba Tek Singh.
13. M.Phil. Industrial Noise pollution and its effects on hearing capabilities of workers in Gujranwala.
14. M.Phil. The impact of Urban Sprawl over agricultural land in District Hafizabad.
15. M.Phil. The impact of Land use changes on agriculture in District Sialkot.
16. M.Phil. Physiochemical analysis of drinking water and spatial distribution of Hepatitis in Tehsil Jatoi District Muzaffargarh
17. M.Phil. A study on knowledge, attitude and practices of family planning among married women (Aged 15-49) in Dera Ghazi Khan.
18. M.Phil. Effects of geographical factors on purchasing decision of population in Lahore 2018.
19. M.Phil. GIS & RS approach for water quality assessment & site selection of filtration plant in District Lahore using spatial Multi-criteria analysis.
20. M.Phil. Health Services assessment using Geo-spatial techniques: A case study of Lahore.
21. M.Phil. Effects of Land Use change on forest degradation and its socio-economic implications: A case study of Diamer District, GB.
22. M.Phil. A comparative analysis of Land Use patterns and its effects on crime in Islamabad and Rawalpindi.
23. M.Phil. Land Suitability analysis of rice crop using RS and GIS: A case study of Gujranwala Division.
24. M.Phil. Above ground forest biomass estimation in Changa Manga 2019.
25. M.Phil. Suitability analysis for identifying rain water harvesting site using GIS based model: A case study of District Rawalpindi

26. M.Phil. Temporal health of plant health status using RS and GIS techniques: A case study of District Jhang.
27. M.Phil. Effects of religious tourism on Entrepreneurship: A case study of Lahore
28. M.Phil. Spatial distribution of soil salinity in relation to plant growth: A case study of plant growth
29. M.Phil. Impact of waterlogging and salinity on crop yield: A case study of Tehsil Shorkot-District Jhang
30. M.Phil. Effects of climate change on agriculture in Kamoke.
31. M.Phil. Assessment of aerosol over South Asia by using Geo-spatial techniques.
32. M.Phil. Assessment of Mal-nutrition distribution in Narowal District by risk mapping using Rs & GIS techniques.
33. M.Phil. Assessment of food security in Sargodha District by using Geo-spatial Techniques.
34. M.Phil. Impact of urban poverty on human health in Lahore.
35. M.Phil. Identification of socio-economic factors affecting homelessness: A case study of shelter homes in Lahore.
36. M.Phil. Socio-economic and religious impact of Covid-19 due to lock down situation in Lahore
37. M.Phil. GIS aided traffic accident analysis system: A case study of Sargodha -Jhang road.
38. M.Phil. GIS aided traffic accident analysis system (a case study of Sargodha-Jhang road).
39. M.Phil. Identification of socio-economic factors affecting homelessness: a case study of shelter homes in Lahore.
40. M.Phil. Socio-economic and religious impact of covid-19 due to lockdown situation in Lahore.
41. M.Phil. Assessment of mal nutrition distribution in Narowal district by risk mapping using rs & GIS techniques.
42. M.Phil. Assessment of food security in Sargodha district by using geo-spatial techniques.
43. M.Phil. Suitability analysis for identifying rainwater harvesting site using GIS base model (a case study of Rawalpindi District).
44. M.Phil. Impact of water logging and salinity on crops yield, 2009-2019(a case study of tehsil Shorkot District, Jhang).
45. M.Phil. Impact of urban poverty on human health in Lahore.
46. M.Phil. Impact assessment of precipitation variation and vegetation cover in KPK, Pakistan.
47. M.Phil. Assessment of rainfall variation and its impact on vegetation cover in Punjab, Pakistan.
48. M.Phil. An impact of climate change on agriculture in Kasur.
49. M.Phil. Geospatial Approach for flood damage assessment in Lower Indus Plains, 2022.
50. M.Phil. Spatiotemporal fragmentation and pattern analysis of Forest Cover in Hindu-Kush-Himalayan Region, Pakistan.

## **Books**

1. **Younes, I.**, Shafiq, M. & Shafiq, F., (2015) Using Geographical Information Systems (GIS) to study the concentration of major air pollutants in Lahore City of Pakistan. Anchor Academic Publishing, Hamburg, Germany.
2. **Younes, I.**, Shafiq, M. & Shafiq, F., (2015) Spatial Patterns of air pollution in Lahore City of Pakistan. Anchor Academic Publishing, Hamburg, Germany.
3. Shafiq, M., **Younes, I.** & Shafiq, F., (2016) Spatiotemporal variations in urban air quality of Lahore, Pakistan. Anchor Academic Publishing, Hamburg, Germany.
4. Isma Younes, Muhammad Shafiq, Abdul Ghaffar & Shahid Mehmood, (2018), Spatial patterns of noise pollution and its effects in Lahore city.
5. Anum Liaqat, Isma Younes, Muhammad Shafiq & Rakhshanda Sadaf, (2017), Environmental Emissions from Iron and Steel Industries in Lahore and its effects on human health, Lambert Academic Publishing, Mauritius.

## **Courses:**

1. A Course on GIS and Image Processing
2. A course on Advanced Digital image processing.
3. Altimetry and Hydrology
4. SPSS
5. R Studio (Tidy verse for data science)
6. Google Earth Engine, ML
7. Python

## **Countries**

### **Visited:**

1. Saudi Arabia
2. Kuwait

## **Languages:**

- English, Urdu, Punjabi, Arabic, Hindi