

**Dr. Sheeba Afsar**  
**Professor**  
**Chairperson**

Department of Geography  
University of Karachi  
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Institute Focal Person, LQAS and PCM for the POLIO Eradication and Immunization led by the **WHO**

Member of Academic Council, University of Karachi  
Member of Senate, University of Karachi  
Member of Board of Science Faculty, University of Karachi  
Member of Board of Arts and Social Science Faculty, University of Karachi  
Member of Board of Studies, Department of Geography, University of Karachi  
Member of DRC, Department of Geography, University of Karachi  
Member of QEC, University of Karachi  
Head Examiner of B.A (Pass) Lab Examination

**Professional Membership** of the K-GIS Society, 2013-14 2014  
Member, International Association for Landscape Ecology, UK April 2004  
Student Member Pakistan Geographical Association (PGA),  
Pakistan 1999

Member Board of Faculty Department of Geography, University of Karachi  
Member National Curriculum Revision Committee of Remote Sensing and GIS  
Member SURE

|                            |                           |
|----------------------------|---------------------------|
| <b>Assistant Professor</b> | 14.9.2006-----09.3.2014   |
| <b>Associate Professor</b> | 10.3.2014-----06.6.2016   |
| <b>Professor</b>           | 07.6.2016----- to date    |
| <b>Chairperson</b>         | <b>02.07.2021</b> to date |

**Students' Advisor** **16 January, 2015 to November 2018**

**Attended HEC NCRC Meetings 2016-2017:**

- *Attended Meeting of National Curriculum Revision Committee of Remote Sensing and GIS held 17-19 April 2017 at HEC Regional Centre Lahore.*
- *Attended Meeting of National Curriculum Revision Committee of Remote Sensing and GIS held 3-5<sup>th</sup> December 2016 at NED University of Engineering and Technology, Karachi.*

## Education

|               |  |      |
|---------------|--|------|
| Ph. D.        | Department of Geography, University of Karachi, Karachi, Pakistan  | 2012 |
|               | <b>Dissertation: Appraisal of Urbanization and Quality of Life by Employing Remote Sensing and GIS Techniques: A Case Study of Karachi</b> |      |
| M.Phil.       | Department of Geography, University of Karachi, Karachi, Pakistan<br>with collaboration of SUPARCO.  | 2001 |
|               | Dissertation: Application of Remote Sensing for Urban Growth Monitoring And Landcover/Landuse Mapping for Change Detection in Karachi      |      |
| M.Sc.         | University of Karachi, Department of Geography <b>(First Division)</b>   | 1996 |
| B.Sc. (Hons.) | University of Karachi, Department of Geography <b>(First Division)</b><br>(Geography, Mathematics, Physics)                                | 1995 |
| Intermediate  | Board of Intermediate Education, Karachi <b>(First Division)</b><br>(Mathematics, Physics and Chemistry)                                   | 1992 |
| Matriculation | Board of Secondary Education, Karachi <b>(First Division)</b>  | 1990 |

## BS Courses

| <b>BS 1<sup>st</sup> Year</b> |     |  |
|-------------------------------|-----|--|
| 1                             | 301 | Man's Physical Environment: Study of Climate and Oceans and Vegetation |
| 2                             | 302 | Man's Physical Environment: Study of Landforms                         |
| <b>BS 2<sup>nd</sup> Year</b> |     |  |
| 3                             | 402 | Man's Cultural Environment: Economic Activities                        |
| 4                             | 455 | Map Work and Field Surveying   |
| 5                             | 403 | Man's Cultural Environment: World Regional Pattern                     |
| 6                             | 402 | Human Geography Paper 1  |
| 7                             | 403 | Human Geography Paper 11   |
| <b>BS 3<sup>rd</sup> Year</b> |     |  |
| 8                             | 512 | Geography of Pakistan  |
| 9                             | 503 | Geomorphology  |
| 10                            | 508 | Climatology  |
| 11                            | 509 | History and Development of Geographic Thoughts                         |
| 12                            | 506 | Cartography  |
| 13                            | 534 | Map and Air Photo Analysis   |
| <b>BS 4<sup>th</sup> Year</b> |     |  |
| 14                            | 699 | Advanced Cartography   |
| 15                            |     | Remote Sensing and GIS (Lab)   |
| 16                            | 633 | Natural Hazard Management  |

## M Phil Courses

|   |     |   |
|---|-----|---|
| 1 | 792 | Introduction of Remote Sensing (Lab)              |
| 2 | 794 | Advance Remote Sensing (Lab)                      |
| 3 | 782 | Foundation of Natural hazard and Disaster Studies |
| 4 | 733 | Applied Climatology                               |
| 5 |     | Spatial Analysis                                  |
| 6 | 701 | Research Methodology                              |

Publications, Conference Paper and Proceedings, Training Courses and Workshop and Awards, Honors and certificates

|    |   |    |
|----|---|----|
| 1. | <b>Publications</b>                         | 25 |
| 1  | <b>Conference Paper and Proceedings</b>     | 27 |
| 2  | <b>Training Courses and Workshop Attend</b> | 22 |
| 3  | <b>Awards, Honors and certificates</b>      | 76 |

## Dean Research Projects

|                                       |    |
|---------------------------------------|----|
| As Principal Research Investigator    | 06 |
| As Co-Principal Research Investigator | 03 |
| As Research Associate                 | 07 |

## Research Students

| S No | Name of the Student         | Year/Admission Date          | Topic/Research Title  |   |
|------|-----------------------------|------------------------------|---|---|
| 01   | Hina Masood                 | 29.10.2018<br>Degree Awarded | Monitoring and mapping the current status of mangrove ecosystem along the coast of Sindh through Geo-informatics  | Ph. D degree awarded                        |
| 02   | Fozia Shareef               | 24.4.2018<br>Degree Awarded  | Monitoring spatio-temporal variations and seasonal behavior of atmospheric aerosols over Sindh, Pakistan is using Geoinformatics through MODIS satellite data                     | Ph. D degree awarded                        |
| 03   | Sumaiya Bano                | 22.9.2015<br>Degree Awarded  | Monitoring the flora through Geo-informatics techniques: a case study of Karachi university campus  | Ph. D degree awarded                        |
| 04   | Nasir Abbas                 | 2015 submitted               | Assessment Of The Exposure Of Vulnerable Communities From Various Environmental Hazards In Hunza-Nagar District Through RS and GIS Techniques                                     | Ph. D degree awarded                        |
| 5.   | Muhammad Hussian            | 24-10-2012                   | Monitoring Change in Forest Cover of Hunza-Nagar District is using RS and GIS Techniques  | MPhil Students ( Synopsis Approved by BASR) |
| 6.   | Saba Zehra                  | 03-03-2014                   | GIS Based Modeling for Flood Risk Assessment of Sindh Province  | MPhil degree awarded                        |
| 7    | Ambreen Afzal               | 2016                         | Spatial Temporal Assessment of Solid Waste Management in Karachi Through Remote Sensing and GIS Techniques  | Ph. D degree awarded                        |
| 8    | Erma Anwar                  | 2017                         | GEOSPATIAL ASSESSMENT OF INFRASTRUCTURE FOR REDUCTION OF HEAT WAVE HAZARDS IN URBAN AREAS: A CASE STUDY OF KARACHI.   | MPhil Students (Thesis submitted)           |
| 9    | Sada Asadf                  | 2017                         | Monitoring and Assessing of Coastal Hazard in Pakistan Coast Through Remote Sensing And GIS.  | MPhil Students ( Synopsis Approved by BASR) |
| 10   | Syed Bakar Mujeeb-ul-Hashmi | 2017                         | IMPACTS OF CPEC ON SOCIO-ECONOMIC STRUCTURE:A CASE STUDY OF THE DISTRIC OF BALOCHISTAN PROVINCE ALONG THE CPEC HIGHWAY ROUTE  | MPhil Students ( Synopsis Approved by BASR) |
| 11   | Ms.Roofia Izhar             | 2017                         | Spatio- Temporal, Growth of Industries in Karachi, 1956-2016  | Ph.D Students ( Synopsis Approved by BASR)  |
| 12   | Ms Aiman Shahani            | 2019                         | GIS Based Diversity Analysis of Guava ( <i>Psidium guajava</i> ) Growing Distribution in Larkana District   | MPhil Students (Thesis submitted)           |
| 13   | Mr.Asim Nawaz               | 2019                         | Appraisal the Impacts of Urban Evolution and Industrial Activities on Urban Heat Island in Faisalabad District, Pakistan, a GIS based Study.                                      | MPhil Students (Thesis submitted)           |
| 14   | Ms.Anum Saba                | 2018                         | “ASSESSING THE IMPACT OF URBAN GROWTH IN THE DEVELOPING OF URBAN HEAT ISLAND (UHI) AND MODELING THE POTENTIAL SUITABLE SITES FOR FUTURE URBAN EXPANSION: A CASE STUDY OF KARACHI” | MPhil Students (Thesis submitted)           |
| 15   | Rahil Akhtar                | 2019                         | GIS-BASED APPROACH FOR OPTIMIZED SITING OF MUNICIPALSOLID WASTE LANDFILL IN A DISTRICT KORANGI  | MPhil Students                              |

|     |                   |      |   |  |
|-----|-------------------|------|---|--|
| 16  | Syed Shariq Kamal | 2018 | ECOLOGICAL ASSESMENT AND IDENTIFY THE IMPACTS OF CLIMATIC CHANGE ON THE WETLAND HABITATS OF LOWER SINDH, PAKISTAN THROUGH SATELLITE REMOTE SENSING              | MPhil Students                             |
| 17  | Toba Waqar        | 2021 | Impact of Climate Change on Urban Environment in Karachi year 1960-2021   | MPhil Students ( Synopsis submitted)       |
| 18  | M Sibtain         | 2021 | Geographical Analysis of Skardu City, Baltistan: An Assessment of Urbanization and its Problems by using Geo Informatics Techniques                             | MPhil Students( Synopsis Approved by BASR) |
| 19  | M Waseem          | 2021 | Spatial Analysis of Ground Water Quality and its Suitability for drinking of Taluka Khairpur Nathan Shah District Dadu, Pakistan: Using GIS Techniques          | MPhil Students( Synopsis Approved by BASR) |
| 20. | Ms. Khushboo Naz  | 2022 | Appraisal the Impact of Urban Evolution and Change on Land use and Land Cover in Abbottabad District, a Geospatial Study  | MPhil Students( Synopsis Approved by BASR) |
| 21  | Ms. Sajida        | 2022 | An Assessment of Quality of Urban life in Lyari Town: A Geospatial Approach   | MPhil Students( Synopsis Approved by BASR) |
| 22  | Rehmat Ali        | 2022 | Geographical Analysis of Baltoro Glacier, Karakoram-Baltistan: An Assessment of Change in Glacier cover and Temporal Change By Using Geo Informatics Techniques | MPhil Students( Synopsis Approved by BASR) |
| 23  | M Bilal           | 2023 | Impact of Communication activities in Polio Eradication and Acceptance of Vaccination in High Risk Areas of Karachi “ A Geographical Perspective”               | MPhil Students( Synopsis submitted)        |

### Computer Courses

1. Microsoft Window 95, Microsoft Word 97, Microsoft Excel 97, Microsoft Dos 6.22 form Unique Computer Institute, June-August, 1998, North Karachi, Karachi.
2. Introduction to GIS October 06-November 11, 2000 from Ease Tech, Tariq Road, Karachi. (**A Grade**)
3. MS Visual Basic and Arc View Avenue from Ease Tech, Tariq Road Karachi, April 09 to 25 June 2001.
4. “Remote Sensing and satlite image Image Processing” held from 6-5-2005 to 8-5-2005, NED,KCCEE
5. Training Course on "Advanced Geographic Information Science (GIS)" Jointly Conducted By SPARK & GIS Department of SSGC (September 21-26, 2013).
6. Training Course on "Satellite-based Application n Climate Channge" Conducted By Institute of Space Technology, NCRG, Karachi (December 1-4, 2014).
7. Seminar on " Endnote:The citation Management Software "Organized By Karachi University Teachers’ Society (Feburary 26, 2015).

**Language Course** English Learning Course from Domino English Learning Centre, 12 Feb. to 10 May 2004. (A Grade)

### Continuing Education

- Course conducted on “Introduction to GIS”, to the M.A / M.Sc. Students of Department of Geography, University of Karachi, August 2003 to December 2003

- Course conducted on “Introduction to GIS”, to the M.A / M.Sc. Students of Department of Geography, University of Karachi, August 2001 to December 2001
- Course conducted on “Remote Sensing and satellite image Processing” held from 6-5-2005 to 8-5-2005, NED,KCCEE.

### Awards, Honours, Memberships

| AWARDS |  |           |
|--------|--|-----------|
| 1      | <b>Award M. Phil degree letter</b> from Registrar, University of Karachi   | 2002      |
| 2      | <b>M. Phil Qualification Allowance</b>   | 2006      |
| 3      | <b>Award Ph.D degree letter</b> from Registrar, University of Karachi  | 2012      |
| 4      | <b>Ph.D Qualification Allowance</b>  | 2012      |
| 5      | <b>Letter of Appreciation</b> , form Chairperson, Department of Geography, University of Karachi   | 2001      |
| 6      | <b>Certificate of Participation</b> , Department of Geography, Urban and Regional Planning, University of Peshawar   | 1999      |
| 7      | <b>Prize</b> for Poster/Slogan Competition on the theme of Our Environment, September6, 1996, Center of Excellence for Women’s Studies University of Karachi   | 1996      |
| 8      | <b>Provisional and Character Certificate</b> , GGSS, New Karachi.  |           |
| 9      | The Woman Guards, Certificate of Service, from National Guards   | 1992      |
| 10     | <b>Character Certificate</b> , Dr. Khalida Mahmood, Professor, Department of Geography, University of Karachi  | June 1998 |
| 11     | <b>Certificate of Merit</b> , Diamond Jubilee Celebration, Department of Geography, University of Karachi, from 5 <sup>th</sup> to 8 <sup>th</sup> November  | 2012      |
| 12     | <b>Certificate of Appreciation</b> , Diamond Jubilee Celebration, Department of Geography, University of Karachi, from 5 <sup>th</sup> to 8 <sup>th</sup> November (1)   | 2012      |
| 13     | <b>Certificate awarded for Participation and Presentation</b> , 14 <sup>th</sup> All Pakistan Geographical Conference, Department of Geography, University of Punjab, March 05-07-2013 (2)   | 2013      |
| 14     | <b>Certificate awarded</b> , 14 <sup>th</sup> All Pakistan Geographical Conference, Department of Geography, University of Punjab, March 05-07-2013  | 2013      |
| 15.    | <b>Certificate of Appreciation and Recognition</b> , Presenting the paper, First National Conference on Space Sciens (NCSS-2012) , October 08-09,2012, World Space Week 2012, ISPA, UOK and Sir Syed University of Engineering and Technology. | 2012      |
| 16.    | <b>Letter of Acceptance</b> , 14 <sup>th</sup> All Pakistan Geographical Conference, Department of Geography, University of Punjab, March 05-07-2013   | 2013      |
| 17.    | <b>Certificate of Appreciation</b> , 13 <sup>th</sup> All Pakistan Geographical Conference, Department of Geography, University of Karachi, December 21-23,2008.   | 2008      |
| 18.    | <b>Certificate of Participation</b> , Workshop on “Landscape Ecology and Challenges of Global Environmental Changes”, Department of Geography, University of Karachi from 20-22 Feb 2009.  |           |

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|-----|--|------|
| 19. | <b>Certificate of Participation</b> , International Workshop on, “Sustainable Water Resource Management” jointly organized by Institute of Environmental Studies, University of Karachi and University of Innsbruck, Austria (February 07, 2012)   | 2012 |
| 20. | <b>Certificate of Participation</b> , The Scientific and Cultural Society of Pakistan, “9 <sup>th</sup> Training Workshop on Wetland Conservation and Management-2012” held at Department of Zoology, University of Karachi from February 14-18, 2012                                      | 2012 |
| 21. | <b>Certificate of Participation</b> , The Scientific and Cultural Society of Pakistan, “10 <sup>th</sup> Training Workshop on Protected Areas of Pakistan-2012” held at Department of Zoology, University of Karachi from June 21-27.  | 2012 |
| 22  | <b>Certificate of Participation</b> , Workshop on “How to Write A Winning Scientific Research Proposal?” held at L.E.J. National Science Information Center, on September 24.  | 2011 |
| 23  | <b>Certificate of Participation</b> , Training Course on “Introduction to Statistical Analysis and Tools”, held at Arts Faculty Computer Lab II, University of Karachi, on October 17-19.  | 2011 |
| 24  | <b>Experience Certificate</b> , World Bank Project   | 2013 |
| 25  | Microsoft Window 95, Microsoft Word 97, Microsoft Excel 97, Microsoft Dos 6.22 form Unique Computer Institute, June-August, 1998, North Karachi, Karachi.  | 1998 |
| 26  | English Learning Course from Domino English Learning Centre, 12 Feb. to 10 May 2004. (A Grade)   | 2004 |
| 27  | Introduction to GIS October 06-November 11, 2000 from Ease Tech, Tariq Road, Karachi. (A Grade)  | 2000 |
| 28  | MS Visual Basic and Arc View Avenue from Ease Tech, Tariq Road Karachi, April 09 to 25 June 2001.  | 2001 |
| 29  | Remote Sensing and satellite image Processing” held from 6-5-2005 to 8-5-2005, NED, KCCEE.   | 2005 |
| 30  | <b>Shield</b> , 2 <sup>nd</sup> Pakistan Urban forum; South Asian Cities Conference, January 09-12, 2014 Organized by Planning and Development Department, Government of Sindh.  | 2014 |
| 31  | <b>Certificate of Participation</b> , Second National Conference on Space Science (NCSS-2013), October 07-08, 2013 organized by Institute of Space and Planetary Astrophysics (ISPA), University of Karachi.   | 2013 |
| 32  | <b>Certificate of Appreciation and Recognition</b> , Second National Conference on Space Science (NCSS-2013), October 07-08, 2013 organized by Institute of Space and Planetary Astrophysics (ISPA), University of Karachi.  | 2013 |
| 33  | <b>Certificate of Participation</b> , Second International Conference on Environmental Horizon "Greening the Blue" (ICEH-2014), January 01-03, 2014 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi      | 2014 |
| 34  | <b>Certificate of Oral Participation</b> , Second International Conference on Environmental Horizon "Greening the Blue" (ICEH-2014), January 01-03, 2014 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi | 2014 |
| 35  | <b>Certificate of Participation</b> , One Day Seminar on <b>PLAGIARISM AND ACADEMIC INTEGRITY</b> ,Organized By Karachi University Teachers’ Society, February 12, 2014.   | 2014 |

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|-------|---|------|
| 36    | <b>Certificate, “Filling of Income Tax Returns”</b> Conducted By Sardar Yasin Malik Professional Development Facilities, from 17 and 18 September, 2013.  | 2013 |
| 37    | <b>Certificate, “HR as a Change”</b> Conducted By Sardar Yasin Malik Professional Development Facilities, from 02 to 06 September, 2013.  | 2013 |
| 38    | <b>Certificate of Participation, Training Course on "Advanced Geographic Information Science (GIS)"</b> Jointly Conducted By SPARK & GIS Department of SSGC (September 21-26, 2013).  | 2013 |
| 39    | <b>Certificate of Participation, Seminar on “Plant Biodiversity Conservation and Sustainable Use of Plant Wealth of Pakistan”</b> organized by Centre of Plant Conservation, University of Karachi (June 27-28, 2013)   | 2013 |
| 40    | <b>Certificate , Training Course on "Satellite-based Application n Climate Change"</b> Conducted By Institute of Space Technology, NCRG, Karachi (December 1-4, 2014).  | 2014 |
| 41    | <b>Certificate of Participation, Seminar on " Endnote: The citation Management Software "</b> Organized By Karachi University Teachers’ Society (February 26, 2015).  | 2015 |
| 42    | <b>Certificate of Participation, Workshop on, “Data Analysis Using SPSS-18”</b> organized by Sardar Yasin Malik Professional Development Facilities, University of Karachi, (March 22-22, 2014)   | 2014 |
| 43    | <b>Certificate of Participation, Workshop on, “Planning, Execution and Successful Accomplishment of Research Degrees”</b> organized by Dr. A.Q. Institute of Biotechnology & Genetic Engineering (KIBGE), University of Karachi, (April 24-26, 2014)  | 2014 |
| 44    | <b>Certificate of Participation, Workshop on, "How to Write Grant Proposal in Social Sciences?"</b> held at Arts Auditorium organized by Dean, Faculty of Arts, University of Karachi, (September 15, 2014)   | 2014 |
| 45    | <b>Certificate of Appreciation, Vice President of the K-GIS Society, 2013-14</b>  | 2014 |
| 46    | <b>Certificate of Participation, Third International Conference on Environmental Horizon "Nurture Nature: Serve to Conserve;" (ICEH-2015),</b> January 09-11, 2015 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi. | 2015 |
| 47    | <b>Certificate of Participation, Workshop on, "Self Assessment Programme/Report”</b> held at Arts Auditorium organized by Dean, Faculty of Arts, University of Karachi, (September 16-17, 2014)   | 2014 |
| 48    | <b>Certificate of Professional Membership of the K-GIS Society, 2013-14</b>   | 2014 |
| 49    | <b>Certificate of Appreciation, Resource Person GIS Day of the K-GIS Society, 2013-14</b>   | 2014 |
| 50    | <b>Certificate of Participation as a Session Moderator, First South Asian Regional SURE conference 2017</b> held January 18-19, 2017 organized by Society for Urban Ecology.  | 2017 |
| 51 a. | <b>Certificate of Appreciation as Organizing Team Member of the First South Asian Regional SURE conference 2017</b> held at department of Geography, University of Karachi, Karachi Pakistan1 from <b>January 18-19, 2017.</b>  | 2017 |

|          |   |               |
|----------|---|---------------|
| 51<br>b. | Certificate of <b>Participation</b> , the <b>First South Asian Regional SURE conference 2017</b> held at department of Geography, University of Karachi, Karachi Pakistan from <b>January 18-19, 2017</b> .   | 2017          |
| 52       | Certificate of Recognition for <b>Organized</b> the events of Students' Week from Department of Geography, University of Karachi held September 2016 and 2017.  | 2016<br>&2017 |
| 53       | Certificate of Recognition for <b>Organized</b> the Independence Day Event from Department of Geography, University of Karachi held on August 2016 and 2017.  | 2016&2<br>017 |
| 54       | Certificate of Recognition for <b>Organized</b> the events of Students' Week from Department of Geography, University of Karachi held September 2015.   | 2015          |
| 55       | Certificate of Recognition for <b>Organized</b> the Independence Day Event from Department of Geography, University of Karachi held on August 2015.   | 2015          |
| 56       | Certificate of Recognition for <b>One Day Eve Workshop</b> on First Aid Emergency Preparedness and Scouting Department of Geography, University of Karachi in collaboration with Sindh Boy Scouts Association on 9 <sup>th</sup> September, 2015.       | 2015          |
| 57       | <b>Certificate of Appreciation</b> , One Day Seminar on "Management of Irrigation and Agriculture System Using Geospatial Techniques, organized by: IST, 15 <sup>th</sup> April, 2015.  | 2015          |
| 58       | <b>Certificate of Participation</b> , One Day Seminar on "Herbarium Techniques, organized by: the Center for Plant Conservation, University of Karachi, 23 <sup>rd</sup> November, 2015.  | 2015          |
| 59       | <b>Certificate of Participation</b> , First International Conference on life Sciences, "Emerging Trends in Biological sciences and Genomics", organized by M. A. Qadri Biological Research Center & KIBGE, University of Karachi, December 28-30, 2015. | 2015          |
| 60       | <b>Certificate of Participation</b> , Third National Conference on Space Science (NCSS-2015), October 05-06, 2015 organized by Institute of Space and Planetary Astrophysics (ISPA), University of Karachi.   | 2015          |
| 61.      | <b>Certificate of Participation</b> , Workshop on Awareness in Scientific Writing, organized by Department of Mathematics, University of Karachi, 24 <sup>th</sup> February, 2016.  | 2016          |
| 62       | <b>Certificate of Participation</b> , Seminar on Earth Day, organized by Department of Geography, University of Karachi, 21 <sup>st</sup> and 22 <sup>nd</sup> April, 2016.   | 2016          |



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| 63 | <b>Certificate of Appreciation as a organizing team member</b> , Seminar on Earth Day, organized by Department of Geography, University of Karachi, 21 <sup>st</sup> and 22 <sup>nd</sup> April, 2016.   | 2016 |
| 64 | <b>Certificate of Appreciation as a Speaker</b> , Seminar on Earth Day, organized by Department of Geography, University of Karachi, 21 <sup>st</sup> and 22 <sup>nd</sup> April, 2016.  | 2016 |
| 65 | <b>Certificate of Appreciation as a organizing</b> , Map Design Competition organized by Department of Geography, University of Karachi, 2016.   | 2016 |
| 66 | <b>Certificate of Participation</b> , 4 <sup>th</sup> National Conference on Space Science (NCSS-2016), October 7-8-9, 2016 organized by Institute of Space and Planetary Astrophysics (ISPA), University of Karachi.  | 2016 |
| 67 | <b>Certificate of Appreciation and Recognition for presenting the paper</b> , 4 <sup>th</sup> National Conference on Space Science (NCSS-2016), October 7-8-9, 2016 organized by Institute of Space and Planetary Astrophysics (ISPA), University of Karachi   | 2016 |
| 68 | <b>Certificate of Participation</b> , 4 <sup>th</sup> National Conference on Space Science (NCSS-2016), October 7-8-9, 2016 organized by Institute of Space and Planetary Astrophysics (ISPA), University of Karachi.  | 2016 |
| 69 | Participated in the Course on, “ <b>Environmental Disaster Management</b> ”, <b>21-22 December, 2017</b> organized by Sardar Yasin Malik Professional Development Facilities, University of Karachi, (March 22-22, 2014)                                       | 2017 |
| 70 | <b>Certificate of Appreciation</b> , Speaker and Organizer, GIS Day Seminar of the K-GIS Society, Department of Geography, University of Karachi, 19 <sup>th</sup> November, 2017.   | 2017 |
| 71 | <b>Certificate of Participation</b> , Thee Day International conference on Global Environmental change and the Role of Geographers at Baragali Summer Campus, , Department of Geography, University of Peshawar and Gujrat, 6 <sup>th</sup> July, 25-27, 2017. | 2017 |
| 72 | <b>Certificate of Participation</b> , GIS Day Seminar of the K-GIS Society, Department of Geography, University of Karachi, 6 <sup>th</sup> December, 2018.  | 2018 |
| 73 | <b>Certificate of Participation</b> , as a organizer, 15 <sup>th</sup> All Pakistan Geographical Conference, Department of Geography, University of Karachi, April 21-23,2018  | 2018 |
| 74 | <b>Certificate of Appreciation</b> , Organizer, Fresher’s and Farewell Party, Department of Geography, University of Karachi, 28 <sup>th</sup> March 2018.   | 2018 |
| 75 | <b>Certificate of Appreciation</b> , Organizer, Fresher’s and Farewell Party, Department of Geography, University of Karachi, 28 <sup>th</sup> March 2018.   | 2018 |
| 76 | <b>Certificate of Appreciation</b> , Road Safety Awareness walk and Seminar, Department of Geography, University of Karachi in Collaboration with National High and Motorway Police (N-5, South Zone), 20 <sup>th</sup> March 2018.                            | 2018 |

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**PASS LIST OF PHD. YEAR 2012**

**HONOURS**

- First Female and Youngest M. Phil** at the Department of Geography, University of Karachi. 2001
- Congratulation Letter** from KUTS 2005-06

**Membership(s) and office(s) held in committee, Boards and Professional Organization:**

- 1 **Professional Membership** of the K-GIS Society, 2013-14 2014
- 2 Member, International Association for Landscape Ecology, UK April 2004
- 3 Student Member Pakistan Geographical Association (PGA), Pakistan 1999
4. Member Board of Faculty Department of Geography, University of Karachi
5. Member National Curriculum Revision Committee of Remote Sensing and GIS
6. Member SURE

**Attended HEC NCRC Meetings 2016-2017:**

- *Attended Meeting of National Curriculum Revision Committee of Remote Sensing and GIS held 17-19 April 2017 at HEC Regional Centre Lahore.*
- *Attended Meeting of National Curriculum Revision Committee of Remote Sensing and GIS held 3-5<sup>th</sup> December 2016 at NED University of Engineering and Technology, Karachi.*

**Employment Record/Experience**

(1).

**Name of Post:** Assistant Professor (BPS-19)  
**Department:** Department of Geography, University of Karachi  
**Date:** 14, September, 2006 to date  
**Description of Work:** Graduate and postgraduate (BS/MS) M. Phil/ PhD Teaching and Research

**In Charge of Remote Sensing Lab** 14, May, 2013 to 1 January 2014

**In Charge of GIS Lab** 1 January 2014 14, to date

**Member of Organizing Committee** Diamond Jubilee Celebration, Department of Geography, University of Karachi, from 5<sup>th</sup> to 8<sup>th</sup> November

**Students' Advisor** 16 January, 2015 to November 2018

(2).

**Name of Post:** Full time Co-operative Teacher (@Rs. 6210/- P.M. fixed)  
**Department:** Department of Geography, University of Karachi  
**Date:** January 1, 1998 to 13, September, 2006  
**Description of Work:** Graduate and postgraduate Teaching and Research  
**Courses Taught:**

| B.A/ B.Sc (Hons)   |   |   | M. A/M.Sc |  |
|--|---|---|-----------|--|
| 1 <sup>st</sup> year   | 2 <sup>nd</sup> year  | 3 <sup>rd</sup> year                        | Previous  | Final  |
| <b>Geog 301:</b> Man's Physical Environment: Climate and Oceans  | <b>Geog 402:</b> Man's culture Environment: Economic Activities | <b>Geog 534:</b> Map and Air photo analysis |           | <b>Geog 609:</b> Remote Sensing (lab)            |
| <b>Geog: 302:</b> Man's Physical Environment: Study of Landforms | <b>Geog 455:</b> Map Work and Surveying                         | <b>Geog 532:</b> Cartography                |           | <b>Geog 661:</b> Field Techniques                |
|  | <b>Geog 403:</b> World Regional Pattern                         |   |           | <b>Geog 662:</b> Field Study (Research Projects) |

7. Course conducted on "Introduction to GIS", to the M.A / M.Sc. Students of Department of Geography, University of Karachi, August 2003 to December 2003
8. Course conducted on "Introduction to GIS", to the M.A / M.Sc. Students of Department of Geography, University of Karachi, August 2001 to December 2001
9. Final Year Mathematical Map Projections
10. Final Year Special course of Introduction to GIS (Arc View Version 3.1)
11. Final Year Special course of Introduction to GIS (Map Info Version 7) and AutoCAD Map 2000

(3).

**Name of Post:** School Teacher @ Rs.600/- per Lecture  
**Department:** Children Paradise School, North Karachi, Karachi.  
**Date:** May, 1997 to December, 1997  
**Description of Work:** Teaching (Physics, Maths and Chemistry)

- Worked as **Organizer** in **First South Asian SURE Conference January 16-22, 2017.**
- Participated as expert on **the National Curriculum Revision Committee** of GIS/RS under the supervision of **Higher Education Commission 5-6 December 2016** at NED University Karachi.
- Worked as **Organizer** in Universities for water network Meeting 4 held at 21<sup>st</sup> April 2016 held at Dean of Science Council Room, University of Karachi.
- Worked as a member in **Diamond Jubilee Celebration** in 2012.
- Member of **Board of Faculty of Arts** January 2015.
- Member of **Board of Studies** since January 2017.

- Worked as a member of **the Organizing Committee** in 13<sup>th</sup> All Pakistan Geographical Conference in 2008.

### List of publications year wise, with separate

| S. # | Title of Paper  | Name of Journals  | Impact Factor (hec./BASR Rec.) | Date of Publication Pages/Year of Publication |
|------|---|---|--------------------------------|---|
| 1    | Burke F., <b>Afsar S.</b> , Cause and Effect Relationship between Quality of Life and Resources: Case Study of Selected Towns in Karachi (A Remote Sensing and GIS Perspective)     | Journal of Basic and Applied Sciences                   | Y                              | Vol. 1, No. 2, pp. 65-70,2005                 |
| 2    | Burke F., <b>Afsar S.</b> , Application of Remote Sensing and GIS Techniques in the Assessment of Quality of Life in an Urban Environment: A Case Study of Karachi District Central | Journal Geographic                                      | <b>BASR Rec</b>                | Vol 4, No. 2, pp. 9-23,June 2003              |
| 3    | <b>Afsar, S.</b> , Abbas, N. and Jan, B., Comparative Study of Temperature and Rainfall Fluctuation in Hunza-Nagar District   | Journal of Basic & Applied Sciences                     | Y                              | Vol 9, pp.151-156. 2013                       |
| 4    | <b>Afsar, S.</b> , Kazmi S J. H., and Bano S., Quest of Urban Growth Monitoring from Myth to Reality  | Journal of Basic & Applied Sciences,                    | Y                              | 2013, 9, 222-230.                             |
| 5    | <b>Afsar, S.</b> , Bano S, and Kazmi S J. H., Monitoring the Spatial Distribution of the Selected Birds Species in Wetlands of Sindh (A Framework of Remote Sensing-and GIS)        | International. Journal of. Biology and . Biotechnology  | ISI Index(Z)                   | 10 (1): 07-20, 2013.                          |
| 6    | <b>Afsar, S.</b> , and Bano S, Mapping the Endangered/Key Species of Hazarganji-Chiltan National Park through Geo-Spatial Technology.   | International. Journal of. Biology and . Biotechnology  | ISI Index(Z)                   | 10 (2): 233-239, 2013.                        |
| 7    | <b>Afsar, S</b> , Masood H. and Bano S,, Monitoring of the Shoreline Change and its impact on Mangroves using   | International. Journal of. Biology and . Biotechnology. | ISI Index(Z)                   | 10 (2): 241-250, 2013.                        |

|    |   |  |               |                                     |
|----|---|--|---------------|-------------------------------------|
|    | Remote Sensing and GIS: A Case Study of Karachi Coast, Pakistan   |  |               |                                     |
| 8  | <b>Afsar, S.</b> , Ali S S., and Kazmi S J. H., Assessing the Quality of Life in Karachi City through the Integration of Space and Spatial Technologies                   | Journal of Basic & Applied Sciences                    | Y             | 2013, 9,373 -388                    |
| 9  | Ghazal L, Kazmi S J. H., and <b>Afsar, S.</b> , Spatial Appraisal of the Impact of Drought on Agricultural Patterns in Karachi  | Journal of Basic & Applied Sciences                    | Y             | 2013, 9, 352-360                    |
| 10 | Ali S S., and <b>Afsar, S.</b> , Seasonal Variations in Wave Energy and the Changing Beach Characteristics: A Case Study of Beaches of Karachi                            | Journal of Basic & Applied Sciences,                   | Y             | 2013, 9,361 -367                    |
| 11 | Atif, R., Mehdi, M. R. and Afsar, S., Delineation of Water Logging and Salinity for Salvaging Built Environment   | Journal of Basic & Applied Sciences                    | Y             | 2013, 9, 592-604.                   |
| 12 | Afsar, S., Kazmi S J. H., and Bano S, Monitoring the Impact of Land use Changes in Land Surface Temperature in Karachi through Landsat Data, Pakistan Geographical Review | Pakistan Geographical Review                           | y             | June,2013<br>Volume 68 No. 1, 39-53 |
| 13 | Bano S, Sarwar, F., and Afsar, S., Development of E-flora of Karachi University Botanic Garden through Geo-Spatial Technologies, Pakistan Geographical Review             | Pakistan Geographical Review                           | y             | December, 2013 volume 68 no.2, 1-16 |
| 14 | Bano S and Afsar, S., Monitoring the Plant Species through Geo-Informatics Within Karachi University Campus, International Journal of. Biology and Biotechnology          | International. Journal of. Biology and . Biotechnology | ISI Index (z) | April and July 2014 ,273-285        |

|    |   |   |                            |  |
|----|---|---|----------------------------|--|
| 15 | Sharif , F, Afsar , S. and Alam K, Monitoring spatial distribution of aerosol and aerosol-cloud interactions over Sindh using MODIS satellite data and a HYSPLIT model  | Aerosols and Air Quality Research                         | <b>Impact Factor:2.664</b> | 2015                                       |
| 16 | Masood, H., Afsar, S., Zamir, U B., Kazmi, S .J and Masood Z, Application of Comparative Remote Sensing techniques for Monitoring Mangroves in Indus Delta, Sindh, Pakistan   | Biological Forum  | <b>Impact Factor:2.664</b> | 2015                                       |
| 17 | Bano S, Afsar, S and Alam. J, Diversity and Spatial Distribution of Threatened Plant Species Through Geo-Informatics Within Karachi University Campus   | International Journal of Biology Research                 | <b>BASR(gally Proof)</b>   | 2015                                       |
| 18 | Zehra, S, and Afsar, S., Flood Hazard Mapping of Lower Indus Basin Using Multi-Criteria   | Analysis Journal of Geoscience and Environment Protection | IF                         | 22 April 2016,<br>4 54- 62                 |
| 19 | Nasir Abbas , c , Bulbul Jan , Abdul Hameed , Syed Ali Asad Naqvi , Shahid Karim , Muhammad Nasar u Minallah , Zawwar Hussain<br>ENVIRONMENTAL DISASTER ASSESSMENT USING GEOSPATIAL TECHNIQUES FOR HUNZA-NAGAR DISTRICT, GILGIT-BALTISTAN, PAKISTAN | Science .International.(Lahore),                          | IF                         | 28(5),4557-4566,<br>2016                   |
| 20 | YASMEEN ANIS*, SHEEBA AFSAR* AND NADIA ASAD SIDDIQUI, LOSS OF   | Pakistan Geographical Review,                             |                            | Vol.72, No2, December. 2017,<br>PP 112-121 |

|    |  |  |  |   |
|----|--|--|--|---|
|    | FRESH WATER RESOURCES: A GEOGRAPHICAL ASSESSMENT OF LYARI RIVER THROUGH HISTORY  |  |  |   |
| 21 | Saba Zehra <sup>1</sup> , Sheeba Afsar <sup>2</sup> , Yasmeen, Anees <sup>2</sup> Municipal Solid Waste Disposal Site Selection in Jacobabad Using RS/GIS Techniques | Journal of Geoscience and Environment Protection, 2019, 7, *-* |  | <a href="https://www.scirp.org/journal/gep">https://www.scirp.org/journal/gep</a> |

### Research papers Published in Impact Factor/ISI index/HEC/Recognized Journals in 2021-

23

| Title of Research Paper Published | Authors   | Journal  | Category      | Volume and Page number   |
|-----------------------------------|---|--|---------------|--|
| 22                                | Ambreen Afzal <sup>1*</sup> , Sheeba Afsar <sup>1</sup> and Altaf Hussain Lahori <sup>2</sup><br>Solid waste management practice in Karachi through GIS techniques  | <i>Pure Appl. Biol.</i> , 10(4):1258-1277, December, 2021<br><a href="http://dx.doi.org/10.19045/bspab.2021.100132">http://dx.doi.org/10.19045/bspab.2021.100132</a><br>26.02.2021                                   | Impact Factor | 2021   |
| 23                                | Ambreen Afzal <sup>1*</sup> , Sheeba Afsar <sup>1</sup> , Altaf Hussain Lahori <sup>2</sup> , Anila Kausar <sup>1</sup><br>Assessment of Spatial Distribution of Waste Bins in Karachi Through GIS Techniques | <i>Int. J. Econ. Environ. Geol. Vol. 12 (1)</i> 09-13, 2021<br>Journal home page: <a href="http://www.econ-environ-geol.org">www.econ-environ-geol.org</a>   | Impact Factor | 2021   |
| 24                                | A Sabah, S Afsar -<br><u>Assessing spatio-temporal changes of soil moisture: a case study at Karachi, Pakistan</u>  | Arabian Journal of Geosciences, 2020 - Springer<br><a href="https://link.springer.com/article/10.1007/s12517-020-06247-0#article-info">https://link.springer.com/article/10.1007/s12517-020-06247-0#article-info</a> | Impact Factor | Received: 24 October 2019 /Accepted: 13 November 2020 # Saudi Society for Geosciences 2021 |
| 25                                | HUNAIN NADEEM*, DR. YASMEEN ANIS**, DR. SHEEBA  | Pakistan Geographical Review,  | HEC(R)        | Vol.76, No1, June. 2021, PP 20-39  |

|     |  |  |                                     |                                    |
|-----|--|--|-------------------------------------|------------------------------------|
|     | AFSAR**, DEPLETING MALIR RIVER WATER RESOURCES & ITS ANALYSIS THROUGH NDWI – A SPATIOTEMPORAL ANALYSIS   |  |                                     |                                    |
| 26  | NADIA NIAZ*, SUGHRA ALEEM*, JAMIL HASAN KAZMI*, SHEEBA AFSAR* .MAPPING OF HALOPHYTES AND CHANGE DETECTION ANALYSIS OF KARACHI COAST USING GIS AND REMOTE SENSING   | Pakistan Geographical Review,  | HEC(R)                              | Vol.76, No1, June. 2021, PP 20-39  |
| 27  | NASIR KHAN*, SYED JAMIL HASAN KAZMI** & SHEEBA AFSAR***, POTENTIAL IMPACT OF COMMUNICATION INFRASTRUCTURE ON TERRISTRIAL HABITAT AND SPATIAL RELATIONSHIP BETWEEN MULTIPLE DISEASES AND INSTALLED CELLULAR TOWERS  | Pakistan Geographical Review,  | HEC(R)                              | Vol.76, No1, June. 2021, PP 20-39  |
| 28  | Anila Kausar , Sheeba Afsar , Zohra Wazir , Altaf Hussain Lahori .Ambreen Afzal ,Junaid Volodymyr Sydorenko ,Andrii Pruskyi and Vasyl Tyshchenko Land Use Analysis of Central Business District (CBD) of Metropolis Saddar Karachi through SRS/GIS Techniques. | Ecological Questions. 27 33(1):1-25.<br><i>Ecological Questions</i> , 33(1), 91–101.<br><a href="https://doi.org/10.12775/EQ.2022.009">https://doi.org/10.12775/EQ.2022.009</a>  | <b>Impact Factor/Category:</b> 1.10 | International<br><b>Year: 2022</b> |
| 29  | Ambreen Afzal <sup>1*</sup> , Sheeba Afsar <sup>1</sup> , Altaf Hussain Lahori, <sup>2</sup> Anila Kausar <sup>1</sup><br>Assessment of Spatial Distribution of Waste Bins in Karachi Through GIS Techniques   | Int. J. Econ. Environ. Geol. Vol. 12 (1) 09-13, 2021<br><i>International Journal of Economic and Environmental Geology</i> , 12(1), 9–13.<br><a href="https://doi.org/10.46660/ijeeg.vol12.iss1.2021.551">https://doi.org/10.46660/ijeeg.vol12.iss1.2021.551</a> | : HEC Y-Category                    | International<br><b>Year: 2021</b> |
| 30. | Arif, H., Kausar, A., Afzal, A., Ahmed, S. R., Afsar, S., Lahori, A. H., Vambol, S., & Vambol, V. (2023). Geospatial techniques for comparative case study of spatiotemporal changes in New Karachi and North Karachi parks.                                   | <i>Ecological Questions</i> , 34(4), 1–9.<br><a href="https://doi.org/10.12775/EQ.2023.039">https://doi.org/10.12775/EQ.2023.039</a>   |                                     |                                    |



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|----|--|---|--|--|
| 31 | Kausar, A., Afzal, A., Saeed, G., Maqsoom, A., Khan, O. I., Afsar, S., Anis, Y., Zehra, S. M., Vambol, V., & Vambol, S. (2023). Land-Use/Land Cover Analysis Through Object Based Technique: A Case Study of Shahrah-e-Faisal. | <i>Ecological Questions</i> , 34(2), 1–15.<br><a href="https://doi.org/10.12775/EQ.2023.024">https://doi.org/10.12775/EQ.2023.024</a> |  |  |
|----|--|---|--|--|

### List of Accepted Research Publication

- 1) **Afsar, S.**, Abbas, N. and Jan, B., 'Geospatial Analysis of Environmental Disaster and Climatic Change in Hunza-Nagar District, Gilgit-Baltistan Province, Pakistan

### List of Research Publication (in pipeline)

- 1) **Afsar, S.**, Bano S, Assessment of Floods Impact on Agricultural Crops Using Remote Sensing and GIS in Sindh Province, Pakistan, (**In Pipeline**).
- 2) **Afsar, S.**, Kazmi S J. H., and Bano S, The role of Woman in Quality of life in Karachi, Pakistan Journal of Gender Studies (**In pipeline**)
- 3) **Afsar, S.**, Kazmi S J. H., and Khanum, F., Application of Remote Sensing and GIS for Urban Growth Monitoring A Case Study of Major cities of Pakistan, (**In Pipeline**)
- 4) Kazmi, J H., **Afsar, S.**, Ghazal L., Shaikh, S., Zubair S. and Anis, Y., Assessing the Transition of the Malir Valley of Karachi through Satellite Imageries: Raising as Pursuit of Conservation (**In Pipeline**)

### Conference Paper and Proceedings

1. Co-Author of research article presented titled: \_\_\_\_\_". In An International Seminar on Space Science and Technology, World Space Week-2022. Organized by Institute of Space Science and Technology in collaboration with Department of Geography, on 6 Oct, 2022 at Arts Auditorium, University of Karachi.
- 1) Sharif, F, Afsar, S. and Alam K, Validation of MODIS, MISR and OMI AOD satellite data with AERONET AOD Ground based datasets and Investigation of Aerosol Optical Depth over Atmospheric Tropopause Height, 4<sup>th</sup> National Conference on Space Science and Technology (NCSST- 2016), October 7-9, 2016

ISPA, University of Karachi.

- 2) Abbas, N and Afsar, Measuring the Disaster Risk using Geospatial Techniques: A case Study of Nagar and Hunza Villages Province Gilgit-Baltistan Pakistan, 4<sup>th</sup> National Conference on Space Science and Technology(NCSST- 2016), October 7-9, 2016 ISPA, University of Karachi.
- 3) Zehra, S., and Afsar , S. Application of GIS & RS for Selecting Municipal Solid Waste Disposal Site in Jacobabad City, 1ST NATIONAL CONFERENCE ON ENVIRONMENTAL ENGINEERING & MANAGEMENT, 13-14th April 2016, MEHRAN UNIVERSITY OF ENGINEERING & TECHNOLOGY JAMSHORO, 76062 SINDH, PAKISTAN INSTITUTE OF ENVIRONMENTAL ENGINEERING & MANAGEMENT
- 4) **Afsar S.** and Bano, S (2016), Monitoring the Wild Plant Diversity through Geo-Informatics: A Case Study of Metroville Colony, Gulshan-E-Iqbal Town, Presented at Fourth International Conference on Environmental Horizon (ICEH-2016), January 08-10, 2016 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, Department of . Zoology University of Karachi.
- 5) **Afsar S.** and Bano, S (2016), Heat Stroke Vulnerability Mapping: A case Metropolis of Karachi, Presented at Fourth International Conference on Environmental Horizon (ICEH-2016), January 08-10, 2016 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, Department of . Zoology University of Karachi.
- 6) Bano, S. and **Afsar S.** (2015), Monitoring the Threatened Plant Species Through Geo-Informatics Within Karachi University Campus, Presented at Third International Conference on Environmental Horizon "Nurture Nature: Serve to Conserve;" (ICEH-2015), January 09-11, 2015 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi.
- 7) Sharif, F., **Afsar, S.**, Alam, K. and Bano, S. (2015), Impacts of Aerosol Optical Depth on Vegetation Cover over Sindh using MODIS Terra Satellite Data, Presented at Third International Conference on Environmental Horizon " Nurture Nature: Serve to Conserve;" (ICEH-2015), January 09-11, 2015 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi.
- 8) Kazmi, J H., **Afsar, S.**, Ghazal L., Shaikh, S., Zubair S. and Anis, Y., Assessing the Transition of the Malir Valley of Karachi through Satellite Imageries: Raising as Pursuit of Conservation Presented at Third International Conference on Environmental Horizon " Nurture Nature: Serve to Conserve;" (ICEH-2015), January 09-11, 2015 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi.

- 9) S., Zubair Kazmi, J H., Shaikh, S. **Afsar, S.**, Ghazal L., and Anis, Y., Presented at Third International Conference on Environmental Horizon " Nurture Nature: Serve to Conserve;" (ICEH-2015), January 09-11, 2015 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi.
- 10) Zahra, S. and **Afsar, S.**, Risk Assessment and Predictive Modeling of Floods using GIS & Regression Analysis: A case of Sindh Province Presented at Third International Conference on Environmental Horizon " Nurture Nature: Serve to Conserve;" (ICEH-2015), January 09-11, 2015 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi.
- 11) Masood, H., **Afsar, S.**, Zamir, U B., Application of Comparative Remote Sensing techniques for Monitoring Mangroves in Indus Delta, Sindh, Pakistan Presented at Third International Conference on Environmental Horizon " Nurture Nature: Serve to Conserve;" (ICEH-2015), January 09-11, 2015 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi.
- 12) Abbas, N and **Afsar, S** Geospatial Analysis of Environmental Disaster and Climatic Change in Hunza-Nagar District, Gilgit-Baltistan Province, Pakistan Presented at Third International Conference on Environmental Horizon " Nurture Nature: Serve to Conserve;" (ICEH-2015), January 09-11, 2015 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi.
- 13) Hussain, M. and Afsar, S Forest Monitoring and Environmental Change through Remote Sensing and GIS:A case study of Nagar-II Tehsil, Gilgit-Baltistan, Pakistan Presented at Third International Conference on Environmental Horizon " Nurture Nature: Serve to Conserve;" (ICEH-2015), January 09-11, 2015 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi.
- 14) **Afsar S.** and Kazmi, S.J.H. (2014), Appraisal of Urbanization and Quality of Life in an Urban Environment through the Integration of Space and Spatial Technologies, A Case Study of Karachi, Pakistan, Presented at 2<sup>nd</sup> Pakistan Urban forum; South Asian Cities Conference, January 09-12, 2014 Organized by Planning and Development Department, Government of Sindh.
- 15) **Afsar S.** and Kazmi, S.J.H. (2014), Appraisal of Urbanization and Quality of Life in an Urban Environment through Remote Sensing and Gis:A Case Study of Karachi, Presented at Second International Conference on Environmental Horizon "Greening the Blue" (ICEH-2014), January 01-03, 2014 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi.
- 16) Afsar S., Kazmi, J.H. and **Bano, S.** (2013), Assessment of Quality of Life in Karachi City Through The Integration of Space and Spatial Technologies, Presented at Second National Conference on Space Science (NCSS-2013), October 07-08, 2013 organized by Institute of Space and Planetary Astrophysics (ISPA), University of Karachi.

- 17) Sharif, F., **Afsar, S.**, and Masood. H., , Spatio-temporal and Seasonal Analysis of aerosol and cloud properties over Sindh using MODIS, Second National Conference on Space Science (NCSS-2013), October 07-08, 2013 organized by Institute of Space and Planetary Astrophysics (ISPA), University of Karachi.
- 18) **Afsar, S.** and Bano, S. (2013), Study of Plant Species through Geo-Informatics within Karachi University, Research Poster Presented at Second National Conference on Space Science (NCSS-2013), October 07-08, 2013 organized by Institute of Space and Planetary Astrophysics (ISPA), University of Karachi.
- 19) **Bano, S.** and Afsar S. (2014), Monitoring the Medicinal and Woodland Plant Species Through Geo-Informatics Within Karachi University Campus, Presented at Second International Conference on Environmental Horizon "Greening the Blue" (ICEH-2014), January 01-03, 2014 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi.
- 20) Zahra, S. and **Afsar, S.**, Geospatial Based Runoff Calculation of Urbanized Watershed: A Case study Of Karachi City, Second International Conference on Environmental Horizon "Greening the Blue" (ICEH-2014), January 01-03, 2014 Jointly Organized by Department of Chemistry and International Center For Chemical and Biological Sciences, University of Karachi
- 21) **Afsar S.**, Kazmi, J.H. and Bano, S. (2013), Monitoring the Impact of Land Use Changes on Land Surface Temperature in Karachi Through LANDSAT Data, Presented at 14<sup>th</sup> All Pakistan Geographical Conference, March 05-07, 2013 held at Department of Geography, University of Punjab, Lahore.
- 22) Bano, S., Sarwar, F. and **Afsar, S.** (2013), Development of Spatial E-flora of Karachi University Botanic Garden Through Geo-Spatial Technologies, Presented at 14<sup>th</sup> All Pakistan Geographical Conference, March 05-07, 2013 held at Department of Geography, University of Punjab, Lahore.
- 23) **Afsar, S.**, Kazmi S J. H., and Khanum, F., Application of Remote Sensing and GIS for Urban Growth Monitoring A Case Study of Major cities of Pakistan, First National Conference on Space Science (NCSS-2012) , October 08-09,2012, World Space Week 2012, ISPA, UOK and Sir Syed University of Engineering and Technology.
- 24) **Afsar S.**, (2008), Appraisal of Urbanization and Quality of Life Through Geoinformatics: A Case Study of Karachi Presented at 13<sup>th</sup> All Pakistan Geographical Conference, December 21-23, 2008 held at Department of Geography, University of Karachi.
- 25) Burke F., and **Afsar S.**, (2003), Application of Remote Sensing and GIS Techniques in the Assessment of Quality of Life in an Urban Environment, 11<sup>th</sup> All Pakistan Geographical Conference under the auspices of Pakistan Geographical Association, Department of Geography University of the Punjab, Lahore, December 21 - 24, 2003.

- 26) **Afsar S.**, (2001), Monitoring Urban and Change Detection: A Study of Karachi City using Merged LANDSAT TM and SPOT Data Sets, *Proceedings of the 3<sup>rd</sup> PSGIS International Conference on Geographic Information Technology for Environmental and Rural Development*, Jointly organized by Anjuman Ikhwan-e-Islam, Hamza Foundation, Pakistan Society of Geographic Information System, IsoCaRP Netherlands, PDRC Sakano Lab. Japan, AITAA Pakistan, Morishita Lab. DIPS- AICHI University Japan and ICLC-Tokyo Japan, at Barki District Lahore, Pakistan, March 26-28,
- 27) **Afsar S.**, (1999), Impact of Sand and Gravel Excavation on Ground Water Resources of Malir Valley”. Presented at 10<sup>th</sup> All Pakistan Geographical Conference, August 21-25, held at Bara Gali Summer Campus of University of Peshawar.

### **Training Courses and Workshop Attend**

1. Participated in the Workshop on, **“Data Analysis Using SPSS-18”** organized by Sardar Yasin Malik Professional Development Facilities, University of Karachi, (March 22-22, 2014)
2. Participated in the Workshop on, **“Planning, Execution and Successful Accomplishment of Research Degrees”** organized by Dr. A.Q. Institute of Biotechnology & Genetic Engineering (KIBGE), University of Karachi, (April 24-26, 2014)
3. Participated in the Workshop on, **“How to Write Grant Proposal in Social Sciences?”** held at Arts Auditorium organized by Dean, Faculty of Arts, University of Karachi, (September 15, 2014)
4. The Scientific and Cultural Society of Pakistan, **“10<sup>th</sup> Training Workshop on Protected Areas of Pakistan-2012”** held at Department of Zoology, University of Karachi from June 21-27, 2012
5. The Scientific and Cultural Society of Pakistan, **“9<sup>th</sup> Training Workshop on Wetland Conservation and Management-2012”** held at Department of Zoology, University of Karachi from February 14-18, 2012
6. **Training Course on “Introduction to Statistical Analysis and Tools”**, held at Arts Faculty Computer Lab II, University of Karachi, on October 17-19, 2011.
7. **Workshop on “How to Write A Winning Scientific Research Proposal?”** held at L.E.J. National Science Information Center, on September 24, 2011.
8. **Workshop on “Landscape Ecology and Challenges of Global Environmental Changes”**, Department of Geography, University of Karachi from 20-22 Feb 2009.
9. Participated in the **International Workshop on, “Sustainable Water Resource Management”** jointly organized by Institute of Environmental Studies, University of Karachi and University of Innsbruck, Austria (February 07, 2012)

10. Participated in the One Day Seminar on **PLAGIARISM AND ACADEMIC INTEGRITY** ,Organized By Karachi University Teachers' Society, February 12, 2014.
11. Participated in the, **"Filling of Income Tax Returns"** Conducted By SardarYasin Malik ProfessionalDevelopment Facilities, from 17 and 18 september, 2013.
12. Participated in the, **"HR as a Change"** Conducted By SardarYasin Malik ProfessionalDevelopment Facilities, from 02 to 06 september, 2013.
13. Training Course on **"Advanced Geographic Information Science (GIS)"** Jointly Conducted By SPARK & GIS Department of SSGC (September 21-26, 2013).
14. Participated in the Seminar on, **"Plant Biodiversity Conservation and Sustainable Use of Plant Wealth of Pakistan"** organized by Centre of Plant Conservation, University of Karachi (June 27-28, 2013)
15. Participated in the Seminar on " Endnote: The citation Management Software "Organized By Karachi University Teachers' Society (February 26, 2015).
16. Participated in the, Workshop on, **"Self Assessment Program/Report"** held at Arts Auditorium organized by Dean, Faculty of Arts, University of Karachi, (September 16-17, 2014)
17. Training Course on **"Satellite-based Application and Climate Change"** Conducted By Institute of Space Technology, NCRG, Karachi (December 1-4, 2014).
18. Participated in the **Microsoft Window 95, Microsoft Word 97, Microsoft Excel 97, Microsoft Dos 6.22** form Unique Computer Institute, June-August, 1998, North Karachi, Karachi.
19. Participated in the **English Learning** Course from Domino English Learning Centre, 12 Feb. to 10 May 2004. (A Grade)
20. Participated in Course **"the Introduction to GIS"** October 06-November 11, 2000 from Ease Tech, Tariq Road, Karachi. (A Grade)
21. Participated in the Course **"MS Visual Basic and Arc View Avenue"** from Ease Tech, Tariq Road Karachi, April 09 to 25 June 2001
22. Participated in the Course **"Remote Sensing and Satellite Image Processing"** held from 6-5-2005 to 8-5-2005, NED, KCCEE.

## Dean Research Projects

As Principal Research Investigator

### **Current Project**

- 1) Spatial Analysis of the Effect of the Heat Wave on Stroke Mortality in Karachi, Pakistan , a Project sponsored by the Dean, Faculty of Science, University of Karachi, for 2018-2019

### **As Principal Research Investigator**

- 2) *Cartographic Exploration of Ecological Triggers of Asthema Emergence in Karachi: a GIS Framework*, a Project sponsored by the Dean, Faculty of Science, University of Karachi, for 2007-2008.
- 3) *Appraisal of Urbanization and Standard of Living: A Case Study of Karachi (A GIS Framework)*, a Project sponsored by the Dean, Faculty of Science, University of Karachi, for 2009-2010.
- 4) *Monitoring the Impact of Land use Changes in Land Surface Temperature in Karachi*, a Project sponsored by the Dean, Faculty of Science, University of Karachi, for 2010-2011.
- 5) *Monitoring the Wild Plant Diversity through Geo-Informatics: A Case Study of Metroville Colony, Gulshan-e-Iqbal Town*, a Project sponsored by the Dean, Faculty of Science, University of Karachi, for 2014-2015.
- 6) *The Role of Mangroves and Sand Dunes in the Mitigation of Coastal Hazards: A Case Study of Sindh Coast*

### **As Co-Principal Research Investigator**

1. *“Application of Remote Sensing and GIS Techniques in the Assessment of Quality of Life in an Urban Environment: A Case Study of Karachi District Central” (Based on GIS Techniques, Ground Truthing and Data Collection*. A project sponsored by the Dean, Faculty of Science, University of Karachi, for 2002-2003.
2. *“Cause and Effect Relationship between Quality of Life and Resources: Case Study of Selected Towns in Karachi. ( A Remote Sensing and GIS Perspective )”* Dean Faculty of Science University of Karachi, for 2003-2004.
3. *“Assessment of Quality of Life and Cause and Effect Relationship with Facilities and Resources: A Case Study of Selected Town in Karachi (A Remote Sensing and GIS Perspective)”*. Dean Faculty of Science University of Karachi, for 2004-2005.

### **As Research Associate**

4. *“ Spatial Dimensions of Recreation Facilities in Karachi-A Geographical Analysis of Parks and Playgrounds in Federal ‘B’ Area (Mansoor)*”. A project sponsored by the Dean, Faculty of Science, University of Karachi, for 2001-2002.
5. *“Local Bodies Elections in Karachi: A Study of Spatio-Temporal Relationship of Voting Behaviour*. A Project Sponsored by Dean, Faculty of Science University of Karachi, for 2001-2002.
6. *“A Geographical Evaluation of Patterns of Development: A Study of the Districts of Sindh Province”*. A project sponsored by the Dean, Faculty of Science, University of Karachi, for 2002-2003.
7. *“A Geographical Manifestation of Land Use Transition: A Case Study of Tariq Road”* A research Project granted by Dean Faculty of Science, University of Karachi, in 2002-2003.
8. *“Contribution of Inter District Migration towards Urban Growth: A Case S of Pakistan”*. Dean Faculty of Science, University of Karachi, for 2003-2004.

9. *“Societal Attitude Towards Tobacco Smoking in a Cosmopolitan City of the Developing World”*. Dean Faculty of Science University of Karachi, for 2003-2004.
10. *“Potential for Development in Balochistan: A Geographical Analysis”*. Dean Faculty of Science University of Karachi, for 2004-2005.