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**Syeda Adila Batool**

Associate Professor (TTS) Department of Space Science Punjab University,  
Lahore

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**Education**

**Ph.D.**, Environmental Science, Thesis Title “Environmental Systems Analysis of Municipal solid waste management, Applications of IWM-2 Model” College of Earth and Environmental Sciences Punjab University Lahore, 2008.

**M.Sc., Space Sciences** Punjab University – Lahore 1995-1997

**M.Sc., Applied Environmental Science**, Punjab University, Lahore 1999-2001

**Other Training University.**

Diploma in Applied Environmental Science **Punjab**

**International Visitor Leadership Program** 8 June to 26 June 2009, Organized by **USA State Department USA**.

**Life Cycle Assessment Modelling of Solid Waste Systems-EASEWASTE Model 3 R course** (Equivalent to 5 ECTS points) held at **Technical University of Denmark** 7<sup>th</sup> to 11<sup>th</sup> June 2010.

**Life Cycle Assessment Modelling of Solid Waste Systems-EASETECH Model 3 R course** (Equivalent to 5 ECTS points) held at **Technical University of Denmark** June 2013.

**Professional Experience:**

**November 2019 to present:** **Associate Professor (TTS)** in Department of Space Science, Punjab University Lahore Pakistan

- June 2008 to November 2019: Assistant Professor (TTS)** in Department of Space Science, Punjab University Lahore Pakistan
- November 2005 to June 2008: Lecture on permanent basis** in Department of Space Science, Punjab University Lahore Pakistan  
Taught Solid waste Management to PhD, M.Phil, M.Sc. and B.Sc. classes as a visiting faculty member in College of Earth and Environmental Science.
- June 2003 to November 2005 Lecturer on Contract Basis** in the Department of Space Science
- January 2003 to June 2003 Part time teaching** in the Department of Space Science

**List of Research Publications**  
**Impact Factor (IF) Journals and non IF journals**  
**(Total Impact Factor = 40.454)**

- 1. Syeda Adila Batool**, Nawaz Chaudhry, Khalid Majeed, 2008. "Economic potential of recycling business in Lahore, Pakistan", Waste Management, 28 (2) 294–298 (IF = 2.208)
- 2. Syeda Adila Batool**, Nawaz Chaudhry, 2009. "The impact of municipal solid waste treatment methods on greenhouse gas emissions in Lahore, Pakistan" Waste Management, 29 (1), 63-69. (IF = 2.433)
- 3. Syeda Adila Batool**, Nawaz Chaudhry, 2009." Municipal solid waste management in Lahore City District, Pakistan" Waste Management, 29 (6), 1971–1981. (IF = 2.433)

4. Sidra Karim, Nawaz Chaudhry, khurshid Ahmad, **Syeda Adila Batool**, 2010. "Impact of Solid Waste Leachate on Ground Water and Surface Water Quality". Journal of Chemical Society of Pakistan, 32 (5), (IF= 0.194)
5. Muhammad Asim, **Syeda Adila Batool**, Nawaz Chaudhry, 2012. "Scavengers And their role in the recycling of waste In Southwestern Lahore". Resources, Conservation and Recycling, 58 (1), 152– 162. (IF=2.319)
6. Muhammad Noman, **Syeda Adila Batool**, Nawaz Chaudhry, 2013. "Economic and employment potential in textile waste management of Faisalabad", Waste Management & Research, 31(5), 485 –493. (IF= 1.114)
7. Khalid Mahmood, **Syeda Adila Batool** , Asim Daud Rana, Salman Tariq, Zulfiqar Ali, and M. N. Chaudhry, 2013. "Assessment of leachate effects to the drinking water supply units in the down slope region of municipal solid waste (MSW) dumping sites in Lahroe, Pakistan" International Journal of Physical Sciences Vol.8(28) , pp. 1470-1480 , (IF: 0.60)
8. Salman Tariq, **Syeda Adila Batool**, Asim Daud Rana, Khalid Mehmood, Maleeha Batool, Irum Murtaza, Adnan Hashim, 2013. "Variability Of Size Distribution, Refractive Index And Asymmetry Parameter Of Aerosols Over Lahore Derived From Aeronet", Science International, 24(4), 137-139. HEC Recognized z-category journal.
9. Anwar Jadoon, **Syeda Adila Batool**, Nawaz Chaudhry, 2014." Assessment of factors affecting household solid waste generation", Journal of Material Cycles and Waste Management, 16 (1), 73-81. (IF=0.568)

10. Sobia Munir, **Syeda Adila Batool**, Nawaz Chaudhry, 2014." Characterization of Hospital waste in Lahore, Paksitan" Chinese Medical Journal, 127 (9), 1732-1736. (IF=1.053)
11. Ali, M., Tariq, S., Mahmood, K., Daud, K., **Syeda Adila Batool.**, Haq, Z.2014. "A study of aerosol properties over Lahore (Pakistan) by using AERONET data", Asia-Pacific Journal of Atmospheric Sciences, 50, 153-162. (IF= 1.347)
12. Zia-ul-Haq, Salman Tariq, Muhammad Ali, Khalid Mahmoozed, **Syeda Adila Batool**, Asim Daud Rana, 2014. "A Study of Tropospheric NO<sub>2</sub> Variability over Pakistan using OMI Data" Atmospheric Pollution Research, 5, 702-720, (IF=1.371)
13. Asia Khaliq, **Syeda Adila Batool**, Muhammad Nawaz Chaudhry, 2015, "Seasonality And Trend Analysis Of Tuberculosis In Lahore Pakistan from 2006 to 2013" Journal of Epidemiology and Global Health 5, 397– 403 (IF= 0.364)
14. Khalid Mahmood, **Syeda Adila Batool** , Muhammad Nawaz Chaudhry, , Asim Daud, 2015. "Evaluating Municipal Solid Waste Dumps using in GIS", Polish Journal of Environmental studies, 24:2, 879-886. (IF=0.947)
15. Ali Kamran, Muhammad Nawaz Chaudhry, **Syeda Adila Batool**. 2015 "Role of Informal Sector in Recycling Waste in Eastern Lahore". Polish Journal of Environmental Studies, 24:2, 537-543. (IF=0.79).
16. Farrukh Hussain, Muhammad Nawaz Chaudhry, **Syeda Adila Batool**, 2014 "Assessment of key parameters in Municipal Solid Waste Management: a pre requisite for sustainability "International journal of Sustainable Development and World Ecology, 21:6, 519-525 (IF: 1.771)
17. Zia UI-Haq, Muhammad Ali, Syeda Adila Batool, Salman Tariq and Zarmina Qayyum, 2016. "Emission quantification of refrigerant CFCs, HCFCs and HFCs in megacity Lahore, Pakistan and contributed ODPs and GWPs" J.Earth Syst. Sci. 125, pp 1273-1284. (IF=0.995 )

18. Khalid Mahmood, **Syeda Adila Batool**, Muhammad Nawaz Chaudhry, 2016. "Studying bio-thermal effects at and around MSW dumps using Satellite Remote Sensing and GIS" *Waste Management*, 55, 118-128. (IF= 4.03)
19. Asma Majeed, **Syeda Adila Batool**, Muhammad Nawaz Chaudhry, Rana Atif Siddique, 2016. "Scavenging demeanor in Bahawalpur, Pakistan: social and health perspective" *Journal of material cycle and waste management*. Published online 5<sup>th</sup> March 2016. Online DOI 10.1007/s10163-016-0483-2 (IF= 1.693)
20. Y Sadeq; AS Nizami; **Syeda Adila Batool**; MN Chaudhary; O K M Ouda; ZZ Asam; K Habib; M. Rehan and A. Demibras. 2016. "Waste-to-Energy and Recycling Value for Developing Integrated Solid Waste Management Plan in Lahore". *Energy Sources, Part B: Economics, Planning, and Policy* 11(7), pp 569-579 doi: 10.1080/1556249.2015.105295. (IF= 0.840)
21. Khalid Mahmood, Zia ul Haq, **Syeda Adila Batool**, Asim Daud Rana, Salman Tariq, 2016. Application of Temporal GIS to track areas of significant concern regarding groundwater contamination. *Environmental Earth Sciences*, 75(33), DOI 10.1007/s12665-0015-4844-2. (IF= 1.569).
22. Mahmood, K., **Batool, A.**, Faizi, F., Chaudhry, M. N., Ul-Haq, Z., Rana, A. D., et al. 2017. 'Bio-thermal effects of open dumps on surroundings detected by remote sensing—Influence of geographical conditions. *Ecological Indicators*, 82, 131-142. (IF=3.898)
23. Mahmood, K., **Batool, S.**, Chaudhary, M., et al. 2017. 'Ranking criteria for assessment of municipal solid waste dumping sites. *Archives of Environmental Protection*, 43(1), pp. 95-105. (IF=0.708)
24. Zia, A.; **Syeda.Adila Batool**,.; Chauhdry, M.N.; Munir, S. 2017. "Influence of Income Level and Seasons on Quantity and Composition of Municipal Solid Waste: A Case Study of the Capital City of Pakistan". *Sustainability* vol 9, pp 1-13. (IF=1.789)
25. **Syeda, Adila .Batool**, Jadoon, A.; Nawaz Chaudhry, M. 2017. "Life Cycle Assessment Modelling of Greenhouse Gas Emissions from Existing and Proposed

Municipal Solid Waste Management System of Lahore, Pakistan”. *Sustainability*, vol 9, pp 1-8. (IF=1.789)

26. Asma Majeed, **Syeda Adila Batool**, M.Nawaz Chaudhry, (2018), Environmental Quantification of the Existing Waste Management System in a developing world Municipality Using EASETECH: The case of Bahawalpur, Pakistan. *Sustainability* vol 10, 24 , pp 1-22.(IF=1.789)
27. Khalid Mahmood, Zia ul Haq, Fiza Faizi, **Syeda Adila Batool**, (2018).” A comparison of satellite-based indices for hazard assessment of MSW open dumps using spatial analysis” *Waste Management and Research*. Page 1-18.(IF=1.114)
28. Zia Ul-Haq, **Syeda Adila Batool**, Salman Tariq, Asim Daud, Khalid Mahmood, M.N.Chaudhry, M.Naeem, 2018 Temporal And Spatial Variations Of No<sub>2</sub> Over Saudi Arabia And Identification Of Major Hotspot Areas During 2005-2014 By Using Satellite Data , *Applied Ecology And Environmental Research* 16(5):5757-5770 (IF=0.721 ).
29. Asim Daud Rana, Shahid Pervaiz, Zia ul Haq, **Syeda Adila Batool**, M.N. Chaudhry, Khalid Mahmood and Salman Tariq. 2019, “Anthropogenic, Biogenic and Pyrogenic Emission sources and Atmospheric Formaldehyde(HCHO) and Nitrogen dioxide (NO<sub>2</sub>) Columns over different landuse/ land covers of South Asia”. *Applied Ecology and Environmental Research*. Accepted.

### **List of Conferences, Seminars and Workshops**

1. **Participated** in International workshop on Geoinformatics, Organized by National Geological Society of Pakistan and Pakistan Scientific and Technological Information Center Pakistan Science Foundation at Best Western Hotel **Islamabad Lahore**, 7-8 January 2004.
2. **Invited Speaker** for delivering a lecture on Integrated Solid Waste Management in Lahore College environmental awareness forum at **Lahore College University Lahore** on 10<sup>th</sup> March 2004

3. **Invited Speaker** for delivering a talk on “Waste to Energy” in Inaugural meeting of S/C on “geothermal Energy” at **Lahore Chamber of Commerce** on July 09, 2008.
4. **Invited Speaker** for delivering a series of lectures on “Life Cycle Assessment” in one week training course for Capacity Building Of Provincial Departments In Environmental Management organized by Environmental Protection Agency Government of the Punjab in **MPDD, Upper Mall Scheme Lahore**. December 14-19 2009.
5. **Invited Speaker** for delivering a series of lectures on “Life Cycle Assessment” in one week training course for Capacity Building Of Provincial Departments In Environmental Management organized by Environmental Protection Agency Government of the Punjab in **MPDD, Upper Mall Scheme Lahore**. February 08-13 2010.
6. **Invited Speaker** for delivering a series of lectures on “Life Cycle Assessment” in one week training course for Capacity Building Of Provincial Departments In Environmental Management organized by Environmental Protection Agency Government of the Punjab in **MPDD, Upper Mall Scheme Lahore**. April 19-24, 2010.
7. **Invited Speaker** for delivering a series of lectures on “Life Cycle Assessment” in one week training course for Capacity Building Of Provincial Departments In Environmental Management organized by Environmental Protection Agency Government of the Punjab in **MPDD, Upper Mall Scheme Lahore**. October 18-22, 2010.
8. **Oral Presentation** “Spatial Management Plan for municipal solid waste of University of the Punjab Lahore, Pakistan” in 26<sup>th</sup> International conference on solid waste Technology and Management at **Philadelphia, PA USA** March 27- 30 2011.

- 9. Invited Speaker** for delivering a lecture on solid waste management in SWM training organized by The Urban Unit, Planning & Development Department, Government of the Punjab. September 12, 2011.
- 10. Invited Speaker** for delivering a talk on “Effect of solid waste on Climate Change” on 2012 Environment day by GC University Faisalabad at **Resource Center Murree June, 5 2012**
- 11. Oral Presentation** “Life Cycle Assessment of Management Options for The Biodegradable Fraction of Municipal Solid Waste in Lahore, Pakistan” in Fourth International Symposium on Energy from Biomass and Waste in **Venice, Italy** from 12 - 15 November 2012.
- 12. Participated in Workshop** on “HCFC’s Phase out and Alternatives” by Ozone cell Ministry of climate Change in collaboration with HVACR Pakistan, at hotel Pearl Continental **Lahore, Pakistan**, 12 February 2013.
- 13. Guest Speaker** for delivering lectures on “Zero Waste Management technologies” in Solid Waste Management Training arranged by The Urban Unit, P&D Department, Punjab, at CIMLA **Lahore, Pakistan**, October 9, 2013.
- 14. Oral Presentation** “GHG emissions and Municipal solid waste” at second international conference on Global Environmental Change, **GC University Faisalabad, Pakistan, February 25-26, 2014.**
- 15. Oral Presentation** “ A study to evaluate the attitude of households towards recovery of recyclables in Lahore, Pakistan” in 29<sup>th</sup> International conference on solid waste Technology and Management at **Philadelphia, PA USA** March 30- April 2, 2014
- 16. Oral Presentation** “A Study To Quantify The Global Warming Potential And Ozone Depletion Potential Of Residual Chlorofluorocarbons (Cfcs) From Refrigerators In Lahore, Pakistan in third conference on Challenges and possibilities for environmental



sustainability with a focus on Pakistan at **Lahore School of Economics Lahore**, 20<sup>th</sup> -21<sup>st</sup> February, 2019

## **Scholarly & Professional Activities**

### **Reviewer for the international journals**

1. International Journal “Waste Management” (Elsevier Science).
2. International Journal “Journal of Material Cycle and Waste management”(Springer Link)
3. Proceedings of the Pakistan Academy of Sciences.

### **Evaluation of Projects & Thesis**

#### **Project**

Pakistan Science Foundation Project Entitled “Eco friendly Alternative Energy Source from Municipal Solid waste” 2012.

#### **Thesis**

1. Khalid Iqbal Khichi (2010), **PhD**, National College of Business Administration and Economics.
2. Naheed Akhtar (2010) **M.Phil**, Government College University Lahore
3. (2012) **M.Phil.**, Lahore College for Women University, Lahore
4. Saleem Falak (2012) **M. Phil.**, College of Earth and Environmental Science
5. Muhammad Siddique (2012) **M. Phil.**, College of Earth and Environmental Science
6. Muhammad Ateeb (2012) **M. Phil.**, College of Earth and Environmental Science
7. Muhammad Younis Zahid (2012) **M. Phil.**, College of Earth and Environmental Science
8. Sajid Iqbal (2012) **M. Phil.**, College of Earth and Environmental Science
9. Sibgha Khan (2012) **M. Phil.**, College of Earth and Environmental Science

10. Irum Zahara (2012) **M. Phil.**, College of Earth and Environmental Science
11. Zaib un Nisa (2013) **M. Phil.**, College of Earth and Environmental Science
12. Hassan Ali (2013) **M. Phil.**, College of Earth and Environmental Science
13. Ajmal Shahzad (2013) **M. Phil.**, College of Earth and Environmental Science
14. Abdullah Bashir (2013) **M. Phil.**, College of Earth and Environmental Science
15. Isbah Hameed (2013) **M.Phil.**, Lahore School of Economics
16. Sidrah Inayat (2013) **M.Phil.**, Lahore School of Economics
17. Asima Javed (2012) **BS**, College of Earth and Environmental Science.
18. Sameena Nazlee (2012), **BS**, College of Earth and Environmental Science
19. Asma Shaheen (2014), **MSc**, College of Earth and Environmental Science
20. Fizza Batool (2014), **MPhil**, Lahore School of Economics
21. Mughira Badar (2015), **PhD**, National College of Business Administration and Economics.
22. Wajahat Akhtar (2015), **MPhil**, Government College University Faisalabad
23. Imran Ali (2015), **MPhil**, Government College University Faisalabad
24. Balawal Mazhar (2015), **MPhil**, Government College University Faisalabad
25. Minahil Junaid (2017), **MS**, College of Earth and Environmental Science
26. Tayyaba Javed (2017), **MPhil**, College of Earth and Environmental Science
27. Wajid Ali (2017), **MPhil**, College of Earth and Environmental Science
28. Sobia Yaqoob (2017), **Mphil**, College of Earth and Environmental Science
29. Saliha Sattar (2017), **Mphil**, College of Earth and Environmental Science
30. Muhammad Furqan (2017), **Mphil**, College of Earth and Environmental Science
31. Rida Batool (2017), **Mphil**, College of Earth and Environmental Science
32. Mubbashir Hassan (2017), **Mphil**, College of Earth and Environmental Science
33. Sidra Anwar (2017), **Mphil**, College of Earth and Environmental Science
34. Khadija Asif (2017) Lahore School of Economics, Lahore.
35. Ifrah Shaukat (2017) Lahore School of Economics, Lahore.
36. Marium Asif (2018), **Mphil**, College of Earth and Environmental Science
37. Hafiza Samar Fatima (2018), **MS**, College of Earth and Environmental Science
38. Amina Farooq (2018), **MS**, College of Earth and Environmental Science
39. Asma Ahmad (2018), **MS**, College of Earth and Environmental Science

40. Varisha Zafar (2018), **BS**, Lahore College for Women University, Lahore
41. Sana Farooq (2018), **BS**, Lahore College for Women University, Lahore
  
42. Uswa Tayyab (2018), **BS**, Lahore College for Women University, Lahore
43. Rahma Butt (2018), **BS**, Lahore College for Women University, Lahore
44. Usba Fayyaz (2018), **BS**, Lahore College for Women University, Lahore
45. Wasibah Sundas (2018), **BS**, Lahore College for Women University, Lahore
46. Shoaib Dar (2018), **MPhil**, Forman Christian Collaege, Lahore.
47. Asim Shafiq (2018), **M Phil**, College of Earth and Environmental Science.
48. Sara Randhawa (2018), **M Phil**, Lahore School of Economics.
49. Rushda Khan (2019), **MPhil**, Lahore School of Economics.

## **Projects**

1. Principal Investigator, "Development of LCA based Sustainable Municipal Solid Waste Recycling Plan for Southwestern Lahore using Remote Sensing and GIS, Donor Agency was Punjab University, in 2008. Grant Rs 100,000 by PU.(Completed)
  
2. Principal Investigator, "An assessment of aerosols in megacity Lahore using SRS & GIS techniques" awarded in 2017 grant Rs, 150,000. ( in process)

## Thesis Supervision

### PhD

1. Zia ul Haq, Department of Space Science, “An assessment of major ozone depleting substances (ODS) and their impacts on climate change using RS/GIS in Lahore, Pakistan” **(completed)**.
2. Salman Tariq, Department of Space Science, “ A study on spatio-temporal Distribution ,properties and transport of atmospheric aerosols over Paksitan using Remote Sansing” **(completed)**..
3. Khalid Mahmmod, Department of Space Science, “ Development of ranking criteria for assessment of existing and proposed solid waste dumpsites in Faisalabad” **(completed)**.
4. Farrukh Hussain, College of Earth and Environmental Science, A study to quantify the environmental impacts from the management options of Municipal solid waste of Aziz Bhatti Town, Lahore, A life Cycle Assessment approach with focus on Global warming” **(completed)**.
5. Ali Kamran, College of Earth and Environmental Science, Municipal solid waste management with emphasis on Material flows and potential key parameters in Environmental system analysis” **(completed)**.
6. Asma Majeed, College of Earth and Environmental Science, Management of Municipal Solid Waste of Bahawalpur City: An Integrated Approach” **(completed)**.
7. Shahid Pervaiz, PhD Scholar (20-2-2014 ASRB) Department of Space Science, Assessment of impacts of climate change on Glaciers, snow pack and their runoff in the selected regions of Western Himalaya, Karakoram and Hindukush”.
8. Asim Daud Rana, Department of Space Science, Derivation, validation and Application of spectral response patterns in a part of Kohistan Island Arc, for mapping of rock units, using satellite Remote sansing”. (completed)
9. Amina Zia, College of Earth and Environmental Science, Life Cycle Assessment of Municipal Solid Waste Management system of Islamabad” **(completed)**.

10. Amber Fatima, College of Earth and Environmental Science, Sustainable solid waste Management of Northern Lahore” (**completed**).

### **MS and M.Phil**

1. Zainab Saleem (2005-2007), The Treatment of Municipal Solid Waste and its Management in Model Town, Lahore.
2. Yumna Sadeef (2006-2008), Physical and Chemical Characterization of Municipal Solid Waste of Southern Lahore, Pakistan.
3. Sidra Karim (2007-2009), Impact of Leachate on Groundwater Quality, Surface Water Quality and Soil: A Case Study of Saggian Dumping Site.
4. Aaliya Ehsan (2007-2009), Material Flow Analysis of PET Bottles within Allama Iqbal Town.
5. Shakeela Sharif (2007-2009), Evaluation of Household Solid Waste Collection System of Allama Iqbal Town.
6. Sadia Javed (2007-2009), Material Flow Analysis and Recycling of Newspaper in Allama Iqbal Town, Lahore.
7. Syeda Amber Fatima (2008-2010), A Study of Evaluation of Household Solid Waste Management System and Assessment of Waste Generation in Samanabad Town, Lahore.
8. Shagufta Aslam (2009-2011), Characterization of Hospital Solid Waste in Lahore, A Case Study of Two Hospitals.
9. Shagufta Aslam (2009-2011), Hospital Solid Waste Management Practices in Lahore, Pakistan: A Case Study of Two Hospitals.

- 10.** Sameera Shaukat (2009-2011), Comparative Study of Hospital Waste Management of Private and Government Hospitals of Lahore.
- 11.** Sumaira Kanwal (2009-2011), Combustion Behavior of Blends of Indigenous Coals with different Biomass Fractions (Sugarcane Bagasse, Rice Husk and Organic Fraction of the Municipal Solid Waste).
- 12.** Aqsa Qayoom (2009-2011), Rainfall and Temperature Variation in Southern Punjab.
- 13.** Hina Ibrar (2009-2011), Estimation of Leachate Generation Using GIS Techniques.
- 14.** Adeela Chaudhary (2009-2011), Study of CDM Procedure for Composting Process of Municipal Solid Waste used by Lahore Compost (Pvt) Limited.
- 15.** Rafia Zafar (2009-2011), KAP (Knowledge , Attitudes and Practices) Survey of Landscape Practices in Lahore; Are We Environmental Friendly?
- 16.** Sana Ahmed (2009-2011), Environmental Impact Assessment of a Proposed Landfill Site Integrated with Life Cycle Assessment.
- 17.** Sana Bashir (2009-2011), Strategic Environmental Assessment of the Energy Sector of Pakistan.
- 18.** Sobia Bhatti (2010-2012), Assessment of Municipal Solid Waste Management Practices and Evaluation of Household Solid Waste of Rural and Urban Areas of Pindi Bhattian in Terms of Composition and Waste Generation.
- 19.** Sobia Munir (2010-2012), Waste Composition and Characterization of Children's Hospital & Institute of Child Health & An Overview of Waste Generation of All Major Government Hospitals in Lahore.

20. Anam Khalid (2010-2012), Spatial and Temporal Distribution of Dengue in Lahore.
21. Asim Daud (2010-2012), Detailed Lithostratigraphic & Lineament Mapping of Chorgali Formation, Murree & Kamli Formation & Siwalki Group of a Part of Central Salt Range Using Remote Sensing.
22. Khalid Mahmood (2010-2012), Assessment of Existing Landfill Sites Using GIS.
23. Zermina Qayyum (2011-2013), A study to Quantify the Global Warming Potential and Ozone Depletion Potential of Residual CFCs from Refrigerators in Lahore, Pakistan.

### **B.Sc. (Hons)**

1. Azka Gilani, Zahra Batool, Sana Afridi and Maria Khalid (2003-2007), A study of Biomedical Waste Management at Combined Military Hospital (C.M.H), Lahore.
2. Nosheen Ali, Shaista Mazhar and Madiha Tanveer (2003-2007), A study of Biomedical Waste Management at the Punjab Institute of Cardiology, Lahore.
3. Aamna Sumbal Ikram and Mehreen Abbas Rizvi (2003-2007), Optimal Solid Waste Collection Route Identification by GIS.
4. Hina Haneef and Mariya Abdullah (2004-2008), Recycling Behavior & Solid Waste Management of Askari Walton Lahore Cantt.
5. Sami Ullah Khan and Salman Asif (2004-2008), Role of Junk Shops in Recycling in Gulberg Town, Lahore.
6. M. Imran Ghafoor, Rimlah Javed, Aqsa Qayoom and Aqsa Khurshid (2004-2008), Climate Variation in Southern Punjab.

7. Maria Seerat, M. Salman Zikriya, Syed Ali Raza, Iqra Atif and Faiza Rehman (2006-2010), Development of Solid Waste Management System Using GIS for Punjab University, Lahore.
8. M. Bilal Saleem, Umar Javaid, Abdul Waheed Malik, Majid Rehman and Iqra Khan (2007-2011), Impact of Municipal Solid Waste on Global Warming Using LCA Methodology.
9. Uzma Yousaf and Syeda Ifraw Naveed (2009-2013), Environmental Management System of Waste Yard of Packages Ltd.
10. Uzma Asraf (2009-2013), Predicting the Potential Distribution of the Olea Ferruginea in Pakistan Incorporating Climate Change by using Maxent Model.
11. Sheikh Maryam (2015-2019), Study of Temporal Analysis of Aerosol Optical Properties and Rainfall over Pakistan.

### **M.Sc**

1. Kaif Gill (2002-2004), An Analytical Study of Air Pollutants Resulting from Hospital Waste Burning in Lahore.
2. Amber Fatima and Samina Bilal (2005-2007), A study of Behavior of Recyclables in Households of Samanabad Colony, Lahore.
3. Anam Yousaf and Sehrish Asif (2006-2008), The Study of Biomedical Waste Management at Sir Ganga Ram Hospital (S.G.R.H), Lahore.
4. M.Nadeem Sagheer (2009-2011), A Study of Biomedical Waste Management at Social Security Hospital, Lahore.