

Dr. Sadia Saif

Email I.D: sadia.saif@kinnaird.edu.pk
sadia.saifpk@gmail.com

Area of Interest

- Nanotechnology for water and wastewater treatment
- Green technologies for pollution remediation
- Advance instrumental techniques for environmental analysis
- Sustainable development and Water sustainability

Professional Experience

Title	Organization	Year
Assistant Professor	HEC Approved Supervisor	September, 2019
	Kinnaird College for Women, Lahore Pakistan	Dec,2017-Present
Visiting Research scholar	Georgia Institute of Technology Atlanta, GA. USA	May2015-Dec.2015
Researcher	Lahore College for Women University, Lahore Pakistan	2012-2016

Educational Qualification

Degree	Year	Organization
<i>Ph.D. Environmental Science</i>	2017	Lahore College for Women University, Lahore Pakistan Thesis title: (Biogenic synthesis of metallic nanoparticles by plant extracts and their stabilization for efficient treatment of drinking water]
<i>MS Applied Environmental Science</i>	2011	Lahore College for Women University, Lahore Pakistan
<i>B.S (Hons.) Environmental Science</i>	2008	Lahore College for Women University, Lahore Pakistan
<i>F.Sc (Pre-Medical)</i>	2004	Govt. College for Women Samnaabad, Lahore
<i>Matric (Science)</i>	2001	Pak Public Foundation High School, Lahore

Technical Skills

✓ **Got expertise and training of instruments from USA.**

- Atomic force microscopy (AFM)
 - Dynamic light scattering (DLS)
 - Cold Field emission scanning electron microscope (CFE-SEM)
 - Fourier Transform-Infrared (FT-IR)
 - Inductively coupled plasma optical emission spectrometry (ICPOES)
 - X-ray diffraction (XRD)
 - X-ray photoelectron spectroscopy (XPS)
- ✓ Training of Advance analytical techniques for environmental samples (soil, water and wastewater analysis) from PCSIR and LCWU.
- ✓ Skill on Global Positioning System (GPS)
- ✓ Geographic Information System (GIS)
- ✓ Proficiency in Microsoft Office

Research Supervision

Supervised **6 Postgraduate** and **21 undergraduate** students in field of green technologies/treatment methods for water and wastewater treatment (onward 2018 to date).

International & National Courses/Training Workshops

- Participated in training course on “ Capacity Building Course for Researcher” organized by British Council-HEC Lahore Pakistan (26-29 July 2022).
- Attended international workshop on “Disaster Risk Reduction Knowledge Service”, organized by Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (IGSNRR, CAS) Beijing China. and hosted by **International Knowledge Centre for Engineering Sciences and Technology under the Auspices of UNESCO (IKCEST)** (December 14, 2021)
- Attended workshop on “Quality Assurance Parameters for Effective Teaching” organized by Quality Enhancement Cell of Kinnaird College for Women organized (March 26, 2021).
- Attended workshop on “Data Analytics using SPSS” organized by Quality Enhancement Cell of Kinnaird College for Women organized (January 30, 2021).

- Attended “Technology transfer fund workshops capacity building workshops. Industry academia collaboration for achieving growth through agriculture and water management by HEC Pakistan (September 1st 2020).
- Attended Workshop “Self-Assessment” process in HEIs” organized by QEC Kinnaird College for Women Lahore (November 9, 2019).
- Attended workshop on “The fundamentals of proofing and editing reports for scientific publications” organized by Kinnaird College for Women Lahore (September 19, 2019).
- Attended workshop on “How to move your article quickly through the review process” organized by Kinnaird College for Women Lahore (September 20, 2019).
- Attended Workshop on “Roadshow on New R&D Framework of HEC” at University of Punjab (November 23, 2019).
- Attended workshop on “Introductory Stata” organized by QEC Kinnaird College for Women Lahore (May 4, 2019).
- Attended workshop on “Quantitative Data Analysis” organized by QEC Kinnaird College for Women Lahore (January 17, 2019).
- Attended Curriculum Orientation Workshop on “Environmental Sciences” held at Learning Innovation Division HEC (October 8-10, 2018).
- Received certificate of completion on Global Harmonized System Training “Lab Safety” by Georgia Institute of Technology Atlanta, USA (June, 2015).
- Completed e-learning international course on the law of transboundary aquifers by United Nations Institute for Training and Research-UNITAR (3-23 December 2014).
- Completed e-learning course on International Water Law by United Nations Institute for Training and Research (June 2- July 4, 2014).
- Participated in three-day training workshop on “advanced characterization techniques and practical applications of nanomaterials at NIBGE (27-29 October 2014).
- Attended one day workshop on “Organic roof top farming, the edible garden (5 April 2012).
- Participated in two-day training workshop “Disaster Risk Management” organized by Lahore College for Women University (16-17 January 2012).
- Participated in two day training workshop on” Capacity Building in Gospatial Information and Environment Data” organized by Environment Protection Department Government of the Punjab and National Environmental Information Management System (NEIMS) Ministry of Environment, Government of Pakistan (2011).
- Attended short course on “Contaminant Hydrology” organized by Environmental Science Department, Lahore College for Women University (1-13 Feb. 2010).
- Attended the three days training workshop on “Global Positioning System (GPS) for Spatial Data Management” organized by Lahore College for Women University in collaboration with Environment Protection Department (EPD) (2010).

- Attended the International workshop on “Sustainable Development: Challenges and Issues” organized by Environmental Science Department, Lahore College for Women University (2009).
- Attended lecture and training for the use of “Gas Chromatography – Mass Spectrometry (GC-MS)” organized by Environmental Science Department, Lahore College for Women University (2009).
- Attended the three days training course on “Health Risk Assessment and Management” organized by Environmental Science Department, Lahore College for Women University (2009).
- Attended the International workshop on “Environmental Literacy through Picture Map Analysis” organized by Environmental Science Department, Lahore College for Women University (2009).
- Participated in the Special Lecture and Training for the use of “High Performance Liquid Chromatography (HPLC)” organized by Environmental Science Department, Lahore College for Women University (2009).
- Attended the two days training workshop on “Role of CBOs in Community Development” organized by Environmental Science Department, Lahore College for Women University (2008).
- Attended special lecture and training on “Atomic Absorption Spectrophotometer” organized by Environmental Science Department, Lahore College for Women University (2007).

Publications

- Xuechun Shao, Qi Zhang, Weiyu Liang , Mengru Fu , **Sadia Saif** , Cheng Peng, Wei Zhang. Polyamide microplastics as better environmental vectors of Cr(VI) in comparison to polyethylene and polypropylene microplastics. Marine Pollution Bulletin. 186 (2023) 114492 (I.F= 7.00)
- Amna Chaudhry, Farzana Bashir, Syed Farooq Adil, **Sadia Saif***, Mohammed Rafi Shaik, Mohammad Rafe Hatshan. Ascorbic acid-mediated Fe/Cu nanoparticles and their application for removal of COD and phenols from industrial wastewater. Journal of King Saud University – Science, 34(4). 2022. (I.F=4.01)
- **Sadia Saif***, Afifah Abdullah, Maham Sarfraz, Yongsheng Chen, Syed F. Adil , Mujeeb Khan and Mohammad R. Hatshan. Silica based nanoparticles, synthesis, and their environmental applications ((under review)
- **Sadia Saif ***, Syed F. Adil , Mujeeb Khan Mohammad R. Hatshan, Merajuddin Khan and Farzana Bashir. Green synthesis of CuO nanoparticles employing *Phyllanthus emblica* leaf extract and its adsorption studies of arsenic(V). Sustainability, 13(4). 2021. (I.F=3.88)
- Mujeeb Khan , Syed F. Adil , Muhammad N. Tahir , **Sadia Saif**, Merajuddin Khan and Shams T. Khan. COVID-19: A Global Challenge with Old History, Epidemiology and Progress So Far. Molecules, 26(1), 39. 2021. (I.F= 4.9)

- Tanzeem-ul-Haq , Bilal Rasool , Syed Ehtisham-ul-Haque , **Sadia Saif** , Sadia Zafar , Tahira Younis, Imran Akhtar , Laila Jafri, Naeem Iqba, Nasir Masood, Karolina Lewińska and Muhammad Iqbal. Chitosan with Bentonite and Biochar in Ni-Affected Soil Reduces Grain Ni Concentrations, Improves Soil Enzymes and Grain Quality in Lentil. *Minerals*, 11(1), 11.2021. (I.F= 2.8)
- **Sadia Saif***, Arifa Tahir, Tayyaba Asim, Yongsheng Chen, Mujeeb Khan and Syed Farooq Adil. Green synthesis of ZnO hierarchical microstructures by *Cordia myxa* and their antibacterial activity. *Saudi Journal of Biological Sciences*, 26(7). 2019 (IF=4.21)
- **Sadia Saif***, Arifa Tahir, Tayyaba Asim, Yongsheng Chen and Syed Farooq Adil. Polymeric Nanocomposites of Iron–Oxide Nanoparticles (IONPs) Synthesized Using *Terminalia chebula* Leaf Extract for Enhanced Adsorption of Arsenic(V) from Water. *Colloids and Interfaces*, 3(1), 17. 2019
- **Sadia Saif***, Arifa Tahir, Tayyaba Asim and Yongsheng Chen. 2016. Plant Mediated Green Synthesis of CuO Nanoparticles: Comparison of Toxicity of Engineered and Plant Mediated CuO Nanoparticles towards *Daphnia magna*. *Nanomaterials*, 6(11), 205.(IF=5.7)
- **Sadia Saif***, Arifa Tahir, Tayyaba Asim and Yongsheng Chen. 2016. Green Synthesis of Iron Nanoparticles and Their Environmental Applications and Implications *Nanomaterials*, 6(11), 209. (IF=5.7)
- Farkhanda Manzoor, Ghazala Nasim, **Sadia Saif**, Saadiya Asma Malik. 2011. Effect of Ethanolic Plant Extracts on three Storage Grain Pests of Economic Importance. *Pakistan Journal of Botany*, 43(6): 2941-2946. (IF=0.9)

Books

Title: Agri waste and microbes for production of sustainable nanomaterials

Sadia Saif, SF Adil, A Chaudhry, M Khan. Microbial synthesis of magnetic nanomaterials. *Agri-Waste and Microbes for Production of Sustainable Nanomaterials*. Pages 323-356. Publisher Elsevier. 2021.

Seminars / Conferences

- Attended International Webinar on “Water-A carrier” organized by Water Care Services Pakistan (WCSP)(December 10, 2021).
- Attended Webinar on Climate Change and Pandemic: Impact on water. thinking the unthinkable: harnessing the pandemic to improve SDG6, Health and Sanitation. organized by Hissar Foundation (December 9, 2021).
- Attended Webinar on Climate change COP-26 organized by ORIC in collaboration with Department of Environmental Sciences KCW (October 6, 2021).

- Attended 18th Asia Nano forum Summit on “Nanosafety forum on country experiences and predictive model” August 5, 2021.
- Attended Webinar on “Water and Ecosystem” 2nd Asia International Water Week organized by Asia Water Council (May 18, 2021).
- Attended International Webinar on “Graphene-Based Hybrids Composites and their Applications” organized by STEMatters by USA (May 2, 2021).
- Attended Webinar on “Sustainable development of CPEC: Vision for China-Pakistan Sciences and Technology Cooperation in Earth Sciences” 18th March 2021 organized by CPJRC.
- Attended webinar on “Comprehensive Water Analysis: Total Organic Fluorine (TOF), Total Organic Carbon (TOC), and Metal” organized by PITTICON (March 9, 2021)
- Participated in working group discussion on “Community Water Stewardship: relationship Groundwater Resources in Lahore” organized by WWF(April 5, 2021).
- Attended International conference on “Sustainable Energy Water Environment nexus Pakwater (Webinar) (November 3, 2020).
- Attended conference cum expo on higher education in science and technology for socio-economic development of Pakistan PCSIR Laboratories Complex Lahore (11-12 February 2019).
- Attended International Conference & Exhibition on Environment at Silver bells Marquee Royal Palm Golf & Country Club Lahore (September 19, 2019).
- Attended seminar “GIS in Municipal Asset Management and Urban Transport System”(November 19, 2014).
- Attended International conference on “Bioenergy Challenges and Opportunities in Pakistan” (20-21 November 2014).
- Attended an International Seminar on Impact of Climate Change on Human Health organized by LCWU (2012).
- Attended one-day International Seminar on “Accessible Living Environment for All” held at the LCWU (2011).
- Attended EPD-LCWU Joint seminar on “Water crises in Pakistan and Our Social Responsibility” (2010).
- Paper presented in International Conference on Sustainable Approaches for Pest and Vector Management in Pakistan held at Lahore College for Women University, Lahore (2011).
- Attended special Lecture/Seminar on “GIS application in Environmental Management and Planning” organized by Environmental Science Department of Lahore College for Women University, Lahore (2008).
- Attended a Pakistan-Japan Joint Seminar on “Arsenic in Pakistan-Drinking Water Disaster Management through Civil Society” (2007).
- Attended the International conference on Food and Beverages and Exhibition on World Food Day held at Lahore College for Women University, Lahore (2004).

Other Professional Experience/Activities

- **Reviewer of International Journals (2018- till now):**
“MDPI” Switzerland.
“Journal of Advances in Biology and Biotechnology”
“Asian Journal of Biology”.
- **Reviewer of research projects for Pakistan Sciences Foundation (PSF)** expert in the field of nanotechnology and science (since 2021).

Seminar/Academic Event Organizer

- Organizing member of seminar on “World Biodiversity Day” by Department of Zoology and Environmental Sciences KCW (24 May, 2022).
- Organized seminar on “Climate Change Action” in collaboration with ORIC KCW and Department of Environmental Sciences KCW May 19, 2022.
- Organized Seminar on “City’s Smog and Climate Change” in collaboration with ORIC KCW and PDMA Punjab on December 1st, 2021.
- Organized “Awareness Seminar on Corona” at Kinnaird College for Women 25 February 2020.
- Organized “Tree Plantation Activity” at Kinnaird College for Women on March 21, 2019.
- Organizer of One day “Symposium on Climate Change: Adaptation and Mitigation Challenges in Pakistan” Department of Environmental Sciences at Kinnaird College for Women on March 6, 2018.
- Worked as an active member of LEAF (Lahore College Environmental Awareness Forum 2006-2010). Participated in organizing environmental awareness seminars in Environmental Science Department of Lahore College for Women University and Kinnaird College for Women.
- Worked as internee at Lahore College for Women University under Professional Capacity Building Program (March-May, 2014).
- Carried out research work in Water and Wastewater Analysis Laboratory of Pakistan Council of Scientific and Industrial Research (PCSIR) (2010).
- Worked as internee at Environment Protection Department (EPD) Punjab, Lahore (Sep to Dec, 2009)

External Examiner

- Government College for Women University, Lahore
- Lahore College for Women University, Lahore

Other institutional Activities

- Responsibility of Environmental Science Laboratories and other matters related to Labs, Kinnaird College For Women.
- Departmental Team Member of “Self-Assessment Report”
- Committee Member of MPhil Admission

Special Honour

- Name in ranking list of **AD Scientific Index Top Scientists** of Pakistan 2023.
- Aailed scholarship for research in abroad, by IRSIP-HEC (2015)
- Lahore College for Women University awarded *Academic Roll of Honor* for MS class (2008-2010).