

PERSONAL INFORMATION

Saira Shakoor

Rawalpindi, Punjab, Pakistan

+923344883817

sairashakoor3@gmail.com

[LinkedIn](https://www.linkedin.com/in/saira-shakoor-593145131) [linkedin.com/in/saira-shakoor-593145131](https://www.linkedin.com/in/saira-shakoor-593145131)

Gender Female | Nationality Pakistani

PROFILE STATEMENT

A highly skilled scientist with extensive experience in spectroscopy, electrochemistry, MATLAB programming, and density functional theory (DFT). Proficient in analysing and interpreting complex experimental data, designing computational models, and developing custom MATLAB scripts to solve scientific problems. Strong background in applying DFT to explore the electronic structure of materials and chemical systems, coupled with hands-on expertise in electrochemical techniques and various spectroscopic methods for material characterization and process optimization.

WORK EXPERIENCE

FEB 2022-JUN 2024

PROGRAM COORDINATOR

Aspire Group of Colleges, Kasur (Affiliated with University of Education) Pakistan

SEP 2017-JAN 2022

PROGRAM COORDINATOR

Pakistan Institute of Applied and Social Sciences (PIASS), Kasur (Affiliated with University of Education) Pakistan

PROFESSIONAL CERTIFICATION (PGD)

SEP 2024-FEB 2025

CERTIFICATE IN MANUFACTURING OF SURFACTANT BASED PRODUCTS

Allama Iqbal Open University (AIU), Islamabad, Pakistan

- Experienced to manufacture, handle, analyse, quality control and marketing of surfactant based products like soap, shampoos and detergents
- Performed foaming analysis, stain removal efficiency of different formulations, testing of pH, wetting ability and foam volume
- Tested soft and hard water, determined the critical micelle concentration (CMC) of products and evaluated the effect of pH on CMC.
- Prepared solid and liquid soap through cold and hot process, prepared solid detergent and liquid dishwasher
- Prepared green formulations and value addition in products like lavender extract, rose marry extract, aloe vera and black seed oil

RESEARCH EXPERIENCE

JULY 2015- JULY 2017

Graduate Research Assistant

Department of Chemistry Quaid I Azam University, Islamabad, Pakistan

- Attending workshops/conferences with posters and talks
- Writing and editing publications
- Adapted novel polyphenols to determine the antioxidant activities
- Performed UV-Vis Spectroscopy, Cyclic Voltammetry and DFT calculations
- Mentored undergraduates in computational chemistry
- Characterization techniques: such as TEM, SEM, AFM, FTIR, XRD, UV, HPLC

EDUCATION

SEP 2014– NOV 2016

MPhil in Physical Chemistry

Thesis Title: "Investigation of Antioxidant Activities of some Vitamins and Novel Polyphenols using Electrochemical and UV-Visible Spectroscopic Techniques and DFT Calculations"

Department of Chemistry Quaid I Azam University, Islamabad, Pakistan

AUG 2011– JUL 2013

MSc in Chemistry

Department of Chemistry Quaid I Azam University, Islamabad, Pakistan

RESEARCH OUTPUTS

RESEARCH ARTICLES

- Jabeen, h., saleemi, s., razzaq, h., yaqub, a., shakoor, s., & qureshi, r. (2018). investigating the scavenging of reactive oxygen species by antioxidants via theoretical and experimental methods. journal of photochemistry and photobiology b: biology, 180, 268-275.

<https://www.sciencedirect.com/science/article/abs/pii/S1011134417312253>

CONFERENCES

- Certificate of Participation in 21st International, 1st Inter-Islamic & 33rd National Chemistry Conference (CHENCON23) on "Chemical Sciences: Technology, Innovation and Sustainability" at Quaid I Azam University, Islamabad held on 23-25 October, 2023
- Certificate of Participation in 3rd International Conference on Chemical and Pharmaceutical Sciences on "New Trends in Medicinal and Pharmaceutical" at Forman Christian College, Lahore held on 29-31 January, 2020
- Certificate of Appreciation for poster presentation in International Conference on Chemical Sciences on "Recent Trends in Chemical Sciences" at Quaid-i-Azam University, Islamabad held on 24-26 April, 2019
- Certificate of One Day Training on "Assessment and Examination in Semester System" Organized by University of Education, Lahore, 2019
- One-day Training Session on "General Guidelines for Central Paper Marking for Head Examiners and Sub- Examiners" organized by the university of Education Lahore. 15th January 2019
- Certificate of Participation in 3rd National Workshop on "Global Chemist Code of Ethics" at Quaid-i-Azam University, Islamabad held on 2 July, 2018
- Certificate of Participation in 4th Conference on "Frontiers of Nanoscience and Nanotechnology" at Pakistan Institute of Nuclear Science and Technology (PINSTECH), Nilore, Islamabad held on 13-14 Dec, 2017
- Certificate of Participation in 3rd International Chemistry Conference on "Recent Trends in Chemistry" at Allama Iqbal Open University (AIU), Islamabad held on 23-24 Nov, 2017
- Certificate of Participation in 2nd International Chemistry Conference on "Recent

CONFERENCES

Trends in Chemistry” at Allama Iqbal Open University (AIU), Islamabad held on 24-25 Nov, 2016

- Certificate of Participation in 3rd Conference on “Frontiers of Nanoscience and Nanotechnology” at Pakistan Institute of Nuclear Science and Technology (PINSTECH), Nilore, Islamabad held on 25-27 Oct, 2016
- Certificate of Participation in “Computational Chemistry Workshop” at Forman Christian College, Lahore held on 20-22 Jan, 2016

PERSONAL SKILLS

LANGUAGES

English, Urdu, Punjabi

COMMUNICATION SKILLS

Ability to adapt to multicultural environments, achieved through the presence of colleagues from foreign countries in graduate courses, work. Good communication and listening skills.

ORGANIZATIONAL SKILLS

Good organizational skills acquired and consolidated over time through work experience, report writing, aptitude for teamwork, and management of laboratory activities and volunteering activities.

DIGITAL SKILLS

Basic digital competencies: Operating systems (Good), X-pert high score, Origin Lab, Chem Draw, Hyperchem, Guassian 03W, MATLAB, Mathematica, Zoom, Office tools

REFERENCES

1. Dr Rumana Qureshi | Professor (Rtd.)

Department of Chemistry Quaid I Azam University, Islamabad, Pakistan

Email: r_qureshy@yahoo.com

2. Dr Naveed Kausar Janjua | Professor

Department of Chemistry Quaid I Azam University, Islamabad, Pakistan

Email: nkjanjua@qau.edu.pk

Place and Date
Rawalpindi, 13/12/2024

Saira Shakoor

