**Dr. Shazia Perveen**

*Ph.D.* (Chemistry)

shaziaperveen@neduet.edu.pk

**HIGHLIGHTS OF EXPERTISE**

* Commands on voltammetric method development to study different chemical systems.
* Research experience to study electron transfer reaction mechanisms associated to different chemical systems and evaluation of their thermodynamic and kinetic parameters.
* Research experience in computer aided simulation of coupled chemical reactions using DigiSim software.
* Research innovative, self-motivated, better in spoken English, and proficient in use of internet.

FIELD OF RESEARCH

* Electrochemisty, Analysis of chemical fractals, Analytical applications of Cyclic Voltammetry, Thermodynamic and Kinetic study of different systems.

TEACHING EXPERIENCE

**25th March to date** Assistant Professor in Department of Chemistry, NED University of Engineering and Technology.

**18th Jan 2019 to 1st February 2019** Part time teacher in Department of Chemistry, NED University of Engineering and Technology.

**8th Jan 2018 to 7th Jan 2019** Assistant professor (IPFP) in Department of Chemistry, NED University of Engineering and Technology.

**Jan 2015 to 30th June 2017** Teaching Associate (Analytical Chemistry) in Department of Chemistry, University of Karachi, Karachi, Pakistan.

**Jan to June 2015** Interdepartmental Teacher in Institute of Marine Science, University of Karachi, Karachi, Pakistan.

**Feb 2006 - June 2007** Full time Cooperative teacher in Department of Chemistry, University of Karachi, Karachi, Pakistan.

**ACADEMIC CAREER**

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| **2014** | **Ph.D.** Chemistry Department University of Karachi, Karachi, Pakistan.  ***Study of molecular recognition, Host-Guest interaction, between β-Cyclodextrin with viologen guests.*** |
| **2005** | Master of Science (M.Sc.), Department of Chemistry, University of Karachi, Karachi-Pakistan.  Major: Chemistry, Analytical Chemistry, 1st Division |
| **2004** | Bachelor of Science (B.Sc.HONS), Department of Chemistry, University of Karachi, Karachi-Pakistan.  Major: Chemistry, 1st Division |
| **2000** | Higher School Certificate (H.S.C.), Board of Intermediate Education, Karachi, Pakistan.  Major: Chemistry, Biology, Physics 1stDivision |
| **1998** | Secondary School Certificate (S.S.C.), Board of Secondary Education, Karachi, Pakistan.  Major: Science 1stDivision |

**LIST OF PUBLICATIONS**

***PUBLISHED BOOK***

1. **Shazia Akbar**. “Fractal Analysis in Chemistry and Biology” ***LAP LAMBERT Academic Publishing AG & Co. KG, Germany****.* Dec. **2010**.

***PUBLISHED JOURNAL ARTICLES***

1. **Shazia Akbar\***, Iftikhar Imam Naqvi, Mahboob Muhammad and Erum Zahir, “Fractal Growth of Zinc Dendrites”, Asian Journal of Chemistry, 21, 2009, 4190-4198.
2. **Shazia Akbar\***, Iftikhar Imam Naqvi and Mahboob Muhammad, “Electron transfer reactions associated with ethyl viologen-β-cyclodextrin complexation: equilibrium and kinetic aspects’’, Journal of the Iranian Chemical Society, Springer, 11, 2014, 615-621.
3. **Shazia Perveen\***, Iftikhar Imam Naqvi, “Inclusion complexation of Benzyl viologen by β-cyclodextrin in DMF-H2O mixed solution, Pakistan Journal of Analytical and Environmental Chemistry (PJAEC), Vol. 17, Issue 1, 2016.
4. **Shazia Perveen\***, Sheikh Mohiuddin, “Multiproticity of weak acids: Inflection point vs. Equivalence point”, World Journal of Chemical Education, 4, 2016, 21-24.
5. **Shazia Perveen\***, Sheikh Mohiuddin, “Practical pH measurements Vs Theoretical approach: Acid-Base System”, World Journal of Chemical Education, Vol.6, No.5, 2018, 218-222.

***ARTICLE ACCEPTED WITH MINOR CORRECTIONS***

1. Tehmina Fiaz, **Shazia Perveen\***, Nasreen Fatima,“Study of Complexation of Dopamine Analogs with bioactive metals by Cyclic Voltammetry.", Journal of Iranian Chemical Society. Manuscript Number: JICS-D-18-00741.

***ARTICLES UNDER REVIEW PROCESS***

1. Kanwal Zahid, Shazia Nisar, **Shazia Perveen\***, “Spectroscopic and redox analysis on the interaction of bioactive iron with clinical chelating drug, kojic acid, JSAC 00013188.
2. Saba Iqbal, **Shazia Perveen\***, Sheikh Mohiuddin, “Study of antioxidant activity of citric acid towards Paraquat by Cyclic voltammetry”, Anal. Sciences, Anal. Sci. 18P463.

**ACHIEVEMENTS, DISTINCTIONS & PROFESSIONAL RECOGNITIONS**

1. *Life Time Member of Chemical Society of Pakistan.*
2. Invitation, to join the Editorial Board as an Editorial Member, from a highly reputable publisher (Whioce Publishing Pte. Ltd. Singapore) of the Journal entitled “Journal of Chemical Research and Application”, due to profound insights into research.
3. M.Sc. research work was picked and published by a German publisher as a Book.
4. *“1st Prize”* in Poster presentation on “Fractal Growth of Zinc Dendrites” in Annual Poster Competition of the year 2005 at Department of Chemistry, University of Karachi.

**RESEARCH ACTIVITIES**

* *M.Sc. Project CO-SUPERVISOR*

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| Year | Student Name | Title | Status |
| 2015 | Saba Iqbal | Antioxdant Activity of Citric Acid Towards Methyl Viologen. | Completed |

* *MS-ISP SUPERVISOR*

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| Year | Student Name | Title | Status |
| 2018 | Syed Junaid Ali | Extraction of Salinity Gradient Power on Mass Scale. | On Going |

* *FYPs SUPERVISOR*

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| Year | Batch | Title | Status |
| 2018 | 2015-16 | Designing and characterization of ion exchange membrane for electrochemical devices | On Going |
| 2018 | 2015-16 | Study of chemical and physical properties of ion exchange membrane | On Going |

* *Ph.D. CO-SUPERVISOR*

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| Year | Student Name | Title | Status |
| 2014-2017 | Tehmina Fiaz | Cyclic Voltammetric Study of Chelation of Dopamine Analogs with Metals like Iron, Copper and Aluminum. | Completed |
| 2017-2019 | Kawanl Zahid | The Complexation and Redox studies of some metal ions with hydroxypyranone and hydroxpyridinone type ligands. | Completed |

* *RESEARCH PROJECT SUBMITTED TO HEC*

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| Year | Name of PI | Title | Type of Project | Status |
| 2015 | Shaikh Mohiuddin, Dept. of Chemistry University of Karachi | Establishment of academics and research in forensic chemistry | Pak–US Science and Technology Cooperation Program-2014 | Not Accepted |
| 2018 | Shazia Perveen  Department of Chemistry,  NED University of Engineering & Technology | Salinity Gradient Power Technology Coupled With Ro Process: A Versatile Hybrid Process For  Desalination Of Water Along With Electricity Generation | TDF | Project has been shortlisted from 3rd stage for further process. |
| 2018 | Shazia Perveen  Department of Chemistry,  NED University of Engineering & Technology | Blue Energy: Salinity Gradient For Electricity Generation. Use Of The Concept Of Concentration  Cell On Mass Scale. | TDF | Project has been shortlisted from 3rd stage for further process. |

**CONFERENCES &WORKSHOPS**

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|  | * (February 21st--22nd,2019) abstract of paper has been accepted for oral presentation in the 4th International Conference on Bioscience and Biotechnology which will be organized in Kuala Lumpur, Malaysia.   Title: “Electron transfer reactions associated with Benzyl viologen-β-cyclodextrin complexation: equilibrium and kinetic aspects’’   * (January 8th -10th,2016) Participated as a speaker in 4th International Conference on Environmental Horizon organized by Dept. of Chemistry, University of Karachi.Title:Study of Molecular recognition of viologens with β-Cyclodextrin by Cyclic Voltammetry. * (December 15th -18th , 2016) Paper on “Electrochemical oxidation of levodopa, with and without iron” presented in 14th Eurasia Conference on Chemical Sciences jointly organized by HEJ Research Institute of Chemistry, ICCBS, University of Karachi and Economic Cooperation Organization Science Foundation (ECOSF). * (January 8th to 10th, 2016) A poster has been presented in 4th International Conference on Environmental Horizon organized by Dept. of Chemistry, University of Karachi. Title: Voltammetric study of methyl viologen interaction with citric acid as an Antioxidant. * (January 9th-11th , 2015) Participated in 3rd International Conference on Environmental Horizon organized by Dept. of Chemistry, University of Karachi. * (August 12th- 17th 2006) Paper on “Fractal Growth of Zinc Dendrites and its Simulation” presented in 19th International Conference on Chemical Education in Seoul Korea. Abstract has been published in IUPAC Proceedings of 19th ICCE Seoul, Korea. * (December 19th-21st 2006) Paper on “Dendrites formation and Simulation” presented in International Conference on Environmental Horizons arranged by Dept. of chemistry & ICCBS, University of Karachi. Abstract of research work has been published in the “Abstract Book of International Conference on Environmental Horizons” * (April 24th -29th 2006) Participated as a speaker in “College Teacher’s   Workshop on Chemistry Education and Challenges” under the auspices of National Core Group in Chemistry at Department of Chemistry, University of Karachi.  Topic: - Lab Safety & Equipment for Measuring Volume and Mass. |

**ADDITIONAL COURSES**

X-Ray Crystallography Course (July 08 to August 11, 2006)

HEJ Research Institute of Chemistry, ICCBS, University of Karachi.

Staff Development Course (May 07 to May 30,2007)

National Academy of Higher Education (NAHE), held at University of Karachi.

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|  | English Language Proficiency Course( February 02, 2007)  From University of Karachi. |

**Personal profile**

Father name: Aman Ullah Khan

Spouse name: Muhammad Akbar Khan

Marital status: Married