

Dr. Shazia Perveen

HEC Approved Ph.D. Supervisor

Assistant Professor

Department of Chemistry, NED University of Engineering and Technology

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Updated: 08/10/2025

RESEARCH EXPERTISE

Electrochemistry, Membrane synthesis and applications, Industrial wastewater treatment and recycling, Water purification using membrane technology, Electrochemical sensor design and optimization, Green and cost effective electro-synthesis of nanomaterials, 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 Digi-Sim software.

ACADEMIC QUALIFICATIONS			
Year	Degree	Field of Study	Institution/University/Board
2014	Ph.D.	Electrochemistry	University of Karachi
2005	M.Sc.	Chemistry, Analytical Chemistry	University of Karachi
2004	B.Sc. (Hons.)	Chemistry	University of Karachi
2000	H.S.C.	Science	Karachi Board
1998	S.S.C.	Science	Karachi Board

PROFESSIONAL EXPERIENCE: (Research and Teaching Experience: 19.5 Years)			
Institution	Position / Job Title	Period	
Dept. of Chemistry, NED University of Engineering and Technology	Assistant Professor (Regular)	01-07-2022	Continue
Dept. of Chemistry, NED University of Engineering and Technology	Assistant Professor (Adhoc)	25-03-2019	30-06-2022
Dept. of Chemistry, NED University of Engineering and Technology	Assistant Professor (IPFP)	08-01-2018	07-01-2019
Dept. of Chemistry, University of Karachi	Teaching Associate	19-01-2015	30-06-2017
Dept. of Chemistry, University of Karachi	Cooperative Teacher	16-02-2006	30-06-2007

RESEARCH 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

2. **Shazia Akbar***, Iftikhar Imam Naqvi, Mahboob Muhammad and Erum Zahir, "Fractal Growth of Zinc Dendrites", *Asian Journal of Chemistry*, 21, 2009, 4190-4198.
3. **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.

4. **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, 17(1) 2016, 58-64.
5. **Shazia Perveen***, Sheikh Mohiuddin, "Multiproticity of weak acids: Inflection point vs. Equivalence point", World Journal of Chemical Education, 4, 2016, 21-24.
6. **Shazia Perveen***, Sheikh Mohiuddin, "Practical pH measurements Vs Theoretical approach: Acid-Base System", World Journal of Chemical Education, 6 (5) 2018, 218-222.
7. Summyia Masood*, Rehana Saeed, Maria Ashfaq and **Shazia Perveen**, "Interionic interactions of Nickel Sulphate in Aqueous and Aqueous Methanol Mixtures", Pak. J. Chem. 8(1) 2018, 01-07.
8. Tehmina Fiaz, **Shazia Perveen***, Nasreen Fatima, "Study of Complexation of Dopamine Analogues with bioactive metals by Cyclic Voltammetry." Journal of Iranian Chemical Society, Springer, 16 (10) 2019, 2211-2220. <https://doi.org/10.1007/s13738-019-01688-1>.
9. Kanwal Zahid*, Shazia Nisar, Saima Imad, **Shazia Perveen***, Shazia Ghaffar, Nasreen Fatima, "Synthesis and characterization of homo and mixed ligand complexes of Fe(III) with hydroxypyridinone and hydroxypyranone type ligands", Pakistan J of Scientific and Industrial Research, Sec A; Phys. sci. 63A (1) 2020, 12-17.
10. Saba Iqbal, **Shazia Perveen***, Sheikh Mohiuddin, "Study of antioxidant activity of citric acid towards Paraquat by Cyclic voltammetry", Pakistan J of Pharmaceutical Sciences, 33, 2020, 263-267 doi.org/10.36721/PJPS.2020.33.1.SUP.263-267.1.
11. **Shazia Perveen***, Iftikhar Imam Naqvi and Summyia Masood, "Study of electron transfer reactions associated with benzyl viologen- β -cyclodextrin complexation in buffer solution of pH 7: equilibrium and kinetic aspects" Asian Journal of Chemistry, 32 (8) 2020, 1981-1985.
12. Kanwal Zahid, **Shazia Perveen***, Shazia Nisar and Nasreen Fatima, "Cyclic voltammetric studies of electron transfer reactions associated with bioactive iron-KA complexation at different biological pH", Canadian J of Chemistry, 100 (10) 2022, 776-788. <https://doi.org/10.1139/cjc-2021-0300>.
13. Muzamil Jalil Ahmed, **Shazia Perveen***, Syed Ghazanfar Hussain, Arsalan Ahmed Khan, Syed Muhammad Wahaj Ejaz, Syed Muhammad Ali Rizvi, "Design of a facile, green, and efficient Graphene Oxide based electrochemical sensor for analysis of Acetaminophen drug", J of Chemical Papers. 77 (4) 2023, 2275-2294. <https://doi.org/10.1007/s11696-022-02628-9>
14. **Shazia Perveen***, Amar-Ul-Haque, "Drinking water quality monitoring, assessment and management in Pakistan: A review", Heliyon. 9 (3) 2023, e13872. <https://doi.org/10.1016/j.heliyon.2023.e13872>
15. **Shazia Perveen***, Syed Ghazanfar Hussain, Muzammil Jalil Ahmed, Ruba Khawar, Taha Bin Siraj, Maryam Saleem, "A Viable and sustainable flat- membrane plate-and-frame module for spent acid regeneration and metal ion recovery." Heliyon, 9 (8) 2023, e18344. <https://doi.org/10.1016/j.heliyon.2023.e18344>
16. **Shazia Perveen***, Syed Ghazanfar Hussain, Muzammil Jalil Ahmed, Ruba Khawar, Asma Hashmi, "Caustic Regeneration using a Versatile Glycolated Sulfonated Poly(ethersulfone)/Cellulose Acetate Membrane via a Coupled Diffusion Dialysis-Electrodialysis Process. "Journal of Environmental Chemical Engineering", 13 (5) 2025, 119149. <https://doi.org/10.1016/j.jece.2025.119149>

ARTICLES UNDER REVIEW PROCESS

17. Muzammil Khatri, **Shazia Perveen***, Syed Ghazanfar Hussain, Muzammil Jalil Ahmed, "Selective and Simultaneous Detection of Sumatriptan and Naproxen Using a Reduced Graphene Oxide-Modified Electrode: A Green Analytical Approach" Microchemical Journal, Ms. Ref MICROC-D-25-03054, April, 2025.
18. **Shazia Perveen***, Syed Ghazanfar Hussain, Muzammil Jalil Ahmed, Ruba Khawar, Asma Hashmi, "High-Performance SCGE Nanocomposite Membranes for Energy-Efficient Caustic Recovery from Mercerization Wastewater" Journal of Membrane Science, Ms. Ref. No.: MEMSCI-D-25-01690., June, 2025.

PATENTS UNDER REVIEW PROCESS

1. Patent specification (PK 563/2024) has been filed at IPO Pakistan on 13th August 2024, entitled "Semiporous Cation-conducting Blend Polymers, a Method of preparing Self-supporting Membranes

from the same and Uses thereof in an Electrodialytic Caustic Soda Regeneration Process”. In Review process.

2. Patent specification (PK 830/2021) revised and submitted at IPO Pakistan on 11th July, 2024, in response to the examination report received. Specification entitled, “An Inventive Scalable Method for the Production of High Quality Graphene Oxide Nano-sheets” (Patent Filing Date 15th Nov 2021).
3. Patent specification (PK 831/2021) revised and submitted at IPO Pakistan on 11th July, 2024, in response to the examination report received. Specification, entitled, “A Novel Scalable Electrochemical Method for Obtaining High Quality Reduced Graphene Oxide Nano-Sheets & A Novel Characterization Method Thereof”(Patent Filing Date 15th Nov 2021).

RESEARCH PROJECTS/GRANTS

Year of Award	Name of PI	Project/Grant	Status
WORLD BANK FUNDED HEC RESEARCH PROJECT (COMPLETED)			
2021	Dr. Shazia Perveen Department of Chemistry, NED University of Engineering & Technology	<u>TTSF</u> “Designing of a Versatile Prototype based on the application of Ion Exchange Membranes, for Efficient and Cost Effective Recycling of Industrial Waste”	Project Completion Form has been Submitted Total Funding: 6.341174 Million
HEC FUNDED RESEARCH PROJECT (ONGOING)			
2023	Dr. Shazia Perveen Department of Chemistry, NED University of Engineering & Technology	<u>SRSP-SHEC</u> “Nanomaterial Induced Novel Membranes as a Viable and Sustainable Model for Water Purification”	First Annual Report has been Submitted Total Funding: 2.5 Million
HEC FUNDED RESEARCH PROJECT (SHORTLISTED)			
2024	Dr. Shazia Perveen Department of Chemistry, NED University of Engineering & Technology	<u>TDF-04</u>	Project shortlisted from 3rd stage, Defense Presentation has been given Total Funding: 13.877 Million
2025	Dr. Shazia Perveen Department of Chemistry, NED University of Engineering & Technology	NRPU	Under review Process

TECHNOLOGY TRANSFER AGREEMENTS & LICENSES SIGNED

- A **Non-Disclosure Agreement (NDA)** signed on 24th March 2023, between Dr. Shazia Perveen and Fast Information Tech. Pvt. Ltd. (TTSF Project Industrial Partner) to strengthen the potential collaboration in research and development activities related to TTSF Project. In connection with this, the Disclosing Party shared certain confidential information with the Receiving Party to facilitate collaboration.

- A **Non Exclusive License Agreement** has been signed on 26th November 2024, between Fast Information Tech. Pvt. Ltd. ("Licensee") and NED University of Engineering & Technology (NEDUET) for a groundbreaking invention which is an outcome of the TTSF project entitled, "A Versatile Prototype for Efficient and Cost Effective Recycling of Industrial Waste" invented by Dr. Shazia Perveen, Department of Chemistry, NEDUET.

RESEARCH SUPERVISION

MS-ISP SUPERVISOR/MS THESIS SUPERVISOR

Year	Student Name	Title	Status
2018	Syed Junaid Ali	Extraction of Salinity Gradient Power on Mass Scale.	Completed
2020	Sara Shohneem John	Designing of a highly sensitive, fast and selective electrochemical biosensor for Analysis of Anticancer drugs	Completed
2020	Rabia Tahir	Designing of a highly sensitive, fast and selective electrochemical biosensor for ANALYSIS OF ANTIPARKINSON drugs	Completed
2021	Muzammil Ahmed	Electrochemical biosensor based on graphene oxide for detection of antimigraine drug	Completed
2022	Ruba Khawar	Synthesis of Nano-Material Induced Ion Exchange Membrane For Specific Application of Recycling of Industrial Chemical Waste.	Completed
2022	Sana Rashid	A facile and efficient bulk electrochemical reduction method for graphene oxide	Completed
2022	Asma Hashmi	Ion exchange membranes based on graphene oxide - cellulose acetate nano composites: Synthesis, Characterization and Physicochemical Properties	Completed
2022-23	Amar-UI-Haque	An efficient synthesis of graphene based electrode from Coal	Completed
2022-23	Muhammad Kazim	Humic acid based carbon nanocomposites as high performance electrode for battery applications	Completed
2023-24	Maryam Saleem	Optimization and performance testing of a versatile prototype for industrial wastewater recycling.	Completed
2024-25	Komal Sultana	Removal of heavy metals from simulated wastewater using membrane technology	Completed
2025	Saima Kousar	Electrically conducting anti-fouling membranes for sustainable desalination process	In process

FYPs/FYDPs SUPERVISOR

Year	Batch	Title	Status
2018	2015-16	Designing and characterization of ion exchange membrane for electrochemical devices	Completed
2018	2015-16	Study of chemical and physical properties of ion exchange membrane	Completed
2019	2016-17	Study of electrochemical properties and performance of Anion exchange membrane by Potentiostat	Completed

2020	2017-18	Caustic recovery from industrial waste by Ion Exchange Membranes (IEMs)	Completed
2020	2017-18	Designing of a highly sensitive, fast and selective Electrochemical Biosensors	Completed
2020	2017	Prototype modification for caustic recovery from waste water	Completed
2021	2018	Designing of ion exchange membrane module for caustic recovery	Completed
2022	2019	Multiple Membrane Based Ion Exchange Module Utilization To Recover Caustic From Industrial Waste.	Completed
2023	2019	Nanocomposite membranes for sustainable water treatment applications	Completed
2023	2019	Fabricated 2D carbon based electrochemical sensor for point-of-care testing	Completed
2023	2019	Cation exchange membrane (CEM) for alkali recovery from waste water	Completed
2024	2020	Modification and performance testing of membrane based stack for waste water treatment.	Completed
2024	2020	An ingenious DD coupled ED process for waste water treatment.	Completed
2025	2022	Nanocomposite blend membranes as a viable model for water purification.	Ongoing
2025	2022	Development of 2D carbon based biosensor via electrochemical fabrication of nanomaterial.	Ongoing

Ph.D. CO-SUPERVISOR

Year	Student Name	Title	Status
2015-2017	Tehmina Fiaz	Cyclic Voltammetric Study of Chelation of Dopamine Analogs with Metals like Iron, Copper and Aluminum.	Completed
2017	Kanwal Zahid	The Complexation and Redox studies of some metal ions with hydroxypyranone and hydroxypyridinone type ligands.	Completed

CONFERENCES

- (March 3rd-4th, 2023) Paper on “Synthesis, Characterization and Application Testing of Anion Exchange Membrane for Metal-Rich Acidic Waste Treatment”, presented in 2nd International Industrial Chemistry Conference-2023 (IICC-2023) organized by Department of Chemistry, NED University of Engineering and Technology. Abstract of research work has been published in the “Abstract Book of IICC-2023 International Industrial Chemistry Conference”.
- (March 3rd-4th, 2023) Poster on “Interaction of Fe(III) with Clinically Approved Orally Active Iron Chelator and Kojic acid as Mixed Ligand Complex”, presented in 2nd International Industrial Chemistry Conference-2023 (IICC-2023) organized by Department of Chemistry, NED University of Engineering and Technology. Abstract of research work has been published in the “Abstract Book of IICC-2023 International Industrial Chemistry Conference”.
- (February 1st-2nd, 2023) Participated in “Pakistan Plumbing and Fire Fighting Expo and Conference” organized by the president and Board of Governors of Pakistan Society of Plumbing Professionals.

Showcasing of cost effective and efficient Membranes has been done in expo for Waste Treatment and Waste Recycling.

- (February 26th -28th, 2021) Paper on “Interaction of bioactive Iron with clinical chelating drug, Kojic acid by cyclic voltammetry”, presented in 1st International Industrial Chemistry Conference-2021 (IICC-2021) arranged by Dept. of chemistry, NED University of Engineering and Technology. Abstract of research work has been published in the “Abstract Book of IICC-2021 International Industrial Chemistry Conference”.
- (February 26th -28th, 2021) Paper on “Designing and Characterization of Ion Exchange Membranes”, presented in 1st International Industrial Chemistry Conference-2021 (IICC-2021) arranged by Dept. of chemistry, NED University of Engineering and Technology. Abstract of research work has been published in the “Abstract Book of IICC-2021 International Industrial Chemistry Conference”.
- (February 26th -28th, 2021) Poster on “Mechanistic Modeling of Cyclic Voltammetry and EIS: A Useful Tool for Understanding Biosensor Principles”, presented in 1st International Industrial Chemistry Conference-2021 (IICC-2021) arranged by Dept. of chemistry, NED University of Engineering and Technology. Abstract of research work has been published in the “Abstract Book of IICC-2021 International Industrial Chemistry Conference”.
- (November 26th-27th,2019) Attended 4th Karachi International Water Conference: Session 4B organized by Hisaar Foundation, Karachi.
- (December 20th,2019) Attended NED-Women Conference 2019.Perspectives on Women Development organized by NED University of Engineering and Technology, Karachi.
- (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” has been 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-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 viologens 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”

WORKSHOPS & SEMINARS

- Attended a Seminar on “Modern Printing and Packaging Systems” organized by NED University of Engineering and Technology, Pakistan.
(15th April, 2025)
- Attended a Seminar on “Revamped QA Framework: Collaborative Pathways to Sustainable Development Goals” organized by QEC, NED University of Engineering and Technology, Pakistan.
(5th June, 2024)
- Attended a Seminar on “Hidden Links between Water & Health” organized by Panjwani Hisaar Water Institute in collaboration of NED University of Engineering and Technology, Pakistan.
(30th May, 2023)

- Attended a Seminar on “Takreem-e- Shudae Pakistan” organized by NED University of Engineering and Technology, Pakistan.
(19th June, 2023)
- Attended “Technology Development Fund” (TDF) Awareness Seminar organized by HEC, Pakistan.
(13th Dec, 2022)
- Organized a Seminar on “Paints and Surface Coatings” for Undergraduate and Postgraduate students in collaboration with Department of Chemistry. Speaker: Dr. Mazhar Islam Khan.
(2nd Dec, 2022)
- Attended seminar on “Role of Chemist in Pharmaceutical Industries” arranged by Department of Chemistry, NED University of Engineering and Technology.
(29th June, 2022)
- Attended seminar on “Implementation of Modern Tools & Methodologies for QA in HEIs” arranged by QEC, NED University of Engineering and Technology.
(10th Feb, 2022)
- Attended Seminar on HEC's Undergraduate Policy 2020-21, organized by NED University of Engineering and Technology.
(29th June, 2021)
- Attended Pastic Awareness Seminar on “Introducing Indigenous Research Resources developed by Pastic” jointly organized by Pakistan Scientific & Technological Information Centre (PASTIC), Eng. Abul Kalam Library NED & Pakistan Library Club (PLC).
(22nd March, 2021)
- Attended Seminar on “Familiarity to NRPU Proposal and Associated Funds” organized by NED University of Engineering and Technology.
(31st December, 2019)
- Attended “Road Show on new R & D frame work of HEC” organized by HEC at NED University of Engineering and Technology
(15th November, 2019)
- Attended Seminar on “Chemical Safety handling” organized by Department of Chemistry at NED University of Engineering and Technology.
(9 & 12 April, 2019)
- 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.
(April 24th -29th 2006)
- Topic: - Lab Safety & Equipment for Measuring Volume and Mass.

TRAININGS

- Attended Training on “How to Measure Training Effectiveness”, organized by QEC, NED University of Engineering and Technology, Pakistan. Trainer: Ms. Ayesha Zafar
(11-06-2025)
- Attended one day training workshop on “Training of Trainers on Financial Literacy” organized by Securities & Exchange Commission of Pakistan in collaboration with Sindh HEC under Prime Minister directives at Jinnah Sindh Medical University, Karachi.
(27-05-2025)
- Attended Training on “Effective Quality Management Audits”, for 45th Internal Quality Audit organized by QEC, NED University of Engineering and Technology, Pakistan. Trainer: Dr. Muhammad Wasif, Director QEC.
(21-04-2025)
- Attended Training on “Online Internship Portal Guideline for Internship” organized by DIL, NED University of Engineering and Technology, Pakistan.
(04-02-2025)
- Attended Training on “Effective Quality Management Audits”, for 44th Internal Quality Audit organized by QEC, NED University of Engineering and Technology, Pakistan. Trainer: Dr. Muhammad Wasif, Director QEC.
(05-12-2024)
- Attended “Faculty Development Training Programme-2, Topic: Technology Transformation Dissemination Sessions” organized under Erasmus + Capacity building project “GetInnovative4Impact & Co-funded by the European Union”.
(6-12-2024 to 11-12-2024)
- Attended “NED IP Licensing & Technology Transfer Training / Interactive Session” Organized by ORIC-NEDUET.
(30-09-2024)

- Attended a Seminar on “Revamped QA Framework: Collaborative Pathways to Sustainable Development Goals” organized by QEC, NED University of Engineering and Technology, Pakistan. (05-06-2024)
- “Renewal of Proquest Ebooks Resources” organized by Engr. Abul Kalam Library, NED University of Engineering and Technology. (04-12-2023)
- “Developing of SAR: PT Training/ Development of SAR as per HEC guidelines” organized by QUALITY ENHANCEMENT CELL. Trainer: Dr. Faaz Ahmed Butt. (06-09-2023)
- “Reactive Chemicals Training” Trainer: Dr. Shazia Perveen, arranged by HEDP-HEC. (03-02-2023)
- “Compressed Gases Training” Trainer: Dr. Shazia Perveen, arranged by HEDP-HEC. (25-01-2023)
- “Fire-Safety Training” Trainer: Dr. Shazia Perveen, arranged by HEDP-HEC. (13-12-2022)
- “OVID TRAINING WEBINAR” organized by Wolters Kluwer (OVID) in collaboration with HEC Pakistan. Trainer: Allan Finn. (15-12-2022)
- “TEACHING PEDAGOGY” organized by Quality Enhancement Cell, NED University of Engineering and Technology, Karachi. Trainer: Dr. Abdul Jabbar Sangi. (1-12-2022)
- “ASTM COMPASS DATABASE” organized by Business Development (EMEA) ASTM International and A&J in collaboration with HEC Pakistan. Trainer Murat Iren. (22-11-2022)
- “WEBPAGE DEVELOPMENT & UPDATE” organized by Quality Enhancement Cell, NED University of Engineering and Technology, Karachi. Trainer: Engr. Amjad Ali. (10-11-2022)
- “INTERNATIONAL TRADE CENTER TRAINING ON BUSINESS AND SUSTAINABILITY” organized by NED University of Engineering and Technology. This training provided gadgets to research team leads about development of business model canvas and marketing canvas for their research products. (16-08-2022)
- Attended “PIS RESEARCH CAPACITY BUILDING PROGRAM”, organized by HEC in collaboration of British Council (BC) under auspices of Pak-UK Education Gateway at Hotel Marriott, Islamabad. (28-02-2022 to 4-03-2022)
- “LABORATORY SAFETY COURSE” (*OSHA Academy of Occupational Safety & Health*) (30-09-2021)

Successfully completed “OSHA Academy Occupational Safety & Health training Course” with **97** score from OSHA Academy of Occupational Safety & Health.

- “FINAL YEAR DESIGN PROJECT (FYDP) SOPS”, organized by Quality Enhancement Cell, NED University of Engineering and Technology, Karachi. (26-10-2021)
- “DUTIES AND RESPONSIBILITIES OF CLASS ADVISORS”, organized by Quality Enhancement Cell, NED University of Engineering and Technology, Karachi. (25-10-2021)
- “ONLINE EVALUATION & ASSESSMENT OF STUDENTS” organized by Quality Enhancement Cell, NED University of Engineering and Technology, Karachi. (02-12-2020)
- “OBE BASED STUDENTS EVALUATION”, organized by Quality Enhancement Cell, NED University of Engineering and Technology, Karachi. (01-01-2020)
- “DUTIES AND RESPONSIBILITIES OF CLASS ADVISORS”, organized by Quality Enhancement Cell, NED University of Engineering and Technology, Karachi. (23-09-2019)
- “UNDERSTANDING OF HARASSMENT RULE AND PREVENTIONS”, organized by Quality Enhancement Cell, NED University of Engineering and Technology, Karachi. (25-11-2019)
- “EXAMINATION PAPER SETTING AS PER OBE SYSTEM”, organized by Quality Enhancement Cell, NED University of Engineering and Technology, Karachi. (31-12-2019)
- “FACULTY DEVELOPMENT PROGRAMME”, organized by Quality Enhancement Cell, NED University of Engineering and Technology, Karachi. (16th Oct to 6th Nov 2019)
- “RESPONSIBILITIES OF INVIGILATORS AND EXAMINERS”, organized by Quality Enhancement Cell, NED University of Engineering and Technology, Karachi. (31-07-2018)

ACHIEVEMENTS, DISTINCTIONS & PROFESSIONAL RECOGNITIONS

- **Nominated as a Member** of the **National Curriculum Review Committee** (NCRC) (No. HEC/CURR/NCRC:CHEM/6733) by the competent authority at HEC to revise curricula for AD/BS/MS degree programs offered in the subject of Chemistry. Meeting was held on November 14-16, 2024 in the Khyber Medical University, Peshawar. As NCRC member, I am honored to revise the curricula and associated standards.
- Serving NEDUET as **Internal Auditor** since 2024.
- Secured **BEST RESEARCHER AWARD** for the Year 2023.
- Won **NEDASSC USA FYP Funding Award** for the year of 2023-2024 Funding Award: PKR 143,000/=
- Won **NEDASSC USA FYP Funding Award** for the year of 2022-2023 Funding Award: PKR 126,559/=
- Won **NEDASSC USA FYP Funding Award** for the year of 2020-2021 Funding Award: PKR 30,600/=
- Secured **Financial Reward on research publication** (17-05-2023): PKR 75,000/=
- Secured **Financial Reward on research publication** (08-05-2023): PKR 50,000/=
- **Life Time Member** of Journal of Chemical Society of Pakistan.
- **FYDP Coordinator** for the year **2021, 2022 & 2023**.
- **BSIC Class Advisor** (2019– continue) Department of Chemistry, NEDUET.
- **Lab Incharge, Chemistry Lab I** (From 16-10-2023 till 10-11-2023).
- **Consignee:** UDWP Fund (2018-2021), Department of Chemistry, NEDUET.
- **Focal Person (Book bank):** (2018 – continue) Department of Chemistry, NEDUET.
- **Student Counsellor:** BSIC Final year, Department of Chemistry, NEDUET.
- **MS Admission Committee Member:** (2019-continue) Department of Chemistry, NEDUET
- **Final Year Design Project (FYDP)** has been recognized as one of the best final year projects for the academic session 2023 by the **UNESCO Chair** at NED University of Engineering and Technology and showcased by **UA&FA** https://uafa.neduet.edu.pk/FYP_Projects_2023.html.
- **Final Year Design Project (FYDP)** has been recognized as one of the best final year projects for the academic session 2021 and showcased by **UA&FA** https://uafa.neduet.edu.pk/FYP_Projects_2021.html.
- Successfully completed OSHA Academy Occupational Safety & Health Certificate Course **“Laboratory Safety”** with **97 score** from **OSHA Academy of Occupational Safety & Health** on 30-9-2021.
- HEC Approved Ph.D. Supervisor
- PHWI (Panjwani -Hisaar Water Institute): Successfully conducted a literature survey on the topic **“Chemical and biological issues in drinking water in Pakistan”** and prepared a research report. (Submitted to Dean ISH, NED University, May 2019)
- **Member of Conference Organizing Committee:** IICC-2021, 1st International Industrial Chemistry Conference-2021 (IICC-2021), February 26th -28th, 2021.
- **Member of Conference Organizing Committee:** IICC-2023, 2nd International Industrial Chemistry Conference-2023 (IICC-2023), March 3rd -4th, 2023.
- M.Sc. research work was picked and published by a German publisher as a **Book**.
- **“1st Prize”** winner in Poster presentation on **“Fractal Growth of Zinc Dendrites”** in Annual Poster Competition of the year 2005 at Department of Chemistry, University of Karachi.

INDUSTRY-ACADEMIA LINKAGES

- Participated in **“4th Research and Technology Showcase 2025”**, organized by Sindh Higher Education Commission at Expo Centre, Karachi, Pakistan. (22nd – 23rd January, 2025)
- Participated in **“3rd Sindh Research and Technology Showcase 2024”**, organized by Sindh Higher Education Commission in collaboration of NED University of Engineering and Technology at Expo, Karachi, Pakistan. (1st June, 2024)

- Participated in “2nd Sindh Research and Technology Showcase 2023”, organized by Sindh Higher Education Commission in collaboration of NED University of Engineering and Technology at Expo, Karachi, Pakistan. (18th-19th May,2023)
- Participated in “Pakistan Plumbing and Fire Fighting Expo and Conference” organized by the president and Board of Governors of Pakistan Society of Plumbing Professionals. (1st – 2nd Feb, 2023)
- Participated and showcased her research products i.e. “Ion Exchange Membranes” and “Pristine Oxygenate Graphenic Nanosheets” in "NED Centennial Expo", organized by NED University of Engineering and Technology. (11th June,2022)
- Participated in “Research and Technology Showcase 2022”, organized by NED University of Engineering and Technology in collaboration of Sindh Higher Education Commission at Expo, Karachi, Pakistan. She participated in this event to showcase her high level research products to the relevant industries, government bodies, R&D organizations, Alumni, community etc. for advancement of research and commercialization culture and to facilitate the industry-academia collaboration. (19th -20th May,2022)
- Two Final year projects completed which have been targeted at caustic recovery by Ion Exchange Membranes in collaboration with Indigo Textile Pvt. Ltd.
Ref.No.DIL/(66)/4067 “Prototype designing for testing of Ion Exchange Membrane”
Ref.No.DIL/(66)/4068 “ Synthesis of Ion Exchange Membranes for caustic recovery”
- TTSF (World Bank Funded) Research project successfully completed its milestones of 2 Years in collaboration with **Fast Information Technology Pvt. Ltd.**; Total Funding: 6.341174 Million.
- TDF submitted to HEC against 3rd Call in collaboration with **Soorty Enterprises Pvt. Ltd.** Fund Requested: 12.169 Million
- TDF submitted to HEC against 3rd Call in collaboration with **Fast Technology Pvt. Ltd.**
- TDF submitted to HEC against 4th Call in collaboration with **AZM Chemical Company.** Fund Requested: 13.877 Million
- NRPU submitted to HEC in collaboration with **Indigo Textile Pvt. Ltd.** Fund Requested: 13.586 Million.
- PSF submitted against 4th call in collaboration of **Indigo Textile Pvt. Ltd.** Fund Requested: 12.75 Million.

REVIEWER OF PROJECT PROPOSALS (June 10th, 2025)

- Evaluate the project proposals received under the **Belarusian-Pakistani Scientific and Technical Projects Competition-2025.**

JOURNAL’S REVIEWER

- Journal of Applied Electrochemistry

CO-CURRICULAR ACTIVITIES

- Organized Industrial visit of BSIC final year students of NED University at Soorty Denim, Karachi (19th Dec. 2019)
- Arranged 15 days Internship program (15 Feb-29 Feb, 2020) at Soorty Denim Mills for BSIC final year students of NED University. A certificate based internship program with stipend of 3500 PKR for each student.

ADDITIONAL COURSES

- Laboratory Safety Course (September 30, 2021)
OSHA Academy Occupational Safety & Health Certificate Course with 97 score from *OSHA Academy of Occupational Safety & Health*
- 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.
- 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