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Dr. Amtul Qayoom

(HEC/NED Approved Supervisor)

Professor & Postgraduate Coordinator

Department of Chemistry, NED University of Engineering and Technology, Karachi. Tel: (+92 21)-99261261-68 Ext: 2603, 2707 Email: amtulg@neduet.edu.pk

Research Interest

- Statistical method optimization
- Adsorption/biosorption
- Method development and validation
- Nano sensors for pharmaceutical and toxic metal monitoring.
- · Re-refining of used lubricating oil

Analytical Skills & Tools

- Shimadzu 1600 & 1800 double beam UV-visible spectrophotometer
- Thermo Scientific Nicolet iS10 FT-IR Spectrometer
- Perkin Elmer Analyst 700 Atomic Absorption Spectrophotometer
- Mettler Toledo Karl Fischer Titrator
- Thermo Scientific Orion 950 Titrator
- Shimadzu SPD-20A Liquid Chromatographic System
- Minitab 17, Endnote, Mendely & Zotero
- Microsoft Windows XP and 10, Microsoft Office 2003, 2007 and 2010

Professional Experience

Professor & Post Graduate Coordinator

(6th Oct 2025-To date)

Department of Chemistry, NEDUET

Responsible for coordinating the admission, enrollment, examination and other processes for postgraduate students. Providing administrative support required for the academic activities of postgraduate students, Supervising undergraduate and postgraduate research projects. Teaching the following chemistry courses to MS and BS Industrial Chemistry students

Associate Professor & Post Graduate Coordinator

(July 2017-to Oct 2025)

Department of Chemistry, NEDUET

Responsible for coordinating the admission, enrollment, examination and other processes for postgraduate students.

Providing administrative support required for the academic activities of postgraduate students

Supervising undergraduate and postgraduate research projects. Teaching the following chemistry courses to MS and BS Industrial Chemistry students

MS and BS level curriculum revisions.

MS Courses: Research Methodology, Laboratory Quality Assurance

BS Courses: Nanotechnology, Inorganic Chemistry, Analytical Chemistry, Quality Assurance for Chemists

Assistant Professor

(August 2011-June 2017)

Department of Chemistry, NEDUET

Developed proposal and syllabus for BS and MS Industrial Chemistry Programmes. Teaching following chemistry courses to MS, BS and BE students.

MS Courses: Quality Assurance and Automated Methods, Research Methodology

BS Courses: Nanotechnology, Inorganic Chemistry, Analytical Chemistry, BE Courses: Applied Chemistry

Lecturer (Feb 2006-July 2011)

Department of Chemistry, NEDUET

Taught Industrial Chemistry Courses to under graduate engineering students and conducted lab classes for Applied chemistry and Analytical Chemistry courses and worked as invigilator and internal examiner.

Lecturer (Feb 2002-July 2005)

Govt. College for Women Shahrah-e-Liaquat, KHI

Taught Analytical and Physical Chemistry courses to intermediate and undergraduate students, conducted lab classes and worked as invigilator and internal examiner.

Quality Control Analyst (1997 - 1998)

Novartis Pharma (Pakistan) Ltd

Worked as trainee quality control analyst in Raw Material Testing Lab. Conducted various experiments to ensure quality of raw materials used in different drug formulations. Given the task of daily and periodical water testing

Academic Qualification

Ph.D (Chemistry) 2011

Department of Chemistry, University of Karachi.

Dissertation: "A Study of Turmeric as a Remedy to Remove Toxic Metals from Aqueous Solutions"

M.Sc. (Chemistry)

First stood First

Department of Chemistry, University of Sindh Jamshoro

B.Sc. (Pass) 1995

Govt. Girls Shah Latif College, Hyderabad, Pakistan

Major: Chemistry

Minor: Functional Mathematics, Zoology

Professional Recognitions/ Academic Distinctions

- Final Year Design Project (FYDP), Karachi "Synthesis and Characterization of Levofloxacin Ag@Au nanoparticles", has been recognized as one of the Best Final Year Projects for the academic year 2024 by the UNESCO Chair at NED University of Engineering & Technology.
- Received NEDAASC Best Researcher 2018 award.
- Received monetary Research Award for 9 publications in the last 7 years.
- Won Competitive Grant NRPU-17062 worth Rs. 7293600/- (seven million two hundred ninety-three thousand six hundred) in 2021 and completed in 2024,
- Member of QEC Cell, Federal Urdu University of Arts, Science & Technology (FUUAST) in 2013 and 2016 evaluation of the Department of Chemistry (FUUAST)
- Journal Reviewer: Reviewed manuscripts for internationally indexed journals such as Chemical Engineering Communication (IF 1.809), Sensors & Actuators: B. Chemical (IF 5.6), IEEE Access (IF 4.098), Journal of Chemical Engineering and Materials Science, Moroccan Journal of Chemistry (ISI Master list indexed), Journal of Chemical Society of Pakistan (IF 0.27).
- Reviewed seven NPRU 2019 projects: Job was assigned by HEC Pakistan
- Member: The Chemical Society of Pakistan.
- Published Book. Amtul Qayoom, Arif Kazmi, "Turmeric: A Biosorbent for Toxic Metals: A Study of Turmeric Powder as a Remedy to Remove Toxic Metals from aqueous Solution "LAP Lambert Academic Publishing, 2012, ISBN3659226955, 9783659226953
- Won First prize in poster competition in a 10-days workshop on Systemic Approach to Teaching and Learning Chemistry (SATLC), Nov 19-Nov 29, 2008, held at the University of Karachi, Pakistan.
- Received Travel grant for Oral Presentation at Pure and Applied Chemistry Conference 2008 (PACCON 2008), Jan 30 Feb 01, 2008, Held at Sofitel Centara Grand Bangkok, Bangkok, Thailand
- Subject expert for review of question book and answer key for NTS testing in 2006

Research Activities

Research Grants

Year	Research	Title	Project	Status
	grant		Cost (Rs)	
2021	NRPU	Microwave Assisted Synthesis, Characterization and Performance	7293600/-	Completed
		Evaluation of Flavonoid Capped Bimetallic Nanoparticles as Colorimetric		
		Nano Sensors for Pharmaceutical		
		Applications		
2018	IPFP	Characterization and evaluation of bioactivity of essential oils	453500/	complete
	(As Co-	extracted from leaves of Psidium guajava and flower bud of Syzygium	-	d
	supervisor)	aromaticum		

Postgraduate Research Supervision

PhD

- Synthesis Characterization and Performance Evaluation of Flavonoid Bimetallic Nanoparticles as Colorimetric Sensors for Pharmaceutical Applications
- Fabrication and optimization of metal oxide-doped Nano-graphite humidity sensor
- Development of Oleophilic/Hydrophobic Adsorbents using Lignocellulose and Polymer Based Industrial Waste for Adsorption of Water Pollutants.

MS Theses (As Supervisor)

- 1. Curcumin mediated Silver and Gold monometallic nanoparticles: Development, Characterization and Applications
- 2. Development of Catechin Stabilized Bimetallic Nanoparticles and Evaluation of Their Applications. Potential Pharmaceutical Applications
- 3. Synthesis and characterization of Flavonoid Stabilized Alloy Nanoparticles and their evaluation in Pharmaceutical Applications
- 4. Synthesis and Characterization of Quercetin Mediated Bimetallic Colorimetric Sensors for Selective Recognition of Pharmaceuticals
- 5. Optimization and Validation of Liquid Chromatographic Method for Quantitative Determination of Baricitinib in Pharmaceutical Drug Substances
- 6. Comparison of Full Factorial, Box-Behnken and Central Composite Design for Robustness Study of the Simultaneous Liquid Chromatographic Determination or Citalogram with Antihistamines
- 7. Quality by design approach for development of reverse phase HPLC method for simultaneous determination of angiotensin-II type 1 receptors blockers, diuretics, calcium channel blockers and HMG-CoA reductase inhibitors
- 8. Simultaneous determination of antidiabetic agents with metformin HPLC by liquid chromatography.
- 9. Study of forced degradation behavior of vonoprazan fumerate in pharmaceutical formulation using liquid chromatography
- 10. Curcumin-alginate composites for application in medical textile
- 11. Green synthesis of transition metal nano particles and optimization of catalytic application by design of experiment methodology
- 12. Green Synthesis and Statistical optimization of experimental parameters for catalytic application of transition metal nanoparticles (TMNPs)
- 13. Re-refining of used lubricating oil using low cost adsorbents
- 14. Kaolinite as an adsorbent for re-refining of waste lube oil
- 15. Synthesis of silver nanoparticles for the detection of antimicrobial agents (drugs) in water
- 16. Improving different parameters of transformer oil from Pakistan National Refinary Ltd

MS Theses (As Co-Supervisor)

- 1. Development, Optimization and Validation of Liquid Chromatographic Method for Quantitative Determination of Diclofenec Sodium with Omeprazole in Bulk and Pharmaceutical Forumulations.
- 2. Green Liquid Chromatographic Method Development and Validation for in Simultaneous Determination of Deciofenac Potassium and Drotaverine Hydrochloride Bulk Drug and Pharmaceutical Formulation.
- 3. Liquid Chromatographic method Validation and Optimization for Quantitative determination of Favipiravir in Pharmaceutical formulations
- 4. Quantitative analysis of Treatment of anaemia patients with chronic kidney disease with Roxadustat by Ultraperformance liquid chromatography
- 5. Synthesis, spectroscopic, theoretical studies on molecular charge-transfer complex of anti-covid drug with σ and π acceptors
- 6. Development and validation for simultaneous determination of direct acting antiviral drugs by reverse phase HPLC
- 7. Optimization of liquid chromatographic separation of anti-hypertensive drugs with statin within green analytical chemistry framework: Application in pharmaceutical formulation
- 8. Quantitative analysis of anti-Covid drugs remdesivir by high performance liquid chromatography
- 9. Statistical experimental design for simultaneous determination of antidiabetic drugs with NSAIDs by liquid chromatography
- 10. Statistical experimental design for simultaneous determination of antihypertensive drugs with NSAIDs by liquid chromatography

- 11. Spectrophotometric determination of antidiabetics through charge transfer complexes and spectral characterization
- 12. LC-UV method for determination of citalopram with simultaneously prescribed medicines in raw material and commercial preparation.
- 13. Liquid chromatographic method for simultaneous determination of alprazolam with co-prescribed drugs in bulk and dosage formulations
- 14. Spectrophotometric determination of antihistamine through charge transfer complexes.

Representative Publications

Total No. of original Research Articles: 30

Total Impact Factor: 40

W: 17, X: 4, Y: 7

Book

Amtul Qayoom, Arif Kazmi, "Turmeric: A Biosorbent for Toxic Metals: A Study of Turmeric Powder as a Remedy to Remove Toxic Metals from aqueous solution" LAP Lambert Academic Publishing, 2012, ISBN 3659226955, 9783659226953

Research Articles

- 1. Waheed, Farrukh, Amtul Qayoom, and Muhammad F. Shirazi. 2025 "Fabrication, characterization and performance evaluation of zinc oxide doped nanographite material as a humidity sensor." *Obrabotka Metallov/Metal Working and Material Science* 27.3: 183-204.
- Shaz Asrar, Amtul Qayoom, Saeeda Nadir Ali, Dilshad Hussain, 2025 "Quercetin capped Au-Ag bimetallic nanoparticles for the detection of calcium dobesilate monohydrate in biological and environmental samples" Journal of Molecular Structure, 1334: 141808. https://doi.org/10.1016/j.molstruc.2025.141808.
- Zaki, Sameera, Saeeda Nadir, Qayoom, Amtul, Rafiq Ahmed, and Aiman Rasheed. 2024. "Green Synthesis, Spectroscopic and Theoretical Studies on Molecular Benzoquinone, Chloranilic Acid and Ninhydrin." Journal of Molecular Liquids 401 (February): 124696. https://doi.org/10.1016/j.molliq.2024.124696.
- 4. Qayoom, Amtul, Saeeda Nadir Ali, Rafiq Ahmed, Neha Kanwal, and Shazia Nisar. 2023. "Synthesis, Characterization and Statistical Optimization of Hydrophobic / Oleophilic Polystyrene Coated ZnO-Cotton Composite as Vegetable Oil Adsorbent" 45 (05)
- 5. Abdul Samad, Hafiz, Saeeda Nadir Ali, Qayoom, Amtul, Urooj Haroon, Muhammad Saad, and Ghina Mumtaz Alavi. 2023. "Development, Validation and Forced Degradation Studies of Green Liquid Chromatographic Method for Determination of Remdesivir in Bulk Drug and Pharmaceutical Formulation." *Pakistan Journal of Pharmaceutical Sciences* 36 (1): 159–70
- 6. Alam, Irshad, Saeeda Nadir Ali, Qayoom, Amtul, Rehana Bibi, Muzna Aqeel, and Haji Muhammad. 2023. "Green Liquid Chromatographic Method for Simultaneous Determination of Metformin, Linagliptin and Rivaroxaban: Tablet Manufacturing and Application to in-Vitro Dissolution Studies." Microchemical Journal 193: 109025. https://doi.org/https://doi.org/10.1016/j.microc.2023.109025.
- 7. Ali, Mehmood, Qayoom, Amtul, Zehra Ghulam, Shahab Imran, Mnam Yusoff, and Omar Mahmoud. 2022. "Experimental Study On The Cold Flow Behaviour Of Azadirachta Indica (NEEM) Biodiesel Blended With PetroleumBased Fuels And Natural Organic Solvents." Journal of Applied Science and Engineering 26 (6): 1153–67. https://doi.org/10.6180/jase.202308_26(8).0011
- 8. Ishfaq, Shazia, Shazia Nisar, Qayoom, Amtul, Sadaf Iqbal, Nasreen Fatima, Fatmah Ali Alasmary, Amani Salem Almalki, ElSayed M Tag El Din, Muhammad Sufyan Javed, and Patrizia Bocchetta. 2022. "Synthesis and Characterization with Computational Studies of Metal Complexes of Methyl 2-((4-Cyanophenyl)(Hydroxy) Methyl)Acrylate: A New Biologically Active Multi-Functional Adduct." Separations 9 (10): 306. https://doi.org/10.3390/separations9100306.
- Khalid, Aneeqa, Saeeda Nadir Ali, Qayoom, Amtul, Sajid Iqbal, Sadia Ansari, Zahoor ul Hussain Awan, Farah Kishwar, and Philippe Daniel. 2022. "High Performance Liquid Chromatography Ultraviolet Method for the Determination of Fludioxonil Fungicide Residues: Application on Rice Grains Cultivated in Pakistan." Arabian Journal of Chemistry 15 (4): 103692. https://doi.org/https://doi.org/10.1016/j.arabjc.2022.103692.
- 10. Naz, Nida, Saeeda Nadir Ali, Amtul Qayoom, Sajid Iqbal, and Shumaila Akram. 2021. "Rapid and Sensitive Method for Simultaneous Determination of Citalopram with Antihistamines by Liquid Chromatography." *Pakistan Journal of Pharmaceutical Sciences* 34 (3): 835–41.

- 11. Qayoom, Amtul, Ming Huang Wang, Saeeda Nadir Ali, and Yuh Shan Ho. 2020. "Bibliometric Analysis of Adsorption Literatures: Contribution from Pakistan (1991-2017)." *Journal of the Chemical Society of Pakistan* 42 (3): 474–87.
- 12. Ali, Saeeda Nadir, Shumaila Akram, Qayoom, Amtul, Nida Naz, and Anjum Ayub. 2020. "Liquid Chromatographic Method for Simultaneous Determination of Alprazolam with NSAIDs in Bulk Drug, Pharmaceutical Formulation and Human Serum." *Pakistan Journal of Pharmaceutical Sciences* 33 (1): 121–27. https://doi.org/10.36721/PJPS.2020.33.1.REG.121-127.1.
- 13. Ikram, Farhat, Qayoom, Amtul, Zara Aslam, and Muhammad Raza Shah. 2019. "Epicatechin Coated Silver Nanoparticles as Highly Selective Nanosensor for the Detection of Pb 2+ in Environmental Samples." *Journal of Molecular Liquids* 277: 649–55. https://doi.org/10.1016/j.molliq.2018.12.146.
- 14. Ikram, Farhat, Qayoom, Amtul, and Muhammad Raza Shah. 2018. "Synthesis of Epicatechin Coated Silver Nanoparticles for Selective Recognition of Gentamicin." *Sensors and Actuators, B: Chemical* 257: 897–905. https://doi.org/10.1016/j.snb.2017.11.038.
- 15. Naeem, Saman, Saeeda Nadir Ali, Qayoom, Amtul, Haji Muhammad, Urooj Haroon, and Shazia Nisar. 2018. "Charge Transfer Complexes of Antihistamines with Curcumin: Spectrophotometric Determination in Pharmaceutical Formulations." *Journal of the Chemical Society of Pakistan* 40 (5): 904–12.
- 16. Viqar, Abdul, Muhammad Kamal, Qayoom, Amtul, Muhammad Talha, Sadia Amber, Mahwish Khan, Naushin Yasin Kashif Riaz, Sana Awan, and Mumtaz Danish. 2018. "Re-Refining of Used Lubricating Oil Using Indigenous ForsteriteOre as Adsorbent." International Journal of Scientific and Engineering Research 9 (July): 1211.
- 17. Qayoom, Amtul, M Talha, A Kamal, M N Siddiqui, and A R Viqar. 2018. "Indigenous Kaolinite Ore as Cost Effective Adsorbent for Re-Refining of Used Lubricating Oil." *Revue Des Energies Renouvelables* 21 (3): 473–85.
- 18. Ikram, Farhat, Qayoom, Amtul, and Naheed Ikram. 2017. "Synergistic Effect of Epicatechin Coated Silver Nanoparticles on Antimicrobial Activity of Gentamicin against Aspergillus Niger." *Journal of New Technology and Materials* 7 (2): 100–105. https://doi.org/10.12816/0044609.
- 19. Qayoom, Amtul, S.A. Kazmi, and S.N. Ali. 2017. "Turmeric Powder as a Natural Heavy Metal Chelating Agent: Surface Characterisation." *Pakistan Journal of Scientific and Industrial Research Series A: Physical Sciences* 60 (1).
- 20. Saeeda N. Ali, Naz, Nida, Qayoom, Amtul, and Shumaila, Akram. 2017 "Liquid Chromatographic Method for Simultaneous Determination of Citalopram with NSAIDs in Bulk Drug, Pharmaceutical Formulation and Human Serum." Journal of the Chemical Society of Pakistan 39(6).
- 21. Qayoom, Amtul, S.A. Kazmi, and S.N. Ali. 2017. "Kinetic Modelling of Aqueous Copper (II) Ions Adsorption onto Turmeric Powder: Effect of Temperature." Journal of the Chemical Society of Pakistan 39 (3).
- 22. Qayoom, Amtul, Syed Arif Kazmi, and Saeeda Nadir Ali. 2017. "Equilibrium Modelling for Adsorption of Aqueous Cd(II) onto Turmeric: Linear versus Nonlinear Regression Analysis." *Moroccan Journal of Chemistry* 5 (5): 2–362. http://revues.imist.ma/?journal=morjchem&page=login.
- 23. Saeeda N. Ali, Najma Sultana, Qayoom, Amtul, M. Saeed Arayne. 2017. "Synthesis and Spectrophotometric Study of Omeprazole Charge Transfer Complexes with Bromothymol Blue, Methyl Orange and Picric Acid." *Moroccan Journal of Chemistry* 5 (1): 212–26. https://doi.org/10.4172/1948-593X.1000092.
- 24. Hussain, Syed Wajid, Qayoom, Amtul, Syed Tariq Ali, and Ghazanfar Hussain. 2016. "Improving Different Parameters of Transformer Oil From Pakistan National Refinery Limited." Sci.Int.(Lahore) 28 (3): 2533–36.
- 25. Ali, Saeeda Nadir, Najma Sultana, Muhammad Saeed Arayne, and Qayoom, Amtul. 2016. "Liquid Chromatographic Determination of Alprazolam with ACE Inhibitors in Bulk, Respective Pharmaceutical Products and Human Serum." Sci. Int. (LHR) 28 (4): 3815–19
- 26. Meraj, Shumaila, Qayoom, Amtul, and Al Saeeda N. 2016. "Effective Process Optimization of Indigo Rope Dyeing: A Case Study." *Journal of New Technology and Materials* 6 (2): 33–37. https://doi.org/10.12816/0043931.
- 27. Qayoom, Amtul, Syed A Kazmi, and Saeeda Nadir Ali. 2016. "Adsorption of Aqueous Cd (II) ions onto Turmeric Powder: Kinetic Modelling." *Sci.Int.(Lahore)* 28 (4): 3777–82.
- 28. Qayoom, Amtul, and Syed Arif Kazmi. 2012. "Effect of Temperature on Equilibrium and Thermodynamic Parameters of Cd (II) Adsorption onto Turmeric Powder." *Journal of the Chemical Society of Pakistan* 34 (5): 1084–90.
- 29. Qayoom, Amtul, and Syed Arif Kazmi. 2010. "Effect of Temperature on Sequestration of Cu(II) from Aqueous Solution onto Turmeric Powder." *Journal of the Chemical Society of Pakistan* 32 (5): 582–88.
- 30. Amtul-Qayoom, Syed Arif Kazmi, and Naushaba-Rafiq. 2009. "Removal of Cu (II) lons from Aqueous Solutions by Turmeric Powder." Journal of the Chemical Society of Pakistan 31 (6): 876–81.

Seminars, Conferences, Workshops and Training Attended

- 1. Presented at the 50th World Chemistry Congress (50WCC), IUPAC 2025 held on 14th to 19th July 2025 at Kuala Lumpur Convention Centre (KLCC), Kuala Lumpur
- 2. 2nd and International Chapter of the NED Women Conference held on 6-7th November 2024 organized by the Department of Linguistics, NEDUET
- 3. Presented in Pure and Applied International Chemistry Conference (PACCON-24) held on 26-27th January 2024 at Bhiraj Convention Center, BITEC, Bangkok, Thailand.
- 4. A Workshop Training on Leadership and Team Management held on 16th March 2024, organized by QEC, NEDUET.
- 5. 2nd International Conference on Green and Sustainable Environment (ICGSE 2024) on 28-29 February 2024 held at Sindh Madressatul Islam, Karachi.
- 6. Presented in 2nd International Industrial Chemistry Conference held on 3-4th March 2023 organized by Department of Chemistry, NEDUET.
- 7. HEC-BC Research Capacity Building Program' to be held at Avari Tower Hotel, Karachi from 23rd-27th May 2022
- 8. Presented in 2nd International Industrial Chemistry Conference held on 3-4th March 2023 organized by Department of Chemistry, NEDUET.
- Attended Webinar on "Accelerate your research using Elsevier's Scopus" organized by Elsevier in collaboration with NEDUET on January 13th, 2022
- 10. Delivered lectures in "Hands on Workshop on HPLC at Chemistry Department, NED UET on Dec 23-24th, 2021." on the topic "Interpreting Chromatogram"
- 11. Attended 1st International Seminar on Chemistry and Chemistry Education organized by University of Pattimura, Indonesia and presented the research entitled "Simultaneous Determination of Amlodipine Besylate, Perindopril tertbutylamine and Naproxen by Liquid Chromatography: Statistical the Method Development & validation" on September 23rd, 2021.
- 12. Intellectual Property Rights and Protection. 2018, NEDUET
- 13. one –day Training Workshop on "Approaching towards Comprehensive Elimination of Persistent Organic Pollutants (Pesticides) in Pakistan", 2017, Ministry of Climate Change, Govt. of Pakistan
- 14. Awarness of Procurement rules & Process within University, 2018, NEDUET
- 15. Resource Sharing for Optimum use and benefits, 2017, CCEE, NEDUET
- 16. Presented in 1st International Conference on Advanced Materials & Process Engineering-held on 14-15 December, 2015, jointly organized by Department of Chemical Engineering and Department of Polymer and Petrochemical Engineering.
- 17. OEC Workshop on Technical Computing with MATLAB held on 26-18th September 2016
- 18. HEC Indigenous On Campus Training on "Organizational Interdepartmental Communication", held on 23 Feb-4th 2015
- 19. HEC Indigenous On Campus Training on "Financial Management" held on 16-19 October, 2015.
- 20. 11th International Symposium on Natural Product Chemistry, 29th October to 1st November, 2008,
- 21. Nominated as Judge in Sindh Provincial Science Fair 27-29th October, 2015
- 22. 14th Euroasia Conference on Chemical Sciences (EuAsC₂S-14) held on 15-18th December, 2016, ICCBS, University of Karachi.
- 23. 1st National Seminar-cum Training Course on Green Chemistry and Environmental Effects, held on July 4, 2013, organized by the Department of Chemistry, Federal Urdu University of Arts, Science, and Technology (FUUAST).
- 24. Regional Workshop on Chemical Laboratory Safety and Security held on 5-6 June 2012, organized by ICCBS, University of Karachi
- 25. International Workshop on Air Pollution Modelling: Fate of Air Pollutants in the Atmosphere, held on March 19-22, 2012
- 26. National Workshop on Chemical Laboratory Safety and Security in Universities of Pakistan, held on 22-23 Feb 2011 organized by HEC, Pakistan and ICCBS, University of Karachi.
- 27. Oral Presentation at 8th International and 20th National Chemistry Conference (INCC 2010) Islamabad, 2010, QAU Islamabad, Pakistan.
- 28. Workshop on Environmental Electrochemistry, held on 19-21 January 2009, organized by the National Centre of Excellence in Analytical Chemistry, University of Sindh, Jamshoro. Held on 29th October to 1st November 2008.
- 29. 10-Day International Workshop on "Systemic Approach to Teaching and learning chemistry (PS-SATLC) held on 19-29th November, 2008 organized by ICCBS, University of Karachi.
- 30. Seminar on "English for Academic and Occupational Purpose" held on Thursday, June 12, 2008.

- 31. Presented in Pure and Applied Chemistry Conference 2008, January 30-February 1, 2008 organized by Kasetsart University, Bangkok, Thailand
- 32. Presented in 1st Pakistan-China-Iran International Conference in Biotechnology-Bioengineering-BioPhysical Chemistry" held on November 4-8, 2007, organized by the Institute of Biotechnology and Genetic Engineering, University of Sindh, Jamshoro.
- 33. Presented in 2nd International Seminar on Analytical Sciences held on September, 2007.
- 34. 32-hours short course on "Professional Skills Enhancement Training" 2005 held at the SPELT House.
- 35. Skill Development Course under the scheme National Academy of Higher Education, held on December 9-January 7, 2005 organized by Higher Education Commission Pakistan at Dow University of Health Sciences, Karachi.
- 36. Workshop on Communication Skills held from 6th Jan-31st Jan 2003 at Govt College for Women Shahrah-e- Liaquat, Karachi.