Dr. Shaista Ali

HIGHLIGHTS

Synthesis methodology- *sol-gel, co-precipitation, doping, sonication, ultrasonication, microwave, green synthesis and hydrothermal methods, nanomembranes synthesis, wet Impregnation*

Characterization- *Powder X-ray Diffraction (pXRD), Thermogravimetric Analysis (TGA), scanning electron microscopy/Energy dispersive X-ray (SEM/EDX), Fourier-transform infrared (FTIR), UV–Visible (UV–Vis), and photoluminescence (PL) spectroscopy, Chemisorption, TPR (Temperature Programmed Reduction), TPD (Temperature Programmed Desorption) and Transmission Electron Microscope (TEM).*

Synthesized materials- *Metal and transition metal oxides like Mg, Zn, Mo, Sr, Fe, Ni, Cu, Co, La, Gd, Doped nanocomposites, Pt- supported catalyst, Graphene and reduced graphene oxide nanocomposites and nanomembranes*

Hands on experience- *14 years' experience on catalysis and photocatalysis with Gaussian, SCM-ADF-BAND, VESPER, Fourier-transform infrared (FTIR), UV–visible (UV–Vis), and photoluminescence (PL) spectroscopy, Powder X-ray Diffraction (pXRD), scanning electron microscopy/Energy dispersive X-ray (SEM/EDX), Particle Size Analyser (PSA)-Zeta Potential, Potentiostat - Electrochemical workstation, Chemisorption, TPR (Temperature Programmed Reduction), TPD (Temperature Programmed Desorption), Transmission Electron Microscope (TEM) and Trickle Bed reactor.*

Post-Doc Fellowship- *Methane oxidation using Pt- based catalyst in Trickel Bed reactor*

PERSONAL INFORMATION

Family name: Shaista
First name: Ali
Email: shaista.ali.19@gmail.com, shaista.ali@gcu.edu.pk, shaista.ali@uct.ac.za
ORCID: 0000-0003-1706-9744
Research gate: https://www.researchgate.net/profile/Shaista-Ali

RESEARCH FIELD

Nanoparticles, Nanomaterials, Physical Chemistry, Nanomaterials for Energy, Material Characterization, Computational Chemistry

PROFESSIONAL EXPERIENCE

01/04/2025- to present
Post-Doc Fellow
Department of Chemical Engineering, University of Cape Town, South Africa.

19/04/2021 – to present (on sabbatical leave)
Assistant Professor
Department of Chemistry, Government College University Lahore -Pakistan.
Teaching Undergrad and Post-Grad student, Research Supervision, Member Board of studies, Co-Advisor Ravian Forensic Society

06/11/2014 – 19/04/2021
Lecturer
Department of Chemistry, Government College University Lahore -Pakistan.
Teaching Intermediate, Undergrad student, Research Supervision, Co-Advisor Ravian Forensic Society

06/09/2009 – 26/10/2014

Lecturer
Department of Chemistry, Punjab Group of colleges for sciences, Lahore-Pakistan.
Teaching Intermediate, Lab Incharge
06/09/2012 – 26/02/2014
Visiting Lecturer
Department of Chemistry, Government College University Lahore -Pakistan.
Teaching Post-Grad students, Co-supervision of research students

01/01/2009 – 26/01/2010
Lecturer
Pak. Polytech Institute Allama Iqbal Town, Lahore-Pakistan.
Teaching Intermediate level.

EDUCATION

22/08/2013 – 04/11/2019 PhD, Chemistry
Department of Chemistry, Government College University Lahore-Pakistan
Synthesis of Ln-$Sr_xMo_yO_z$ Nanoparticles and their Applications in Photocatalysis
Synthesis of MoO_3 nanoparticles, SrO-MoO_3 and La or Gd doped nanocomposites were synthesized via sol-gel, sonication and hydrothermal methods. The synthesized nanomaterials were characterized using FTIR, UV, TGA, PL, pXRD, SEM-EDX, TEM and comparative analysis with theoretical data obtained by ADF-BAND was done to observe the change in Photocatalytic efficiency. The computational studies and characterization was done in University of British Columbia, Vancouver campus.
Date of PhD award: 18/02/2020

06/11/2010 – 28/11/2012 MS, Forensic Chemistry
Department of Chemistry, Government College University Lahore-Pakistan
Solvent controlled synthesis of transition metal nanoparticles supported on MgO and their application in destruction of hazardous chemicals

03/10/2006 – 03/11/2008 Master, Chemistry
Department of Chemistry, University of the Punjab, Lahore-Pakistan
Synthesis of Chalcones derived from Benzaldehydes

PUBLICATIONS (IF: 74.626)

1. *Abaid Ullah, Aliya Zahid, **Shaista Ali,** Aniza Latif, Muhammad Shahid, Atia Sarfraz, and Muhammad Akhyar Farrukh. Biochar and GO doped biochar powder for photocatalysis, adsorption, and latent fingermark detection, Journal of Water Process Engineering, Published online Septemper 23 2025, 78: 108794. https://doi.org/10.1016/j.jwpe.2025.108794 (IF 2024-2025= 6.7, Q1)*
2. *Faryal Sakina, **Shaista Ali,** Muhammad Akhyar Farrukh, Ayesha Imtiaz and Abid Mahmood, Pristine and green synthesis of Fe_2O_3 and CuO nanoparticles using Allium cepa for photocatalytic and antibacterial applications, Journal of the Iranian Chemical Society, 2025, Published June 30, 2025, DOI: https://doi.org/10.1007/s13738-025-03243-7 (IF 2024=2.3, Q3).*
3. *Ali Raza, Anam Ashraf, **Shaista Ali,** Farrukh Bashir, Muhammad Akhyar Farrukh, Fizza Naseem, Durr-e Shahwar, Assessing the Impact of NaOH on Green Synthesis of Zinc-Based Nanoparticles Using Onion Extract and Exploring Their Photocatalytic, Antibacterial, and Antioxidant Potentials. ChemistrySelect,2025, 10, e00253, DOI: 10.1002/slct.202500253 (IF 2024= 2, Q2).*
4. *Sanaya Yousaf, Anam Ashraf, **Shaista Ali,** Akasha Rafiq, Abid Mahmood, Farrukh Bashir, Muhammad Akhyar Farrukh, Fizza Naseem, Durr -e-Shahwar, Evaluation of the preservative efficacy of green-synthesized ZnO Nanoparticles using Cucumis sativus in cream formulations. Environmental Progress & Sustainable Energy, 2025, 44, e14583, DOI: 10.1002/ep.14583 (IF 2024=2.3, Q2).*
5. *Hanya Murtaza, **Shaista Ali,** Arfa Mubeen, Nadia Khalid, Nauman Ahmad, Muhammad Akhyar Farrukh, Green synthesized (Curcuma longa) Ni nanoparticles doped chitosan and PEG for*

wound healing and anti-bacterial activity. International Journal of Biological Macromolecules, 2025, 308, 142631, DOI: 10.1016/j.ijbiomac.2025.142631. (IF 2024=8.5, Q1).

6. *Muzammal Abbas, Uzma Hanif, Areeba Nasir, Fakiha Zahid, Iram Liaqat, **Shaista Ali**, Deepak Bhanot, Farid S. Ataya, Aneela Anwar, Shahab Khan, Green Synthesis and Application of Zinc Oxide (ZnO) Nanoparticles from Cenchrus setigerus Vahl in Herbal Handwash as Antimicrobial Reducer. ChemistrySelect, 2025,10 (2), e202404733, DOI: https://doi.org/10.1002/slct.202404733 (IF 2024= 2, Q2).*
7. *Muhammad Haider Saleem, **Shaista Ali**, Muhammad Akhyar Farrukh, Syed Sajid Ali Gillani, Investigating the properties of cubic and hexagonal Nd_2O_3 nanoparticles for optics & energy storage material: Experimental and DFT approach. Solid State Communications, 2025, 397, 115836, DOI: https://doi.org/10.1016/j.ssc.2025.115836 (IF 2024: 2.4, Q2).*
8. *Amtul Basit, Zahida Yaqoob, Aliya Zahid, **Shaista Ali**, Beenish Shoukat, Abdul Khaliq, Muhammad Tajammal Chughtai, Rahila Batul, Muhammad Atiq Ur Rehman, Syed Wilayat Husain, Effective adsorbent for the removal of methylene blue using natural serpentine/magnetite nanocomposites: Isotherm and kinetic study. Heliyon, 11, e41063. DOI: https://doi.org/10.1016/j.heliyon.2024.e41063 (IF 2024= 3.6, Q1).*
9. *Muhammad Haider Saleem, Shaista Ali and Shahid Ali, An innovative approach towards Decolorization of tint and Enhancing the Optical & Physical Properties of High iron Na_2O-CaO-SiO_2 glass by co-doping with Ce^{4+}/Nd^{3+}: An Experimental and Comparative Study, Optical Materials, 2024, 157 (1), November, 116160 DOI: 10.1016/j.optmat.2024.116160 (IF 2023-2024=3.8, Q2)*
10. *Atif Hussain, Aliya Zahid, **Shaista Ali,** Nadia Khalid, Anam Ashraf, Aniza Latif, Muhammad Akhyar Farrukh, Muneeba Jabeen, Enhancing the photocatalytic efficiency of green synthesized MoO_3 and MnO nanoparticles by making heterojunction with graphene oxide, Journal of the Taiwan Institute of Chemical Engineers, 2024,163, 105642 DOI: https://doi.org/10.1016/j.jtice.2024.105642 (IF 2023-2024=5.5, Q1).*
11. *Rehan Ullah, Atif Yaqub, Sarwar Ditta, Fouzia Tanvir, Muhammad Bilal, **Shaista Ali** and Khalid Mehmood Anjum, Synthesis of silver nanoparticles and their use in the degradation of methylene blue dye and evaluation of in vitro antioxidant activity: a step toward sustainability. International Journal of Environmental Science and Technology, 2024, DOI: 10.1007/s13762-024-05782-7 (IF2023=3.1, W, Q1).*
12. *Riffat Iqbal, Amna Asghar, Arslan Habib, **Shaista Ali,** Sadaf Zahra, Muhammad Imran Hussain, Ahmad Bilal Ahsan, Yulai Liang, Therapeutic Potential of Green Synthesized Silver Nanoparticles for Promoting Wound-Healing Process in Diabetic Mice, Biological Trace Element Research, 2024, DOI: 10.1007/s12011-024-04094-8 (IF2022-2023=3.9, W, Q1).*
13. *Dilawar Ali, Nabtahel Arooj, Iqra Muneer, Farooq Bashir, Muhammad Hanif, **Shaista Ali**, Sustainable synthesis of ZnO nanoparticles from Psathyrella candolleana mushroom extract: Characterization, antibacterial activity, and photocatalytic potential, Inorganic Chemistry Communications, 2023, 158 (14), 111588, DOI: 10.1016/j.inoche.2023.111588 (IF2022-2023=3.428, X, Q2).*
14. *Sarwar Allah Ditta, Atif Yaqub, Fouzia Tanvir, Muhammad Rashid, Rehan Ullah, Muhammad Zubair, **Shaista Ali**, Khalid Mahmood Anjum, Gold nanoparticles capped with L-glycine, L-cystine, and L-tyrosine: Toxicity profiling and antioxidant potential, Journal of Materials Science, 2023, 58, 2814-2837 (IF 2021=4.682, W, Q1).*
15. *Saiqa Bashir, Muhammad Siddique Awan, Muhammad Akhyar Farrukh, Ravi Naidu, Shahzad Akbar Khan, Nagina Rafiqu, **Shaista Ali**, Imran Hayat, Imtiaz Hussain, Muhammad Zubair Khan, In-vivo and in-vitro assimilation and toxicity of zinc oxide nanoparticles in food materials, International Journal of Nanomedicine, 2022, 17, 4073-4085 (IF 2021=7.033, W,Q1).*
16. *Abid Mahmood, Salaha Zulfiqar, **Shaista Ali**, Umme Ammara, Khalid Mahmood, Muhammad Akhyar Farrukh, Zohaib Saeed and Muhammad Ibrahim, Novel Fe_2O_3-CuO-MoO_3 Magnetic Nanocomposite for Photocatalysis of Methylene Blue, Journal of Superconductivity and Novel Magnetism, 2021, 34 (9);1-9, DOI: 10.1007/s10948-020-05725-6 (IF 2020=1.506, X, Q3).*
17. *Atif Yaqub, Sarwar Allah Ditta, Khadija Ashraf, Fouzia Tanvir, **Shaista Ali**, Misbah Naz, Khalid Mehmood Anjum, Sharafat Ali, Biosensors for mercury and manganese ions by using biosynthesized silver nanoparticles, Bioinspired, Biomimetic and Nanobiomaterials, 9 (4), 2020,*

pp. 213-222 (IF2020=0.98, X, Q2)

18. *Atif Yaqub , Naila Malkani, Arifa Shabbir, Sarwar Allah Ditta, Fouzia Tanvir, **Shaista Ali**, Misbah Naz, Syed Akif Raza Kazmi, Rehan Ullah, Novel Biosynthesis of Copper Nanoparticles Using Zingiber and Allium sp. with Synergic Efect of Doxycycline for Anticancer and Bactericidal Activity. Current Microbiology:, 77, 2020,2287–2299, DOI: 0.1007/s00284-020-02058-4 (IF2019/2020=1.746, Y, Q3)*
19. *Atif Yaqub. Sharafat Ali, Sarwar Allah Ditta, Fouzia Tanvir , **Shaista Ali,** Misbah Naz, Enhanced bactericidal activity of Azith Qromycin-coated silver nanoprisms in comparison to their spherical-shaped counterparts. Micro & Nano Letters:, 15 (12), 2020, 834, DOI: 10.1049/mnl.2019.0704 (IF2019/2020=0.97, X, Q3)*
20. *Mohsan Bashir, **Shaista Ali** and Muhammad Akhyar Farrukh, Green synthesis of Fe2O3 nanoparticles from orange peel extract and study of its antibacterial activity . Journal of the Korean Physical Society:, 76 (9): 848-854 (May 2020) (IF2019/2020=0.535, Y, Q4)*
21. *Farida Shaikh, Qadeer Khan Panhwar, Aamna Balouch, **Shaista Ali**, Wazir Ali Panhwar and Farzeen Sheikh, Synthesis of zinc oxide nanoparticles and their functionalisation with chrysin: exploration of its applications. International Journal of Environmental Analytical Chemistry:, 1-10 (March 2020) (IF2019/2020=1.431, X, Q3)*
22. ***Shaista Ali**, and Muhammad Akhyar Farrukh, Effect of Calcination Temperature on the Structural, Thermodynamic, and Optical Properties of MoO3 Nanoparticles. Journal of the Chinese Chemical Society: , 65 (2): 276-288 (2018) (IF2017/18=0.862, X, Q3), first published online:26-10-2017, published online: 23-02-2018.*
23. *Naeem Younas, Muhammad Akhyar Farrukh, **Shaista Ali,** Maryam Allah Ditta and Rohana Adnan, Structural, optical and catalytic properties of undoped and CdS doped CuO-ZnO nanoparticles, Russian Journal of Physical Chemistry A, 91 (11): 2201-2207 (2017) (IF2017=0.549, Y, Q4). Published online: 01-10-2017.*
24. *Maryam Allah Ditta, Muhammad Akhyar Farrukh, **Shaista Ali** and Naeem Younas, X-ray peak profiling, optical parameters and catalytic properties of pure and CdS doped ZnO-NiO nanocomposites, Russian Journal of Applied Chemistry,90(1): 151-159 (2017) (IF2017=0.494, Y, Q3), published online: 25-04-2017.*
25. *Gugan Jabeen, Shazia Khurshid, **Shaista Ali,** Muhammad Akhyar Farrukh, Detection and Removal of Chromium under Various Process Parameters from the Local Industrial Wastewater by Nymphaeaalba. Proceedings of the National Academy of Sciences, India Section A: Physical Sciences, 87(3): 333-336 (2017) (IF2017=0.754, Y, Q4), published online: 29-05-2017.*
26. *Muhammad Akhyar Farrukh, Fatima Imran, Shaista Ali and Muhammad Khaleeq-ur-Rehman, Micelle assisted synthesis of La2O3 nanoparticles and their applications in photodegradation of bromophenol blue for consideration, Russian Journal of Applied Chemistry, 88 (9): 1523-1527 (2015) (IF2015=0.307, Y, Q3), published online: 23-12-2015.*
27. *Ayesha Arshad, Muhammad Akhyar Farrukh, **Shaista Ali,** Muhammad Khaleeq-ur-Rahman, and Muhammad Ashraf Tahir, Development of latent fingerprints on various surfaces by using ZnO-SiO2 nanopowder, Journal of Forensic Science., 60(5), 1182-1187 (2015) (IF2015=1.322, X, Q2), published online: 08-09-2015.*
28. *Samreen Tanveer, Muhammad Akhyar Farrukh, Muhammad Khaleeq-ur-Rahman, **Shaista Ali** and Ayesha Imtiaz, In vitro toxicological study of metal oxides nanoparticles on succinate-fumerate system in Krebs cycle and their resultant effect in metabolic pathways, Journal of Chinese Chemical Society, 61, 525-532(2014) DOI: 10.1002/jccs.201300535 (IF2014=0.648, X, Q3), first published online:17-02-2014, published online: 06-05-2014.*
29. ***Shaista Ali**, Muhammad Akhyar Farrukh and Muhammad Khaleeq-ur-Rahman, Photodegradation of 2,4,6-trinitrophenol catalyzed by Zn/MgO nanoparticles prepared in aqueous-organic medium, Korean Journal of Chemical Engineering, 30(9), 1-8 (2013) DOI: 10.1007/s11814-013-0142-4 (IF2013=1.241, X, Q2), published online: 06-09-2013.*

Books/Chapters

1. **Shaista Ali,** Aliya Zahid and Syeda Taskeen Shahid (2023) Green Engineering of Iron and Iron Oxides by Different Plant Extract. Iron Ores and Iron Oxides - New Perspectives. IntechOpen.

Available at: http://dx.doi.org/10.5772/intechopen.1001910.

2. **Shaista Ali**, Synthesis of Chalcones derived from benzaldehyde, Lambert Academic Publishing, Germany, ISBN, 978-3-659-58510-5, 2014
3. Akhyar Farrukh, **Shaista Ali**, Metal Oxides nanoparticles and Destruction of Hazardous compounds, Lambert Academic Publishing, Germany, ISBN: 978-3-659-56373-7, 2014.
4. Muhammad Akhyar Farrukh, Shagraf, **Shaista Ali**, Ayesha Imtiaz, Iqra Muneer, Muhammad Shahid

INVITED PRESENTATIONS

04/2024	Green Synthesized oxides and chalcogenides for waste water treatment, International Conference on Material Chemistry and Industrial Technologies (MCIT), The University of Lahore, Lahore, Pakistan.
03/2024	Mn based GO and rGO based nanomaterials for waste water treatment, Recent Trends in Industrial Chemistry and Optics 2024" (RTICO´24), University of the Punjab, Lahore, Pakistan.
01/2024	GO and rGO based metal oxide nanomaterials for waste water Treatment, International Conference on 3D Printed and Energy Conversion Materials, Department of Physics, University of the Punjab, Lahore, Pakistan
06/2023	Green Synthesis of Zn and ZnO nanoparticles, Sustainable Indigenous Production & Upcycling (SIP-UP) of Polymers/Allied Materials: Future Challenges, University of the Punjab, Lahore-Pakistan.
05/2023	Green Synthesis of Manganese oxide and GO doped Manganese oxide for photocatalysis, 2nd International Conference on Trends and Research in Chemistry (TRIC-2023), University of the Education Lahore, Pakistan
02/2023	Green and chemical syntheses of Manganese oxide GO doped Manganese oxide nanoparticles, First International Conference on Advances in Functional Materials (ICAFM-2023), University of the Punjab Lahore, Pakistan
12/2022	Green Synthesis of MoO_3 and GO/MoO_3 Nanoparticles Advances in Materials Sciences University of the Education Lahore, Pakistan
12/2021	Green and Chemical Synthesis of Fe_2O_3 and their applications in antibacterial and photocatalytic activity Chemistry Conference on Emerging Trends in Chemistry, University of Management and Technology, Lahore-Pakistan.
02/2018	Application of nanoparticles in development of Fingerprinting National Forensic Science Conference, Marriot hotel Islamabad, Pakistan
10/2016	XRD peak profiling, optical parameters and catalytic properties of SrO-MoO_3 nanoparticles 3rd Conference on Frontiers of Nanoscience and Nanotechnology PINSTECH, Islamabad-Pakistan
08/2016	Synthesis of SrO-MoO_3 nanoparticles and their optical and photocatalytic properties, 27th National 15th International Chemistry Conference, Department of Chemistry, University of Malakand, Malakand, Pakistan
01/2016	Catalytic and antibacterial activities of MoO_3 nanoparticles Fourth International Conference on Environmental Horizon (ICEH 2015), Department of Chemistry, University of Karachi, Karachi-Pakistan
12/2015	Synthesis of CuO-ZnO and CdS/CuOZnO for enhanced photocatalytic activity International Conference on Solid State Physics, 2015 (ICSSP'15) Centre of Excellence in Solid State Physics, University of the Punjab, Lahore-Pakistan
09/2015	Synthesis of MoO_3 nanoparticles,

2nd Conference on Frontiers of Nanoscience and Nanotechnology,
PINSTECH, Islamabad-Pakistan

01/2015 Synthesis of MgO nanoparticles and its application in paints
Pakistan Coating Show, Berger Paints pvt ltd, Lahore-Pakistan

10/2012 Degradation on explosive compounds on MgO nanoparticles
International Conference and Workshop on International Conference and Workshop on Nano Science and Technology
Quaid-e-Azam University, Islamabad, Pakistan

FELLOWSHIPS

04/2025 - 12-2025 NRF Grant-holder Postdoctoral Fellowship (R300 000pa), in Department of Chemical Engineering, Faculty of Engineering/ Built Environment, University of Cape Town, Western Cape, South Africa
Prof. Dr. Eric Van Steen- mentor

14/02/2017 – 13/09/2017 International Research Support Initiative Program by Higher Education Commission, Pakistan
Dr. Yan Alexander Wang, Department of Chemistry, University of British Columbia, Vancouver-BC, Canada

PRIZES AND AWARDS

10/2016 3rd prize in Oral presentation in 3rd Conference on Frontiers of Nanoscience and Nanotechnology
PINSTECH, Islamabad, Pakistan

12/2015 3rd prize in Poster Presentation in International Conference on Solid State Physics
Solid State Physics, University of the Punjab, Lahore-Pakistan

SUPERVISION AND MENTORING

Sr. No.	Undergraduate Students			
	Year	Degree	Name	Title
1.	2012-2016	BSc (Hons.) Chemistry	Lubna Noor 175-BH-CHEM-12	SYNTHESIS OF NiO/ZnO NANOPARTICLES IN 2-PROPANOL
2.	2012-2016	BSc (Hons.) Chemistry	Bakhtawar Sajjad 183-BH-CHEM-12	SYNTHESIS OF NiO/ZnO NANOPARTICLES IN ETHANOL
3.	2018-2020	M.Sc Chemistry	SAMAK AHMED 0873-MSc-CHEM-18	Applications of Copper Oxide Nanoparticles in Degradation of Organic Pollutants
4.	2018-2020	M.Sc Chemistry	Hafiz Khalid Mehmood 0870-MSc-CHEM-18	Applications of Copper Sulphide Nanoparticles in Degradation of Organic Pollutants
5.	2019-2021	M.Sc Chemistry	Faryal Sakina 0852-MSc-CHEM-19	Green and Chemical Synthesis of Fe_2O_3 and CuO nanoparticles and their applications in photocatalysis
6.	2019-2021	M.Sc Chemistry	Nida Bibi 0884-MSc-CHEM-19	Green and Chemical Synthesis of FeS and CuS nanoparticles and their applications in photocatalysis
7.	2018-2022	BS (Hons.) Chemistry (Evening)	Atif Hussain 0052-BH(E)-CHEM-18	Green synthesis of GrO/MoO_3 and GrO/MnO and its photocatalytic activity
8.	2020-2022	M.Sc Chemistry	Ali Raza 0841-MSCCHEM-20	Green synthesis of Zn and ZnO nanoparticles
9.	2019-2023	BS (Hons.)	Syeda Taskeen Shahid	One pot hydrothermal synthesis of graphene oxide

		Chemistry Morning	0244-BH-CHEM-19	doped iron oxide and manganese oxide nanoparticles and their photocatalytic activity
10.	2019-2023	BS (Hons.) Chemistry Evening	Bader Naeem 0233-BH(E)-CHEM-19	Chemical synthesis of CeO_2 doped Nd_2O_3 nanocomposites and their photocatalytic activity
11.	2019-2023	BS (Hons.) Chemistry Evening	Ali Abbas 0248-BH(E)-CHEM-19	One pot hydrothermal synthesis of graphene oxide doped nickel oxide and molybdenum oxide nanoparticles and its photocatalytic activity
12.	2019-2023	BS (Hons.) Chemistry Evening	Azka Shakeel 0204-BH(E)-CHEM-19	Green synthesis of Mn and Zn oxide nanoparticles using aloe vera plant extract and its antibacterial activity
13.	2020-2024	BS (Hons.) Chemistry Morning	Ali Raza Basheer 0285-BH-CHEM-20	Electronic and structural modification of rGO-based Ce and Cd oxide and chalcogenides for electrocatalysis and photocatalysis.
14.	2020-2024	BS (Hons.) Chemistry Evening	M. Touseef 0224-BH(E)-CHEM-20	Synthesis of CeO_2/Er_2O_3 nanocomposites for biomedical and photocatalytic application
15.	2020-2024	BS (Hons.) Chemistry Evening	Nureen Akram 0222-BH(E)-CHEM-20	Electronic and structural modification of GO-based Ce and Cd oxide and chalcogenides for electrocatalysis and photocatalysis.
16.	2020-2024	BS (Hons.) Chemistry Evening	Kashif Murtaza Awais 0242-BH(E)-CHEM-20	Green synthesis of Mn/MnO nanoparticles for antioxidant, antibacterial, and wound healing applications.
17.	2021-2025	BS (Hons.) Chemistry Morning	Sheeza Arshad 0422-BH-CHEM-21	NiS/CuO-NiO and GO doped NiS/CuO-NiO for photocatalytic applications
Sr. No.	**Graduate Students**			
1.	2014-2016	M.Phil Chemistry	Mohsan Bashir 878-M.PHIL-CHEM-14	Green synthesis of Fe_2O_3 nanoparticles from Orange peel extract and study of it's antimicrobial activity
2.	2014-2016	M.Phil Chemistry	Salaha Zulfiqar 865-M.PHIL-CHEM-14	Synthesis of Fe_2O_3/CuO/MoO_3 nanocomposite and its application in degradation of hazardous compounds
3.	2019-2021	MS Forensic Chemistry	Sumaira Ilyas 25-MSFC-019	Synthesis of FeS, CuS doped CuO-Fe_2O_3 nanocomposites and their applications in development of latent Fingerprints and photocatalysis
4.	2020-2022	M.Phil Chemistry	Samak Ahmed 0850-Mphil-CHEM-20	NiS, CuS doped CuO.NiO and its applications in photocatalysis
5.	2020-2022	M.Phil Chemistry	Iqra Ahmed 0265-Mphil-CHEM-20	Synthesis of Fe doped ZnO nanoparticles for anti-cancer treatment
6.	2020-2022	M.Phil Chemistry	Anam Moqeem 0262-Mphil-CHEM-20	Synthesis of Graphene Oxide doped with metal oxide nanocomposites and their applications in photocatalysis
7.	2020-2022	M.Phil Chemistry	M. Haider Saleem 0852-MPhil-CHEM-20	Decolorization of green tint in glass by using rare earth metal nanoparticles
8.	2020-2022	MS Forensic Chemistry	Sanaya Yusaf 0022-MSFC-20	Green Synthesis of ZnO nanoparticles and its use as a Preservative in Cosmetics
9.	2020-2022	MS Forensic Chemistry	Bisma Ashraf 0008-MSCF-20	Green synthesis of Mn/ZnS and Mn/ZnO nanoparticles and their application in fingerprinting

10.	2019-2013	M.Phil. Chemistry	Akasha Rafiq 0809-MPHIL-CHEM-21	Green synthesis of Mn, Zn & Mn/Zn oxide nanoparticles and its anticancer activity
11.	2019-2013	M.Phil. Chemistry	Aliya Zahid 0815-MPHIL-CHEM-21	One pot hydrothermal synthesis of graphene doped NiO/Fe_2O_3, NiO/ MoO_3, NiO/CeO nanocomposites and their photocatalytic applications
12.	2019-2013	M.Phil. Chemistry	Muneeba Jabeen 0829-Mphil-chem-21	One pot hydrothermal synthesis of graphene doped iron oxide with manganese, cobalt and copper oxides nanocomposite and their photocatalytic application
13.	2019-2013	MS Forensic Chemistry	Arfa Mubeen 0034-MSFC-21	Comparative Analysis of Cucurmin loaded Chitosan-CuO and PEG-CuO Nanocomposites for wound healing application
14.	2019-2013	MS Forensic Chemistry	Hanya Murtaza 0035-MSFC-21	Comparative Analysis of Cucurmin loaded chitosan-Ni and PEG-Ni nanocomposites for Wound healing application
15.	2019-2013	MS Forensic Chemistry	Abaidullah 0036-MSFC-21	Biochar synthesis of CaO and its doping with graphene oxide for Improved Latent Fingerprint Visualization
16.	2022-2024	M.Phil. Chemistry	Faryal Sakina 0201-MPHIL-CHEM-22(M)	Desalination applications of GO, rGO-based metal oxides nanomembranes
17.	2022-2024	M.Phil. Chemistry	Anam Ashraf 0237-MPHIL-CHEM-22(M)	Phytochemical identification and synthesis of *Leea asiatica-based* Cerium nanoparticles for anticancer applications
18.	2023-2025	M.Phil. Chemistry	Atia Sarfraz 0828-MPHIL-CHEM-2023	Nanomembrane synthesis using potato peel modified Biochar based Graphene oxide doped aluminum-cobalt metal oxides nanocomposite for water treatment
19.	2023-2025	M.Phil. Chemistry	Nimra Farooq 0871-MPHIL-CHEM-2023	Electrochemical performance of reduced Graphene oxide doped iron metal (Cu, Ce, Co) oxides (GFC's) electrode material for energy storage applications
20.	2023-2025	M.Phil. Chemistry	Syeda Taskeen Shahid 0888-MPHIL-CHEM-2023	Investigating the role of rGO loading on iron manganese oxides (GFM) nanocomposite for advance electrode design

TEACHING

1. **Graduation Level**
   - i) **B.S (I) Year:** Biochemistry, Inorganic Chemistry, Organic Chemistry
   - ii) **B.S (II) Year:** Physical Chemistry, Analytical Chemistry,
   - iii) **B.S (III) Year:** Physical Chemistry, Inorganic Chemistry
   - iv) **B.S (IV) Year:** Applied Analytical Chemistry, Electrochemistry & Statistical Thermodynamics, Radiation and Photochemistry
2. **Master level**
   M.Sc. Chemistry: Analytical Chemistry, Organic Chemistry
   MS Forensic Chemistry: Drug & Narcotics, Forensic Analysis and Chemistry of Arsons, Firearms and Explosives
3. **Diploma in Forensic Science:** Forensic Toxicology & Narcotics

FUNDING RECEIVED

2023-24 Fabrication of polymeric ethylene glycol membrane with graphene oxide doped with inorganic metal oxides to mitigate carbon dioxide, a smog pollutant

Principal Investigator,
Faculty Research Project, Government College University Lahore-Pakistan.

2015-16 Hydrothermal Synthesis & Forensic application of CdS/NiO-ZnO nanoparticles
Co-Principal Investigator,
Faculty Research Project, Government College University Lahore-Pakistan.

ORGANISATION OF SCIENTIFIC MEETINGS

11/02/2022 Role of women in Science & technology, UNESCO international Women & girls day in Science & Technology (Organizer)

11/02/2021 Role of women in Science & technology, UNESCO international Women & girls day in Science & Technology (Organizer)

04/02/2020 Role of women in Science & technology, UNESCO international Women & girls day in Science & Technology (Organizer)

20-22/03/2019 2nd International Conference on Recent Advances in Chemical Sciences, GC University Lahore (In Organizing- committee)

26/01/2018 International Chemistry Conference for the promotion of University-Industry Linkage (In Organizing- committee)

27/08/2016 Workshop on Nanoscience and Nanotechnology
General Secretary

ADDITIONAL SKILLS AND TRAINING

1. One Day Hands-on training on "Intellectual Property Rights" focused on Patent Writing/Drafting and Submission for potential patent filers (faculty members) October-9, 2024, ORIC-GCU Lahore.
2. Attended advanced teaching and learning programme 2023, Director Academics, GCU, July 17-August 16, 2023.
3. Attended Three-day Faculty Development Program (FDP) on "Advancing Teaching Excellence: Strategies for Effective Higher Education Instruction and Professional Development", by Punjab Higher Education Commission, July 24-26, 2023.
4. Attended webinars on research methodology, CLT, FCCU, June 07-July 24, 2023.
5. Attended Webinar on "Publication in High Impact Journals", COMSTECH, May 25, 2023
6. Attended Webinar on Web of Science author profile", Web of Science Group, Clarivate, April 27, 2023.
7. Attended 1st International Conference on Membrane Separation (ICMS-2023), LUMS, February 27-28, 2023.
8. Attended 17th International Symposium on Frontier in Physics, GC University Lahore, December 01-03, 2022.
9. Attended 02 Days Teacher's Training workshop on inclusive education & implementation of the HEC policy for students with disabilities by Centre for special students, GC University Lahore on August 17-18, 2022.
10. Attended webinar on "Technological Trends for Beyond 5G Networks" by OIC Ministerial Standing Committee on Scientific and Technological Cooperation (COMSTECH) on December 09, 2021.
11. Attended E-Talk series on Nanotechnology by Maharaja Agrasen University on September 14, 2021.
12. Attended China-Pakistan Bilateral Workshop on Ferromagnetic Hybrid Nano-Structures", December 06, 2019 at School of Natural Sciences (SNS), NUST, Islamabad
13. 2nd National workshop on Basic Tools in Bioinformatics: Molecular Modelling (March 7-8, 2019).
14. Certification in Chemical Safety Course organized by Risk Management Services of University of British Columbia, Vancouver-BC, Canada.