

Muhammad Imran Qureshi

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Address: House No. 2447/23G, Near Mosque

Rahmania, Shamsabad Colony, Eid Gah Road, Multan, Pakistan



Career Objectives

To develop and groom myself in the field of education and research. To utilize my professional capabilities and knowledge gained through academia and experience.

Qualification

Ph.D. - Mathematics (2011) -Abdus Salam School of Mathematical Sciences, GC University Lahore, Pakistan.

M.Sc. - Mathematics (2005) - Bahauddin Zakariya University, Multan, Pakistan.

B.Sc. – (Mathematics and Physics – 2003) - Bahauddin Zakariya University, Multan, Pakistan.

Ph.D. Detail

Supervisor: Professor Dr. Dorin Popescu (University of Bucharest, Romania)

Dissertation Title: Computing the Stanley Depth.

Employment History

- **Associate Professor**
COMSATS University Islamabad – Vehari Campus, Pakistan
11th April 2022 to date
- **Assistant Professor**
COMSATS University Islamabad – Vehari Campus, Pakistan
3rd May 2011- 10th April 2022
Responsibilities: Teaching and Research, Supervising final year student thesis at graduate and undergraduate levels.

Publications

1. A. Bilal, M. M. Munir, **M. I. Qureshi**, M. Athar, ISI spectral radii and ISI energies of graph operations. *Frontiers in Physics*, 2023, 11:1149006. (**Impact Factor 3.718**) (10.3389/fphy.2023.1149006).
2. J. Raza, M. Raza, T. Mushtaq, **M. I. Qureshi**, Supervised Machine learning techniques for optimization of heat transfer rate of Cu-H₂O nanofluid flow over a radial porous fin. *Multidiscipline Modeling in Materials and Structures*, 2023, 19(4), 680-706. (**Impact Factor 2.655**) (<https://doi.org/10.1108/MMMS-08-2022-0153>).
3. Y. Lin, S. Rehman, N. Akkurt, T. Shedd, M. Kamran, **M. I. Qureshi**, T. Botmart, A. N. Alharbi, A. Farooq, I. Khan, Free Convective trickling over a porous medium of fractional nanofluid with MHD and heat source/sink, *Scientific Reports*, 2022, 12:20778, 1-18. (**Impact Factor 5.133**) (<https://doi.org/10.1038/s41598-022-25063-y>).
4. M. A. Chaudhry, A. Fahad, **M. I. Qureshi**, U. Riasat, Some Results about Week UP-algebras, *Journal of Mathematics*, *Journal of Mathematics*, 2022, 2022, 1-6. (**Impact Factor 0.971**) (<https://doi.org/10.1155/2022/1206804>).
5. M. A. Chaudhry, **M. I. Qureshi**, A. Fahad, M. S. Bashir, Isomorphism Theorems in Generalized d-algebras, *Journal of Prime Research in Mathematics*, 2022, 17(2), 149-158. (**ISI**) (<http://jprm.sms.edu.pk/volume-17-2021-issue-2/>).

6. W. Wang, A. Nisar, A. Fahad, **M. I. Qureshi**, A. Alameri, Modified Zagreb Connection Indices for Benes Network and Related Classes, *Journal of Mathematics*, 2022, 2022, 1-8. (**Impact Factor 0.971**) (<https://doi.org/10.1155/2022/8547332>).
7. J. R. Lee, A. Hussain, A. Fahad, A. Raza, **M. I. Qureshi**, A. Mahboob, C. Park. On ev and ve-Degree Based Topological Indices of Silicon Carbides, *Computer Modeling in Engineering & Sciences*, 2022, 130(2), 871-885. (**Impact Factor 1.593**) (DOI: 10.32604/cmes.2022.016836).
8. F. Wang, S. Rehman, J. Bouslimi, H. Khaliq, **M. I. Qureshi**, M. Kamran, A.N. Alharbi, H. Ahmad, A. Farooq, Comparative study of heat and mass transfer of generalized MHD Oldroyd-B bio-nano fluid in a permeable medium with ramped conditions, *Scientific Reports*, 2021, 11:23454, 1-32. (**Impact Factor 5.133**) (<https://doi.org/10.1038/s41598-021-02326-8>).
9. Y. Q. Song, A. Farooq, M. Kamran, S. Rehman, M. Tamoor, R. Khan, A. Fahad, **M.I. Qureshi**, Analytical Solution of Fractional Oldroyd-B Fluid via Fluctuating Duct, *Complexity*, 2021, 2021, 1-16. (**Impact Factor 2.833**) (<https://doi.org/10.1155/2021/9576873>).
10. J. H. Tang, M. Abid, K. Ali, A. Fahad, M. A. Chaudhry, **M. I. Qureshi**, J. B. Liu, On Computation of Edge Degree-Based Bhatti Indices of a Certain Molecular Network, *Journal of Mathematics*, 2021, 5185270. (**Impact Factor 0.971**) (<https://doi.org/10.1155/2021/5185270>).
11. A. Zafar, M. Raheel, A. Bekir, A. Fahad, **M.I. Qureshi**, Analytical study of two nonlinear Schrodinger equations via optical soliton solutions, *International Journal of Modern Physics B*, 2021, 35(28), 2150288. (**Impact Factor 1.219**) (<https://doi.org/10.1142/S021797922150288X>).
12. R. Tang, S. Rehman, A. Farooq, M. Kamran, **M.I. Qureshi**, A. Fahad, J.B. Liu, A comparative Study of Natural Convection Flow of Fractional Maxwell Fluid with Uniform Heat Flux and Radiation, *Complexity*, 2021, 2021, 1-16. (**Impact Factor 2.833**) (<https://doi.org/10.1155/2021/9401655>).
13. S. Ding, **M. I. Qureshi**, S. F. Shah, A. Fahad, M. K. Jamil, J. B. Liu, Face index of nanotubes and regular hexagonal lattices, *International Journal of Quantum Chemistry*, 2021, 1-11. (**Impact Factor 2.444**) (<https://doi.org/10.1002/qua.26761>).
14. Y. Rao, A. Kanwal, R. Abbas, S. Noureen, A. Fahad, **M. I. Qureshi**, Some degree-based topological indices of caboxy-terminated dendritic macromolecule, *Main Group Metal Chemistry*, 2021, 44, 165-172. (**Impact Factor 0.558**) (<https://doi.org/10.1515/mgmc-2021-0016>).
15. Y. M. Chu, M. Abid, **M. I. Qureshi**, A. Fahad, A. Aslam, Irregular topological indices of certain metal organic frameworks, *Main Group Metal Chemistry*, 2021, 44, 73-81. (**Impact Factor 0.558**) (<https://doi.org/10.1515/mgmc-2021-0009>).
16. **M. I. Qureshi**, A. Fahad, M. K. Jamil, S. Ahmad, Zagreb Connection Index of Drugs Related Chemical Structures, *Biointerface Research in Applied Chemistry*, 2021, 11(4), 11920-11930. (**ISI**) (<https://doi.org/10.33263/BRIAC114.1192011930>).
17. A. Fahad, **M. I. Qureshi**, S. Noureen, Z. Iqbal, A. Zafar, M. Ishaq, Topological Descriptors of Poly Propyl Ether Imine (PETIM) Dendrimers, *Biointerface Research in Applied Chemistry*, 2021, 11(3), 10968-10978. (**ISI**) (<https://doi.org/10.33263/BRIAC113.1096810978>).
18. A. Fahad, A. Aslam, **M. I. Qureshi**, M. K. Jamil, A. Jaleel, Zagreb Connection Indices of Some Classes of Networks, *Biointerface Research in Applied Chemistry*, 2021, 11(3), 10074-10081. (**ISI**) (doi.org/10.33263/BRIAC113.1007410081).
19. L. Ali, M. Aslam, **M. I. Qureshi**, Y. A. Khan, S. Rehman, G. Farid, Commutativity of MA-Semirings with Involution through Generalized Derivations, *Journal of Mathematics*, 2020, 2020, 1-8. (**Impact Factor 0.971**). (doi.org/10.1155/2020/8867247).
20. Z. Shabbir, M. Shahid, Natasha, S. Khalid, S. Khalid, M. Imran, **M. I. Qureshi**, N. K. Niazi, Use of agricultural bio-wastes to remove arsenic from contaminated water, *Environmental Geochemistry and Health*, 2020. (**Impact Factor 3.472**) (<https://doi.org/10.1007/s10653-020-00782-1>).
21. Z. B. Zheng, A. Ahmad, Z. Hussain, M. Munir, **M. I. Qureshi**, I. Ali, J. B. Liu, Fault-Tolerant Metric Dimension of Generalized Wheels and Convex Polytopes, *Mathematical Problems in Engineering*, 2020, 2020, 1-8. (**Impact Factor 1.145**) (<https://doi.org/10.1155/2020/1216542>).
22. F. Rehman, M. R. Mufti, S. Din, H. Afzal, **M. I. Qureshi**, D. M. Khan, Adaptive Smooth Super-Twisting Sliding Mode Control of Nonlinear System With Unmatched Uncertainty, *IEEE*

- Access, 2020, 8, 177932-177940. (**Impact Factor 4.09**) (DOI: 10.1109/ACCESS.2020.3027194).
23. B. Feng, M. Ghafoor, Y. M. Chu, **M. I. Qureshi**, X. Feng, C. Yao, X. Qiao, Hermite-Hadamard and Jensen's type inequalities for modified (p,h)-convex functions, *AIMS Mathematics*, 2020, 5(6), 6959-6971. (**Impact Factor 0.882**). (DOI: 10.3934/math.2020446).
 24. Y. Rao, A. Zafar, A. Korkmaz, A. Fahad, **M. I. Qureshi**, On Tzitzeica type nonlinear equations for multiple soliton solutions in nonlinear optics. *AIMS Mathematics*, 2020, 5(6), 6580-6593. (**Impact Factor 0.882**). (DOI: 10.3934/math.2020423).
 25. Y. Yang, M. S. Saleem, M. Ghafoor, **M. I. Qureshi**, Fractional Integral inequalities of Hermite-Hadamard type for Differentiable Generalized h-convex Functions, *Journal of Mathematics*, Hindawi, 2020, 2020, 1-13. (**Impact Factor 0.971**). (doi.org/10.1155/2020/2301606).
 26. Z. Q. Chu, M. Munir, A. Yousaf, **M. I. Qureshi**, J. B. Liu, Laplacian and signless laplacian spectra and energies of multi-step wheels. *Mathematical Biosciences and Engineering*, 2020, 17(4), 3649-3659. (**Impact Factor 1.313**) (DOI: 10.3934/mbe.2020206).
 27. M. A. Chaudhry, A. Fahad, Y. Rao, **M. I. Qureshi**, S. Gulzar, Branchwise solid generalized BCH-algebras. *AIMS Mathematics*, 2020, 5(3), 2424-2432. (**Impact Factor 0.882**). (DOI:10.3934/math.2020160).
 28. H. Afzal, M. R. Mufti, S. U. Din, Q. R. Butt, **M. I. Qureshi**, D. M. Khan, W. Aslam, Modeling and Inverse Complex Generalized Synchronization and Parameter Identification of Non-Identical Nonlinear Complex Systems Using Adaptive Integral Sliding Mode Control. *IEEE Access*, 2020, 8(1), 38950-38969. (**Impact Factor 4.09**) (DOI: 10.1109/ACCESS.2020.2974863).
 29. J. Zheng, Z. Iqbal, A. Fahad, A. Zafar, A. Aslam, **M. I. Qureshi**, R. Irfan, Some Eccentricity-Based Topological Indices and Polynomials of Poly(ETHyleneAmidoAmine)(PETAA) Dendrimers. *Processes*, MDPI, 2019, 7(433), Page 1-14. (**Impact Factor 1.963**). (doi:10.3390/pr7070433).
 30. A. Waheed, A. U. Rehman, **M. I. Qureshi**, F. A. Shah, K. A. Khan, G. Farid, On Caputo k-Fractional Derivatives and Associated Inequalities. *IEEE Access*, 2019, 7, 32137-32145. (**Impact Factor 4.09**) (DOI: 10.1109/ACCESS.2019.2902317).
 31. A. Ye, **M. I. Qureshi**, A. Fahad, A. Aslam, M. K. Jamil, A. Zafar, R. Irfan, Zagreb Connection number index of Nanotubes and regular hexagonal lattice. *Open Chemistry*. 2019, 17(1), 75-80. (**Impact Factor 1.425**) (<https://doi.org/10.1515/chem-2019-0007>).
 32. J. B. Liu, M. Munir, R. Farooki, **M. I. Qureshi**, Q. Munir, Stanley Depth of Edge Ideals of some Wheel-related Graphs, *Mathematics*, 2019, 7(202), Page 1-12. (**Impact Factor 1.105**) (doi.org/10.3390/math7020202).
 33. M. R. Mufti, H. Afzal, F. Rehman, W. Aslam, **M. I. Qureshi**, Transmission Projective Synchronization of Multiple Non-identical Coupled Chaotic Systems using Sliding Mode Control. *IEEE ACCESS*. 2019, 7, 17847-17861(**Impact Factor 4.09**) (DOI 10.1109/ACCESS.2019.2895067)
 34. A. Fahad, J. Pecaric, **M. I. Qureshi**, Generalized Steffensen's inequality by Lidstone interpolation and Montgomery's identity, *Journal of Inequalities and Applications*, 2018, 2018:237, Page 1-21. (**Impact Factor 0.966**) (doi.org/10.1186/s13660-018-1826-4).
 35. M. R. Mufti, H. Afzal, F. Rehman, Q. R. Butt, **M. I. Qureshi**, Synchronization and Antisynchronization between Two Non-identical Chua Oscillators via Sliding Mode Control. *IEEE ACCESS*. 2018, 6, 45270-45280. (**Impact Factor 4.09**) (DOI 10.1109/ACCESS.2018.2865016).
 36. **M. I. Qureshi**, M. A. Hashmi, Ziauddin and S. Iqbal, A study of obstacle problems using Homotopy Perturbation Method, *Journal of National Science Foundation of Sri Lanka*, 2017 45(4), Page 337-346. (**Impact Factor 0.305**) (DOI: 10.4038/jnsfsr.v45i4.8227).
 37. G. Farid, A. Javed, A. Rehman, **M. I. Qureshi**, On Hadamard-type Inequalities for Differentiable Functions Via Caputo k-Fractional Derivative, *Cogent Mathematics*, 2017, (4), Page 1-12. (**ISI**) (doi.org/10.1080/23311835.2017.1355429).
 38. Y. Bashir, A. Aslam, M. Kamran, **M. I. Qureshi**, A. Jahangir, M. Rafiq, N. Bibi, N. Muhammad, On Forgotten Topological Indices of Some Dendrimers Structure, *Molecules*, 2017, 22(6), 867, Page 1-8. (**Impact Factor 3.098**) (DOI:10.3390/molecules22060867).

39. M. Munir, W. Nazeer, S. M. Kang, **M. I. Qureshi**, A. R. Nizami and Y. C. Kwun, Some Invariants of Jahangir Graphs, *Symmetry-Basel*, 2017, 9(1), 17, Pages 1-15. (**Impact Factor 1.256**) (DOI:10.3390/sym9010017).
40. M. R. Mufti, **M. I. Qureshi**, S. Alkhalaf and S. Iqbal, An Algorithm: Optimal Homotopy Asymptotic Method for Solutions of Systems of Second-Order Boundary Value Problems, *Mathematical Problems in Engineering*, 2017(2017), 1-11. (**Impact Factor 1.145**) (DOI: 10.1155/2017/8013164).
41. **M. I. Qureshi**, S. Iqbal and A. M. Siddiqui, Exact Solutions Of Second Order Obstacle Problems Using Reduction-to-First Order Method, *Science-International (Lahore)*, 28(1)(February 2016) 95-98. (**ISI**) (<http://www.sci-int.com/Search?catid=61>)
42. M. Ishaq, **M. I. Qureshi**, Upper and Lower bound for the Stanley depth of certain classes of monomial ideals and their residue classes rings, *Communication in Algebra* 41(2013) 1107-1116. (**Impact Factor 0.481**) (DOI: 10.1080/00927872.2011.630708).
43. M. A. Hashmi, **M. I. Qureshi**, A. Q. Baig and M. K. Shafiq, Results on Permutation Labeling of Graphs, *Journal of Advances in Mathematics*, 1(1)(2013), 25-31.
44. M. Cipu, **M. I. Qureshi**, On the behaviour of Stanley depth under variable adjunction, *Bull. Math. Soc. Sc. Math. Roumanie* 55(103) (2012), 129-146. (**Impact Factor 0.351**) (<https://www.jstor.org/stable/43679247>)
45. M. Ishaq, **M. I. Qureshi**, Stanley depth of Edge ideals, *Studia Scientiarum Mathematicarum Hungarica* 49(4) (2012), 501-508. (**Impact Factor 0.295**) (DOI: 10.1556/SScMath.49.2012.4.1223).
46. **M. I. Qureshi**, M. Imran, M. Athar, M. Kamran, Analytic solutions for the unsteady rotational flow of an Oldroyd-B fluid with fractional derivatives induced by a quadratic time-dependent shear stress, *Applied and Computational Mathematics an International Journal* 10(3)(2011), 484-497. (**Impact Factor 3.09**). (DOI: <http://acmij.az/view.php?lang=az&menu=journal&id=43>).
47. D. Popescu, **M. I. Qureshi**, Computing the Stanley depth, *Journal of Algebra* 323 (2010), 2943-2959. (**Impact Factor 0.675**) (DOI: 10.1016/j.jalgebra.2009.11.025).

Research Projects

1. Title: Topological properties of Molecular Structures, Funding Agency: ORIC COMSATS University Islamabad, PI, Duration 2 years, Worth: 0.132 million rupees. (Completed).
2. Title: Remediation of arsenic-contaminated drinking water of Vehari-Pakistan using agricultural waste products, Funding Agency: ORIC COMSATS University Islamabad, Co-PI, Duration 2 years, Worth: 0.2805 million rupees. (Completed).
3. Title: A Scalable Heterogeneous nodes deployment mathematical model for topology control of linear sensor networks, Funding Agency: HEC, Co-PI, Duration: 1 year, Worth: 0.345 million rupees. (Completed).
4. Title: On Steffensen's Inequality and Montgomery's Identity, Funding Agency: HEC, Co-PI, Duration: 1 year, Worth: 0.426 million rupees. (Completed).
5. Title: Metric Dimension and resolving set of different classes of graphs. Funding Agency: ORIC COMSATS University Islamabad, PI, Duration 2 years, Worth: 0.3 million rupees. (Submitted).

International Peer Reviews

- IEEE ACCESS
- Mathematical Problems in Engineering
- Probabilistic Engineering Mechanics
- Journal of Mathematics (Hindawi)
- Journal of Chemistry (Hindawi)
- Complexity (Hindawi)
- Molecular Physics
- Baghdad Science Journal
- Heterocyclic Communications
- Heliyon
- Intelligent Automation & Soft Computing
- Italian Journal of Pure and Applied Mathematics

- TWMS Journal of Applied and Engineering Mathematics
- Journal of Taibah University of Science

Ph.D. Thesis Supervision

1. **Muhammad Abid** (Synopsis approved)
2. **Nasir Ali** (Synopsis approved)
3. **Rukhsar Zireen** (Preparing Synopsis)
4. **Faiza Zaib** (Preparing Synopsis)

MS Thesis Supervision

1. **Saba Shameem**: Preparing Synopsis
2. **Mehwish Akram**: Preparing Synopsis
3. **Umair Jaffar**: Preparing Synopsis
4. **Rimsha Jamil**: An Extension of JU-algebras. 2024
5. **Sundas Mehmood**: (α, β) –Derivation of JU-algebras. 2024
6. **Maham Yaseen**: On Banhatti Indices of Dendritic Polyester. 2024
7. **Kashif Riaz**: Some Eccentricity Based Topological Indices of Dendritic Polyester. 2023
8. **Iqra Bibi**: Some Invariants of a Non-zero Component Union Graph of a Finite Dimensional Vector Space. 2023
9. **Arifa Asghar**: On Some Numerical Descriptors of Non-zero Components Union Graph of Vector Space of Dimension Three. 2023
10. **Sonia Liaqat**: Some Ostrowski Type Inequalities for MT-Non-Convex Functions via Generalized Fractional Integral. 2023
11. **Muhammad Junaid**: Effects of Degree Based and Distance Based Topological Invariants on Chemical Structures. 2023
12. **Itra Ahsan**: On Temperature Topological Indices of Carboxy-Terminated Dendritic Macromolecule. 2023
13. **Iqra Akbar**: On Sombor Topological Indices of Carboxy-Terminated Dendritic Macromolecule. 2023.
14. **Hafsa Rashid**: Some Ostrowski Type Inequalities for Functions Whose Derivatives are MT-Non-Convex. 2023
15. **Muhammad Nadeem**: On Computing Distance Based Entropy of Ferrocene Dendrimers. 2022.
16. **Muhammad Imran**: Controlling Pitch Angle of Wind Turbine by Proportional Derivative Controller. 2022.
17. **Muhammad Irfan**: On Eccentricity Based Topological Indices of Ferrocene Dendrimers. 2022.
18. **Muhammad Imran**: On Banhatti Indices of Ferrocene Dendrimers. 2022
19. **Aqsa Zikar**: Fuzzy Versions of some Zagreb Indices for Intuitionistic Fuzzy Graphs. 2022
20. **Asma Nisar**: Modified First Zagreb Connection Index for Benes Network. 2022
21. **Rabia Kausar**: Fuzzy Versions of Atom Bond and Sum Connectivity Indices for Intuitionistic Fuzzy Indices. 2022.
22. **Saima Sattar**: Hermite-Hadamard-Type Inequalities for MT-Non-Convex Functions via Generalized Fractional Integrals. 2022.
23. **Tassawar Bibi**: LU Decomposition of Fuzzy Matrices with Gaussian Fuzzy Numbers. 2021.
24. **Sidra Ehtasham ul Haq**: Generalization of Steffenson-Type Inequalities Using $(m,n-m)$ Condition in Hermite Interpolation with Abel-Gontscharoff Interpolation. 2021.
25. **Amna Batool**: Generalization of Steffenson-Type Inequalities Using $(m,n-m)$ Condition in Hermite Interpolation with Taylor Approximation, 2021.
26. **Amir Hussain**: Eccentricity Based Entropy Indices of Water Soluble Dendritic Unimolecular Polyether Micelle and Related Results, 2021.
27. **Abdul Basit Naveed**: Caputo-Fabrizio Fractional Modeling of ESR Test, 2021.
28. **Muhammad Abid**: Irregular Topological Indices of Water Soluble Dendritic Unimolecular Polyether Micelle, 2021.
29. **Syed Fehmeed Shah**: Face Index For Nanotubes and Regular Hexagonal Lattice, 2021.
30. **Rukhsar Zireen**: On Metric Dimension and Fault Tolerant Metric Dimension of Hourglass Benzenoid System, 2021.

31. **Sana Saeed:** Metric dimension and fault-tolerant metric dimension of triangular benzenoid system, 2021.
32. **Sarfraz Ali:** Eccentricity Based Topological Indices of Water Soluble Dendritic Unimolecular Polyether Micelle, 2021.

BS Thesis Supervision

1. **Mubarrah Tariq and Sehrish Riaz:** Exploring Resolvability in Graphs Through Dominant Metric Dimension. 2024.
2. **Aqsa Jamshaid and Talha Badar:** Some Numerical Descriptors of Jahangir Graphs. 2023.
3. **Rimsha Riaz and Maryam Bibi:** Study of Stanley Depth and Depth for the Edge Ideals Associated to the product of some graphs. 2023.
4. **Moez Ali and Abdul Waqar:** Algebraic Attributes of a-bipolar fuzzy. 2023.
5. **Hina Mukhtar and Zuha Aslam:** Results about Stanley Depth of some monomial ideals when some variables are added. 2023.
6. **Umar Raza and Qamar Fiaz:** Some Relations between Gauss Fibonacci Polynomials and Gauss Lucas Polynomials, 2022.
7. **Waris Riaz and Amna Akram:** Zagreb Connection Indices of Nanotubes Regular Hexagonal Lattice and Some Classes of Networks, 2022.
8. **Asif Aslam and Nabeela Bashir:** On Hermite Interpolation of Composition Function and Steffensen's Type Inequalities, 2022.
9. **Maira Bibi and Aimen Mumtaz:** Generalization of Steffensen's Inequalities Using Taylor Expansion and Faa Di Bruno's Formula, 2022.
10. **Syeda Aeman Waseem and Saba Shameem:** Hilbert Series of Algebraic Structures Associated to Graphs, 2022.
11. **Farwa Tabussum and Laraib Iqbal:** On Eccentricity Based and Irregularity Topological Indices of PETAA and PETIM Dendrimers, 2022.
12. **Mehwish Akram and Saira Aslam:** Properties of Topological Rough Groups That are Preserved Under a Homeomorphism, 2022.
13. **Muhammad Ahmed Hashmat and Muhammad Shafiq:** Some Generalization of Hermite-Hadamard Type Inequalities for MT-Non-Convex Functions, 2022.
14. **Sadaf Safdar:** Partial Differential Equations, 2016.
15. **H. Muhammad Rizwan Tabassum:** Probability and Probability Distribution, 2016.
16. **Afshan Naz:** Laplace Transformation, 2016.
17. **Dr. Hafiz Muhammad Afzal:** Hilbert Function and Hilbert Series, 2009.

Awards / Achievements

- HEC awardee under **Indigenous 5000 Ph.D. Scholarship Scheme** with PIN **074-0509-Ps4-094**.
- Received **Research Productivity Award** for 2011, 2012, 2013, 2017, and 2019 in COMSATS University Islamabad, Vehari Campus, Pakistan.
- Received **Honorarium** as a cash prize for the year 2022-2023 in COMSATS University Islamabad, Vehari Campus, Pakistan.
- Received **Honorarium** as a cash prize for the year 2014-2015 in COMSATS University Islamabad, Vehari Campus, Pakistan.
- Patron in Chief of Mathematical Society of COMSATS University Islamabad, Vehari.

External Examiner of Ph.D & MS

- IBA Karachi
- Bahauddin Zakariya University
- University of Education
- University of Lahore
- University of Okara
- Islamia University Bahawalpur
- Institute of Southern Punjab
- Air University
- Federal Urdu University of Arts, Science and Technology

Member Board of Studies

- Member Board of Studies, Department of Mathematics, Emerson University, Multan from 19 August 2022 till date.
- Member Board of Studies, Department of Mathematics, Government College Women University, Faisalabad from 7 July 2022 till date.
- Member Board of Studies, Department of Mathematics and Statistics, Institute of Southern Punjab, Multan from 01 September 2021 till date.
- Member Board of Studies, Department of Mathematics, COMSATS University Islamabad from 29 April 2021 till date.
- Member Board of Studies, Department of Computer Science, COMSATS University Islamabad from 26 June 2014 to 25 January 2017.

Invited Speaker (Talks Delivered)

- Seminar on Fuzzy Mathematics (06th September 2023) University of Education Lahore, Vehari Campus, Pakistan.
- 3rd Summer School “New Trends in Mathematical Sciences” (26th to 30th July 2023) organized by The University of Swat, Pakistan.
- English Works forum on “Leadership Skills” (24th May 2023), organized by English works in COMSATS University Islamabad, Vehari Campus, Pakistan.
- One-day symposium on “Mathematics and its applications” (21st January 2023), organized by the Department of Mathematics and Statistics, Institute of Southern Punjab, Multan, Pakistan.
- 3-day workshop on Skill Enhancement & Employee Development (SEED) Program, organized by Faculty Development Academy, COMSATS University Islamabad from 26th to 28th July 2022, Vehari Campus, Pakistan.
- 2022 Seminar on Development Planning of China Henan International Joint Laboratory for Multidimensional Topology and Carcinogenic Characteristics Analysis of Atmospheric Particulate Matter PM_{2.5}. (29th June, 2022) Pingdingshan University, Pingdingshan, Henan, China.
- Seminar on Applied and Pure Mathematics (11th February 2022), University of Education Lahore, Vehari Campus, Pakistan.
- One-day symposium on pure and applied Mathematics (13th February 2020), University of Education Lahore, Vehari Campus, Pakistan.
- One-day symposium on pure and applied Mathematics (2nd April 2019), University of Education Lahore, Vehari Campus, Pakistan.

Conference /School /Research Seminar Talks Delivered

- 6th World conference on 21st century Mathematics (6-9 March 2013), ASSMS, GCU Lahore, Pakistan.
- Advancement in Sciences and Research (27th February 2012), COMSATS University Islamabad, Vehari Campus, Pakistan.
- 5th International Conference on 21st Century Mathematics (9-13 February 2011), ASSMS, Lahore, Pakistan.
- ASSMS-NCM-CIMPA-HEC, Workshop on Computational aspects of Singularity Theory (22-26 July 2010), Lahore, Pakistan.
- Algebra Colloquium (2010-2011), Organized by National Center for Mathematics and ASSMS, Lahore, Pakistan.
- Seminar Series in Algebra (2009-2010), organized by ASSMS, Lahore, Pakistan.
- Algebra Colloquium, coordinated by Prof. Jurgen Herzog, Prof. Dorin Popescu and Prof. Tiberiu Dumitrescu, organized by National Center for Mathematics and ASSMS (2008-2009), Lahore, Pakistan.

Research Interests

- Commutative Algebra and Computational Algebra

- Graph theory
- Chemical Graph theory
- Integral Inequalities

Administrative Abilities

- **Head of Department** of Mathematics, COMSATS University Islamabad, Vehari campus since 29th April 2021 till date.
- **Head of Department** of Computer Sciences, COMSATS University Islamabad, Vehari campus from 26th June 2014 to 25th January 2017. (During this time period the number of permanent faculty members increased from 22 to 59 and student enrolment increased from 578 to 1500).
- **Incharge of Student's Affairs**, in COMSATS University Islamabad, Vehari campus from 10th November 2020 to 22nd September 2021.
- Participated in two days workshop on “**Changing tomorrow for CUI Academic Heads**” arranged by FDA CUI, Islamabad, Pakistan, 29-30 November 2021.
- Participated in the **Strategic Development Workshop for HODs**, Held in Islamabad from 28th March to 31st March 2015.
- Convener of **Campus purchase committee** in COMSATS University Islamabad, Vehari campus from 15th November 2011 to 1st October 2015.
- Convener of **Unfair means Control Committee** in COMSATS University Islamabad, Vehari campus from 3rd February 2012 to 8th June 2015.
- Convener of **Financial support Program Committee** in COMSATS University Islamabad, Vehari campus from 8th October 2013 to present.
- Member **Departmental Academic Review Committee**, Department of Computer Science, COMSATS University Islamabad, Vehari campus from 14th January 2017 to April 2018.
- Convener of the team which is preparing the documents for **NCEAC accreditation** for the Computer science department, COMSATS University Islamabad, Vehari Campus.
- **Head of Proctorial Board** in COMSATS University Islamabad, Vehari campus from 16th November 2011 to 2nd February 2012.
- One of the organizers of “**12th International Conference on frontiers of Information Technology**” held in Islamabad, Pakistan from 17th to 19th December 2014.
- One of the organizers of “**One day undergraduate conference on Mathematics**” held at ASSMS, Lahore Pakistan on 16th November 2009.
- One of the organizers of “**Advances in Science and research 2012**” held in COMSATS University Islamabad, Vehari campus.