

## Dr. Muhammad Riaz (HEC Approved Supervisor)

### Associate Professor

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<https://scholar.google.com.pk/citations?hl=en&user=-veal1IAAAAJ>

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June 01, 2022

PERSONAL DATA:		SUMMARY (Teaching & Research):	
Name:	<b>Dr. Muhammad Riaz</b>	Teaching Experience:	<b>24+ years</b>
Father's Name:	<b>Muhammad Haneef</b>	Publications:	<b>106+</b>
Domicile:	Punjab	Citations:	<b>1850+</b>
City:	Lahore	Number of PhD supervised:	<b>05</b>
Gender (M/F):	Male	Number of M.Phil supervised:	<b>24</b>
Marital Status:	Married	Impact Factor:	<b>270+</b>
Contact:	+923004012299	Number of papers reviewed:	<b>150+</b>
Telephone Office:	+924299231241 Ext 115	Number of Journals as a reviewer:	<b>50+</b>
Postal Address:	Department of Mathematics, University of the Punjab, Quaid-e-Azam Campus, Lahore, Pakistan. Post Code: 54590	Member Editorial Board of International Journals:	<b>07</b>
		International Collaborations:	<b>15+</b>
		Book Chapter:	<b>03</b>

**Dr. Muhammad Riaz is one of top 2% researcher included in the global list released by Stanford University in various disciplines on October 09, 2021.** The ranking lists contain the names of over 100,000 top-scientists, researchers, doctors and engineers

[https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3?fbclid=IwAR2pxZOMQLPN913AgyB\\_khebGuIBlrPty4oFZE6HjAV2poMbp\\_hvCtCnM](https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3?fbclid=IwAR2pxZOMQLPN913AgyB_khebGuIBlrPty4oFZE6HjAV2poMbp_hvCtCnM)

### EDUCATION:

#### Ph. D. in Mathematics (2014)

Ph. D. Notification. No. Ph.D(R)/87/2014.

Dated: 07-08-2014.

HEC Ph.D Country Directory. Serial/PCD No. 19675.

Institution: University of the Punjab, Lahore

Thesis title: **Certain Quadratic Fields under the Action of two Generator Groups**

Supervised by: **Dr. M. A. Malik** Associate Professor. Department of Mathematics, University of the Punjab, Lahore.

**Courses:** Spectral Theory in Hilbert Spaces I & II, Minimal Surfaces, Lattice Theory, BCK Algebra, BCI Algebra.

Courses Taught by Instructor's: Prof. Dr. Shaban Ali Bhatti, Prof. Dr. Bashir Sadiq, Dr. Bilal Masud

#### M. Phil. in Mathematics (1996-1998)

Institution: University of the Punjab, Lahore

Thesis Title: **Bounded Linear Operators and Fourier Transform Theory**

Research Supervisor: **Prof. Dr. G. M. Habibullah**

## Publications:

### Year 2022 (Published Papers)

1. M. Riaz, H. M. A. Farid, H. M. Shakeel and Danish Arif, Cost effective indoor HVAC energy efficiency monitoring based on intelligent decision support system under Fermatean fuzzy framework, *Scientia Iranica*, (2022), 1-30. DOI: 10.24200/SCI.2022.59197.6106. Dated: 26-05-2022. Category X, ISSN 1026-3098, JCR-SCIE, Impact Factor 1.435.
2. M. Riaz, S. Tanveer, D. Pamucar and D. S. Qin, Topological data analysis with spherical fuzzy soft AHP-TOPSIS for environmental mitigation system, *Mathematics*, 10(2022), 1-36. Dated: 26-05-2022. Category X, ISSN 2227-7390, JCR-SCIE, Impact Factor 2.258.  
<https://www.mdpi.com/2227-7390/10/11/1826>
3. M. Riaz, H. M. A. Farid, W. Wang and D. Pamucar, Interval-valued linear Diophantine fuzzy Frank aggregation operators with multi-criteria decision-making, *Mathematics*, 10(2022), 1-36. Dated: 25-05-2022. Category X, ISSN 2227-7390, JCR-SCIE, Impact Factor 2.258. DOI: 10.3390/math10111811.  
<https://www.mdpi.com/2227-7390/10/11/1811>
4. M. Riaz, K. Akmal, Y. Almalki, S. A. Alblowi, Cubic m-polar fuzzy topology with multi-criteria group decision-making, *AIMS Mathematics*, 7(7)(2022), 13019-13052. doi: 10.3934/math.2022721 Dated: 10-05-2022. Category X, ISSN 2473-6988, JCR-SCIE, Impact Factor 1.427.  
<https://www.aimspress.com/article/doi/10.3934/math.2022721>
5. M. Riaz and H. M. A. Farid, Hierarchical Medical Diagnosis Approach for COVID-19 Based on Picture Fuzzy Fairly Aggregation Operators, *International Journal of Biomathematics*, (2022), DOI: 10.1142/S1793524522500759. Dated: 29-04-2022. ISSN 1793-7159. JCR-SCIE Impact Factor 2.053.
6. M Riaz, S. Batool, Y. Almalki and D. Ahmad, Topological data analysis with cubic hesitant fuzzy TOPSIS approach, *Symmetry*, 14(5)(2022), 1-31. DOI: 10.3390/sym14050865. Dated: 22-04-2022. Category X, JCR-SCIE, Impact Factor 2.713. <https://www.mdpi.com/2073-8994/14/5/865>
7. M. Riaz, H. M. A. Farid, S. A. Alblowi, Y. Almalki, Novel Concepts of q-Rung Orthopair Fuzzy Topology and WPM Approach for Multicriteria Decision-Making, *Journal of Function Spaces*, 2022(2022), 1-16. DOI: 10.1155/2022/2094593. Dated: 13-04-2022. Category X, JCR-SCIE, Impact Factor 1.807. <https://www.hindawi.com/journals/jfs/2022/2094593/>
8. H. M. A. Farid, M. Riaz, M. J. Khan, P. Kumam and K. Sitthithakerngkiet, Sustainable thermal power equipment supplier selection by Einstein prioritized linear Diophantine fuzzy aggregation operators, *AIMS Mathematics* 7(6):11201-11242. DOI: 10.3934/math.2022627. Dated: 11-04-2022. Dated: 07-09-

2021. Category X, ISSN 2473-6988, JCR-SCIE, Impact Factor 1.427.  
<http://www.aimspress.com/article/doi/10.3934/math.2022627>
9. M. Riaz and H. M. A. Farid, Multicriteria decision- making with proportional distribution based spherical fuzzy fairly aggregation operators, International Journal of Intelligent Systems, (2022)  
DOI: 10.1002/int.22873. Dated 01-04-2022. JCR-SCIE, Category W, Impact Factor 8.709.  
<https://doi.org/10.1002/int.22873>
  10. M. Parimala, M. Karthika, S. Murali, F. Smarandache, M. Riaz, S. Jafari, Multi Criteria Decision Making Algorithm Via Complex Neutrosophic Nano Topological Spaces, International Journal of Neutrosophic Science, 17(2)(2021), 127-143. <https://doi.org/10.54216/IJNS.170204>.
  11. S. Ayub, M. Shabir, M. Riaz, W. Mahmood, D. Bozanic and D. Marinkovic, Linear Diophantine Fuzzy Rough Sets: A New Rough Set Approach with Decision Making, Symmetry, 14(3) (2022), 1-23.  
<https://doi.org/10.3390/sym14030525> Dated: 04-03-2022. Category X, ISSN 2073-8994. JCR-SCIE Impact Factor 2.645.
  12. M. Riaz, M. Riaz, N. Jamil and Z. Zararsiz, Distance and similarity measures for bipolar fuzzy soft sets with application to pharmaceutical logistics and supply chain management, Journal of Intelligent & Fuzzy Systems, 42 (2022) 3169–3188. DOI: 10.3233/JIFS-210873. Dated: 04-03-2022.
  13. M. Riaz, H. Garg, M. T. Hamid and Deeba Afzal, Modelling uncertainties with TOPSIS and GRA based on q-rung orthopair m-polar fuzzy soft information in COVID-19, Expert Systems, (2022), 1-22.  
<https://doi.org/10.1111/exsy.12940>. Dated: 09-02-2022. JCR-SCIE, Category W Impact Factor 2.587.
  14. H. M. A. Farid and M. Riaz, Pythagorean fuzzy prioritized aggregation operators with priority degrees for multi-criteria decision-making, International Journal of Intelligent Computing and Cybernetics, (2022), 1-30. [DOI: 10.1108/IJICC-10-2021-0224](https://doi.org/10.1108/IJICC-10-2021-0224). Dated: 09-02-2022.
  15. M. T. Hamid, M. Riaz and K. Naem, A study on weighted aggregation operators for q-rung orthopair m-polar fuzzy set with utility to multistage decision analysis, International Journal of Intelligent Systems, (2022), 1-34. <https://doi.org/10.1002/int.22847>. Dated 08-02-2021. JCR-SCIE, Category W, Impact Factor 8.709.
  16. N. Jamil and M. Riaz, Bipolar disorder diagnosis with cubic bipolar fuzzy information using TOPSIS and ELECTRE-I, International Journal of Biomathematics, (2022),  
<https://doi.org/10.1142/S1793524522500309> Dated: 04-02-2022. ISSN 1793-7159. JCR-SCIE Impact Factor 2.053.
  17. K. Prakash, M. Parimala, H. Garg and M Riaz, Lifetime prolongation of a wireless charging sensor network using a mobile robot via linear Diophantine fuzzy graph environment. Complex & Intelligent Systems, (2022), 1-16. <https://doi.org/10.1007/s40747-022-00653-5> Dated: 03-02-2022. ISSN 2199-4536, JCR-SCIE, HJRS Category X, Impact Factor 4.927.
  18. N. Demirtas, O. Dalkılıç and M. Riaz, A mathematical model to the inadequacy of bipolar soft sets

in uncertainty environment: N-polar soft set, Computational and Applied Mathematics, 41(1)(2022), 1-19. <https://doi.org/10.1007/s40314-022-01759-9>

Dated: 24-01-2022. JCR-SCIE Impact Factor 2.239. HJRS Category X.

19. H. M. A. Farid and M. Riaz, Single-valued neutrosophic Einstein interactive aggregation operators with applications for material selection in engineering design: case study of cryogenic storage tank, Complex & Intelligent Systems, (2022), 1-19. <https://doi.org/10.1007/s40747-021-00626-0>

Dated: 15-01-2022. ISSN 2199-4536, JCR-SCIE, HJRS Category X, Impact Factor 4.927.

20. Z. Zararsız and M. Riaz, Bipolar fuzzy metric spaces with application, Computational and Applied Mathematics, 41(1)(2022), 1-19. <https://doi.org/10.1007/s40314-021-01754-6>

Dated: 13-01-2022. JCR-SCIE Impact Factor 2.239. HJRS Category X.

### Year 2021 (Published Papers)

21. M. Riaz, D. Pamucar, A. Habib and M. Riaz, A New TOPSIS Approach Using Cosine Similarity Measures and Cubic Bipolar Fuzzy Information for Sustainable Plastic Recycling Process, Mathematical Problems in Engineering, (2021), 1-18. Article ID 4309544. Dated: 15-12-2021. JCR-SCIE, Category W, Impact Factor 1.305. <https://doi.org/10.1155/2021/4309544>.

22. N. Khan, N. Yaqoob, M. Shams, Y. U. Gaba and M. Riaz, Solution of Linear and Quadratic Equations Based on Triangular Linear Diophantine Fuzzy Numbers, Journal of Function Spaces, (2021), 1-14. Article ID 8475863. Dated: 27-10-2021. Category X, JCR-SCIE, Impact Factor 1.807.

<https://doi.org/10.1155/2021/8475863>.

23. J. Ping, M. Atef, A. M. Khalil, M. Riaz, N. Hassan, Soft rough q-rung orthopair m-polar fuzzy sets and q-rung orthopair m-polar fuzzy soft rough sets and their applications, IEEE Access, 9(1), 139186-139200. Dated: 05-10-2021. DOI: 10.1109/ACCESS.2021.3118055. JCR-SCIE, Category W, Impact Factor 1.807. <https://ieeexplore.ieee.org/document/9559987>.

24. H. Garg, M. Riaz, M. A. Khokhar and M. Saba, Correlation measures for cubic m-polar fuzzy sets with applications, Mathematical Problems in Engineering, (2021). 1-19. Dated: 28-09-2021. JCR-SCIE, Category W, Impact Factor 1.305. <https://doi.org/10.1155/2021/9112586>

25. M. Riaz, H. Garg, H. M. A. Farid and M. Aslam, Novel q-rung orthopair fuzzy interaction aggregation operators and their application to low-carbon green supply chain management, Journal of Intelligent & Fuzzy Systems, 41(2)(2021). 4109-4126. DOI: 10.3233/JIFS-210506. Dated: 15-09-2021. ISSN 1064-1246. JCR-SCIE, Category W, Impact Factor 1.851.

<https://content.iospress.com/articles/journal-of-intelligent-and-fuzzy-systems/ifs210506>

26. M. Riaz, A. Habib and M. Aslam, Cubic bipolar fuzzy Dombi averaging aggregation operators with application to multi-criteria decision-making, Journal of Intelligent & Fuzzy Systems, 41(2)(2021), 3373-3393. DOI: 10.3233/JIFS-210667. Dated: 15-09-2021. ISSN 1064-1246. JCR-SCIE, Category W, Impact

Factor 1.851.

<https://content.iospress.com/articles/journal-of-intelligent-and-fuzzy-systems/ifs210667>

27. M. Riaz, H. M. A. Farid, H. M. Shakeel, M. Aslam and S. H. Mohamed, Innovative q-Rung Orthopair Fuzzy Prioritized Aggregation Operators Based on Priority Degrees with Application to Sustainable Energy Planning: A Case Study of Gwadar, AIMS Mathematics, 6(11)(2021), 12795-12831.  
Doi: 10.3934/math.2021739. Dated: 07-09-2021. Category X, ISSN 2473-6988, JCR-SCIE, Impact Factor 1.427  
<http://www.aimspress.com/article/doi/10.3934/math.2021739?viewType=HTML>
28. M. Parimala, S. Jafari, M. Riaz and M. Aslam, Applying the Dijkstra Algorithm to Solve a Linear Diophantine Fuzzy Environment, Symmetry, 13(9)(2021), 1-19. Dated: 02-09-2021. Category X, ISSN 2073-8994. JCR-SCIE Impact Factor 2.645.  
<https://doi.org/10.3390/sym13091616>
29. M. Riaz, M. Saba, M. A. Khokhar and M. Aslam, Medical Diagnosis of Nephrotic Syndrome using m-Polar Spherical Fuzzy Sets, International Journal of Biomathematics, (2021). JCR-SCIE Impact Factor 2.053.  
Dated: 27-08-2021. ISSN 1793-7159.  
<https://doi.org/10.1142/S1793524521500947>
30. H. M. A. Farid and M. Riaz, Some generalized q-rung orthopair fuzzy Einstein interactive geometric aggregation operators with improved operational laws, International Journal of Intelligent Systems, 36(12)(2021), 7239-7273. DOI: 10.1002/int.22587. Dated 17-08-2021. JCR-SCIE, Category W, Impact Factor 8.709. <https://doi.org/10.1002/int.22587>
31. M. R. Hashmi, S. T. Tehrim, M. Riaz, D. Pamucar and G. Cirovic, Spherical Linear Diophantine Fuzzy Soft Rough Sets with Multi-Criteria Decision Making, Axioms, 10(3)(2021), 1-28. Dated: 13-08-2021.  
DOI: 10.3390/axioms10030185. Dated: 13-08-2021. Category Y, JCR-ESCI, Tracked for Impact Factor.
32. M. Riaz, N. Ali, B. Davvaz and M. Aslam, Novel multi-criteria decision-making methods with soft rough q-rung orthopair fuzzy sets and q-rung orthopair fuzzy soft rough sets, Journal of Intelligent & Fuzzy systems, (2021), 1-19. Dated: 25-06-2021. ISSN 1064-1246. Category W, JCR-SCIE Impact Factor 1.851.  
DOI: 10.3233/JIFS-202916.  
<https://content.iospress.com/articles/journal-of-intelligent-and-fuzzy-systems/ifs202916>
33. M. Riaz, M. Saba, M. A. Khokhar and M. Aslam, Novel concepts of m-polar spherical fuzzy sets and new correlation measures with application to pattern recognition and medical diagnosis, AIMS Mathematics, 6(10)(2021), 11346-11379. Doi: 10.3934/math.2021659. Dated: 03-08-2021. ISSN 2169-3536, Category W, JCR-SCIE Impact Factor 1.427. <https://www.aimspress.com/article/doi/10.3934/math.2021659>
34. M. Riaz, A. Habib, M. J. Khan and P. Kumam, Correlation coefficients for cubic bipolar fuzzy sets with applications to pattern recognition and clustering analysis, IEEE ACCESS, 9(2021). 109053-109066.  
Dated: 03-08-2021. ISSN 2169-3536, Category W, JCR-SCIE Impact Factor 3.745.

<https://ieeexplore.ieee.org/document/9505621>

35. (Book Chapter) K. Naeem and M. Riaz, Pythagorean Fuzzy Soft Sets-Based MADM. In: Garg H. (eds) Pythagorean Fuzzy Sets. Springer, Singapore, (2021), 407-442.  
[https://doi.org/10.1007/978-981-16-1989-2\\_16](https://doi.org/10.1007/978-981-16-1989-2_16). Dated: 23-07-2021.
36. A. Iampan, G. Santos Garcia, M. Riaz, H. M. A. Farid and R. Chinram, Linear Diophantine fuzzy Einstein aggregation operators for multi-criteria decision making problems, Journal of Mathematics, (2021), 1-31.  
<https://doi.org/10.1155/2021/5548033>. Dated: 17-07-2021. Category Y, ISSN 2314-4785. JCR-SCIE Impact Factor 0.971.
37. K. Naeem, M. Riaz and F. Karaaslan, A mathematical approach to medical diagnosis via Pythagorean fuzzy soft TOPSIS, VIKOR and generalized aggregation operators, Complex & Intelligent Systems, DOI: [10.1007/s40747-021-00458-y](https://doi.org/10.1007/s40747-021-00458-y). Dated: 16-07-2021. ISSN 2199-4536, JCR-SCIE, Category X, Impact Factor 4.927.  
<https://link.springer.com/article/10.1007%2Fs40747-021-00458-y>
38. M. Riaz, H. M. A. Farid, M. Aslam, D. Pamucar and D. Bozanic, Novel approach for third-party reverse logistic provider selection process under linear Diophantine fuzzy prioritized aggregation operators, Symmetry, 13(7)(2021), <https://doi.org/10.3390/sym13071152> Dated: 27-06-2021. Category X, ISSN 2073-8994. JCR-SCIE Impact Factor 2.645.
39. M. Riaz, M. R. Hashmi, Diagnosis of lumbar degenerative disc disease by using  $L^p$ -spaces related to generalized interval-valued m-polar neutrosophic Choquet integral operator, International Journal of biomathematics, 14(8)(2021), 1-43. Dated: 28-05-2021. ISSN 1793-7159. JCR-SCIE Impact Factor 2.053.  
<https://doi.org/10.1142/S1793524521500637>
40. S. Ayub, M. Shabir, M. Riaz, M. Aslam and R. Chinram, Linear Diophantine fuzzy relations and their algebraic properties with decision making, Symmetry, (2021), 13(6), 1-18.  
<https://doi.org/10.3390/sym13060945>. Dated: 26-05-2021. Category X, ISSN 2073-8994. JCR-SCIE Impact Factor 2.645.
41. M. Riaz, M. A. Razzaq, M. Aslam and D. Pamucar, M-Parameterized N-Soft topology-based TOPSIS approach for multi-attribute decision making, Symmetry, 13(5)(2021), 1-31. Dated: 25-04-2021. Category X, ISSN 2073-8994. JCR-SCIE Impact Factor 2.645.  
<https://doi.org/10.3390/sym13050748>
42. M. Riaz, H. Garg, H.M.A. Farid and R. Chinram, Multi-criteria decision making based on bipolar picture fuzzy operators and new distance measures, Computer Modeling in Engineering & Sciences, 127(2)(2021), 771-800. doi:10.32604/cmcs.2021.014174. Dated: 19-04-2021. ISSN 1526-1492, Category X, JCR-SCIE Impact Factor 1.593.  
<https://www.techscience.com/CMES/v127n2/42222>
43. M. Riaz, M. A. Khokhar, D. Pamucar and M. Aslam, Cubic M-polar Fuzzy Hybrid Aggregation Operators

with Dombi's T-norm and T-conorm with Application, *Symmetry*, 13(4)(2021), 1-28. Dated: 11-04-2021. Category X, ISSN 2073-8994. JCR-SCIE Impact Factor 2.645.

<https://doi.org/10.3390/sym13040646>

44. M. Riaz, K. Naeem, R. Chinram and A. Iampan, Pythagorean m-polar fuzzy weighted aggregation operators and algorithm for the investment strategic decision making, *Journal of Mathematics*, 2021(2021), 1-19. Dated: 25-02-2021. Category Y, ISSN 2314-4785. JCR-SCIE Impact Factor 0.971.

<https://doi.org/10.1155/2021/6644994>.

45. M. Riaz, M. T. Hamid, D. Afzal, D. Pamucar and Y. M. Chu, Multi-criteria decision making in robotic agri-farming with q-rung orthopair m-polar fuzzy sets, *Plos One*, 16(2)(2021), 1-30. Dated: 25-02-2021. ISSN 1932-6203, Category W, JCR-SCIE Impact Factor 2.740.

<https://doi.org/10.1371/journal.pone.0246485>.

46. M. Riaz, M. R. Hashmi, D. Pamucar and Y. M. Chu, Spherical linear Diophantine fuzzy sets with modeling uncertainties in MCDM, *Computer Modeling in Engineering Sciences*, 126(3)(2021), 1125-1164. DOI: 10.32604/cmescs.2021.013699. Dated: 19-02-2021. ISSN 1526-1492, Category X, JCR-SCIE Impact Factor 1.593. <https://www.techscience.com/CMES/online/detail/17966>

47. M. Saqlain, M. Riaz, M. A. Saleem, M. S. Yang, Distance and similarity measures for neutrosophic hypersoft set (NHSS) with construction of NHSS-TOPSIS and applications, *IEEE Access*, 9(2021), 30803-30816. DOI: 10.1109/ACCESS.2021.3059712. Dated: 16-02-2021. ISSN 2169-3536, Category W, JCR-SCIE Impact Factor 3.745.

<https://ieeexplore.ieee.org/document/9354787>

48. M. Sitara, M. Akram and M. Riaz, Decision-making analysis based on q-rung picture fuzzy graph structures, *Journal of Applied Mathematics and Computing*, (2021), <https://doi.org/10.1007/s12190-020-01471-z>. Dated: 20-01-2021. ISSN 1598-5865, Category X, JCR-SCIE Impact Factor 1.242.

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## Year 2020 (Published)

49. M. Riaz, K. Naeem, M. Aslam, D. Afzal, F. A.A. Ahmed and S.S. Jamal, Multi-criteria group decision making with Pythagorean fuzzy soft topology, *Journal of Intelligent & Fuzzy systems*, 39(5)(2020), 6703-6720. DOI: 10.3233/JIFS-190854. Dated: 19-11-2020. ISSN 1064-1246. Category W, JCR-SCIE Impact Factor 1.851.

<https://content.iospress.com/articles/journal-of-intelligent-and-fuzzy-systems/ifs190854>

50. M. Riaz, M. T. Hamid, H.M.A. Farid and D. Afzal, TOPSIS, VIKOR and aggregation operators based on q-rung orthopair fuzzy soft sets and their applications, *Journal of Intelligent & Fuzzy Systems*, 39(5)(2020), 6903-6917, DOI:10.3233/JIFS-192175. Dated: 19-11-2020. JCR-SCIE, Category W, Impact Factor 1.851. ISSN 1064-1246. JCR-SCIE Impact Factor 1.851.

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51. M. R. Hashmi, M. Riaz and F. Smarandache, m-Polar neutrosophic generalized weighted and m-polar neutrosophic generalized Einstein weighted aggregation operators to diagnose Coronavirus (COVID-19), Journal of Intelligent & Fuzzy Systems, 39(5)(2020), 7381-7401. DOI: 10.3233/JIFS-200761. Dated: 19-11-2020. ISSN 1064-1246. JCR-SCIE, Category W, Impact Factor 1.851.

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52. K. Naeem, M. Riaz and F. Karaaslan, Some novel features of Pythagorean m-polar fuzzy sets with applications, Complex & Intelligent Systems, 7(1)(2020), 459–475.

doi.org/10.1007/s40747-020-00219-3. Dated: 01-11-2020. ISSN 2199-4536, JCR-SCIE, Category X, Impact Factor 4.927. <https://link.springer.com/article/10.1007/s40747-020-00219-3>

53. M. Riaz and S. T. Tehrim, On bipolar fuzzy soft topology with decision-making, Soft Computing, 24(24)(2020), 18259-18272. DOI: 10.1007/s00500-020-05342-4. Dated: 16-10-2020.

ISSN 1432-7643, SCIE-JCR, Category W, Impact Factor 3.643.

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54. M. Riaz, F. Karaaslan, I. Nawaz and M. Sohail, Soft multi-rough set topology with applications to multi-criteria decision-making problems, Soft Computing, 25(1)(2021), 799-815.

doi.org/10.1007/s00500-020-05382-w. Dated: 29-10-2020. ISSN 1432-7643, SCIE-JCR, Category W, Impact Factor 3.643. <https://www.springer.com/journal/500>

<https://doi.org/10.1007/s00500-020-05382-w>

55. A. Fahmi, M. Aslam and M. Riaz, New approach of triangular neutrosophic cubic linguistic hesitant fuzzy aggregation operators, Granular Computing 5(1)(2020),527-543. doi.org/10.1007/s41066-019-00177-3. International, Published Dated October 2020, ISSN 2364-4966.

<https://link.springer.com/article/10.1007/s41066-019-00177-3>

56. M. Riaz, M. R. Hashmi, m-Polar neutrosophic soft mapping with application to multiple personality disorder and its associated mental disorders, Artificial Intelligence Review, 54(4)(2021), 2717-2763. DOI: 10.1007/s10462-020-09912-8. Online Dated 24-09-2020. ISSN 1573-7462, JCR-SCIE Impact Factor 8.139.

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**Year 2018**

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#### Year 2017

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#### Year 2016

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#### Year 2012

105. M. Aslam Malik, Muhammad Riaz, Orbits of  $\mathcal{O}(\sqrt{k^2m})$  under the action of the modular group

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#### Year 2011

106. M. Aslam Malik, Muhammad Riaz, G-subsets and G-orbits of  $Q^*(\sqrt{n})$  under action of the modular group, Punjab University Journal of Mathematics, **43**, 75-84, 2011.

(ESCI) X-Category, International, dated 01-12-2011, ISSN 1016-2526, <http://www.pujm.com.pk>

#### Research Experience/Research Supervision/ M.Phil and Ph.D Supervised:

##### PhD Students Supervised:

1. **Dr. Syeda Tayyba Tehrim, Ph.D. Mathematics (2016-2020).**  
Title of Ph.D. Thesis: **Bipolar Fuzzy Soft Topology with Applications in Decision Making**  
(Ph.D Completed) Ph. D. Notification Ph.D. (R)/175/2020 Dated: 20-10-2020.
2. **Dr. Masooma Raza Hashmi, Ph.D. Mathematics (2017-2020).**  
Title of Ph.D Thesis: **Some Hybrid Structures of m-polar Neutrosophic Set with Applications**  
(Ph.D Completed) Ph. D. Notification Ph.D. (R)/266/2020 Dated: 31-12-2020.
3. **Dr. Khalid Naeem, Ph.D. Mathematics (2016-2020).**  
Title of Ph.D Thesis: **Some Contributions to Pythagorean Fuzzy sets and Neutrosophic Sets with Applications.**  
Ph.D Completed. Ph. D. Notification No. Ph.D:/021/011 Dated: 22-03-2021.  
Supervisors: Dr. Deeba Afzal and Dr. Muhammad Riaz
4. **Dr. Muzzamil Sitara, Ph.D. Mathematics (2017-2021)**  
Title: **Extensions of Graph Structures Under q-Rung picture Fuzzy Environment.**  
Ph.D Completed. Ph. D. Notification No. Ph.D. (R)/107/2021 Dated: 28-05-2021.  
Supervisors: Prof. Dr. Muhammad Akram and Dr. Muhammad Riaz
5. **Dr. Muhammad Tahir Hamid, Ph.D. Mathematics (2017-2021).**  
Title of Ph.D Thesis: **Some Contributions to q-Rung Orthopair m-Polar Fuzzy Sets and Neutrosophic Sets with Applications.**  
Ph.D Completed. Ph. D. Defense Dated: 23-09-2021.  
Supervisors: Dr. Deeba Afzal and Dr. Muhammad Riaz

##### PhD Students Supervising:

6. **Hafiz Muhammad Athar Farid. Session 2020-2023**  
Title: Bipolar picture fuzzy aggregation operators
7. **Ayesha Razzaq. Session 2020-2023**  
Title: M-Parameterized N-Soft topology with applications
8. **Nimra Jamil. Session 2020-2023**  
Title: Information measures under hesitant spherical fuzzy sets

##### M.Phil Students Supervising:

##### M.Phil Students Supervised:

1. **Muhammad Abdullah Khokhar. Session 2019-2021**  
Title: **Cubic m-Polar Fuzzy Aggregation Operators with Multi-Criteria Decision-Making Problems**

2. **Maryam Saba. Session 2019-2021**  
Title: [m-Polar Spherical Fuzzy Topology with Applications in Decision-Making](#)
3. **Anam Habib. Session 2019-2021**  
Title: [Cubic Bipolar Fuzzy Aggregation Operators with Multi-Criteria Decision-Making Methods](#)
4. **Mishal Riaz. Session 2019-2021**  
Title: [Bipolar Picture Fuzzy Information Measures with Applications in Decision-Making](#)
5. **Hafiz Muhammad Athar Farid, M.Phil Mathematics. Session 2018-2020. Roll No. MPF18-06**  
Title of M.Phil Thesis: [Some q-Rung Orthopair Fuzzy Aggregation Operators with Multi-Criteria Decision Making Problems](#)
6. **Ayesha Razzaq, M.Phil Mathematics. Session 2018-2020. Roll No. MPF18-24**  
Title of M.Phil Thesis: [Certain Properties of Fuzzy Parameterized N-Soft Topology With Applications](#)
7. **Nawazish Ali, M.Phil Mathematics. Session 2018-2020. Roll No. MPF18-31**  
Title of M.Phil Thesis: [Pythagorean Fuzzy Soft Rough Set Topology with Multi-Criteria Decision Making Methods](#)
8. **Iqra Zareef, M.Phil Mathematics (2017-2019)**  
Title of M.Phil Thesis: [N-Soft Topology and its Applications to Multi-Criteria Decision Making](#)
9. **Iqra Nawaz, M.Phil Mathematics (2017-2019)**  
Thesis titled [Soft Multi Rough Set Topology with Applications to Group Decision Making](#)
10. **Mahwish Sohail, M.Phil Mathematics (2017-2019)**  
Thesis titled [Soft Expert Topology and its Applications to Multi-Attribute Decision Making](#)
11. **Atiqa Firdous, M.Phil Mathematics (2016-2018)**  
Thesis titled [Certain Properties of Soft Rough Set Topology with Decision Making Problems](#)
12. **Atiqa Fakhar, M.Phil Mathematics (2016-2018)**  
Thesis titled [Properties of Hesitant Fuzzy Soft Topology with Multi-Attribute Decision Making Methods](#)
13. **Nabeela Wali, M.Phil Mathematics (2016-2018)**  
Thesis titled [Soft Multi-Set Theory and Soft Multi-Set Topology with Applications](#)
14. **Amna Mushtaq, M.Phil Mathematics (2016-2018)**  
Thesis titled [Certain Properties of Intuitionistic Fuzzy Soft Topology](#)
15. **Masooma Raza Hashmi, M.Phil Mathematics (2015-2017)**  
Thesis titled [Properties of Fuzzy Parameterized Fuzzy Soft Topology](#)
16. **Zain Fatima, M.Phil Mathematics (2014-2016)**  
Thesis titled [Some Properties of Soft Cone Metric Spaces](#)
17. B.Sc. (Hons) Project (2005-2006) “Applications of Complete Normed Linear Spaces”. Department of Mathematics, University of the Punjab, Lahore.
18. B.Sc. (Hons) Project (2006-2007) “Applications of Graph Theory”. Department of Mathematics, University of the Punjab, Lahore.

#### **Research Supervision (other students)**

19. **Anam Aslam, M.Phil Mathematics (2015-2017)**, Thesis titled “Soft Topology and Soft Separation Axioms”. Department of Mathematics, University of Lahore.
20. **Sana Pervez, M.Phil Mathematics (2015-2017)**, Thesis titled “Properties of soft connected and Soft Compact Spaces”. Department of Mathematics, University of Lahore.
21. **Khalid Naeem, M.Phil Mathematics (2014-2016)**, Thesis titled “Soft Set Theory and Soft Sigma Algebras”. Department of Mathematics, University of Lahore

#### **RESEARCH PROJECTS:**

- Research Project University of the Punjab 2017-2018 (Completed)  
Title: Fuzzy Parameterized Fuzzy Soft Spaces with Decision-Making”.  
Letter # D/4112/Est.1, Dated 13-09-2017. Rs. 150,000/-



- Research Project University of the Punjab 2014-2015 (Completed)  
Title: Soft Connectedness and Soft Separability in Soft Topological Spaces".  
Letter # D/605/Est.1, dated 24-02-2015. Rs. 150,000/-  
Starting date 24-02-2015, Ending date 31-12-2016

### Research Incentive Awards:

- **Research Incentive Award** on publication for year 2020. Amount Rs. 300,000/-
- **Research Incentive Award** on publication for year 2019. Amount Rs. 191,667/-  
No. D/2243/Est.I Dated: 29-12-2020.
- **Research Incentive Award** on publication for year 2012. Amount Rs. 15,000/-  
No. D/1102/Est.I Dated 24-08-2013.

### Performance Evaluation Awards:

- **Performance Evaluation Award** for year 2019 No. D/4456/Est-I. Dated: 15-10-2021.  
Marks 73/75. Amount Rs. 48,666/-
- **Performance Evaluation Award** for year 2018 Marks 68/75. Amount Rs. 45,333/-
- **Performance Evaluation Award** for year 2017 Marks 56.5/75. Amount Rs. 36,333/-
- **Performance Evaluation Award** for year 2016 Marks 45.5/75. Amount Rs. 30,335/-
- **Performance Evaluation Award** for year 2015 Marks 43/75. Amount Rs. 28,665/-

### Member Editorial Board:

**Editor:** Journal of New theory

<http://www.newtheory.org/editorial.html>

**Editor:** Journal of Advanced Studies in Topology

<http://www.m-sciences.com/index.php?journal=jast&page=index>

**Editor:** Decision Making: Applications in Management and Engineering (DMAME)

<http://www.dmame.org/index.php/dmame>

**Editor:** Journal of Artificial Intelligence and Systems

<https://iecsience.org/journals/AIS>

**Editor:** International Journal of Social Science, Innovation and Educational Technologies

<https://issjournal.com/>

**Reviewer:** Reviewer more than 40 SCIE/ESCI journals.

International Journal of Intelligent Systems, Applied Soft Computing, Computational & Applied Mathematics, Journal of intelligent and fuzzy Systems, Neural Computing and Applications, Ambient Intelligence and Humanized Computing, AIMS Mathematics, International Journal of Biomathematics, Complexity, Complex & Intelligent Systems, Applied General Topology, Neutrosophic sets and Systems, Journal of New Theory, Journal of advanced Studies in Topology, Financial innovation, Arab Journal of Basic and Applied Sciences, Evolving systems, Natural and Engineering Sciences, Mathematical Sciences App E Notes, South East Asian Journal of Mathematics ad Mathematical Sciences, TWMS Journal of Applied and Engineering Mathematics, Scientific Inquiry and Review, Fuzzy Information and Engineering, Journal of the Egyptian Mathematical Society.

### Teaching Experience/ Employment Record:

**Teaching Experience (24Years)**

**Present Position:**

- **Associate Professor (BPS-20), Department of Mathematics, University of the Punjab, Lahore (Joining at Present Post: 19-05-2022)**
- Assistant Professor (BPS-19), Department of Mathematics, University of the Punjab, Lahore (From 13-07-2004 to 18-05-2022)
- Lecturer in Mathematics, Department of Mathematics, Govt. Degree College Pindi Bhattian. (August 23, 1997 to July 10, 1998)
- Lecturer in Mathematics, Department of Mathematics, Govt. Degree College Kamokee. (July 11, 1998 to November 11, 1998)
- Lecturer in Mathematics, Department of Mathematics, Govt. College of Science Wahdat Road Lahore. (November 13, 1998 to July 12, 2004)
- Assistant Professor (BPS-19), Department of Mathematics, University of the Punjab, Lahore (July 13, 2004-to-date)

**Field of Interest:**

**Research work:**

- Algebra and Topology
- Computational Intelligence
- Fuzzy Sets and Systems, Soft Set Theory, Rough Set Theory, Novel Hybrid Structures
- Topology and its applications in decision making problems

**Taught the Following major Courses/Subjects:**

- Topology and Functional Analysis
- Fuzzy Topology, Soft Topology, Rough Set Topology
- Advanced Analysis (Set Theory, Measure Theory and Lebesgue Integration)
- Algebra (Group Theory, Rings and Vector Spaces)
- Real Analysis and Complex analysis, Vector and Mechanics
- Fuzzy Systems, Fuzzy Logic, Extensions of Fuzzy sets.
- Number Theory, Mathematical Statistics
- Methods of Mathematical Physics, Integral equations, Operations Research
- Ordinary and Partial Differential Equations
- Calculus and Analytic Geometry
- Discrete Mathematics, Linear Algebra

**Seminars/Workshops/Conferences Attended/Paper Presented**

**Year (2022)**

1. Paper presented as INVITED SPEAKER on title “Linear Diophantine Fuzzy Topology” at Two Days 1<sup>st</sup> International Conference on Pure and Applied Mathematics, Department of Mathematics, GC University, Faisalabad, February 19-20, 2022.

**Year (2021)**

2. Paper presented on “Linear Diophantine Fuzzy Topology with Applications” at Departmental Seminar Series, Department of Mathematics, University of the Punjab, Lahore, dated: 08-12-2021.
3. Attended/participated in One day Webinar on “Recent Trends in Fuzzy Set Theory” organized by University of Kolti, Azad Jammu & Kashmir. Dated: 09-09-2021.
4. **Paper presented as INVITED SPEAKER** on topic: “Modeling Uncertainties with Linear Diophantine Fuzzy sets”, in International Faculty Development Program on “Demystifying Optimization Techniques”, online webinar, 22-27 March 2021 (One Week).

### Year (2020)

5. Member organizing committee and international committee International Technical committee member for International Virtual Online Conference on “Bridging Innovative Trends in Mathematics, Engineering & Technology” during 18 to 19 December 2020, Bannari Amman Institute of Technology.
6. **Paper presented and Member Organizing Committee** in 6th UMT International Conference on Pure and Applied Mathematics (6<sup>th</sup> UICPAM-2019) February 21-23, 2020.  
**Title of Talk:** Soft Rough Pythagorean m-Polar Fuzzy Sets and with Application to Decision-Making
7. Attended and **Paper presented as INVITED SPEAKER** on Roughness and Fuzziness Associated with Soft Multi Sets at Virtual University of Pakistan Dated: 08-01-2020.
8. Attended and **Paper presented as INVITED SPEAKER** on Soft Rough m-polar Neutrosophic Sets and their application in Decision Making. **Symposium on Fuzzy Analysis, Soft Set and Decision Making** at University of management & Technology Lahore. Dated: 27-01-2020.

### Year (2019)

9. Attended and **Paper presented as INVITED SPEAKER** on Certain Properties of Hesitant Fuzzy Soft Topology with Multi-Attribute Decision Making Methods, The University of Lahore, from 30-11-2019 to 02-12-2019.
10. Attended and **Paper presented as INVITED SPEAKER** One day International seminar on Recent Trends in Pure and Applied Mathematics November 09, 2019.
11. **Paper presented** on “Hesitant Fuzzy Soft Topology with Applications” at 20th International Pure Mathematics Conference of (23-25 August, 2019), Islamabad Club, Islamabad, Pakistan.
12. Attended and **Paper presented** in Recent Advances in Mathematical Methods, Models & Applications (RAMMMA) at Centre for Mathematics & Statistical Sciences, Lahore School of Economics, April 13-14, 2019.
13. Attended and **Paper presented as INVITED SPEAKER** on Hesitant Fuzzy Set Theory with Applications with Decision-Making in Garrison International Conference on Pure and Applied Mathematics (April 1-3, 2019).
14. **Attended and Member Organizing Committee** in 5th UMT International Conference on Pure and Applied Mathematics (5<sup>th</sup> UICPAM-2019) March 29-31, 2019.

### Year (2018)

15. Organized and Attended and **Paper presented as INVITED SPEAKER** on Soft Multi-Set Theory with Decision-Making in International Workshop on Nonlinear Analysis and Applications (IWNAAP-UMT 2018) (November 16-18, 2018).
16. Attended and **Paper presented** on Handling Uncertainties via soft Multi-set theory in 2018 International Conference on mathematics and its applications (2018-ICMA-GCU) Nov. 13-15, 2018.
17. Attended "2018 One Day Workshop on Nonlinear Analysis and its Applications" at GCU Lahore on July 17, 2018.
18. Attended and **Paper presented** on Fuzzy neutrosophic soft sets and bipolar neutrosophic soft sets with decision-making in Recent Advances in Mathematical Methods, Models & Applications (RAMMMA) at Centre for Mathematics & Statistical Sciences, Lahore School of Economics. April 7-8, 2018.

19. Attended and **Paper presented** as **INVITED SPEAKER** on Fuzzy Parameterized Fuzzy Soft Set Theory with Decision-Making in National Conference on Physical Sciences at Govt. M.A.O. College Lahore on April 25, 2018.
20. Attended and **Paper presented** as **INVITED SPEAKER** on Fuzzy Neutrosophic Soft Set Theory with Decision-Making in 4<sup>th</sup> UMT International Conference on Pure and Applied Mathematics (4<sup>th</sup> UICPAM-2018) March 31-April 02, 2018.

### Year (2017)

21. Attended 1st International Meeting on Science and Society (23-25 November 2017) Organized by National Centre for Physics Islamabad and Centre of High Energy Physics, University of Punjab, Lahore
22. Attended and **Paper presented** on FPFS- Mappings with decision-making problems in 2017 International Conference on mathematics and its applications (2017-ICMA-GCU) Nov. 13-15, 2017.
23. Attended and **Paper presented** as **INVITED SPEAKER** in International Workshop on Nonlinear Analysis and Applications (IWNAAP-UMT 2017) (Sept. 16-18, 2017).
24. **Paper presented** on “FPFS Topology with Decision-making” at 18th International Pure Mathematics Conference of (04-06 August, 2017), Islamabad, Pakistan.
25. Attended and Participated in One Day Workshop on Soft Set Theory and its Applications at Department of Mathematics GCU Lahore on Tuesday May 23, 2017.
26. **Paper presented** as **INVITED SPEAKER** on Some Properties of FPFS-Compact Spaces in the 1st-LGU National Conference on Pure and Applied Mathematics (1st GNCPAM-2017) May 17-18, 2017.
27. **Paper presented and Member organizing committee** and Paper presented on Some Properties of FPFS-Continuous Mappings in 3rd UMT International Conference on Pure and Applied Mathematics (3<sup>rd</sup> UICPAM-2017) March 4-6, 2017.

### Year (2016)

28.  $Q^* \sqrt{k^2 m}$ , and titled on “Trace classes in the modular group and orbits of an invariant subset” at 2nd UMT International Conference on Pure and Applied Sciences 2016 (March 05-07, 2016), CMAP, UMT, Lahore, Pakistan.
29. **Paper presented and Member organizing committee** International Workshop on Nonlinear Analysis and Applications (IWNAAP-2016) (October 1-3, 2016) CMAP, UMT, Lahore.
30. Attended and Participated in Second International Workshop on Modern Aspects of Algebra and Graph Theory, (November 02-03, 2016), COMSATS Lahore, Pakistan.
31. Attended and Participated in Workshop on Relativistic Astrophysics and Cosmology, (November 24-25, 2016), COMSATS Lahore, Pakistan.
32. Attended and Participated in One Day Conference on Gravitation and and Cosmology, (November 26, 2016), Department of Mathematics, University of the Punjab, Lahore.
33. A seminar presented in the departmental seminar series on “Inequalities involving the norms of some special matrices”, Dated 03-02-2016.

### Year (2015-)

34. **Paper presented** on “*Certain Properties of Soft Metric Spaces*” at International Conference on Recent Advances in Applied Mathematics (17-18 December, 2015), COMSATS Lahore, Pakistan.

35. **Paper presented** on “*Some Inequalities on Generalized Tribonacci and Generalized Pell Padovan Sequence*” at 16<sup>th</sup> International Conference of Pure Mathematics (21-23 August, 2015), Margala Hotel, Islamabad, Pakistan.
36. **Attended 1<sup>st</sup> UMT National Conference on Pure and Applied Mathematics 2015”** ((**March 07-08, 2015**), Department of Mathematics, University of Management and technology, Lahore, Pakistan.
37. **Attended *International Conference on Relativistic Astrophysics*** (February 10-14, 2015) Department of Mathematics, University of the Punjab, Lahore.
38. **Attended Lecture Series on Cosmology** (November 8-9, 2013), Department of Mathematics, University of the Punjab, Lahore.
39. **Seminar Presented** on “Certain quadratic fields under the action of the modular groups” in the Seminar Series (October 09, 2013), Department of Mathematics, University of the Punjab, Lahore.
40. **Paper Presented** on “Action of  $SL(m, \mathbb{Z}_n)$  on the ring  $\mathbb{Z}^m_{-n}$ ” at 13<sup>th</sup> *International Conference of Pure Mathematics* (1-3 Sep, 2012), Margala Hotel, Islamabad.
41. **Seminar Presented** on “Equivalent Binary Quadratic Forms” in the Seminar Series (September 26, 2012), Department of Mathematics, University of the Punjab, Lahore.
42. **A seminar/paper presented** in the departmental seminar series on **Soft Set Theory and Soft Topology**, Dated 03-12-2014.
43. **Presented Papers/** Research work on “The Modular Group Action on Real Quadratic Field” in the Seminar Series (2008-2011), Department of Mathematics, University of the Punjab, Lahore.
44. **General Relativity and Gravitation** (Feb. 11-13, 2010), Department of Mathematics, University of the Punjab, Lahore.
45. **Lecture Series on Black Hole** (Oct. 10-11, 2008), Department of Mathematics, University of the Punjab, Lahore.
46. **Symposium on Relativity** (April 06, 2006), Department of Mathematics, University of the Punjab, Lahore.
47. **Four days All Pakistan Mathematical conference** (Nov 1-4, 1996), Govt. College Faisalabad.

### Training

- **GRE/ NTS-GAT** Mathematics classes taught to M.Phil/Ph.D scholars and Faculty members of University of the Punjab, Lahore (September, 2014).
- **Attended Indigenous On-Campus Training of Faculty Members** University of the Punjab Lahore (From 22-26 December, 2014) Batch-8, held at Institute of Administrative Sciences, University of the Punjab Lahore.
- **One Week Workshop/Refresher Course on Algebraic Topology** (Dec. 20, 2004 to Dec. 26, 2004), ASSMS-GC University, Lahore.
- **Ten days Government Teachers Training Course**, Govt. College of Science Lahore March 1-10, 1999.
- **Assistant Controller of Examinations**, Govt. College of Science Wahdat Road Lahore.
- **Focal person ORIC** University of the Punjab, Lahore.

### Administrative Duties/ Major Assignments:

- **Member** Departmental Doctoral Program Committee (DDPC), (2020-onwards). No. D/6609/Acad. Dated: 01-10-2020.
- **Students Advisor** (2009-2010, 2015-to-date), Department of Mathematics, Department of Mathematics, University of the Punjab, Lahore.
- **Coordinator 4 years BS Mathematics Program** (2005-2008, 2016-2019), Department of

Mathematics, University of the Punjab, Lahore.

- **Coordinator MSc (Self-Supporting) Program** (2014-2017), Department of Mathematics, University of the Punjab, Lahore.
- **Coordinator Departmental Time Table** (2004-2016), Department of Mathematics, University of the Punjab, Lahore.
- **Member** Departmental Examination Committee (2004-2008, 2014-to-date), Department of Mathematics, University of the Punjab, Lahore.
- **Member** Departmental Scholarship Committee (2004-2008, 2014-to-date), Department of Mathematics, University of the Punjab, Lahore.
- **Member** Departmental Library Committee (2014-2019), Department of Mathematics, University of the Punjab, Lahore.
- Department **nominated** as *Volunteer Mentor Science Education Project* on 24-08-2004.
- **Coordinator** MSc (Honors) Program (2004-2006), Department of Mathematics, University of the Punjab, Lahore.
- **Assistant Editor** *Punjab University Journal of Mathematics* (2004-2007), Department of Mathematics, University of the Punjab, Lahore.
- **In charge** Computer Short Courses and Computer Center (2004-2007), Department of Mathematics University of the Punjab Lahore.

### Memberships

- **Member Board of Faculty** (2004-2007 & 2013-2016), University of the Punjab, Lahore No. D/5693/Acad. Dated 26-11-2013.
- **Member Board of Studies** of Department of Mathematics, University of the Punjab, Lahore (2009-2012), No. D/4096/Acad. Dated 08-09-2009.
- **Member** Academic Staff Association (2004-to-date), University of the Punjab, Lahore.
- **Member Departmental Disciplinary Committee** (Since October 04, 2017), Department of Mathematics, University of the Punjab, Lahore.
- **Life Member** Punjab Mathematical Society, Lahore.
- **Member** Text-Book Review Committee **TRC** (2012-to-date), Punjab Text Book Board Curriculum Wing, Lahore.
- **Member** Departmental Admission Committee (2004- to-date), Department of Mathematics, University of the Punjab, Lahore.
- **Member**, Departmental Scholarship Committee (2004-to-date), Department of Mathematics, University of the Punjab, Lahore.
- **Member**, Departmental Purchase Committee (2004-2007, 2014- to-date), Department of Mathematics, University of the Punjab, Lahore.

### Curriculum Development

- **Revised** BS 4 years Syllabi (2005, 2008), Department of Mathematics, University of the Punjab, Lahore.
- **Revised** MSc 2 years Syllabi Annual System (2005, 2009), Department of Mathematics, University of the Punjab, Lahore.
- **Member curriculum development for ADP (Associate degree Program) 2019.**

### Computer Skills

- Familiar with *Mathematica- Computer Algebra System* for numeric, symbolic and graphics computation.
- Familiar with LaTeX Type Setting and proficient in applications of *Microsoft Office suit (Word, Excel, Power Point and Publisher)* in Windows environment with excellent report writing skills.

- Attended a course of *MS Office* (1995), Department of Computer Science, UET, Lahore.

### Language Skills

Fluent in English, Urdu and Punjabi.

### References:

**Prof. Dr. Muhammad Sharif (T. I.)**

Department of Mathematics, University of the Punjab, Quaid –e-Azam Camus, Lahore.

**Prof. Dr. Muhammad Akram**

Department of Mathematics, University of the Punjab, Quaid –e-Azam Camus, Lahore.

**Prof. Dr. Muhammad Aslam Malik**

Department of Mathematics, University of the Punjab, Quaid –e-Azam Camus, Lahore.

**Prof. Dr. Shahid S. Siddiqi**

Chairman Department of Mathematics, University of the Punjab, Lahore.

**Prof. Dr. Syed Muhammad Husnine**

Professor and Dean Faculty of Science and Humanities, NU-Fast Lahore.

**Prof. Dr. Muhammad Shabir**

Department of Mathematics, Quaid –i-Azam University, Islamabad.