

Curriculum Vitae

Personal Information:

Name Syed Ahtsham Ul Haq Bokhary
Date of Birth August 14, 1981
Present position Associate Professor
Present Address Centre of Advanced Studies in Pure and applied Mathematics,
Bahauddin Zakariya University, Multan, Pakistan
E-mail ahtsham@bzu.edu.pk, sihtsham@gmail.com,
Contact No. +923344141694
ORCID ID 0000-0002-8957-0792
Scopus Id

Academic Qualification:

- **M.Sc Mathematics (2000-2003)**
Punjab University, Lahore, Pakistan.
- **M.Phil Mathematics (2003-2005)**
Quaid-i-Azam University, Islamabad, Pakistan.
Title of Thesis: Derivation and Jordan derivations of Bi-Modules
Thesis advisor: Dr. Asif Ali
- **PhD Mathematics (2005-2010)**
Abdus Salam School of Mathematical Sciences, GCU, Lahore, Pakistan.
Title of Thesis: Chromatic Polynomial and Chromatic uniqueness of Spernerian Hypergraphs
Thesis advisor: Prof. Dr. Ioan Tomescu

Brief Description of my Research line:

My research primarily focuses on discrete mathematics, encompassing combinatorics, cryptography, molecular graph theory, spectral graph theory, distances in graphs, and graph labeling.

Combinatorics: Exploring the principles of counting, arrangement, and combination of objects, providing foundational tools for various fields including computer science, optimization, and statistical analysis.

Cryptography: I develop novel algorithms and methods to enhance data security, leveraging graph structures and their properties. My work integrates complex mathematical theories with practical applications in encryption and decryption, contributing to advancements in secure data communication

Molecular Graph Theory: My work in this area to apply graph theory to the study of molecular structures, analyzing the connectivity and interaction between atoms to understand chemical properties and reactions.

Spectral Graph Theory: I have investigated the properties of graphs through the eigenvalues and eigenvectors of associated matrices, offering insights into the structural and dynamic aspects of complex networks. I have computed the energies for certain families of graphs

Distances in Graphs: My work in this area is focused on Resolvability of graphs and domination in graphs.

Graph Labeling: My contribution in this area is mainly in vertex and edge irregular labeling and reflexive labeling

Teaching:

- Calculus-I
- Calculus-II
- Calculus-III
- Calculus for Engineers
- Algebra-I
- Algebra-II
- Algebra-III
- Abstract Algebra
- Linear Algebra
- Numerical Analysis-I
- Numerical Analysis-II
- Discrete Structure
- Vector and Tensor Analysis
- Mechanics
- Optimization Theory
- Combinatorics & Graph Theory
- Topics in Graph Theory
- Business Mathematics
- Teaching and Research methodology

S.No.	Code	Title	Semester	Level	Credi
1	MATH 101	Calculus-I,	Fall 2021, I	BS Morning	4-0-4
2	MATH 433	Abstract Algebra,	Fall 2021, VII	BS Mor/Ev.	3-0-3
3	MATH 302	Algebra-II,	Fall 2021, V	BS Morning	3-0-3
4	MATH 301	Algebra II	Fall 2021, V	BS Evening	3-0-3
5	MATH 302	Algebra-III	Spring 2022, VI	BS Morning	3-0-3
6	MATH 102	Calculus-II	Spring 2022, II	BS Morning	4-0-4
7	MATH 524	Combinatorics and Graph Theory	Spring 2022, II	MPhil	3-0-3
8	MATH 101	Calculus-I,	Fall 2022, I	BS Morning	3-0-3
9	MATH 201	Calculus-III,	Fall 2022, III	BS Morning	4-0-4

10	MATH 524	Combinatorics and Graph Theory	Fall 2022, II	MPhil	3-0-3
11	MATH 101	Calculus-I,	Fall 2022, I	BS Evening	3-0-3

Professional Experience:

Brief carrier history is as follows.

Designation	Institution	Period of Service
Assistant Professor	Bahauddin Zakariya University, Multan	05-08- 2010 to 27-09- 2011
Assistant Professor	National Textile University, Faisalabad	28-09-2011 to 12-03-2012
Assistant Professor	Bahauddin Zakariya University, Multan	13-03-2012 to 12-11-2020
Tenured Associate Professor	Bahauddin Zakariya University, Multan	13-11-2020 till now

Scholarly and/or Creative Activity like Lectures, Seminars Attended or Delivered:

1. Member Scientific Committee of 1st International conference Mathematics for Sustainable Future, 12-14 December, 2022.
2. Invited Speaker in AUA-UAEU Workshop on Graph Theory, Combinatorics and Applications (GTCA 2022), 13-15 November, 2022
3. Research Visit to University of United Arab Emirates, UAE, March 2022.
4. Keynote speaker in 2nd Summer school “New trends in Mathematical Sciences”, University of Swat Shangla Campus, Shangla, Pakistan, 18-22, July, 2022.
5. Attended 1st Summer school “New trends in Mathematical Sciences”, University of Swat Shangla Campus, Shangla, Pakistan, August, 2021.
6. Attended “A two day workshop on turbulence modeling and simulations”, December 19-20, 2018, CASPAM, BZU, Multan
7. Participated in “The Joint International Meeting of the Chinese Mathematical Society and American Mathematical Society”, June 11-14, Shanghai, China.
8. Delivered a lecture on “One day symposium on Combinatorial graph theory”, March 13, 2018.
9. Member Organizing Committee of “8th CASPAM Regional Olympiad of Mathematics”, 2023, CASPAM, BZU, Multan.
10. Member Organizing Committee of “7th CASPAM Regional Olympiad of Mathematics”, April, 16, 2022, CASPAM, BZU, Multan.
11. Member Organizing Committee of “6th CASPAM Regional Olympiad of Mathematics”, 16 April, 2019, CASPAM, BZU, Multan.
12. Member Organizing Committee of “5th CASPAM Regional Olympiad of Mathematics”, 19 April, 2018, CASPAM, BZU, Multan.
13. Member Organizing Committee of “CASPAM International Conference on Mathematics and Applications”, November 6-7, 2017, CASPAM, BZU, Multan.
14. Member Organizing Committee of “4th CASPAM Regional Olympiad of Mathematics”, 12 April, 2017, CASPAM, BZU, Multan.

15. Member Organizing Committee of “3rd CASPAM Regional Olympiad of Mathematics”, 12 May, 2016, CASPAM, BZU, Multan.
16. Member Organizing Committee of “2nd CASPAM Regional Olympiad of Mathematics”, 29 April, 2015, CASPAM, BZU, Multan.
17. Invited Speaker at workshop entitled “International Workshop on Discrete Structure”, March, 5-7, 2014, NUST, Islamabad.
18. Member Organizing Committee of “1st CASPAM Regional Olympiad of Mathematics”, 12 March, 2014, CASPAM, BZU, Multan.
19. Presented a paper entitled “On the locating number of graphs” in “6th World Conference on 21st Century Mathematics, March 6-9, 2013”, School of Mathematical Sciences GCU Lahore.
20. Delivered a lecture on “Game Chromatic Number of Graphs” in Spring Workshop on Recent Advances in Graph Theory and Combinatorics, February 17-19, 2012, CASM, Lahore University of Management Sciences, Lahore.
21. Presented a paper entitled “On Chromaticity of Multi-bridge Hypergraphs” on 4th World Conference on 21st Century Mathematics, March 4-8, 2009”, School of Mathematical Sciences GCU Lahore.
22. Attended UNESCO-CIMPA SCHOOL on Number Theory in Cryptography and Its Applications - Dhulikhel (Nepal), July 19-31, 2010.
23. Attended UNESCO-CIMPA SCHOOL on Extremal problem and Hamiltonicity in Graphs, Indonesia, February 2-13, 2009.
24. Attended UNESCO-CIMPA SCHOOL on Discrete and Computational Geometry, Lahore, Pakistan, March 23-30, 2008.
25. Presented a paper entitled “Chromatic Coefficient of linear uniform Hypergraphs” in “LUMS 2nd International Conference on Mathematics, LUMS, Lahore, Pakistan, March 9-12 2008.
26. Attended 3rd International Conference on 21st Century Mathematics, Lahore, Pakistan, March 4-7 2007.
27. Attended LUMS International Conference on Mathematics and its Application in Information Technology, LUMS, Lahore, Pakistan, November 27-30 2005.
28. Seminars with M. Phil/Ph. D Students in CASPAM, B. Z. U. Multan.

Research Grants and Contracts:

<u>Date of Award</u>	<u>Title</u>	<u>Sponsoring Agency/Organization</u>	<u>Amount</u>
<u>25-10-2010</u>	<u>Total Vertex Irregular Labelling of Graphs</u>	<u>HEC, Pakistan</u>	<u>0.5 Million PKR</u>
<u>02-06-2018</u>	<u>Controllability in graphs using node distinguishing parameter</u>	<u>HEC, Pakistan</u>	<u>1244595 PKR</u>
<u>01-03-2023</u>	<u>Graph based Matrices and Invariants: Properties and Applications</u>	<u>UAE University, United Arab Emirates</u>	<u>300000 AED</u>

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Research Students:

M. Phil student:

Sr. no.	Name	Title of Thesis	Class
1.	Ghulam Abbas	Resolvability of Some families of Corona Product Graphs	M. Phil
2.	Shahzad Akhtar	Game chromatic Number and Game Coloring Number of Graphs	M. Phil
3.	Zil-e-Shams	Resolvability and Exchange Property of Wheel Related Graphs	M. Phil
4.	Sadia Manzoor	On Topolglcal Indices of Certain Networks	M. Phil
5.	Sakina Ashraf	Chromatic Uniqueness of 2-Connected graphs	M. Phil
6.	Humara Awan	Distance Paired Domination Number of Generalized Petersen Graph	M. Phil
7.	Hira Faheem	Vertex Irregular Total Labeling of Grid Graph	M. Phil
8.	Aqsa Shah	Combinatorial structure of chemical networks	M. Phil
9.	Saqib Firdous	Domination and paired domination in generalized anti-prism graph	M. Phil
10.	Hirra Mubeen	Degree and distance based indices of chemical structures	M. Phil
11.	Iram Ghaffar	Domination and distance paired domination in Sierpin'ski graphs	M. Phil
12.	Saba Freed	Cordial Labeling of grid like graphs	M. Phil
13.	Sahar Saba	Irregularity strength in networks	M. Phil
14.	Muhammad Samiullah	On families of Graphs with constant metric and partition dimension	M. Phil
15.	Kashaf Khan	Some Molecular structures and their topological properties	M. Phil
16.	Abdul Majeed	The Study of Metric Dimension in Some Families of Graphs	M. Phil
17.	Muhammad Sajjad	On Some Topics Related to Distances in Graphs	M. Phil
18.	Shumaila Naz	Cordial Labeling in Some Families of Graphs	
19.	Muhammad Rashid Irfan	IRREGULAR TOTAL LABELLING OF MOLECULAR GRAPH	M. Phil
20.	Hafsah Tabassum	On the energy of some graphs and signed diagraphs	M. Phil
21.	Muhammad Nadeem	The edge irregular reflexive labeling of some families of graphs	M. Phil
22.	Danish Saleem	Degree diameter problem of some chemical network	M. Phil
23.	Samawia Khalid		M. Phil
24.	Ferzana	Cordial and prime cordial labeling of multibridge graphs	M. Phil
25.	ShehrBano	Chromatic Uniqueness of K-bridge hypergraphs	M. Phil

26	Shumaila Shabbir Bajwa	Topological properties of the graph of elementary wall of infinite height	M. Phil
27	Sidra Tul Muntiha	Metric properties of double generalized Petersen graph	M. Phil
28	Muhammad Umair	On the locating chromatic number of graphs	M. Phil
29	Memoona Rahman	Some resolving parameters of the graphs homeomorphic to circulant graphs	M. Phil
30	Salma Mushtaq	Edge metric dimension of some graphs constructed from wheel graphs	M. Phil
31	Maira Hanif	Diameter vulnerability in 3-regular graphs	M. Phil
32	Safia Ramzan	Some new results on cordial and related labeling of graphs	M. Phil
33	Rashida Gulzar	The characteristic polynomial and energy of certain graphs	M. Phil
34	Atia Hanif	Some combinatorial facts of Diamond graphs	M. Phil
35	Syeda Saba Tabassum	Some Polynomials And Topological Indices of Pentachains	M. Phil
36	Muhammad Nasir	Computation of certain topological indices in Algebraic graphs	M. Phil
37	Shakeel Ahmad	Diameter vulnerability problem and its importance in interconnecting networks	M. Phil
38	Muhammad Usman	Graph products and their game chromatic number	M. Phil
39	Nadir Ali	Edge resolving parameters of some convex polytopes	M. Phil
40	Muhammad Zeeshan Shah	Irregular reflexive labeling of graphs constructed from circulant like graph	M. Phil
41	Ghulam Akbar	Topological indices and QSPR analysis of drugs used for the treatments of certain diseases	M. Phil
42	Pakizah Bashir	Distances in Nanostar Dendrimers using Vertex Weighted Graphs	M. Phil

PhD students

1	Ghulam Abbas	completed	Resolvability and some related invariants	Ph. D.
2	Tanveer Iqbal	completed	Vertex neighborhood related graph invariants and their Applications	Ph. D.
3	Muhammad Shahzad Akhtar	completed	Extremal properties of certain interconnecting networks	Ph. D.
4	Adnan	Completed	Topological descriptors and properties of graphs and hypergraphs	Ph. D.
5	Sakina Ashraf	In process	Under Supervision	Ph. D.

Articles Published/ Accepted in Impact Factor Journal (Web of Science):

2009

1. Ioan Tomescu, Syed Ahtsham Ul Haq Bokhary, "Some properties of chromatic coefficient of linear uniform hypergraphs." *Graphs and Combinatorics*. 25 (2009), 639-646. (W)

2. **Syed Ahtsham Ul Haq Bokhary**, Ioan Tomescu, Akhlaq Ahmed Bhatti, “On chromaticity of multi-bridge hypergraphs.” *Graphs and Combinatorics*. 25 (2009), 145-152. (W)
3. Ioan Tomescu, **Syed Ahtsham Ul Haq Bokhary**, “Series-parallel chromatic hypergraphs.” *Disc. Appl. Math.*, 158 (2009), 198-203. . (W)

2010

4. M. Imran, **Syed Ahtsham Ul Haq Bokhary**, A. Q. Baig, “On families of convex polytopes with constant metric dimension”, *Computers and Mathematics with Applications*. Vol.60 (9), (2010), 2629-2638. . (W)

2012

5. M. Imran, A. Q. Baig, **Syed Ahtsham Ul Haq Bokhary**, I. Javaid, “On the metric dimension of circulant graphs”, *Applied Mathematics Letters*, 25 (2012), 320-325. . (W)

2013

6. M. Imran, Ali Ahmad, **Syed Ahtsham Ul Haq Bokhary**, Andrea Semanicova, “ON CLASSES OF REGULAR GRAPHS WITHCONSTANT METRIC DIMENSION”, *Acta Mathematica Scientia* 2013,33 B(1), 187-206. (W)
7. **Syed Ahtsham Ul Haq Bokhary**, M. Imran, Ali Ahmad, “On vertex irregular total labeling of Cartesian products of two paths”, *Utilitas Math.* 90 (2013) 239-249. (W)
8. Ali Ahmad, **Syed Ahtsham Ul Haq Bokhary**, M. Imran, A. Q. Baig, “Vertex irregular total labeling of cubic graphs”, *Utilitas Math.* 91 (2013), 287-299. (W)
9. Imran, Muhammad; Bashir, Fozia; Baig, A. Q.; **Ul Haq Bokhary**, **Syed Ahtsham**; Riasat, Ayesha; Tomescu, Ioan “On metric dimension of flower graphs $f_{n \times m}$ and convex polytopes”, *Utilitas Math.* 92(2013), 389-409. (W)
10. M. Imran, A. Q. Baig, **Syed Ahtsham Ul Haq Bokhary** “On the metric dimension of convex polytopes”, *AKCE Int. J. Graphs Comb.*, 10, No. 3 (2013), 295-307. (W)

2014

11. M. Imran, A. Q. Baig, **S. A. Bokhary**, E.T. Baskoro “New Classes of convex polytopes with constant metric dimension”, *Utilitas Mathematica*, 95(2014), 97 - 111. (W)
12. M. Imran, **Syed Ahtsham Ul Haq Bokhary**, “On resolvability in double-step circulant graphs”, *U.P.B. Sci. Bull., Series A, Vol. 76, Iss. 2, 2014*, 31-42. (W)
13. Saba Naz, M. Salman, U. Ali, I. Javaid, **Syed Ahtsham Ul Haq**, “On the constant metric dimension of genelalized Peterson graphs $P(n,4)$ ”, *Acta mathematica Sinica*, 30(7), 2014, 1145-1160. (W)

2015

14. A. AHMAD, M. IMRAN, O. AL-MUSHAYT, AND **S. A. U. H. BOKHARY**, “On the metric dimension of barcycentric subdivision of Calays graphs”, *Miskolic Mathematical Notes*, Vol. 16 (2015), No. 2, 637–646. (W)

2016

15. M. Imran, **S. A. Bokhary**, A. Q. Baig, On the metric dimension of convex polytopes with pendant edges, *Ars Combinatoria*, 125 (2016), 433-447. (W)
16. M. Imran, A. Q. Baig, **S. A. Bokhary**, On the metric dimension of rotationally-symmetric graphs, *Ars Combinatoria*, 124 (2016), 111-128. (W)
17. **Syed Ahtsham Ul Haq Bokhary**, M. Imran, Sadia Manzoor, “On molecular topological properties of dendrimers”, *Can. J. Chem.* Vol. 94, 2016, 120-125. (W)

2017

18. **Syed Ahtsham Ul Haq Bokhary**, Shahzad Akhtar, “Game Chromatic Number of some families of Graphs”, *Utilitas Math.*, 104 (2017), 15-22. (W)

2018

19. **Syed Ahtsham Ul Haq Bokhary**, Sahar Maqbool, U. Ali, “Irregular total labeling of wheel related graphs”, *Utilitas Math.*, 107 (2018), 231-242. (W)
20. X, Zhang, M. Ibrahim, **Syed Ahtsham ul Haq Bokhary**, Muhammad Kamran Siddiqui, “Edge Irregular Reflexive Labeling for the Disjoint Union of Gear Graphs and Prism Graphs”, *Mathematics*, 6 (2018), 142; doi:10.3390/math6090142. (W)
21. U Ali, **S. A. Bokhary**, K. Wahid, G. Abbas, “On resolvability of graphs associated to finite vector space”, *J. Algebra and its Applications*, 18(2018), 19500291 (1-10). (W)

2019

22. Ghulam Abbas, Usman Ali, Mobeen Munir, **Syed Ahtsham Ul Haq Bokhary**, and Shin Min Kang, "Power graphs and exchange property for resolving sets", *Open Mathematics*, 17 (2019), 1303-1309. (W)

Published articles according to HJRS:

2020

23. Muhammad Shahzad Akhtar, Muhammad Imran, **Syed Ahtsham ul Haq Bokhary**, "Optimal Graphs in the Enhanced Mesh Networks", *J. of Mathematics*, 2020 (3):1-15 DOI: 10.1155/2020/9869201. (Y-HJRS)
24. TANVEER IQBAL, MUHAMMAD IMRAN, **SYED AHTSHAM UL HAQ BOKHARY**, "Domination and power domination in certain families of nanostars dendrimers", *IEEE ACCESS*, 99 (2020), 130947-130951. (W-HJRS)
25. **Syed Ahtsham Ul Haq Bokhary**, Zill-e-Shams, Abdul Ghaffar, Kottakkaran SooppyNisar, "On the metric basis in wheels with consecutive missing spokes", *AIMS Mathematics*, 5(6) (2020), 6221–6232. (X-HJRS)
26. Jianxin Wei, **Syed Ahtsham Ul Haq Bokhary**, Ghulam Abbas, Muhammad Imran, "Resolvability in Subdivision of Circulant Networks $C_n[1,k]$ ", *Discrete Dynamics in Nature and Society*, 2020, Article ID. 4197678, 11 pages. (X-HJRS)
27. Tanveer Iqbal, Muhammad Naeem Azhar, **Syed Ahtsham Ul Haq Bokhary**, The k-size edge metric dimension of graphs, *J. of Mathematics*, Volume 2020, Article ID 1023175, 7 pages <https://doi.org/10.1155/2020/1023175>. (Y-HJRS)
28. **Syed Ahtsham Ul Haq Bokhary**, Muhammad Shahzad Akhtar, "Degree diameter problems of silicate networks", *Utilitas Math.*, (2020) 115:181-197. (Y-HJRS)
29. **Syed Ahtsham Ul Haq Bokhary**, Tanveer Iqbal, "Connectivity polynomials and topological indices of enhanced honeycomb networks", *Utilitas Math.*, (2020) 116:229-245. (Y-HJRS)

2021

30. Fawaz E. Alsaadi, **Syed Ahtsham Ul Haq Bokhary**, Aqsa Shah, Usman Ali, Jinde Cao, Madini Obad Allassafi, Masood Ur Rehman, Jamshaid Ul Rahman, "On knowledge discovery and representations of molecular structures using topological indices", *JAISCR*, 11 (1) (2021, 21-32. (X-HJRS)
31. Lei Ding, **Syed Ahtsham Ul Haq Bokhary**, Masood Ur Rehman, Usman Ali, Hirra Mubeen, 2 Quaid Iqbal, Jia-Bao Liu, Degree-Based Indices of Some Complex Networks, *J. of Mathematics*, Volume 2021, Article ID 5531357, 16 pages <https://doi.org/10.1155/2021/5531357>. (Y-HJRS)
32. **Syed Ahtsham Ul Haq Bokhary**, Muhammad Imran, Shehnaz Akhter, Sadia Manzoor, Molecular, Topological Invariants of Certain Chemical Networks, *Main Group Met. Chem.* 2021; 44: 141–149. (Y-HJRS)
33. **Syed Ahtsham Ul Haq Bokhary**, Adnan, On vertex PI index of certain triangular tessellation networks, *Main Group Met. Chem.* 2021; 44: 203–212.
34. **Mr. Adnan, Syed Ahtsham Ul Haq Bokhary, M. Imran**, On Wiener Polarity Index and Wiener Index of Certain Triangular Networks, *J. of Chemistry*, Volume 2021, Article ID 2757925, 20 pages. <https://doi.org/10.1155/2021/2757925>

2022

35. **Mr. Adnan, Syed Ahtsham Ul Haq Bokhary** Ghulam Abbas, Tanveer Iqbal, Degree Based Topological Indices and QSPR Analysis of Anti Tuberculosis Drugs, , *J. of Chemistry*, Volume 2022 |Article ID 5748626 | <https://doi.org/10.1155/2022/5748626>
36. Hafsah Tabassum, **Syed Ahtsham ul Haq Bokhary**, Thiradet Jiarasuksaku, Pawaton, Kaemawichanurat. [Counting the numbers of paths of all lengths in dendrimers and its applications](#) *MATCH Commun. Math. Comput. Chem.* 88 (2022) 659–681.
37. **Syed Ahtsham Ul Haq Bokhary**, Hafsah Tabassum, "The energy of some tree dendrimers", *Journal of Applied Mathematics and Computing* volume 68, pages 1033–1045 (2022)
38. **Syed Ahtsham Ul Haq Bokhary, Adnan, Muhammad Kamran Siddiqui & Murat Cancan**, On Topological Indices and QSPR Analysis of Drugs Used for the Treatment of Breast Cancer, *polycyclic aromatic compound.*, 2022, VOL. 42, NO. 9, 6233–6253. (X-HJRS)
39. Sakina Ashraf, Muhammad Imran, **Syed Ahtsham Ul Haq Bokhary**, Shahnaz Akhtar, The Wiener index, degree distance index and Gutman index of composite hypergraphs and

- sunflower hypergraphs, *Heliyon*, Volume 8, Issue 12, December 2022, e12382 <https://doi.org/10.1016/j.heliyon.2022.e12382>. . (W-HJRS)
- 40 Muhammad Shahzad Akhtar, Syed Ahtsham Ul Haq Bokhary, Game number of double generalized Petersen graphs, *Utilitas math.*, 119, (2022), 9-17. (X)
- 2023**
- 41 Syed Ahtsham Ul Haq Bokhary , Khola Wahid , Usman Ali , Shreefa O. Hilali , Mohammed Alhagyan , Ameni Gar, Resolvability in Subdivision Graph of Circulant Graphs, *Symmetry* 2023, Volume 15, Issue 4, 867. (W-HJRS)
- 42 Iqbal, T.; Bokhary, S.A.U.H.; Hilali, S.O.; Alhagyan, M.; Gargouri, A.; Azhar, M.N. Edge Resolvability in Generalized Petersen Graphs. *Symmetry* 2023, 15, 1633. <https://doi.org/10.3390/sym15091633>
- 43 Tanveer Iqbal, Syed Ahtsham Ul Haq Bokhary, Ghulam Abbas, Jamel Baili, Hijaz Ahmad, Hafsah Tabassum, Saqib Murtaza, Zubair Ahmad, Xiao-Zhong Zhang, Wiener polarity and Wiener index of double generalized Petersen graph, *Journal of King Saud University - Science*, Volume 35, Issue 5, 2023, 102680, <https://doi.org/10.1016/j.jksus.2023.102680>. (W-HJRS)
- 2024**
- 44 Syed Ahtsham Ul Haq Bokhary, Pakeeza Bashir, Allah Nawaz, Shreefa O. Hilali, Mohammed Alhagyan, Ameni Gargouri, Mohammed M. A. Almazah, "Computation of Wiener and Wiener Polarity Indices of a Class of Nanostar Dendrimer Using Vertex Weighted Graphs", *Journal of Mathematics*, vol. 2024, Article ID 9941949, 12 pages, 2024. <https://doi.org/10.1155/2024/9941949>
- 45 Bokhary, S.A.U.H.; Kharal, A.; Samman, F.M.A.; Dalam, M.E.E.; Gargouri, A. Efficient Graph Algorithms in Securing Communication Networks. *Symmetry* 2024, 16, 1269. <https://doi.org/10.3390/sym16101269>

Articles Published/ Accepted in ISI Journal (Web of Science):

2012

- 46 M. Imran, Syed Ahtsham Ul Haq Bokhary A. Q. Baig, "Families of rotationally-symmetric plane graphs graphs with constant metric dimension", *Southeast Asian Bulletin of Mathematics*, 36 (5) (2012), 663-675.
- 47 Syed Ahtsham Ul Haq Bokhary, Imran Javaid, M. Imran, "On vertex irregularity strength of rotationally-symmetric convex polytopes", *Sci.Int.(Lahore)*, Sci.Int.(Lahore), 24(3) (2012), 251-256.

2014

- 48 Ashfaq Ahmad, Syed Ahtsham Ul Haq Bokhary, Roslan Hasni , Salamin, "Total vertex irregularity strength of Ladder related Graphs", *Sci.Int(Lahore)*, 26(1), 1-5, 2014.

2015

- 49 M. Imran, S. A. Bokhary, A. Ahmad, Total vertex irregularity strength of grid-like plane graphs, *Science International*, 27(2)(2015), 821-828.

2016

- 50 Muhammad Imran, Syed Ahtsham Ul Haq Bokhary, A. Q. Baig , "On the metric dimension of rotationally-symmetric convex polytopes" *J. Algebra. Comb. Discrete Appl.* 3(2), 2016, 45–59.

2018

- 51 Syed Ahtsham Ul Haq Bokhary, Tanveer Iqbal, Usman Ali, "Game chromatic number of Cartesian and corona product graphs" *J. Algebra Comb. Discrete Appl.*, 5(3) (2018):129-136.

2020

- 52 Muhammad Imran, Syed Ahtsham Ul Haq Bokhary, Sadia Manzoor, |Muhammad Kamran Siddiqui, "On molecular topological descriptors of certain families of nanostar dendrimers", *Eurasian Chem. Commun.* 2 (2020), 680-687.

2021

- 53 S. A. U. H. Bokhary, M. Imran, and U. Ali, "On the total irregularity strength of convex polytope graphs", *Proyecciones (Antofagasta, On line)*, 40 (5), 2021, 1267-1277.

2024

- 54 Muhammad Imran, Syed Ahtsham Ul Haq Bokhary, Muhammad Shahzad Akhtar, Naoki Matsumoto, Game Chromatic Number of Honeycomb Related Networks, *Communications in Combinatorics and Optimization*, Vol. 9, No. 4 (2024), pp. 747-757.

- 55 G. Abbas, Syed Ahtsham Ul Haq Bokhary, T. Iqbal, On the constant local edge resolvability of some generalized Petersen, Italian journal of math.

Articles Published/ Accepted National & International Journals:

2011

- 56 M. Imran, Syed Ahtsham Ul Haq Bokhary, Ali Ahmad, "On the metric dimension of two classes of convex polytopes", *Journal of Combinatorial Mathematics & Combinatorial Computing (JCMCC)*, 77 (2011), 51-63.

2019

- 57 Aqsa Shah, Syed Ahtsham Ul Haq Bokhary, "On chromatic polynomial of certain families of dendrimer graphs", *Open J. of Math. Sci.*, 3(1) (2019):404-416.
58 Syed Ahtsham Ul Haq Bokhary, Hira Faheem, Vertex Irregular total labeling of grid graphs, *Palestine J. Math.*, 8(1) (2019), 52-62.

2022

- 59 Syed Ahtsham Ul haq Bokhary, Shehr Bano, CHROMATICALLY UNIQUE 6-BRIDGE GRAPH $\theta(r,r,r,s,t,u)$, *Palestine J. Math.*, 11(1) (2022), 191-202.

2023

- 60 Syed Ahtsham Ul haq Bokhary, Shehr Bano, CHROMATICALLY UNIQUE 6-BRIDGE GRAPH $\theta(r,r,r,s,t,u)$, *Open J. Discret. Appl. Math.* 2023, 6(3), 41-56; doi:10.30538/psrp-odam2023.0093.

Community Service

Reviewer of Journals

- 1- Graphs & Combinatorics
- 2- Utilitas Mathematica
3. Ars Combinatoria
4. Applied Mathematics and Computation
5. Applied Mathematics and Computing
6. IEEE Access
7. Journal of Mathematics
8. Mathematical Problems in Engineering
9. Main Group Metal Chemistry
10. Heliyon
11. Open Mathematics
12. Hacettepe Journal of Mathematics and Statistics
13. South African Journal of Chemistry
14. Turkish Journal of Mathematics
15. Journal of Combinatorial Mathematics and Computing
16. Journal of Prime Research in Mathematics
17. Electronic Journal of Graph theory and Application
18. British Journal of Mathematics and Computation
19. TWMS J. App. Eng. Math
20. Discrete Mathematics
21. Journal of Chemistry
22. Electronics letter
23. Polycyclic Aromatic Compounds
24. Iranian Journal of Mathematical Sciences and Informatics
25. Complexity
26. Polycyclic aromatic compound
27. Int. Journal of Quantum Chemistry
28. International Journal of Mathematics and Mathematical Sciences
29. Molecular Physics
30. Journal of Taibah University for Science

Editor of Journal:

- 1- Worked as Guest Editor in Journal of Chemistry for the special Issue "Application of Molecular Topological Descriptors in Chemistry:

Examiners of Universities/Member of Board of Studies:

1. Examiner at Department of Mathematics, COMSATS Institute of Information Technology, Islamabad, Lahore Campus.
2. Examiner at Department of Mathematics, COMSATS Institute of Information Technology, Islamabad, Attock Campus.
3. Examiner at Department of Mathematics, COMSATS Institute of Information Technology, Islamabad, Sahiwal Campus.
4. Examiner at GC. University Faisalabad
5. Examiner at National University of Computer & Emerging Sciences, Lahore, Pakistan.
6. Member Board of studies, Centre for Advanced Studies in pure and Applied Mathematics, Bahauddin Zakariya University, Multan, Pakistan.
7. Member Synopsis Committee, Centre for Advanced Studies in pure and Applied Mathematics, Bahauddin Zakariya University, Multan, Pakistan.
8. Member DTRC, Centre for Advanced Studies in pure and Applied Mathematics, Bahauddin Zakariya University, Multan, Pakistan.

Membership of professional societies:**Detail**

1. American Mathematical Society
2. National Mathematical society of Pakistan

Administrative Assignments in Department and University:**Detail**

DSA, CASPAM, BZU, Multan

References

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