

Muhammad Gulistan

Passport Number: BA4717753
Department of Mathematics and Statistics, Hazara University,
Mansehra, Pakistan.

mgulista@ualberta.ca, gulistanmath@hu.edu.pk, gulistanm21@yahoo.com

Education

- 2022 – 2023 **Postdoctoral Fellow (Postdoc)**, (Fuzzy Neural Network)
- Department of Electrical and Computer Engineering, Faculty of Engineering, University of Alberta,
 - Relevant course work: Fuzzy Sets in Human-Centric Systems
 - Research work: q-fractional fuzzy sets and Fuzzy neural networks
 - Supervisor: Professor Witold Pedrycz.
- 2011 – 2016 **Doctor of Philosophy (PhD)**, (Mathematics)
- Department of Mathematics, Faculty of Natural and Computational Sciences, Hazara University Mansehra, KP, Pakistan.
 - Relevant course work: Functional Analysis, Numerical Analysis, Partial Differential Equations, Perturbation Methods, History of Mathematics,
 - Research work: A study of Cubic Sets in Semigroups and Generalize Structures.
 - Supervisor: Professor Muhammad Shahzad.
- 2009 – 2011 **Master of Sciences (MSc)**, (Mathematics)
- Faculty of Natural Sciences, Quaid-e-Azam University, Islamabad, Pakistan,
 - Relevant course work: Semigroup theory, Theory of group actions, Nilpotent and soluble groups, Algebraic coding theory, Theory of group graphs, Banach algebra, Spectral theory in Hilbert spaces, Fuzzy algebra
 - Research work: Generalized Anti-Fuzzy Ideals in LA-Semigroups.
 - Supervisor: Professor Muhammad Aslam.
- 2006 – 2008 **Bachelor of Sciences (BSc)**, (Mathematics with Distinction)
- Faculty of Natural and Computational Sciences, Hazara University Mansehra,
 - KP, Pakistan.
 - Relevant course work: Group Theory, Real Analysis, Functional Analysis, Statistics, Differential Equations, Numerical Analysis, Measure Theory, Topology, Complex Analysis, Differential Geometry, Dynamics, Set Theory and Logic, Integral Equations.

Teaching Experience

- 2024 – Till Now **Associate Professor** (Hazara University)
- Teaching at graduate and Undergraduate levels.
 - Controller of Examination of the department.
 - Member of the Board of Studies.
 - Member of Graduate Research Committee.
 - Supervision of Master's and PhD students.
 - Funded project supervision.
- 2016 – 2023 **Assistant Professor** (Hazara University)
- Taught mathematics courses at graduate and undergraduate levels.
 - Developed curriculum plans to foster students' learning.
 - Introduced new research-oriented courses.
 - Maintained student's records as coordinator of the graduate program.
 - Supervised master's and PhD students.
 - Organized conferences and seminars.
 - Completed funded projects.
 - Evaluated student theses for various universities.
 - Participated in graduate research committees/Board of Studies/Purchase Committee

- Served as a subject expert for selection boards in various Universities.
- Maintained Campus Online Learning System.
- Served as a referee and guest editor for various journals.
- Served as president of first-ever Alumni of Hazara University.

2011 – 2016

Lecturer (Hazara University)

- I taught mathematics courses at different levels.
- Arranged co-curricular activities for the students.

Research Experience

2022 – 2023

Postdoctoral Research Fellow (University of Alberta)

- Learned a course titled Fuzzy sets in human-centric systems.
- Conducted research on fuzzy neural networks using q-fractional fuzzy sets.

2011 – 2023

Researcher (Hazara University)

- Supervised 7 Ph.D. students and 40 Master Students.
- Published more than 130 Research papers.
- Attained cumulated impact factor above 200, 1800 citations, and an h-index of 23. For more details, please visit the link
https://scholar.google.com.pk/citations?hl=en&user=_UqsIvoAAAAJ&view_op=list_works&sortby=pubdate

Honors, Awards, and Recognitions

2008– 2008

Silver Medal Bachelor Mathematics

- By securing 1750/2000, CGPA is 3.96/4 with a percentage of 87.50 and took 2nd position.

2012– 2012

PhD fellowship for 5000 scholars – Phase II

- I was selected for the award of a Ph.D. fellowship for 5,000 scholars – Phase II from the Higher Education Commission, Pakistan.

2017– 2017

Travel Grant to Present a Research Paper

- International Conference on Applied Analysis and Mathematical Modeling held in Turkey in 2017 by getting a travel grant from the Higher Education Commission, Pakistan.

2020– 2020

Best Paper Award

- The paper titled: Air Pollution Model using Neutrosophic Cubic Einstein Aggregation Operators has been awarded the best paper from the NSIA for quality content and presentation.

2022– 2022

HEC Post-Doctoral Fellowships Programme (Phase III)-Batch I

- I was selected for the Post-Doctoral Fellowship award in “Mathematics” at “University of Alberta, Canada” from the Higher Education Commission, Pakistan.

Grants

2022– 2025	Study of Multi-sided Platform Ecosystem <ul style="list-style-type: none">(Project No 15428)- National Research Program for Universities- NRP(UHEC)
2022– 2024	The Mathematical Modelling of the Decision-Making Problems <ul style="list-style-type: none">(IFPIP: 304-130-1443) Ministry of Education and King Abdulaziz University, DSR, Jeddah, Saudi Arabia
2021– 2022	Some Contribution in the theory of Cubic Sets <ul style="list-style-type: none">Deanship of Scientific Research (DSR) at King Abdulaziz University, Jeddah, under grant no. G: 025-130-1442.
2028– 2019	Algebra and Analysis <ul style="list-style-type: none">Deanship of Scientific Research at Majmaah University for funding this work under project number (RGP-2019-5).

Publications

- Beg, I., Gulistan, M., & Asif, M. (2025). Cubic Analytic Hierarchy Process with Application in Decision-Making. In *Decision Making Under Uncertainty Via Optimization, Modelling, and Analysis* (pp. 197-215). Singapore: Springer Nature Singapore.
- Huang, Y., Gulistan, M., Rafique, A., Chamam, W., Aurangzeb, K., & Rehman, A. U. (2025). The technique of fuzzy analytic hierarchy process (FAHP) based on the triangular q-rung fuzzy numbers (TR-q-ROFNS) with applications in best African coffee brand selection. *PeerJ Computer Science*, 11, e2555.
- Gulistan, M., & Abid, M. (2025). Einstein Aggregate Operators under Q-rung Orthopair Fuzzy Hypersoft Sets with Machine Learning. *Neutrosophic Systems with Applications*, 25(2), 102-112.
- Gulistan, M., Hongbin, Y., Pedrycz, W., Rahim, M., Amin, F., & Khalifa, H. A. E. W. (2024). p, q, r -Fractional fuzzy sets and their aggregation operators and applications. *Artificial Intelligence Review*, 57(12), 1-29.
- Ahmad, I., Adnan, M., ul Amin, N., Umer, A., Khurshid, A., Aurangzeb, K., & Gulistan, M. (2024). Adaptive and Priority-Based Data Aggregation and Scheduling Model for Wireless Sensor Network. *Knowledge-Based Systems*, 303, 112393.
- Khan, M., Gulistan, M., Alhussein, M., Aurangzeb, K., & Khurshid, A. (2024). Navigating ambiguity: A novel neutrosophic cubic shapley normalized weighted Bonferroni Mean aggregation operator with application in the investment environment. *Heliyon*, 10(17).
- Gulistan, M., & Pedrycz, W. (2024). Introduction to q-Fractional Fuzzy Set. *International Journal of Fuzzy Systems*, 1-18.
- Ying, H., Gulistan, M., Asif, M., Aurangzeb, K., & Rafique, A. (2024). Some Aggregation Operators Based on Dombi t-norm (TN) and t-co-norm (TCN) Operations: Applications in Economic Corridor Prospective. *International Journal of Fuzzy Systems*, 1-15.
- Tanoli, M. N. K., Gulistan, M., Amin, F., & Al-Shamiri, M. M. (2024). Innovative discussion of decision-making model based on complex cubic picture fuzzy information and geometric aggregation operators with applications. *Complex & Intelligent Systems*, 10(2), 1801-1843.
- Khan, S., Gulistan, M., Kausar, N., Kadry, S., & Kim, J. (2024). A Novel Method for Determining Tourism Carrying Capacity in a Decision-Making Context Using q-Rung Orthopair Fuzzy Hypersoft Environment. *CMES-Computer Modeling in Engineering & Sciences*, 138(2).
- Gulistan, M., Pedrycz, W., & Yaqoob, N. (2023). Switching perspectives: Investigating the relationships and applications of q-fractional fuzzy sets with other fuzzy set classes in decision making. *Journal of Intelligent & Fuzzy Systems*, (Preprint), 1-12.
- Iqbal, S., Yaqoob, N., & Gulistan, M. (2023). Multi-objective non-linear programming problems in linear diophantine fuzzy environment. *Axioms*, 12(11), 1048.
- Khan, S., Gulistan, M., Kausar, N., Pamucar, D., Hong, T. P., & Wahab, H. A. (2023). Aggregation Operators for Decision Making Based on q-Rung Orthopair Fuzzy Hypersoft Sets: An Application in Real Estate Project. *CMES-Computer Modeling in Engineering and Sciences*, 136(3). (IF=2.027)

- Khan, Z., Gulistan, M., Krebs, K. K. L., & Salem, S. (2023). Neutrosophic Weibull model with applications to survival studies. In *Cognitive Intelligence with Neutrosophic Statistics in Bioinformatics* (pp. 25-42). Academic Press.
- Khan, M., & Gulistan, M. (2023). Unification of some generalized aggregation operators in neutrosophic cubic environment and its applications in multi-expert decision-making analysis. *Neutrosophic Sets and Systems*, 56(1), 8.
- Khan, S., Gulistan, M., Kausar, N., Pamucar, D., Ozbilge, E., & El-Kanj, N. (2023). q-Rung orthopair fuzzy hypersoft ordered aggregation operators and their application towards green supplier. *Frontiers in Environmental Science*, 10, 2738. (IF=4.7)
- Li, Y. M., Khan, M., Khurshid, A., Gulistan, M., Rehman, A. U., Ali, M., ... & Farooque, A. A. (2023). Designing pentapartitioned neutrosophic cubic set aggregation operator-based air pollution decision-making model. *Complex & Intelligent Systems*, 1-18. (IF=6.7)
- Tanoli, M. N. K., Gulistan, M., Amin, F., Khan, Z., & Al-Shamiri, M. M. (2023). Complex Cubic Fuzzy Einstein Averaging Aggregation Operators: Application to Decision-making Problems. *Cognitive Computation*, 1-19. (IF=4.890)
- Rehman, A. U., Gulistan, M., Ali, M., Al-Shamiri, M. M., & Abdulla, S. (2023). Development of neutrosophic cubic hesitant fuzzy exponential aggregation operators with application in environmental protection problems. *Scientific Reports*, 13(1), 5262. (IF=4.996)
- Gulistan, M., & Pedrycz, W. (2023). Cubic q-Fractional Fuzzy Sets and Their Applications. *International Journal of Fuzzy Systems*, 1-12. (IF=4.3)
- Iqbal, S., Yaqoob, N., & Gulistan, M. (2023). An Investigation of Linear Diophantine Fuzzy Nonlinear Fractional Programming Problems. *Mathematics*, 11(15), 3383. (IF=2.4)
- Kanwal, S. S., Yaqoob, N., Abughazalah, N., & Gulistan, M. (2023). On Cyclic LA-Hypergroups. *Symmetry*, 15(9), 1668. (IF=2.7).
- Khan, M., Gulistan, M., & Al-Shamiri, M. M. (2022). The Approach of Induced Generalized Neutrosophic Cubic Shapley Choquet Integral Aggregation Operators via the CODAS Method to Solve Distance-Based Multicriteria Decision-Making Problems. *Journal of Mathematics*, 2022. (IF=1.4)
- Khalid, A., Kausar, N., Munir, M., Gulistan, M., Al-Shamiri, M. M., & Lamoudan, T. (2022). Topological Indices of Families of Bistar and Corona Product of Graphs. *Journal of Mathematics*, 2022. (IF=1.4)
- Sultana, F., Gulistan, M., Ali, M., Yaqoob, N., Khan, M., Rashid, T., & Ahmed, T. (2022). A study of plithogenic graphs: applications in spreading coronavirus disease (COVID-19) globally. *Journal of Ambient Intelligence and Humanized Computing*, 1-21. (IF=3.6)
- Gulistan, M., Khan, M., & Hila, K. (2022). A Study of Neutrosophic Cubic Ideals in Semigroups with Application. *Thai Journal of Mathematics*, 20(1), 257-279.
- Sultana, F., Gulistan, M., Liu, P., Ali, M., Khan, Z., Al-Shamiri, M. M., & Azhar, M. (2022). On Development of Neutrosophic Cubic Graphs with Applications in Decision Sciences. *Journal of Function Spaces*, 2022. (IF=1.281)
- Hifza, Gulistan, M., Khan, Z., Al-Shamiri, M. M., Azhar, M., Ali, A., & Madasi, J. D. (2022). A new fuzzy decision support system approach; analysis and applications. *AIMS Mathematics*, 7(8), 14785-14825. (IF=2.739)
- Khan, Z., & Gulistan, M. (2022). Neutrosophic Design of the Exponential Model with Applications. *Neutrosophic Sets and Systems*, 48(1), 17.
- Duan, W. Q., Gulistan, M., Abbasi, F. H., Khurshid, A., & Al-Shamiri, M. M. (2022). q-Rung double hierarchy linguistic term set fuzzy AHP; applications in the security system threats features of social media platforms. *International Journal of Intelligent Systems*, 37(8), 5152-5185. (IF=8.993)
- Madasi, J. D., Khan, S., Kausar, N., Pamucar, D., Gulistan, M., & Sorowen, B. (2022). N-Cubic q-Rung Orthopair Fuzzy Sets: Analysis of the Use of Mobile App in the Education Sector. *Computational Intelligence and Neuroscience*, 2022. (IF=3.12)
- Rehman, A. U., Gulistan, M., Kausar, N., Kousar, S., Al-Shamiri, M. M., & Ismail, R. (2022). Novel Development to the Theory of Dombi Exponential Aggregation Operators in Neutrosophic Cubic Hesitant Fuzzy Sets: Applications to Solid Waste Disposal Site Selection. *Complexity*, 2022. (IF=2.3)
- Shumrani, M. A. A., & Gulistan, M. (2022). On the similarity measures of N-cubic Pythagorean fuzzy sets using the overlapping ratio. *Complex & Intelligent Systems*, 1-9. (IF=6.7)
- Al Shumrani, M. A., & Gulistan, M. (2022). Some similarity measures of generalized trapezoidal cubic numbers with applications. *Soft Computing*, 26(17), 8283-8297. (IF=3.732)
- Madasi, J. D., Khan, S., Kausar, N., Pamucar, D., Addis, G. M., & Gulistan, M. (2022). A Novel Decision-Making Process in the Environment of Generalized Version of Fuzzy Sets for the Selection of Energy Source. *Advances in Mathematical Physics*, 2022. (IF=1.364)
- Khan, S., Gulistan, M., Kausar, N., Kousar, S., Pamucar, D., & Addis, G. M. (2022). Analysis of Cryptocurrency Market by Using q-Rung Orthopair Fuzzy Hypersoft Set Algorithm Based on Aggregation Operators. *Complexity*, 2022. (IF=2.121)
- Khan, S., Gulistan, M., & Wahab, H. A. (2022). Development of the structure of q-rung orthopair fuzzy hypersoft set with basic operations. *Punjab University Journal of Mathematics*, 53(12).

- Rehman, A. U., Gulistan, M., Khan, Z., & Al-Duais, F. S. (2022). A study of neutrosophic cubic hesitant fuzzy hybrid geometric aggregation operators and its application to multi expert decision-making system. *Neutrosophic Sets and Systems*, 50(1), 5.
- Madasi, J. D., Al-Shbeil, I., Cătaș, A., Aloraini, N., Gulistan, M., & Azhar, M. (2022). A Neutrosophic Cubic Hesitant Fuzzy Decision Support System, Application in the Diagnosis and Grading of Prostate Cancer. *Fractal and Fractional*, 6(11), 648. (IF=5.4)
- Gulistan, M., Beg, I., & Abbasi, M. J. (2021). A Study of Neutrosophic Cubic Finite State Machines, Subsystems, and Applications. *Neutrosophic Operational Research: Methods and Applications*, 519-558.
- M. Gulistan, Elmoasry, A., & Yaqoob, N. (2021). N-version of the neutrosophic cubic set: application in the negative influences of Internet. *The Journal of Supercomputing*, 77(10), 11410-11431.. (IF=3.3)
- WQ Duan, Z Khan, M Gulistan, A Khurshid, Neutrosophic Exponential Distribution: Modeling and Applications for Complex Data Analysis, *Complexity*, 2021. (IF=2.833)
- Z Khan, M Gulistan, N Kausar, C Park, Neutrosophic Rayleigh Model With Some Basic Characteristics and Engineering Applications, *IEEE Access*, 2021, 9, 71277-71283. (IF=4.058)
- FM Khan, T Ahmad, M Gulistan, W Chammam, M Khan, J Hui, Epidemiology of coronaviruses, genetics, vaccines, and scenario of current pandemic of coronavirus diseases 2019 (COVID-19): a fuzzy set approach, *Human Vaccines & Immunotherapeutics* 2021, 17 (5), 1296-1303. (IF=4.8)
- A Imtiaz, U Shuaib, A Razaq, M Gulistan, Image development in the framework of ξ -complex fuzzy morphisms, *Journal of Intelligent & Fuzzy Systems*, 2021, 1-13. (IF=1.737)
- Gulistan, M., Yaqoob, N., Elmoasry, A., & Alebraheem, J. (2021). Complex bipolar fuzzy sets: an application in a transport's company. *Journal of Intelligent & Fuzzy Systems*, 40(3), 3981-3997. (IF=2)
- Gulistan, M., Rehman, I., Shahzad, M., Nawaz, S., & Khan, S. (2021). Generalized Neutrosophic Semirings. *Neutrosophic Sets and Systems*, 47(1), 34.
- Khan, Z., Amin, A., Khan, S. A., & Gulistan, M. (2021). Statistical development of the neutrosophic Lognormal model with application to environmental data. *Neutrosophic Sets and Systems*, 47(1), 1.
- Nawaz, S., Gulistan, M., Kausar, N., & Munir, M. (2021). On the left and right almost hyperideals of LA-semihypergroups. *International Journal of Fuzzy Logic and Intelligent Systems*, 21(1), 86-92.
- Gulistan, M., Beg, I., & Malik, A. (2021). Numerical techniques for solving bipolar neutrosophic system of linear equations. *Infinite Study*.
- Gulistan, M., Kadry, S., & Azhar, M. (2021). A New View of Intra-Regular AG-Groupoids in Terms of Generalized Cubic Ideals. *Malaysian Journal of Mathematical Sciences*, 15(2).
- M. Khan, M. Gulistan, M. Ali, W. Chammam, The Generalized Neutrosophic Cubic Aggregation Operators and Their Application to Multi-Expert Decision-Making Method, *Symmetry*, 12(4) (2020), 496. (IF=2.645)
- Z. Khan, M. Gulistan, W. Chammam, S. Kadry, Y. Nam, A New Dispersion Control Chart for Handling the Neutrosophic Data, *IEEE Access*, 8(2020), 96006-96015. (IF=4.058)
- M. Gulistan, R. Ullah, Regular and Intra-Regular Neutrosophic Left Almost Semihypergroups, *Handbook of Research on Emerging Applications of Fuzzy Algebraic Structures*, (2020), 288-327.
- R. M. Hashim, M. Gulistan, I. Rehman, N. Hassan, A. M. Nasruddin, Neutrosophic Bipolar Fuzzy Set and its Application in Medicines Preparations, *Neutrosophic Sets and Systems*, 31(1) (2020), 7.
- M. Gulistan, I. Beg, M. Asif, Neutrosophic-Cubic Analytic Hierarchy Process with Applications, *Theory of Approximation and Applications*, (in Press)
- Majid Khan, M. Gulistan, Nasruddin Hassan, and Abdul Muhaimin Nasruddin, Air Pollution Model using Neutrosophic Cubic Einstein Averaging Operators, *Neutrosophic Sets and Systems*, Vol. 32, 2020, 371-389.
- M. Khan, I. Beg, M. Gulistan Exponential Laws and Aggregation Operators on Neutrosophic Cubic Sets, *International Journal of Neutrosophic Science (IJNS)* Vol. 4, No. 1, PP. 47-71, 2020
- M. A. Al Shumrani, M. Gulistan, F. Smarandache, Further Theory of Neutrosophic Triplet Topology and Applications, *Symmetry*, 2020, 12(8), 1207. (IF=2.645)
- Z. Khan, M. Gulistan, R. Hashim, N. Yaqoob, W. Chammam, Design of S-control chart for neutrosophic data: An application to manufacturing industry, *Journal of Intelligent & Fuzzy Systems*, 2020, 38(4), 4743-4751. (IF=1.851)
- Nasreen Kausar, Mohammad Munir, Muhammad Gulzar, Gezahagne Mulat Addis, M. Gulistan, Study on left almost-rings by anti-fuzzy bi-ideals, *Int. J. Nonlinear Anal. Appl.* Volume 11, Special Issue, Winter and Spring 2020, 483-498.
- S. Nawaz, M. Gulistan, and Salma Khan, Weak LA-hypergroups; Neutrosophy, Enumeration and Redox Reaction, *Neutrosophic Sets and Systems*, Vol. 36, 2020, 351-368.
- Z. Khan, M. Gulistan, S. Kadry, (Senior Member, IEEE), Y. CHU, K. L-Krebs, On Scale Parameter Monitoring of the Rayleigh Distributed Data Using a New Design, *IEEE Access*, 8(2020), (IF=3.745)
- A. Imtiaz, U. Shuaib, H. Alolaiyan, A. Razaq, M. Gulistan, On Structural Properties of ξ -Complex Fuzzy Sets and their Applications, *Complexity Hindawi Complexity Volume 2020*, Article ID 2038724, 13 pages (IF=2.462)

- M. Munir, N. Kausar, B. Davvaz, M. Gulistan, M. Gulzar, Studying Semigroups Using the Properties of Their Prime m -Ideals, *YJK512.53MSC20M12*, 20M99DOI <https://doi.org/10.26516/1997-7670.2020.34.109>
- Y. Sarala, P. S. Mani, M. Gulistan, G. J. Lalitha, Completely Prime Hyperideals of Ternary Semihypergroups, *Discussiones Mathematicae General Algebra and Applications* 40 (2020) 285–295 doi:10.7151/dmgaa.1341
- N. Kausar, M. Munir, M. Gulzar, G. Mulat Addis, M. Gulistan, Study on left almost-rings by anti-fuzzy bi-ideals, *nt. J. Nonlinear Anal. Appl.* Volume 11, Special Issue, Winter and Spring 2020, 483-498.
- H. A. Wahab, H. Zeb, S. Bhatti, M. Gulistan, S. Kadry, Y. Nam, Numerical Study for the Effects of Temperature Dependent Viscosity Flow of Non-Newtonian Fluid with Double Stratification, *Applied Sciences*, 2020, 2020 10(2) 778 (IF=2.474)
- M. Gulistan, I. Beg, N. Yaqoob, A new approach in decision making problems under the environment of neutrosophic cubic soft matrices, *Journal of Intelligent & Fuzzy Systems*, 36(1) (2019), 295-307. (IF=1.851)
- M. Gulistan, N. Yaqoob, S. Kadry, M. Azhar, On generalized fuzzy sets in ordered LA-semihypergroups, *Proceedings of the Estonian Academy of Sciences* 68(1):43-54. (IF=1.024)
- M. Khan, M. Gulistan, N. Yaqoob, M. Khan, F. Smarandache, Neutrosophic Cubic Einstein Geometric Aggregation Operators with Application to Multi-Criteria, Decision Making Method, *Symmetry* 11 (2), 247. (IF=2.645)
- N Yaqoob, M Gulistan, S Kadry, H Wahab, Complex Intuitionistic Fuzzy Graphs with Application in Cellular Network Provider Companies, *Mathematics* 7 (1), 35. (IF=1.747)
- M Gulistan, N Yaqoob, S Nawaz, M Azhar, A study of (α, β) -complex fuzzy hyperideals in non-associative hyperrings, *Journal of Intelligent & Fuzzy Systems* 36 (6), 6025-6036. (IF=1.851)
- M Gulistan, N Hassan, A Generalized Approach towards Soft Expert Sets via Neutrosophic Cubic Sets with Applications in Games, *Symmetry* 11 (2), 289. (IF=2.645)
- K Alhazaymeh , M Khan, S Kadry, M Gulistan, Neutrosophic Cubic Einstein Hybrid Geometric Aggregation Operators with Application in Prioritization Using Multiple Attribute Decision-Making Method, *Mathematics* 7 (4), 346. (IF=1.747)
- M Gulistan, M Ali, M Azhar, S Rho, S Kadry, Novel Neutrosophic Cubic Graphs Structures with Application in Decision Making Problems, *IEEE access* 7, 94757-94778. (IF=4.058)
- N Yaqoob, M Gulistan, J Tang, M Azhar, On generalized fuzzy hyperideals in ordered LA-semihypergroups, *Computational and Applied Mathematics* 38 (3), 124 (IF=1.360)
- M. Gulistan, S. Rashid, Y.B. Jun, S. Kadery, S. Khan, N-Cubic sets and aggregation operators, *Journal of Intelligent & Fuzzy Systems* 37(4), (2019), 5009-5023. (IF=1.851)
- M Gulistan, M Mohammad, F Karaaslan, S Kadry, S Khan, HA Wahab, Neutrosophic cubic Heronian mean operators with applications in multiple attribute group decision-making using cosine similarity functions, *International Journal of Distributed Sensor Networks* 15 (9), 2019, 1550147719877613. (IF=2.99)
- S. Nawaz, M Gulistan, N Yaqoob, S Kadry, Weak Non-associative Structures of Groups with Applications, *International Journal of Analysis and Applications* 17 (5), 2019, 864-878.
- X. L. Ma, J. Zhan, M. Khan, M. Gulistan, N. Yaqoob, Generalized cubic relations in H_v -LA-semigroups, *Journal of Discrete Mathematical Sciences and Cryptography*, 21 (3) (2018), 607-630. (IF=ISI)
- M. Gulistan, H. A. Wahab, F. Smarandache, S. Khan, S. I. A. Shah, Some Linguistic Neutrosophic Cubic Mean Operators and Entropy with Applications in a Corporation to Choose an Area Supervisor *Symmetry*, 10 (10) (2018), 1-30. (IF=2.645)
- S. Rashid, N. Yaqoob, M. Akram, M. Gulistan, Cubic Graphs with Application, *International Journal of Analysis and Applications*, 16 (5) (2018), 733-750. (IF=ISI)
- R. M. Hashim, M. Gulistan, F. Smrandache, Applications of Neutrosophic Bipolar Fuzzy Sets in HOPE Foundation for Planning to Build a Children Hospital with Different Types of Similarity Measures, *Symmetry*, 10 (8)(2018), 1-31. (IF=2.645)
- N.Yaqoob, I. Cristea, M. Gulistan, S. Nawaz, On left almost polygroups, *Italian J. Pure Appl. Math*, 39 (2018), 465-474. (IF=ISI)
- M. Azhar, M. Gulistan, N. Yaqoob, S. Kadry, On Fuzzy Ordered LA-Semihypergroups, *International Journal of Analysis and Applications*, 16 (2) (2018), 276-289. (IF=ISI)
- S. Nawaz, I. Rehman, M. Gulistan, On Left Almost Semihyperrings, *International Journal of Analysis and Applications*, 16 (4) (2018), 528-541. (IF=ISI)
- M. Gulistan, A. Khan, A. Abdullah, N. Yaqoob, Complex Neutrosophic Subsemigroups and Ideals, *International Journal of Analysis and Applications*, 16 (1) (2018), 97-116. (IF=ISI)
- M. Khan, M. Gulistan, N. Yaqoob, M. Shabir, Neutrosophic cubic (α, β) -ideals in semigroups with application, *Journal of Intelligent & Fuzzy Systems*, 35(2), 2469-2483. (IF=1.851)
- M. Azhar, N. Yaqoob, M. Gulistan, M. M Khalaf, ON $(e; evqk)$ -fuzzy hyperideals in ordered LA-semigroups, *Discrete Dynamics in Nature and Society*, Volume 2018, Article ID 9494072, 13 pages. (IF=0.757)
- N. Yaqoob, M. Gulistan, V. Leoreanu-Fotea, K. Hila, Cubic hyperideals in LA-semihypergroups, *Journal of Intelligent & Fuzzy Systems*, 34 (4), 2707-2721. (IF=1.851)

- M. Gulistan, N. Yaqoob, T. Vougiouklis, H. A. Wahab, Extensions of cubic ideals in weak left almost semihypergroups, *Journal of Intelligent & Fuzzy Systems*, 34 (6), 4161-4172. (IF=1.851)
- M. Gulistan, N Yaqoob, Z Rashid, F.Smarandache, HA Wahab, A Study on Neutrosophic Cubic Graphs with Real Life Applications in Industries, *Symmetry*, 10 (6), 1-22. (IF=2.645)
- H. Zeb, H. A. Wahab, M Shahzad, S. Bhatti, M. Gulistan, A Numerical Approach for the Thermal Radiation on MHD Unsteady Newtonian Fluid Flow Over a Stretching Sheet with Variable Thermal Conductivity and Partial Slip Conditions, *Journal of Nanofluids*, 7 (5) (2018), 870-878. (IF=ISI)
- M. Gulistan, Shah Nawaz, Nasruddin Hassan, Neutrosophic Triplet Non-Associative Semihypergroups with Application, *Symmetry* 2018, Volume 10, Issue 11, 613, (IF=2.645)
- H. Zeb, H. A. Wahab, M. Shahzad, S. Bhatti, M. Gulistan, Thermal Effects on MHD Unsteady Newtonian Fluid Flow Over a Stretching Sheet, *Journal of Nanofluids*, 7 (4) (2018), 704-710. (IF=ISI)
- M. Gulistan, F. Smarandache, A. Abdullah, An application of complex neutrosophic sets to the theory of groups, *International Journal of Algebra and Statistics*, Volume 7: 1-2(2018), 94–112.
- M.Gulistan, F. Feng, M. Khan, A. Sezgin, Characterization of Right Weakly Regular Semigroups in Terms of Generalized Cubic Soft Sets, *Mathematics* 2018, 6, 293; doi:10.3390/math6120293. (IF=1.747)
- M. Gulistan, M. Khan, N. Yaqoob, M. Shahzad, Structural Properties of Cubic Sets in Regular LA-semihypergroups, *Fuzzy Information and Engineering*, 9 (1) (2017), 93-116. (IF=ISI)
- J. Zhan, M. Khan, M. Gulistan, A. Ali, Applications of neutrosophic cubic sets in multi-criteria decision-making, *International Journal for Uncertainty Quantification*, 7(5) (2017), 377-394. (IF=1.0)
- I. Rehman, M. Gulistan, M. Asif Gondal, S. Nawaz, Structures of generalized fuzzy sets in non-associative rings, *International Journal of Pure and Applied Mathematics*, 113(2) (2017), 299-325.
- M. Gulistan, M. Khan, N. Yaqoob, M. Shahzad, U. Ashraf, Direct product of generalized cubic sets in Hv-LA-semigroups, *Science International*, 28(2) (2016), 767-779. (IF=ISI)
- S. Rasheed, M. Shakeel, M. Gulistan, M. Shahzad, F. Ahmad, Some characterizations of AG-groupoid by their generalized fuzzy soft quasi-ideals, *Science International*, 28(2) (2016), 851-858. (IF=ISI)
- M. Khan, M. Gulistan, N. Yaqoob, F. Hussain, General cubic hyperideals of LA-semihypergroups, *Afrika Matematika*, 27 (2016), 731–751. (IF=ISI)
- M. Gulistan, S. Ahmad, M. Azam, S. Nawaz, F. Ahmad, Regular AG-Groupoids in terms of hesitant fuzzy ideals, *Science International*, 28(4) (2016), 3277-3282. (IF=ISI)
- M. Gulistan, M. Shahzad, M. Azam, F. Ahmad, S. Nawaz, Hesitant Fuzzy Abel-Grassmann's Groupoids, *Science International*, 28(1) (2016), 19-25. (IF=ISI)
- M. Gulistan, S. Nawaz, S. Z. Abbas, Direct product of general intuitionistic fuzzy sets of subtraction algebras, *Cogent Mathematics*, 3(1) (2016), 1176619. (IF=ISI)
- F. Hussain, H.A. Wahab, A. Khatoon, M. Gulistan, F. Ahmad, An application of HPM to steady third grade Non-Newtonian fluid, *Science International*, 28(5) (2016), 4315-4319. (IF=ISI)
- M. Gulistan, M. Shahzad, S. Ahmed, On (α, β) -fuzzy KU-ideals of KU-algebras, *Afrika Matematika*, 26(3) (2015), 651-661.
- M. Khan, M. Shakeel, M. Gulistan, S. Rashid, Generalized Fuzzy Bi-Ideals of Order Right Modular Groupoids, *International Journal of Algebra and Statistics*, 4(1) (2015), 46–56.
- M. Khan, B. Davvaz, N. Yaqoob, M. Gulistan, M. M. Khalaf, On $(e, evqk)$ -intuitionistic (fuzzy ideals, fuzzy soft ideals) of subtraction algebras, *Songklanakarin J. Sci. Technol*, 37 (4) (2015), 465-475.
- M. Gulistan, M. Shahzad, S. Ahmed, M. Ilyas, Characterization of Gamma Hemirings by Generalized Fuzzy Gamma Ideals, *Applications and Applied Mathematics*, 10(1) (2015), 495 – 520.
- M. Khan, F. Ilyas, M. Gulistan, S. Anis, A study of soft AG-groupoids, *Annals of Fuzzy Mathematics and Informatics*, 9(4) (2015), 621–638.
- M. Gulistan, S. Abdullah and S. Hussain, On anti-fuzzy relations in modules, *NTMSCI*, 3(3) (2015), 58-64.
- M. Shahzad, M.Sajid, M.Gulistan, H.Arif, Initially Approximated Quasi Equilibrium Manifold, *journal of the chemical society of pakistan* 37(2) (2015), 207-216. (IF=0.638)
- M. Gulistan, N. Yaqoob, M. Shahzad, A note on Hv-LA-semigroups, *UPB Sci. Bull., Series A*, 77(3), (2015), 93-106. (IF=1.07)
- M. Khan, Y. B. Jun, M. Gulistan, N. Yaqoob, The generalized version of Jun's cubic sets in semigroups, *Journal of Intelligent & Fuzzy Systems*, 28 (2015), 947–960. (IF=1.851)
- N. Yaqoob, M. Gulistan, Partially ordered left almost semihypergroups, *Journal of the Egyptian Mathematical Society*, 23(2) (2015), 231-235.
- M. Gulistan, M. Aslam, S. Abdullah, Generalized anti fuzzy interior ideals in LA-semigroups, *Applied Mathematics and Information Sciences Letters*, 2(3) (2014) , 1-6.
- M. Gulistan, M. Shahzad, On soft KU-algebras, *Journal of Algebra, Number Theory: Advances and Applications*, 11(1) (2014), 1-20.
- M. Gulistan, M. Shahzad, N. Yaqoob, On $(\epsilon, \epsilon vqk)$ -fuzzy KU-ideals of KU-algebras, *Acta Universitatis, Apulensis*.
- M. Gulistan, S. Abdullah, T. Anwar, Characterizations of Regular LA-semigroups by (α, β) -fuzzy ideals, *international journal of mathematics and statistics*, 15(2) (2014), 71-88.
- M. Akram, N. Yaqoob, M. Gulistan, Cubic KU-subalgebras, *International Journal of Pure and Applied Mathematics*, 89(5) (2013), 659-665.

Conference Abstracts

- International Conference on Applied Analysis and Mathematical Modeling held in Turkey in 2017.
- Recent advances in mathematical methods, models & applications held in Pakistan in 2017.
- 3rd UMT Symposium on Fuzzy Analysis, Decision Making, and Soft Set. January 27, 2020
- International Pure Mathematics Conference held in Pakistan in 2017.

Scholarly and Professional Activities and Affiliations

- Member of the Pakistan Mathematical Society, Pakistan.
- Vice President of the Neutrosophic Science International Association (Pakistan Branch).
- President of the first-ever Alumni of Hazara University Pakistan.

References

- Professor Witold Pedrycz, Department of Electrical and Computer Engineering, wpedrycz@ualberta.ca.
- Professor Florentin Smarandache, Department of Mathematics, University of New Mexico, Albuquerque, NM 87301, USA, smarand@unm.edu.
- Professor Aitazaz A. Farooque, Associate Dean at the Canadian Centre for Climate Change and Adaptation, University of Prince Edward Island, afarooque@upei.ca
- Professor Young Bae Jun, Department of Mathematics Education, Gyeongsang National University, Jinju 52828, Korea, skywine@gmail.com.
- Professor Madad Khan, Department of Mathematics, COMSATS Institute of Information Technology Abbottabad, Pakistan, madadmth@yahoo.com.
- Professor Mumtaz Ali, UniSQ College, University of Southern Queensland 4350 QLD, Australia, Mumtaz.Ali@usq.edu.au.
- Professor Ismat Beg, Lahore School of Economics, Pakistan, ibeg@lahoreschool.edu.pk.
- Professor Muhammad Shabir, Department of Mathematics, Quaid-e -Azam University, Islamabad Pakistan, Email: mshabirbhatti@yahoo.co.uk.