Muhammad Riaz

List of Publications by Year in Descending Order

79 papers	1,327 citations	23 h-index	32 g-index
90 ext. papers	1,761 ext. citations	2.7 avg, IF	6.26 L-index

#	Paper	IF	Citations
79	A mathematical model to the inadequacy of bipolar soft sets in uncertainty environment: N-polar soft set. *Computational and Applied Mathematics*, **2022**, 41, 1	2.4	0
78	Bipolar fuzzy metric spaces with application. *Computational and Applied Mathematics*, **2022**, 41, 1	2.4	4
77	Distance and similarity measures for bipolar fuzzy soft sets with application to pharmaceutical logistics and supply chain management. *Journal of Intelligent and Fuzzy Systems*, **2022**, 1-20	1.6	2
76	Linear Diophantine Fuzzy Rough Sets: A New Rough Set Approach with Decision Making. *Symmetry*, **2022**, 14, 525	2.7	3
75	Sustainable thermal power equipment supplier selection by Einstein prioritized linear Diophantine fuzzy aggregation operators. *AIMS Mathematics*, **2022**, 7, 11201-11242	2.2	3
74	Novel Concepts of q -Rung Orthopair Fuzzy Topology and WPM Approach for Multicriteria Decision-Making. *Journal of Function Spaces*, **2022**, 2022, 1-16	0.8	
73	Cubic m-polar fuzzy topology with multi-criteria group decision-making. *AIMS Mathematics*, **2022**, 7, 13019-13052	1.2	
72	Topological Data Analysis with Cubic Hesitant Fuzzy TOPSIS Approach. *Symmetry*, **2022**, 14, 865	2.7	1
71	Interval-Valued Linear Diophantine Fuzzy Frank Aggregation Operators with Multi-Criteria Decision-Making. *Mathematics*, **2022**, 10, 1811	2.3	2
70	Topological Data Analysis with Spherical Fuzzy Soft AHP-TOPSIS for Environmental Mitigation System. *Mathematics*, **2022**, 10, 1826	2.3	1
69	Soft Rough q-Rung Orthopair m-Polar Fuzzy Sets and q-Rung Orthopair m-Polar Fuzzy Soft Rough Sets and Their Applications. *IEEE Access*, **2021**, 9, 139186-139200	3.5	2
68	Solution of Linear and Quadratic Equations Based on Triangular Linear Diophantine Fuzzy Numbers. *Journal of Function Spaces*, **2021**, 2021, 1-14	0.8	6
67	Cubic M-polar Fuzzy Hybrid Aggregation Operators with Dombi's T-norm and T-conorm with Application. *Symmetry*, **2021**, 13, 646	2.7	2
66	M-Parameterized N-Soft Topology-Based TOPSIS Approach for Multi-Attribute Decision Making. *Symmetry*, **2021**, 13, 748	2.7	3
65	Linear Diophantine Fuzzy Relations and Their Algebraic Properties with Decision Making. *Symmetry*, **2021**, 13, 945	2.7	17
64	Novel Approach for Third-Party Reverse Logistic Provider Selection Process under Linear Diophantine Fuzzy Prioritized Aggregation Operators. *Symmetry*, **2021**, 13, 1152	2.7	16
63	Linear Diophantine Fuzzy Einstein Aggregation Operators for Multi-Criteria Decision-Making Problems. *Journal of Mathematics*, **2021**, 2021, 1-31	1.2	17

62	A robust extension of VIKOR method for bipolar fuzzy sets using connection numbers of SPA theory based metric spaces. *Artificial Intelligence Review*, **2021**, 54, 561-591	9.7	25
61	Some novel features of Pythagorean m-polar fuzzy sets with applications. *Complex & Intelligent Systems*, **2021**, 7, 459-475	7.1	16
60	m-polar neutrosophic soft mapping with application to multiple personality disorder and its associated mental disorders. *Artificial Intelligence Review*, **2021**, 54, 2717-2763	9.7	13
59	Soft multi-rough set topology with applications to multi-criteria decision-making problems. *Soft Computing*, **2021**, 25, 799-815	3.5	6
58	Correlation Coefficients for Cubic Bipolar Fuzzy Sets With Applications to Pattern Recognition and Clustering Analysis. *IEEE Access*, **2021**, 9, 109053-109066	3.5	6
57	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*, **2021**, 6, 12795-12831	2.2	2
56	Multi-criteria decision making in robotic agri-farming with q-rung orthopair m-polar fuzzy sets. *PLoS ONE*, **2021**, 16, e0246485	3.7	15
55	Pythagorean m-Polar Fuzzy Weighted Aggregation Operators and Algorithm for the Investment Strategic Decision Making. *Journal of Mathematics*, **2021**, 2021, 1-19	1.2	9
54	A mathematical approach to medical diagnosis via Pythagorean fuzzy soft TOPSIS, VIKOR and generalized aggregation operators. *Complex & Intelligent Systems*, **2021**, 7, 2783	7.1	3
53	Spherical Linear Diophantine Fuzzy Soft Rough Sets with Multi-Criteria Decision Making. *Axioms*, **2021**, 10, 185	1.6	5
52	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 and Fuzzy Systems*, **2021**, 41, 955-973	1.6	3
51	Some generalized q-rung orthopair fuzzy Einstein interactive geometric aggregation operators with improved operational laws. *International Journal of Intelligent Systems*, **2021**, 36, 7239	8.4	13
50	Novel q-rung orthopair fuzzy interaction aggregation operators and their application to low-carbon green supply chain management. *Journal of Intelligent and Fuzzy Systems*, **2021**, 41, 4109-4126	1.6	19
49	Applying the Dijkstra Algorithm to Solve a Linear Diophantine Fuzzy Environment. *Symmetry*, **2021**, 13, 1616	2.7	6
48	Correlation Measures for Cubic m-Polar Fuzzy Sets with Applications. *Mathematical Problems in Engineering*, **2021**, 2021, 1-19	1.1	4
47	Cubic bipolar fuzzy Dombi averaging aggregation operators with application to multi-criteria decision-making. *Journal of Intelligent and Fuzzy Systems*, **2021**, 41, 3373-3393	1.6	0
46	Multi-Criteria Decision Making Based on Bipolar Picture Fuzzy Operators and New Distance Measures. *CMES - Computer Modeling in Engineering and Sciences*, **2021**, 127, 771-800	1.7	13
45	Decision-making analysis based on q-rung picture fuzzy graph structures. *Journal of Applied Mathematics and Computing*, **2021**, 67, 541-577	1.8	18

44	Spherical Linear Diophantine Fuzzy Sets with Modeling Uncertainties in MCDM. *CMES - Computer Modeling in Engineering and Sciences*, **2021**, 126, 1125-1164	1.7	25
43	A New TOPSIS Approach Using Cosine Similarity Measures and Cubic Bipolar Fuzzy Information for Sustainable Plastic Recycling Process. *Mathematical Problems in Engineering*, **2021**, 2021, 1-18	1.1	2
42	Hesitant fuzzy soft topology and its applications to multi-attribute group decision-making. *Soft Computing*, **2020**, 24, 16269-16289	3.5	16
41	A Robust q-Rung Orthopair Fuzzy Information Aggregation Using Einstein Operations with Application to Sustainable Energy Planning Decision Management. *Energies*, **2020**, 13, 2155	3.1	58
40	Cubic bipolar fuzzy set with application to multi-criteria group decision making using geometric aggregation operators. *Soft Computing*, **2020**, 24, 16111-16133	3.5	22
39	Fuzzy neutrosophic soft σ-algebra and fuzzy neutrosophic soft measure with applications. *Journal of Intelligent and Fuzzy Systems*, **2020**, 39, 277-287	1.6	6
38	Some q-rung orthopair fuzzy hybrid aggregation operators and TOPSIS method for multi-attribute decision-making. *Journal of Intelligent and Fuzzy Systems*, **2020**, 39, 1227-1241	1.6	24
37	q-Rung Orthopair Fuzzy Prioritized Aggregation Operators and Their Application Towards Green Supplier Chain Management. *Symmetry*, **2020**, 12, 976	2.7	30
36	Certain properties of soft multi-set topology with applications in multi-criteria decision making. *Decision Making: Applications in Management and Engineering*, **2020**, 3, 70-96	8.4	41
35	Soft rough Pythagorean m-polar fuzzy sets and Pythagorean m-polar fuzzy soft rough sets with application to decision-making. *Computational and Applied Mathematics*, **2020**, 39, 1	2.4	27
34	m-Polar Neutrosophic Topology with Applications to Multi-criteria Decision-Making in Medical Diagnosis and Clustering Analysis. *International Journal of Fuzzy Systems*, **2020**, 22, 273-292	3.6	43
33	A novel approach to censuses process by using Pythagorean m-polar fuzzy Dombi's aggregation operators. *Journal of Intelligent and Fuzzy Systems*, **2020**, 38, 1977-1995	1.6	24
32	On bipolar fuzzy soft topology with decision-making. *Soft Computing*, **2020**, 24, 18259-18272	3.5	19
31	A Robust q-Rung Orthopair Fuzzy Einstein Prioritized Aggregation Operators with Application towards MCGDM. *Symmetry*, **2020**, 12, 1058	2.7	26
30	An Interval-Valued Bipolar Fuzzy Linguistic VIKOR Method using Connection Numbers of SPA Theory and Its Application to Decision Support System. *Journal of Intelligent and Fuzzy Systems*, **2020**, 39, 3931-3948	1.6	2
29	TOPSIS, VIKOR and aggregation operators based on q-rung orthopair fuzzy soft sets and their applications. *Journal of Intelligent and Fuzzy Systems*, **2020**, 39, 6903-6917	1.6	11
28	Novel MCGDM with q-rung orthopair fuzzy soft sets and TOPSIS approach under q-Rung orthopair fuzzy soft topology. *Journal of Intelligent and Fuzzy Systems*, **2020**, 39, 3853-3871	1.6	8
27	Pythagorean m-polar fuzzy topology with TOPSIS approach in exploring most effectual method for curing from COVID-19. *International Journal of Biomathematics*, **2020**, 13, 2050075	1.8	9

26	q-Rung Orthopair Fuzzy Geometric Aggregation Operators Based on Generalized and Group-Generalized Parameters with Application to Water Loss Management. *Symmetry*, **2020**, 12, 1236	2.7	17
25	m-polar Neutrosophic Generalized Weighted and m-polar Neutrosophic Generalized Einstein Weighted Aggregation Operators to Diagnose Coronavirus (COVID-19). *Journal of Intelligent and Fuzzy Systems*, **2020**, 39, 7381-7401	1.6	9
24	Linear Diophantine Fuzzy Soft Rough Sets for the Selection of Sustainable Material Handling Equipment. *Symmetry*, **2020**, 12, 1215	2.7	28
23	Multi-criteria group decision making with Pythagorean fuzzy soft topology. *Journal of Intelligent and Fuzzy Systems*, **2020**, 39, 6703-6720	1.6	6
22	A similarity measure under Pythagorean fuzzy soft environment with applications. *Computational and Applied Mathematics*, **2020**, 39, 1	2.4	23
21	New approach of triangular neutrosophic cubic linguistic hesitant fuzzy aggregation operators. *Granular Computing*, **2020**, 5, 527-543	5.4	5
20	A novel extension of TOPSIS to MCGDM with bipolar neutrosophic soft topology. *Journal of Intelligent and Fuzzy Systems*, **2019**, 37, 5531-5549	1.6	32
19	Linear Diophantine fuzzy set and its applications towards multi-attribute decision-making problems. *Journal of Intelligent and Fuzzy Systems*, **2019**, 37, 5417-5439	1.6	138
18	MAGDM for agribusiness in the environment of various cubic m-polar fuzzy averaging aggregation operators. *Journal of Intelligent and Fuzzy Systems*, **2019**, 37, 3671-3691	1.6	32
17	Novel concepts of soft rough set topology with applications. *Journal of Intelligent and Fuzzy Systems*, **2019**, 36, 3579-3590	1.6	35
16	On Soft Rough Topology with Multi-Attribute Group Decision Making. *Mathematics*, **2019**, 7, 67	2.3	24
15	Cubic bipolar fuzzy ordered weighted geometric aggregation operators and their application using internal and external cubic bipolar fuzzy data. *Computational and Applied Mathematics*, **2019**, 38, 1	2.4	40
14	Multi-attribute group decision making based on cubic bipolar fuzzy information using averaging aggregation operators. *Journal of Intelligent and Fuzzy Systems*, **2019**, 37, 2473-2494	1.6	34
13	N-soft topology and its applications to multi-criteria group decision making. *Journal of Intelligent and Fuzzy Systems*, **2019**, 36, 6521-6536	1.6	48
12	Pythagorean fuzzy soft MCGDM methods based on TOPSIS, VIKOR and aggregation operators. *Journal of Intelligent and Fuzzy Systems*, **2019**, 37, 6937-6957	1.6	57
11	Pythagorean m-polar fuzzy sets and TOPSIS method for the selection of advertisement mode. *Journal of Intelligent and Fuzzy Systems*, **2019**, 37, 8441-8458	1.6	39
10	Bipolar fuzzy soft mappings with application to bipolar disorders. *International Journal of Biomathematics*, **2019**, 12, 1950080	1.8	29
9	Fixed points of fuzzy neutrosophic soft mapping with decision-making. *Fixed Point Theory and Applications*, **2018**, 2018,	1.4	8

8	Novel concepts of soft sets with applications. *Annals of Fuzzy Mathematics and Informatics*, **2017**, 13, 239-251	1.8	14
7	Fuzzy parameterized fuzzy soft topology with applications. *Annals of Fuzzy Mathematics and Informatics*, **2017**, 13, 593-613	1.8	25
6	Certain Applications of Fuzzy Parameterized Fuzzy Soft Sets in Decision-Making Problems. *International Journal of Algebra and Statistics*, **2016**, 5, 135	0	10
5	Single-valued neutrosophic Einstein interactive aggregation operators with applications for material selection in engineering design: case study of cryogenic storage tank. *Complex & Intelligent Systems*,1	7.1	4
4	Lifetime prolongation of a wireless charging sensor network using a mobile robot via linear Diophantine fuzzy graph environment. *Complex & Intelligent Systems*,1	7.1	0
3	Modelling uncertainties with TOPSIS and GRA based on q-rung orthopair m-polar fuzzy soft information in COVID -19. *Expert Systems*,	2.1	3
2	Diagnosis of lumbar degenerative disc disease by using Lp-spaces related to generalized interval-valued m-polar neutrosophic choquet integral Operator. *International Journal of Biomathematics*,2150063	1.8	1
1	Medical diagnosis of nephrotic syndrome using m-polar spherical fuzzy sets. *International Journal of Biomathematics*,2150094	1.8	3