

# Ali Ahmad

## List of Publications by Year in descending order

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80  
papers

1,045  
citations

516710

16  
h-index

501196

28  
g-index

80  
all docs

80  
docs citations

80  
times ranked

576  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | On Zagreb indices, Zagreb polynomials of some nanostar dendrimers. Applied Mathematics and Computation, 2016, 280, 132-139.                                   | 2.2 | 155       |
| 2  | Immunosuppressive Tryptophan Catabolism and Gut Mucosal Dysfunction Following Early HIV Infection. Journal of Infectious Diseases, 2015, 212, 355-366.        | 4.0 | 118       |
| 3  | On Edge Irregular Total Labeling of Categorical Product of Two Cycles. Theory of Computing Systems, 2014, 54, 1-12.   | 1.1 | 46        |
| 4  | On edge irregularity strength of graphs. Applied Mathematics and Computation, 2014, 243, 607-610.   | 2.2 | 39        |
| 5  | Imbalanced production of IL-18 and its antagonist in human diseases, and its implications for HIV-1 infection. Cytokine, 2016, 82, 38-51.                     | 3.2 | 31        |
| 6  | Computing the metric dimension of kayak paddles graph and cycles with chord. Proyecciones, 2020, 39, 287-300.   | 0.3 | 31        |
| 7  | Verification of Some Topological Indices of Y-Junction Based Nanostructures by M-Polynomials. Journal of Mathematics, 2022, 2022, 1-18.                       | 1.0 | 30        |
| 8  | On classes of regular graphs with constant metric dimension. Acta Mathematica Scientia, 2013, 33, 187-206.  | 1.0 | 28        |
| 9  | Barycentric Subdivision of Cayley Graphs With Constant Edge Metric Dimension. IEEE Access, 2020, 8, 80624-80628.  | 4.2 | 25        |
| 10 | Comparative Study of Valency-Based Topological Descriptor for Hexagon Star Network. Computer Systems Science and Engineering, 2021, 36, 293-306.              | 2.4 | 24        |
| 11 | Minimum Zagreb Eccentricity Indices of Two-Mode Network with Applications in Boiling Point and Benzenoid Hydrocarbons. Mathematics, 2022, 10, 1393.           | 2.2 | 24        |
| 12 | Resolvability of the starphene structure and applications in electronics. Ain Shams Engineering Journal, 2022, 13, 101587.                                    | 6.1 | 23        |
| 13 | Metric and Fault-Tolerant Metric Dimension of Hollow Coronoid. IEEE Access, 2021, 9, 81527-81534.   | 4.2 | 22        |
| 14 | Maximum $H$ -index of bipartite network with some given parameters. AIMS Mathematics, 2021, 6, 5165-5175.   | 1.6 | 19        |
| 15 | Computing the metric dimension of the categorial product of some graphs. International Journal of Computer Mathematics, 2017, 94, 363-371.                    | 1.8 | 17        |
| 16 | Construction Algorithm for Zero Divisor Graphs of Finite Commutative Rings and Their Vertex-Based Eccentric Topological Indices. Mathematics, 2018, 6, 301.   | 2.2 | 17        |
| 17 | On the degree based topological indices of benzene ring embedded in P-type-surface in 2D network. Hacettepe Journal of Mathematics and Statistics, 2017, 4, . | 0.3 | 17        |
| 18 | Polynomials of Degree-Based Indices for Swapped Networks Modeled by Optical Transpose Interconnection System. IEEE Access, 2020, 8, 214293-214299.            | 4.2 | 15        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Bounds on the partition dimension of one pentagonal carbon nanocone structure. Arabian Journal of Chemistry, 2022, 15, 103923.   | 4.9 | 15        |
| 20 | Computation of certain topological properties of para-line graph of honeycomb networks and graphene. Discrete Mathematics, Algorithms and Applications, 2017, 09, 1750064.   | 0.6 | 14        |
| 21 | Edge Metric and Fault-Tolerant Edge Metric Dimension of Hollow Coronoid. Mathematics, 2021, 9, 1405.   | 2.2 | 14        |
| 22 | Distance-Based Topological Polynomials Associated with Zero-Divisor Graphs. Mathematical Problems in Engineering, 2021, 2021, 1-8.   | 1.1 | 13        |
| 23 | Polynomials of Degree-based Indices for Three-Dimensional Mesh Network. Computers, Materials and Continua, 2020, 65, 1271-1282.  | 1.9 | 13        |
| 24 | On Minimal Doubly Resolving Sets of Circulant Graphs. Acta Mechanica Slovaca, 2017, 21, 6-11.  | 0.1 | 13        |
| 25 | Irregular labelings of helm and sun graphs. AKCE International Journal of Graphs and Combinatorics, 2015, 12, 161-168.   | 0.7 | 12        |
| 26 | On Eccentric Topological Indices Based on Edges of Zero Divisor Graphs. Symmetry, 2019, 11, 907.   | 2.2 | 12        |
| 27 | A Study of Hexagon Star Network with Vertex-Edge-Based Topological Descriptors. Complexity, 2021, 2021, 1-7.   | 1.6 | 12        |
| 28 | On Zagreb Indices, Zagreb Polynomials of Nanocone and Nanotubes. Journal of Computational and Theoretical Nanoscience, 2016, 13, 5086-5092.                                  | 0.4 | 12        |
| 29 | Vertex Metric-Based Dimension of Generalized Perimantanes Diamondoid Structure. IEEE Access, 2022, 10, 43320-43326.  | 4.2 | 12        |
| 30 | On the metric dimension of barcycentric subdivision of Cayley graphs $Cay(Z_n \oplus Z_m)$ . Miskolc Mathematical Notes, 2015, 16, 637-646.                                  | 0.6 | 11        |
| 31 | Edge Weight Based Entropy Measure of Different Shapes of Carbon Nanotubes. IEEE Access, 2021, 9, 139712-139724.  | 4.2 | 11        |
| 32 | M-Polynomials of Tetra-Cyano-Benzene Transition Metal Structure. Polycyclic Aromatic Compounds, 2023, 43, 471-481.   | 2.6 | 11        |
| 33 | Computation of edge- and vertex-degree-based topological indices for tetrahedral sheets of clay minerals. Main Group Metal Chemistry, 2022, 45, 26-34.                       | 1.6 | 11        |
| 34 | Comparative Study of ve-Degree and ev-Degree Topological Descriptors for Benzene Ring Embedded in P-Type-Surface in 2D Network. Polycyclic Aromatic Compounds, 2020, , 1-10. | 2.6 | 10        |
| 35 | Polynomials of Degree-Based Indices of Metal-Organic Networks. Combinatorial Chemistry and High Throughput Screening, 2020, 23, .  | 1.1 | 10        |
| 36 | Computation of vertex and edge resolvability of benzenoid tripod structure. Journal of King Saud University - Science, 2022, 34, 102208.                                     | 3.5 | 9         |

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|----|---|-----|-----------|
| 37 | Computing Vertex-Based Eccentric Topological Descriptors of Zero-Divisor Graph Associated with Commutative Rings. <i>Mathematical Problems in Engineering</i> , 2020, 2020, 1-6.  | 1.1 | 7         |
| 38 | Computation of Vertex-Edge Degree Based Topological Descriptors for Hex-Derived Networks. <i>IEEE Access</i> , 2021, 9, 82989-83001.  | 4.2 | 7         |
| 39 | On the bounded partition dimension of some classes of convex polytopes. <i>Journal of Discrete Mathematical Sciences and Cryptography</i> , 2022, 25, 2535-2548.  | 0.8 | 7         |
| 40 | Computation of Edge Resolvability of Benzenoid Tripod Structure. <i>Journal of Mathematics</i> , 2021, 2021, 1-8.   | 1.0 | 7         |
| 41 | Metric Dimension of Some Generalized Families of Toeplitz Graphs. <i>Mathematical Problems in Engineering</i> , 2022, 2022, 1-10.   | 1.1 | 7         |
| 42 | On the edge irregularity strength for some classes of plane graphs. <i>AIMS Mathematics</i> , 2021, 6, 2724-2731.   | 1.6 | 6         |
| 43 | Vertex-Edge-Degree-Based Topological Properties for Hex-Derived Networks. <i>Complexity</i> , 2022, 2022, 1-13.   | 1.6 | 6         |
| 44 | Computing The Irregularity Strength of Planar Graphs. <i>Mathematics</i> , 2018, 6, 150.  | 2.2 | 5         |
| 45 | Comparative Study of Valency-Based Topological Indices for Tetrahedral Sheets of Clay Minerals. <i>Current Organic Synthesis</i> , 2021, 18, 711-718.   | 1.3 | 5         |
| 46 | Computation of reverse degree-based topological indices of hex-derived networks. <i>AIMS Mathematics</i> , 2021, 6, 11330-11345.  | 1.6 | 5         |
| 47 | Total vertex irregularity strength of disjoint union of Helm graphs. <i>Discussiones Mathematicae - Graph Theory</i> , 2012, 32, 427.   | 0.3 | 5         |
| 48 | On the Study of Reverse Degree-Based Topological Properties for the Third Type of $\langle \text{mi} \rangle \text{p} \langle \text{mi} \rangle \langle \text{mtext} \rangle \hat{\text{a}} \langle \text{mtext} \rangle \text{th} \langle \text{mtext} \rangle \langle \text{mi} \rangle$ Chain Hex-Derived Network. <i>Journal of Mathematics</i> , 2021, 2021, 1-12. | 1.0 | 5         |
| 49 | On Adjacency Metric Dimension of Some Families of Graph. <i>Journal of Function Spaces</i> , 2022, 2022, 1-8.   | 0.9 | 5         |
| 50 | Magic Labelings of Type (a, b, c) of Families of Wheels. <i>Mathematics in Computer Science</i> , 2013, 7, 315-319.   | 0.4 | 4         |
| 51 | On 3-total edge product cordial labeling of honeycomb. <i>AKCE International Journal of Graphs and Combinatorics</i> , 2017, 14, 149-157.   | 0.7 | 4         |
| 52 | On the Degree-Based Topological Indices of the Tickysim SpiNNaker Model. <i>Axioms</i> , 2018, 7, 73.   | 1.9 | 4         |
| 53 | Computing the topological descriptors of line graph of the complete m-ary trees. <i>Journal of Intelligent and Fuzzy Systems</i> , 2020, 39, 1081-1088.   | 1.4 | 4         |
| 54 | Computation of Vertex-Edge Degree Based Topological Descriptors for Metal Trihalides Network. <i>IEEE Access</i> , 2021, 9, 65330-65339.  | 4.2 | 4         |

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|----|---|-----|-----------|
| 55 | On the edge irregular reflexive labeling of corona product of graphs with path. AKCE International Journal of Graphs and Combinatorics, 2021, 18, 53-59.  | 0.7 | 4         |
| 56 | M-Polynomials and Associated Topological Indices of Sodalite Materials. Mathematical Problems in Engineering, 2021, 2021, 1-10.   | 1.1 | 4         |
| 57 | Computation of Metric-Based Resolvability of Quartz Without Pendant Nodes. IEEE Access, 2021, 9, 151834-151840.   | 4.2 | 4         |
| 58 | Edge Weight-Based Entropy of Magnesium Iodide Graph. Journal of Mathematics, 2021, 2021, 1-7.   | 1.0 | 4         |
| 59 | Computing vertex resolvability of benzenoid tripod structure. AIMS Mathematics, 2022, 7, 6971-6983.   | 1.6 | 4         |
| 60 | Vertex-antimagic labelings of regular graphs. Acta Mathematica Sinica, English Series, 2012, 28, 1865-1874.   | 0.6 | 3         |
| 61 | Radio Number Associated with Zero Divisor Graph. Mathematics, 2020, 8, 2187.  | 2.2 | 3         |
| 62 | On Edge Irregular Reflexive Labeling of Categorical Product of Two Paths. Computer Systems Science and Engineering, 2021, 36, 485-492.  | 2.4 | 3         |
| 63 | Computing the Schultz polynomials and indices for ladder related graphs. Proyecciones, 2019, 38, 1081-1092.   | 0.3 | 3         |
| 64 | Reflexive edge strength of convex polytopes and corona product of cycle with path. AIMS Mathematics, 2022, 7, 11784-11800.  | 1.6 | 3         |
| 65 | Generalized perimantanes diamondoid structure and their edge-based metric dimensions. AIMS Mathematics, 2022, 7, 11718-11731.   | 1.6 | 3         |
| 66 | Computing topological indices of chemical structures of the conductive 2D MOFs. Journal of Information and Optimization Sciences, 2021, 42, 563-578.  | 0.3 | 2         |
| 67 | On Degree Based Topological Indices of Transition Metal-Tetra Cyano Polycyclic Benzene Organic Network. Polycyclic Aromatic Compounds, 0, , 1-27.   | 2.6 | 2         |
| 68 | On $(\alpha, \beta)$ - $\gamma$ - $\delta$ - $\epsilon$ - $\zeta$ - $\eta$ - $\theta$ - $\iota$ - $\kappa$ - $\lambda$ - $\mu$ - $\nu$ - $\xi$ - $\omicron$ - $\pi$ - $\rho$ - $\sigma$ - $\tau$ - $\upsilon$ - $\phi$ - $\chi$ - $\psi$ - $\omega$ Labelings of Circulant Graphs. Journal of Mathematics, 2021, 2021, 1-7. | 1.0 | 2         |
| 69 | The comparative study of resolving parameters for a family of ladder networks. AIMS Mathematics, 2022, 7, 16569-16589.  | 1.6 | 2         |
| 70 | Combination antiretroviral therapy and indoleamine 2,3-dioxygenase in HIV infections. Aids, 2016, 30, 1839-1841.  | 2.2 | 1         |
| 71 | Computing the Edge Irregularity Strength of Bipartite Graphs and Wheel Related Graphs. Fundamenta Informaticae, 2020, 174, 1-13.  | 0.4 | 1         |
| 72 | On 3-total edge product cordial labeling of grid. Asian-European Journal of Mathematics, 2021, 14, 2150096.   | 0.5 | 1         |

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|----|--|-----|-----------|
| 73 | Irregularity Strength of Circulant Graphs Using Algorithmic Approach. IEEE Access, 2021, 9, 54401-54406.   | 4.2 | 1         |
| 74 | On Hamilton-Connectivity and Detour Index of Certain Families of Convex Polytopes. Mathematical Problems in Engineering, 2021, 2021, 1-18.             | 1.1 | 1         |
| 75 | Computation of eccentric topological indices of zero-divisor graphs based on their edges. AIMS Mathematics, 2022, 7, 11509-11518.                      | 1.6 | 1         |
| 76 | Computation of Total Vertex Irregularity Strength of Theta Graphs. IEEE Access, 2019, 7, 113826-113831.  | 4.2 | 0         |
| 77 | Total vertex irregularity strength of generalized prism graphs. Journal of Discrete Mathematical Sciences and Cryptography, 2022, 25, 1855-1865.       | 0.8 | 0         |
| 78 | Computation of edge $C_4$ -irregularity strength of Cartesian product of graphs. Journal of Discrete Mathematical Sciences and Cryptography, 0, , 1-8. | 0.8 | 0         |
| 79 | One Sided Lipschitz Evolution Inclusions in Banach Spaces. Mathematics, 2021, 9, 3265.   | 2.2 | 0         |
| 80 | Computation of Resolvability Parameters for Benzenoid Hammer Graph. Journal of Mathematics, 2022, 2022, 1-11.  | 1.0 | 0         |