

Curriculum Vita

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Reviewer of the Following Journals

- Mathematical Review
- Journal of Applied Mathematics and Computing
- Complex & Intelligent System

Member of Editorial Board of the Journal

- International Journal of Computer and Information
- Technology (IJCIT) Annals of Pure and Applied
- Mathematics (ISSN 2279-087X)

Research Areas

- Computational Graph Theory
- Fuzzy Mathematics

Teaching Areas

- Graph theory
- Operations Research
- Discrete Mathematics
- Basic Engineering Mathematics
- Numerical Analysis

List of Publications in Journals (Total: 174)

(Last 7 years 2017-2023)

PUBLICATION IN SCI/SCIE JOURNALS

1. Arindam Dey, R. Pradhan, **Anita Pal** and Tandra Pal, A Genetic algorithm for solving fuzzy shortest path problems with interval type 2 fuzzy arc lengths, *Malaysian journal of computer science*, 31(4) (2018) 255--270.
SCIE, I.F: 0.723 (2019), MDPI.
2. Heranmoy Maity, Arijit Kumar Barik, Arindam Biswas, Anup Kumar Bhattacharjee, **Anita Pal**, Design of Quantum Cost, Garbage Output and Delay Optimized BCD to Excess-3 and 2's Complement Code Converter, *Journal of Circuits, Systems, and Computers*, DOI: 10.1142/S0218126618501840, 27(12) (2018).
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3. Heranmoy Maity, Arijit Kumar Barik, Arindam Biswas, Anup Kumar Bhattacharjee, **Anita Pal**, Quantum cost optimized design of 4-bit reversible universal shift register using reduce number of logic gate, *International Journal of Quantum Informatio*, DOI: 10.1142/S0219749918500168, 16(2) (2018) 1850016.
SCIE, IF: 0.89(2020), (World Scientific).
4. Prosanta Sarkar, Nilanjan De, Ismail Naci Congul and **Anita Pal**, The (a,b)-Zagreb index of some derived networks, *Journal of Taibah University for Science*, DOI: 10.1080/16583655.2018.1535881, 13(1) (2019) 79--86.
Taylor & Francis, SCIE, IF-2.688(2022).
5. Heranmoy Maity, **Anita Pal**, Arindam Biswas, Anup Kumar Bhattacharjee, Design of BCD to Excess-3 code converter circuit with optimized quantum cost, garbage output and constant input using reversible gate, *Int. J. Quantum Information*, DOI: 10.1142/S0219749918500612, 16(7) (2018) 1850061.
SCIE, IF-0.89(2020), World Scientific.
6. Cen Zuo, **Anita Pal** and Arindam Dey, *New concepts of picture fuzzy graphs with application, Mathematics*, 7 (2019) 1-18.
SCIE, I.F: 0.723 (2019), MDPI.
7. Sumonta Ghosh, Hossein Rashmanlou, F. Mofidnakhaid and **Anita Pal**, Algorithmic implementation of signed product and total signed product cordial labeling on complex graph, *Journal of Intelligent & Fuzzy System*, 37 (2019) 2435--2442.
SCIE, IF: 1.739(2022), IOS Press.
8. Arindam Dey, L. H. Son, **Anita Pal**, H. V. Long, Fuzzy minimum spanning tree with interval type 2 fuzzy arc length: formulation and a new genetic algorithm, *Soft computing*, DOI: 10.1007/s00500-019-04166-1, 24(6) (2020) 3963--3974.
SCIE, IF: 3.643 (2020), Spinger.
9. R. Sumathi, R. Sujatha, R. Sundareswaran, S. Sahoo, M. Pal, and **Anita Pal**, Nodes in fuzzy block with application, *Journal of Intelligent & Fuzzy Systems*, 35(4) (2018) 4785--4793.
SCIE, IF: 1.739(2022), IOS Press.
10. Sourav Mondal, Nilanjan De and **Anita Pal**, Topological Indices of Some Chemical Structures Applied for the Treatment of COVID-19 Patients, *Polycyclic Aromatic Compounds*, DOI: 10.1080/10406638.2020.1770306, 42(4) (2022) 1220--1234.
SCIE, IF: 3.744 (2022), Taylor and Francis.
11. Kartick Mohanta, Arindam Dey, **Anita Pal**, Hoang Viet Long, Le Hoang Son, A Study of m-Polar Neutrosophic Graph with Applications, *Journal of Intelligent & Fuzzy Systems*, 38(4) (2020) 4809--4828.
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12. Sourav Mondal, Nilanjan De and **Anita Pal**, On neighborhood Zagreb index of product graphs, *Journal of Molecular Structure*, 1223 (2021) 129210.
SCIE, IF: 3.196 (2022), Elsevier.
13. Sourav Mondal, Nilanjan De and **Anita Pal**, A Note on Some Novel Graph Energies, *MATCH-Communications in Mathematical and in Computer Chemistry*, 86(3) (2021) 663--684.
SCIE, IF: 2.497 (2020).
14. Kartick Mohanta, Arindam Dey, **Anita Pal**, A note on different types of product of neutrosophic graphs, *Complex and Intelligent Systems*, (2021) DOI: 10.1007/s40747-020-00238-0, 7(2) (2021) 857--871.
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15. Prosanta Sarkar, Sourav Mondal, Nilanjan De and **Anita Pal**, (a,b)-Zagreb index of some special graphs, *Revue Roumaine de Chimie*, 65(11) (2020) 1045--1055.
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16. Sourav Mondal, Nilanjan De and **Anita Pal**, Molecular descriptors of neural networks with chemical significance, *Revue Roumaine de Chimie*, 65(11) (2020) 1031--1044.
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17. Sourav Mondal, Nilanjan De, **Anita Pal**, and Wei Gao, Molecular Descriptors of Some Chemicals that Prevent COVID-19, *Current Organic Synthesis*, 18(8) (2021) 739--741.
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18. Sourav Mondal, Nilanjan De and **Anita Pal**, Neighborhood degree sum-based molecular descriptors of fractal and Cayley tree dendrimers, *European Physical Journal Plus*, Vol. 136(3) (2021) 1--37.
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19. Sourav Mondal, Arindam Dey, Niranjan De and **Anita Pal**, QSPR analysis of some novel neighbourhood degree-based topological descriptors, *Complex & Intelligent Systems*, 7 (2021) 977--996.
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20. Sourav Mondal, Muhammad Imran, Nilanjan De and **Anita Pal**, Neighbourhood M-polynomial of titanium compounds, *Arabian Journal of Chemistry*, 14 (2021) 103224.
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21. Tejinder Singh Lakhwani, Kartick Mohanta, Arindam Dey, Sankar Prasad Mondal, and Anita Pal, Some operations on dombi neutrosophic graph, *Journal of Ambient Intelligence and Humanized Computing*, 2021, 1-9, DOI: 10.1007/s12652-021-02909-3, 13(1) (2022) 425--443.
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22. Mukhopadhyay, J., Singh, V. K., Mukhopadhyay, S., Dhananjaya, M. M., & Pal, A. An egalitarian approach of scheduling time restricted tasks in mobile crowdsourcing for double auction environment, *International Journal of Web and Grid Services*, 17(3) (2021) 221--245.
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24. Prosanta Sarkar, Nilanjan De, and **Anita Pal**, On some neighbourhood degree-based multiplicative topological indices and their applications, *Polycyclic Aromatic Compounds*, Dec (2021), DOI:doi.org/10.1080/10406638.2021.2007141, (2021) 1--16.
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25. Prosanta Sarkar, Nilanjan De and **Anita Pal**, On some topological indices and their importance in chemical sciences, *European Physical Journal Plus*, 137(2) (2022) 195.
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26. Sourav Mondal, Sasmita Barik, Nilanjan De and **Anita Pal**. A note on neighborhood first Zagreb energy and its significance as a molecular descriptor. *Chemometrics and Intelligent Laboratory Systems*, 222 (2022) 104494. **SCIE, IF-3.491(2020), Elsevier.**

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28. Sourav Mondal, Muhammad Imran, Nilanjan De and Anita Pal Topological Indices of Total Graph and Zero Divisor Graph of Commutative Ring: A Polynomial Approach. *Complexity*, 2023 (2023).
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29. Kartick Mohanta, Anupam Kumar Jha, Arindam Dey, **Anita Pal**. An application of neutrosophic logic on an inventory model with two – level partial trade credit policy for time – dependent perishable products. *Soft Computing* (2023) 4795-4822
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30. S Kumar, Prosanta Sarkar and Anita Pal, A study on the Energy of Graphs and its applications, Polycyclic Aromatic Compounds. *Polycyclic Aromatic Compounds* (2023), 16 Aug 2023, doi.org/10.1080/10406638.2023.2245104
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31. Parikshit Das, Sourav Mondal, Anita Pal, Extremal Molecular Descriptors for Oxide and Silicate Networks, *Silicon* (2023), 28 July, doi.org/10.1007/s12633-023-02594-1.
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32. Parikshit Das, Sourav Mondal, Anita Pal, Extension of adjacency matrix in QSPR analysis, *Chemometrics and Intelligent Laboratory Systems* (2023), 04 Nov, doi.org/10.1016/J.chemolab.2023.105024.
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33. Sumi Kar, Anita Pal, , Kajla Basu, Achyuth Sarkar, Biswajit Sarkar, The Effect of Renewable Energy and Corporate Social Responsibility on Dual-Channel Supply Chain Management, *Energies* (2023), March, DOI: 10.3390/en16073030.
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34. Biswajit Sarkar, Sumi Kar, Anita Pal, Does the bullwhip effect really help a dual-channel home delivery policy? *Journal of Retailing and Consumer Services* (2024). (Accepted).
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36. Satyabrata Paul, M.Pal and **Anita Pal**, L(0,1) – labeling of Trapezoid Graphs, *International Journal of Applied and Computational Mathematics*, , DOI:10.1007/s40819-017-0372-y 3(1) (2017) 599--610.
Scopus, Springer.
37. Poulomi Ghosh and **Anita Pal**, Coloring of Hypergraphs, *Journal of Mathematics and Informatics*, 8 (2017), 37--44.
Scopus, Korean Society for Computational and Applied Mathematics.
38. Arindam Dey and **Anita Pal**, Types of fuzzy graph coloring and polynomial ideal theory, *International Journal of Advance Intelligence Paradigms* 2017.
Scopus, Inderscience.
39. Arindam Dey and **Anita Pal**, Types of Uncertain Nodes in a Fuzzy Graph, *International Journal of Advance Intelligence Paradigms*, 2017.
Scopus, Inderscience.
40. Angshu Kumar Sinha, Akul Rana and **Anita Pal**, Signed Edge Domination Number of Interval Graphs, *Electronics Notes in Discrete Mathematics*, 63 (2017) 279--286.
Scopus, Elsevier.

41. Prosanta Sarkar, Nilanjan De, and **Anita Pal**, The Generalized Zagreb index of some carbon structures, *Acta Chem. Iasi*, 26(1) (2018) 91--104.
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42. Heranmoy Maity, Arindam Biswas, Anup Kumar Bhattacharjee and **Anita Pal**, Design of Reversible Combinational Circuits using new reversible Logic Gate, *Journal of Engineering Science and Technology Review*, 11(5) (2018) 170--172.
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43. Arindam Dey and **Anita Pal**, Computing the shortest path with words, *International journal of Advanced Intelligence Paradigms*, 12 (3-4) (2019) 355--369.
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44. Sourav Mondal, Nilanjan De and **Anita Pal**, The M-polynomial of line graph of subdivision graphs, Communications, *Series AI Mathematics and Statistics*, 68(2) (2019) 2104--2116.
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45. Sourav Mondal, Nilanjan De and **Anita Pal**, On some new neighborhood degree based indices, *Acta Chemica Iasi*, 27 (1) (2019) 31--46.
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46. Sourav Mondal, Nilanjan De and **Anita Pal**, On some general neighborhood degree based topological indices, *International Journal of Applied Mathematics*, 32(6) (2019) 1037--1049.
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47. Sourav Mondal, Nilanjan De and **Anita Pal**, Topological properties of Graphene using some novel neighborhood degree-based topological indices, *International Journal of Mathematics for Industry*, 11(1) (2019) 1950006.
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48. Prosanta Sarkar, Nilanjan De, and **Anita Pal**, Zagreb Indices of Double Join and Double Corona of Graphs Based on the Total Graph, *International Journal of Applied and Computational Mathematics*, 6 (73) (2020) 1--13.
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49. Prosanta Sarkar, **Anita Pal**, General Fifth M-Zagreb Polynomials of Benzene Ring Implanted in the P-Type-Surface in 2D Network, *Bio interface Research in Applied Chemistry*, 10(6) (2020) 6881--6892.
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50. Sourav Mondal, Nilanjan De and **Anita Pal**, Topological properties of some nanostructures, *NANOSYSTEMS: PHYSICS, CHEMISTRY, MATHEMATICS*, 11(1) (2020) 14--24.
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51. Sourav Mondal, Muhammad Arfan Ali, Nilanjan De and **Anita Pal**, Bounds for neighborhood Zagreb index and its explicit expressions under some graph operations, *Proyecciones*, 39(4) (2020) 799--819.
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52. Prosanta Sarkar, Nilanjan De, and **Anita Pal**, The (a, b) - Zagreb index of line graphs of subdivision graphs of some molecular structures, *International Journal of Mathematics for Industry*, DOI: 10.1142/S2661335220500069, 12(01) (2020) 2050006.
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53. Heranmoy Maity, Sudipta Banerjee, Arindam Biswas, **Anita Pal** and Anup Kumar Bhattacharjee, "Design of Reversible Shift Register Using Reduced Number of Logic Gate", *Micro and Nanosystems*, 12(01) (2020) 33--37.
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54. Heranmoy Maity, Arindam Biswas, Anup Kumar Bhattacharjee and **Anita Pal**, "The Quantum Cost Optimized Design of 2:4 Decoder Using New Reversible Gate", *Micro and Nanosystems*, 12(03) (2020) 146 -- 148.
Scopus
55. Murat Cancan, Sourav Mondal, Nilanjan De and **Anita Pal**, Multiplicative degree based topological indices of some chemical structures in drug, *Proyecciones (Antofagasta,-On line)* **39 (5)**, 1347-1364(2020). **Scopus.**

56. Heranmoy Maity, Barnali Sen, Ishikha Verma, Arindam Biswas, **Anita Pal** and Anup Kumar Bhattacharjee, "Design and Development of 4-Bit Gray Code Counter Circuit Using Reversible Logic Gate", *Micro and Nanosystems*, <https://doi.org/10.2174/1876402912666200324172236>, 13(1) (2021) 124--127.

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57. Heranmoy Maity, Sudipta Banerjee, Raton Mistry, Parna Kundu, Kriti Ojha, Priya Manwani, Barnali Sen, Ishikha Verma, Arindam Biswas, **Anita Pal** and Anup Kumar Bhattacharjee, "Design of Quantum Cost and Delay Optimized Code Converter Using New Reversible Quantum Circuit Block (QCB)", *Micro and Nanosystems*, <https://doi.org/10.2174/1876402912999200502024055>, 13(1) (2021) 119--123.

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58. Prosanta Sarkar, Nilanjan De, and **Anita Pal**, Correction to: On some multiplicative version topological indices of block shift and hierarchical hypercube networks, *Opsearch*, doi.org/10.1007/s12597-021-00548-y, 2021,

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59. Kartick Mohanta, Arindam Dey, and Anita Pal, A study on picture dombi fuzzy graph, *Decision Making: Applications in Management and Engineering*, DOI: doi.org/10.31181/dmame2003119m, 3(2) (2020) 119--130.

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60. Prosanta Sarkar, Nilanjan De, Ismail Naci Cangul and **Anita Pal**, Generalized Zagreb indices for some silicate networks, *Journal of Discrete Mathematical Sciences & Cryptography*, (2021).

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61. Sourav Mondal, Nilanjan De and **Anita Pal**, Multiplicative Degree Based Topological Indices of Nanostar Dendrimers, *Biointerface Research in Applied Chemistry 11 (1)*, 7700-7711 (2021).

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62. Sourav Mondal, Nilanjan De, M. K. Siddiqui and **Anita Pal**, Topological Properties of para-Line Graph of some Convex polytop using neighborhood m-polynomial, *Biointerface Research in applied Chemistry 11 (3)*, 9915-9927 (2021).

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63. Sourav Mondal, M. K. Siddiqui, Nilanjan De, and **Anita Pal**, Neighborhood M-polynomial of Crystallographic structures, *Biointerface Research in applied Chemistry 11 (2)*, 9372-9381 (2021).

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65. Heranmoy Maity, Sudipta Banerjee, Raton Mistry, Parna Kundu, Kriti Ojha, Priya Manwani, Barnali Sen, Ishikha Verma, Arindam Biswas, **Anita Pal** and Anup Kumar Bhattacharjee, "Design of Quantum Cost and Delay Optimized Code Converter Using New Reversible Quantum Circuit Block (QCB)", *Micro and Nanosystems*, <https://doi.org/10.2174/1876402912999200502024055>, 13(1) (2021) 119--123.

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67. Arindam Dey and **Anita Pal**, Types of fuzzy graph coloring and polynomial ideal theory, *International Journal of Advance Intelligence Paradigms*, 23 (1) (2022).

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PUBLICATION OF OTHER JOURNALS

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69. Sumonta Ghosh, Satyabrata Paul and **Anita Pal**, L (2,1)-Labeling of Cartesian Product of Complete Bipartite Graph and Path, *Journal of Informatics and Mathematical Sciences*, 9(3) (2017) 685--698.
70. Poulomi Ghosh, Sumonta Ghosh and **Anita Pal**, 3-Total Sum Cordial labeling on Some New Graphs, *Journal of Informatics and Mathematical Sciences*, 9(3) (2017) 665--673.
71. Angshu Kumar Sinha, Sachchidananda Mishra, Akul Rana and **Anita Pal**, Roman Domination on Acyclic Permutation Graphs, *Journal of Informatics and Mathematical Sciences*, 9(3) (2017) 635--648.
72. S.N Mishra and **Anita Pal**, Regular Interval-valued Intuitionistic Fuzzy Graphs, *Journal of Informatics and Mathematical Sciences*, 9(3) (2017) 609--621.
73. Jaya Mukhopadhyay, Vikash Kumar Singh, Sachchida Nand Mishra, Sajal Mukhopadhyay and **Anita Pal**, Quality adaptive online double auction in participatory sensing, *Journal of Informatics and Mathematical Sciences*, 9(3) (2017) 571--593.
74. Shrabanti Mandal, Girish Kumar Singh, **Anita Pal**, A Hybrid Text Summarization Approach, *Journal of Informatics and Mathematical Sciences*, 9(3) (2017) 547--555.
75. **Anita Pal** and Saibal Majumder, Searching Minimum Spanning Tree in a Type-2 Fuzzy Graph, *Progress in Nonlinear Dynamics and Chaos*, 5(1) (2017) 43--58.
76. Angshu Kumar Sinha, Akul Rana and **Anita Pal**, Edge Roman Star Domination Number on Graphs, *Annals of Pure and Applied Mathematics*, Vol 14(1) (2017) 143--152.
77. Prosanta Sarkar, Nilanjan De and **Anita Pal**, The Zagreb indices of graphs based on new operations related to the join of graphs, *Journal of the International Mathematical Virtual Institute*, 7 (2017) 181--209.
78. Saikat Pahari, Dhruvajyoti Ghosh and **Anita Pal**, An Intuitionistic Fuzzy Multicriteria Decision Making Model for Personnel Selection problem, *Turkish Journal of Fuzzy Systems*, 8(1) (2017) 017--032.
79. Dhruvajyoti Ghosh and **Anita Pal**, Analysis of Faculty Teaching using Multi-criteria Decision-Making Approach, *International Journal of Engineering & Technology*, Vol. 7(2) (2017) 74-78.
80. Saikat Pahari, Dhruvajyoti Ghosh and **Anita Pal**, A Fuzzy Relation Equation Model for Multicriteria Decision Making Problem, *International Journal of Applications of Fuzzy Sets and Artificial Intelligence*, 8 (2018), 127 --142.
81. Sumonta Ghosh and **Anita Pal**, Cordial Labeling of Cartesian Product between $K_{n,n} \times P_r$ and $K_{n,n} \times C_r$. *International Journal of Applications of Fuzzy Sets and Artificial Intelligence*, 8 (2018), 113--125.

82. Prosanta Sarkar, Nilanjan De, Ismail Naci Congul and **Anita Pal**, Generalized Zagreb index of some dendrimer structures, *Univ. J. Math. Appl.*, 1(3) (2018) 160--165.
83. Prosanta Sarkar, Nilanjan De, and **Anita Pal**, The (a,b)-Zagreb index of nanostar dendrimers, *U. P. B. Sci. Bull.*, 80(4) (2018) 67--82.
84. Sumanta Ghosh and **Anita Pal**, Algorithmic approach of cordial labeling on Cartesian product between balanced bipartite graph and path, *Communications Faculty of Sciences University of Ankara Series A1 Mathematics and Statistics*, 68(2) (2019) 2064--2078.
85. Ashish Verma, Sourav Mondal, Nilanjan De and **Anita Pal**, Topological Properties of Bismuth tri-iodide Using Neighborhood M-Polynomial, *International Journal of Mathematics Trends and Technology (IJMTT)*, 651(10) (2019), 2104--2116.
86. Prosanta Sarkar, Sourav Mondal, Nilanjan De and **Anita Pal**, On topological properties of probabilistic neural networks, *Malaya Journal of Matematik*, 7(4) (2019) 612--617.
87. Sourav Mondal, Nilanjan De and **Anita Pal**, On Some New Neighborhood Degree-Based Indices for Some Oxide and Silicate Networks, *J Multidisciplinary Scientific Journal*, 2 (2019) 384--409.
88. Sumonta Ghosh, Prakhar Pogde, Narayan C. Debnath and **Anita Pal**, Efficient Algorithm For L(3,2,1)-Labeling of Cartesian Product Between Some Graphs, *EPiC Series in Computing*, 63 (2019) 111--120.
89. Kartick Mohanta, Arindam Dey, Narayan C. Debnath, and **Anita Pal**, An algorithmic approach for finding minimum spanning tree in a intuitionistic fuzzy graph, *EPiC Series in Computing*, 63 (2019) 140--149.
90. Sourav Mondal, Nilanjan De and **Anita Pal**, Topological Properties of Networks Using M-Polynomial Approach, *Konuralp Journal of Mathematics*, 8(1) (2020) 97--105.

*Publications in Seminar/Conference/Symposiums/Proceedings/Book
Chapters (Last 7 years 2017-23)*

1. S. Mondal, A. Biswas, P. Banarjee, **Anita Pal**, R. Mukherjee and A.K. Bhattacharjee, Hierarchical Modulation Based Spectrum Sharing in an Overlay Cognitive Radio network, 2017 Device for Integrated Circuit (DevIC) during 23-24 March, 2017, Kalyani, India.
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3. S. Pahari, D. Ghosh and **Anita Pal**, An Online Review-Based Hotel Selection Process Using Intuitionistic Fuzzy TOPSIS Method, published in Proc. of Progress in International Conference on Computing Analytics and Networking, AISC Springer Vol 710, pp 203-214, 11 April, 2018.
4. Sumonta Ghosh and **Anita Pal**, Signed Product and Total Signed Product Cordial Labeling of Cartesian Product Between Balanced Bipartite Graph and Path, Advanced Computational and Communication Paradigms, Advances in Intelligent System and

Computing 706, https://doi.org/10.1007/978-981-10-8237-5_50, Vol-2, pp 515-522, April 2018, Springer.

5. Jaya Bhattacharjee, Vikash Kumar Singh, **Anita Pal** and Sajal Mukhopadhyay, Clustering and Auction in Sequence: A Two-Fold Mechanism for Participatory Sensing, Harmony Search and Nature Inspired Optimization Algorithms, *Advances in Intelligent System and Computing* 741, pp 347-356, 2019, Springer. (Book Chapter)
6. Sumonta Ghosh, Prosanta Sarkar and **Anita Pal**, Exact Algorithm for L (2,1) Labeling of Cartesian Product Between Complete Bipartite Graph and Cycle, *Harmony Search and Nature Inspired Optimization Algorithms, Advances in Intelligent System and Computing* 741, pp 325-334, 2019, Springer. (Book Chapter)
7. Prosanta Sarkar, Nilanjan De and **Anita Pal**, The Forgotten Topological Index of Graphs based on New Operations Related to The Join of Graphs, *Harmony Search and Nature Inspired Optimization Algorithms, Advances in Intelligent System and Computing* 741, pp 335-345, 2019, Springer. (Book Chapter)
8. Kartick Mohanta, Arindam Dey, Narayan C. Debnath, and **Anita Pal**, an algorithmic approach for finding minimum spanning tree in an intuitionistic fuzzy graph, *Proceedings of 32nd International Conference on Computer Applications in Industry and Engineering*, (2019), 140–149.
9. Sumonta Ghosh, Prakhar Pogde, Narayan C. Debnath and **Anita Pal**, Efficient Algorithm for L (3;2;1)-Labeling of Cartesian Product Between Some Graphs, *International Conference on Computer Applications in Industry and Engineering (CAINE 2019)*, Sheraton San Diego Hotel & Marina, USA.
10. Prosanta Sarkar, Nilanjan De and **Anita Pal**, The multiplicative version general Zagreb index of block shift and hierarchical hypercube networks, *Frontiers of Operations Research and Business Studies (FORBS 2019)*, Calcutta Business School, Kolkata, India.
11. Sourav Mondal, Nilanjan De and **Anita Pal**, Neighborhood M-polynomial of Titanium compounds, *Frontiers of Operations Research and Business Studies (FORBS 2019)*, Calcutta Business School, Kolkata, India.
12. Kartick Mohanta, Arindam Dey and **Anita Pal**, Picture Dombi Fuzzy Graph, *Frontiers of Operations Research and Business Studies (FORBS 2019)*, Calcutta Business School, Kolkata, India.
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14. Mukhopadhyay, J., Singh, V. K., Mukhopadhyay, S., & **Pal, A.** (2020, October). A Balanced Dissemination of Time Constraint Tasks in Mobile Crowdsourcing: A Double Auction Perspective. In *International Conference on P2P, Parallel, Grid, Cloud and Internet Computing* (pp. 74-85). Springer, Cham. (3PGCIC 2020).
15. Prosanta Sarkar, Nilanjan De and **Anita Pal**, Significance of the fourth atom bond connectivity index in predicting the physicochemical properties of polycyclic aromatic hydrocarbons, *MOL2NET*, 7(2021), 1-17. (Book Chapter).
16. Debasis Chanda, Prosanta Sarkar, Anita Pal, Applications of Graph Topology in Manufacturing of Anti Cancer Drugs, *Proceedings of 22nd International Conference, CISIM 2023 Tokyo, Japan, September 22-24, LNCS Springer, 2023, 341-353.*
17. Anita Pal, Modeling of Real-Life Problems Using the Graph-Theoretic Approach, *Proceedings of 22nd International Conference, CISIM 2023 Tokyo, Japan, September 22-24, LNCS Springer 2023.*

Publication of Books

1. *M Pal and Anita Pal, Engineering Mathematics, Vol. I*, PHI Learning, New Delhi, January 2010.
2. *M Pal and Anita Pal, Engineering Mathematics, Vol. II*, PHI Learning, New Delhi, 2011.
3. **Anita Pal, Some Sequential and Parallel Algorithms on Intersection Graphs**, Lambert Academic Publisher, Germany, 2011.
4. **Guest Editor** of Annals of Pure and Applied Mathematics, House of Scientific Research, Vol 5, Number 1, 2013.
5. A chapter in the book **Rough Sets, Fuzzy Sets and Soft Computing**, Narosa Publishing house, New Delhi, Feb 2015.
6. M. Pal, S. Samanta and **Anita Pal**, Handbook of Research on Advanced Applications of Graph Theory in Modern Society, IGI Global, USA, Aug 2019.

Projects

- (a) Title of the project: Solution of Some Optimization Problems Using Graph Theoretic Approach
P.I. : Dr. Anita Pal
Funding agency: Department of Science and Technology, New Delhi.
Project cost : Rs. 10.56 lakh.
Duration : 3 years.
Date of commencement: 01.12.2006.
End Date: 30 Nov 2009
- (b) Title of the project: L(h,k)-labelling on intersection graphs
Sponsored by : DST, New Delhi
Co-PI : Dr. Anita Pal
Duration : 3 years
Funding Amount : Rs. 8,71,600/-
Date of commencement: 01.04.2011.
End Date: 11 June 2014
- (c) Title of the project: Graph labeling and its applications
P.I. : Dr. Anita Pal
Funding agency: Department of Science and Technology, New Delhi.
Project cost : Rs. 17.91 lakh.
Duration : 3 years.
Date of commencement: 01.12.2015.
End Date : 30 Nov 2018

Ph.D. Guidance

- Total no. of students awarded: 14
- Total no. of students submitted: 00
- Total no. of students ongoing: 05

MTech/MSc Thesis supervised

- Total no. of students completed: 38
- Total no. of students ongoing: 3

Examiner of PhD thesis / PhD Viva voce

- Total no. of PhD thesis evaluated : 66
- Total no. of PhD viva voce conducted: 18

Life Membership in the Following Organizations

- Operational research society of India (ORSI)
- Indian Mathematical society (IMS)
- Academy of Discrete Mathematics and its application (ADMA)
- Calcutta Mathematical Society (CMS)
- Indian Society for Technical Education (ISTE)

Best Paper Awards

1. Presented a paper entitled “A novel Approach to find shortest path of a network using A* algorithm” on IEEE CALCON 2014, organized by IEEE Kolkata Section, Nov 7-8, 2014, Kolkata, and won the best paper award.
2. Presented a paper entitled “Participatory Sensing System in Presence of Multiple buyers”, on IEEE Eleventh International Multi-Conference IMCIP-2015, August 21-23, 2015, Bangalore, and won the best paper award.
3. Presented a paper entitled “L(2,1)-Labeling of Cartesian Product of Complete Bipartite Graph and Path”, NCCSPAM during 22-23, December 2016 and won the best paper award.

4. Presented a paper entitled “Neighborhood M-Polynomial of Titanium Compounds” on FORBS 2019, organized by Calcutta Business School, Dec 27-28, 2019, and won the best paper award.

Seminar/ Conference/ Workshop Organized (Last 7 years 2017-23)

Total Seminar/ Conference/ Workshop Organized: 37

1. Organized Industrial tour to Bakreswar Thermal power plant, Bakreswar for M.Tech and M.Sc. students on 16.01.2017.
2. Organized one day lecture on “Non-linear equations of turbulent open channel flows”, on 17 March 2017 as convener.
3. Organized one day lecture on “A Multi Colored Graph: does it have predecessor and/or successor”, on 5th December 2017 as coordinator.
4. Organized three weeks workshop on Induction training program for Faculty in Universities/colleges/Institutes of Higher Education in collaboration with IIT Kharagpur during 30 June -21 July 2018 sponsored by MHRD.
5. Organized Induction for B.Tech First year students of NIT Durgapur during 24-29 July 2018.
6. Organized Induction for B.Tech First year students of NIT Durgapur during 29 July -04 August 2019.
7. Organized International Conference FORBS 2019 jointly with CBS Kolkata during 27-28 Dec 2019.
8. Organized one week workshop on Women Empowerment in India: Challenging Obstacles and Creating Opportunities WEICOCO 2020 under TEQIP III during 06-10 Jan 2020.
9. Organized Two-day national webinar on Optimization problem and its applications (WOOPA-2021) during 18-19 April 2021.
10. Organized One day national webinar on Multi Criteria Decision Making Models and Applications (MCDMA-2021) on 6th September, 2021.
11. Organized B. Tech, PG & PhD induction programme on 17th September, 2021.
12. Organized National Webinar on Solving Real Life Problems with Non-linear Optimization Models (NOMO-2022) on 24th April, 2022.
13. Organized First International Conference on Strategic HR Under Technological Innovation (SHRUTI -2022) during 10-12 March, 2022.
14. Organized a Webinar on Master Class on Research Paper Writing on 23rd July, 2022.
15. Organized a Webinar on Stochastic Optimization & Machine Learning (SOME-2022) on 16th July 2022 jointly with ORSI Durgapur chapter as a convener.
16. Organized a National Conference on Science Technology and Management-2022 (NCSTM-2022) during 08-09 July, 2022.
17. Organized a one-day seminar on One-day seminar on Biometrics-Theory and Applications on 12th September, 2022, as a convener.
18. Organized a one-day seminar on One-day seminar on Sonic Therapeutic Intervention for Global Peace and Harmony on 15th September, 2022, as a convener.
19. Organized a one-day seminar on One-day seminar on Research problems in Graph Theory on 2nd November, 2022, as a convener.
20. Organized a one-day seminar on One-day seminar on Positivity in Negative Situations on 9th November, 2022, as a convener.
21. Organized Induction for B.Tech First year students of NIT Durgapur as coordinator during 17-18 November 2022.
22. Organized a one-day seminar on One-day seminar on Tips to step your life in 20's on 23rd March, 2023, as a convener.

23. Organized Induction program for B.Tech First year students of NIT Durgapur as coordinator during 24-26 August 2023.

Seminar/ Conference/ Workshop attended (Last 7 years 2017-23)

Total Seminar/ Conference/ Workshop attended: 62

1. Short term course under Continuing Education Programme on Management Capacity Development during 02-04 March 2017 organized by Department of Management Studies, IIT Delhi.
2. Faculty Development Program on Pedagogy during 24-25 March 2017 organized by National Institute of Technology Durgapur, under TEQIP-II.
3. Technical Education Quality Improvement Programme (TEQIP) Phase-III Ministry of HRD, Govt. India, through National Project Implemented Unit during 15-17 September 2017 organized by Indian Institute of Technology (BHU) Varanasi.
4. STEM Teacher Training Workshop on Research Based Pedagogical Tools during 06-09 October 2017, organized by Pt. Ravishankar Shukla University, Raipur, Chhattisgarh.
5. International Conference on Advanced Computational and Communication Paradigms (ICACCP-2017) during 08-10 September 2017 organized by Sikkim Manipal Institute of Technology and presented a paper titled "Signed Product and Total Signed Product Cordial Labeling of Cartesian product Between Balanced Bipartite Graph and Path".
6. 5th International Doctoral Symposium on Applied Computation and Security Systems (ACSS-2018) on 9-11 February 2018, organized by University of Calcutta, has participated and presented a paper titled "Exact L (2,1) Labeling of Cartesian Product Between Complete Bipartite Graph and Path".
7. International Conference on Communication, Management and Information Technology, ICCMIT 2018, April 02-04, 2018, Madrid, Spain, organized by Universidad Politecnica de Madrid and presented a paper titled "Analysis of Faculty Teaching Using Multi-Criteria Decision-Making Approach".
8. Workshop on Women in India: Issues at Workplace, August 18-19, 2018, organized by National Institute of Technology, Durgapur.
9. All India NIT Students' Conference during September 15-16, 2019, organized by NIT Surat.
10. International Conference on Computer Applications in Industry and Engineering, CAINE 2019, September 30 – October 02, 2019, San Deigo, USA organized by ISCA, USA.
11. Webinar on three days online Basic Optimization Technology Workshop from 04 May, 2020 to 06 May, 2020 organized by REST Society for Research International (RSRI), Krishnagiri, Tamil Nadu, India.
12. One day National Webinar on Mathematics in Machine Learning workshop on May 20, 2020 organized by the Department of Mathematics, SSN College of Engineering, Kalavakkam-603110.
13. The webinar series on Current Trends and Future Technologies in Computing organized by the Internal Quality Assurance Cell (IQAC) of Usha Pravin Gandhi College of Arts, Science & Commerce, in association University Department of

- Information Technology (UDIT), University of Mumbai held from 8th May to 13th May 2020.
14. International Webinar on "Mathematical Modeling and Multidisciplinary Mathematics" organized by Mathematics of Centre of Education, IITE during May 02-03, 2020.
 15. Two-week Online Workshop on "Comprehensive e-Learning to e-Training guide for Administrative Work" organized by Teaching Learning Centre, Ramanujan College, University of Delhi funded by MHRD, Govt. of India during 25th May to 05th June 2020.
 16. One-week online workshop on "Recent Trends in Domination in Graphs: Algorithms, Complexity and Applications WRTDG 2020" organized by Dept of Computer science and Engineering in association with Centre for Continuing Education, NIT Warangal during 15th to 19th June 2020.
 17. A webinar on "Employability Skills for New Age Technical Graduates" organized by National Institute of Technical Teachers' Training and Research, Bhopal, India during 13 July 2020.
 18. A webinar on "Professional Etiquettes Development Among Students" organized by National Institute of Technical Teachers' Training and Research, Bhopal, India during 16 July 2020.
 19. Participated as resource person, for the virtual workshop on collating Mathematics resources for teachers in higher education during 6th -7th October, 2020 organized by the National Resource Centre for Education, NIEPA, New Delhi, India.
 20. Participated in One-Day webinar on "Optimization Problem & Its Application WOOPA-2021" on 18th April 2021 organized by ORSI Durgapur Chapter.
 21. Participated in One-Day webinar on "Optimization through real life application & implementation WOORA-2021" on 25th July 2021 organized by ORSI Durgapur Chapter.
 22. Participated in AICTE sponsored five days online faculty development program on Examination Reforms during 24-28 January 2022 organized by Dept. of Mathematics, NIT Agartala.
 23. Participated in National Webinar on "Solving Real Life Problems with Non-Linear Optimization Models" (NOMO-2022) on 24th April 2022 organized by ORSI Durgapur Chapter.
 24. Participated in National Conference on Science Technology and Management-2022 (NCSTM-2022) during 08-09 July, 2022 organized by NSHM Knowledge Campus in collaboration with ORSI Durgapur Chapter and presented a paper entitled "Applications of Graph Theory in Detection of Illegal Weapons in Import or Export through Dock".
Participated in One week Faculty Development Programme on "National Education Policy - 2020" from 25 June -01 July 2023 organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education PMMMNTT.

Invited Talks (Last 7 years 2017-23)

1. Delivered an Invited Talk on "Graph Theory and its applications" and research discussion during 17-21 Feb 2017 in the department of Mathematics, National Institute of Technology Agartala.

2. Chaired a technical session in the International Conference on Emerging Trends in Computing, Communication and Control (ICETC3-2017) during March 15-16, 2017 organized by Department of ECE & CSE, NSHM Knowledge Campus, Durgapur.
3. Delivered an Invited Talk on “Applications of Graph and Fuzzy Graph” in Seminar on Applications of Mathematics and Chemistry in Technology and Management on 08 November, 2017 organized by NSHM Durgapur.
4. Delivered an Invited Talk on “INTERNATIONAL CONFERENCE ON CURRENT SCENARIO IN PURE AND APPLIED MATHEMATICS (ICCSPAM 2018)” on 14th – 16th, February 2018 organized by Kongunadu Arts and Science College, Coimbatore.
5. Served as chairperson of technical session of National Conference on “Applications of Optimization Techniques to Engineering and Management Sciences” during 15-16 November 2018 organized by NSHM Knowledge Campus Durgapur.
6. Delivered an Invited Talk on “Graph Theory and its applications” on 08 Feb 2019 in the department of Mathematics, National Institute of Technology Sikkim.
7. Delivered an Invited talk on “Fuzzy minimum spanning tree to model “Fuzzy minimum spanning tree to model the pipe network at the water supply company” in the International Conference on Applied Mathematics in Science and Engineering (AMSE-2019) during October 24-26, 2019 organized by Centre for Applied Mathematics and Computing, Siksha ‘O’ Anusandhan University, Bhubaneswar.
8. Chaired a technical session in the International Conference on Applied Mathematics in Science and Engineering (AMSE-2019) during October 24-26, 2019, organized by Centre for Applied Mathematics and Computing, Siksha ‘O’ Anusandhan University, Bhubaneswar.
9. Chaired a session in the All-India NIT Students’ Conference during September 15-16, 2019, organized by NIT Surat.
10. Chaired a technical session in International Conference FORBS-2019 organized by CBS Kolkata jointly with ORSI Durgapur Chapter during 27-28 December, 2019.
11. Delivered an invited talk on “Graph coloring” in the national webinar entitled “Recent advancement in Pure & Applied Mathematics” during 10-11 July, 2020 organized by Narajol Raj College Midnapur.
12. Participated as a resource person and delivered an invited talk on “Graph coloring and its applications” in the Two-Day National Webinar on “Recent Development in Mathematics & Its Social Impact” organized by Sukumar Sengupta Mahavidyalaya, Keshpur, Paschim Medinipur, West Bengal, India during 8-9 August 2020.
13. Delivered an Invited talk on “Application of minimum spanning tree in water supply management” in the Two Days Webinar on Recent Advances in Mathematical Science during September 27-28, 2020 organized by Santal Bidroha Sardha Satabarshiki Mahavidyalaya.
14. Participated and chaired a session in the “Virtual Workshop on Domination Theory and Topological Indices” jointly organized by Department of Mathematics, Mangalore University, Mangalangothri and academy of Discrete Mathematics and applications (ADMA) during 04-06 February 2021.
15. Participated as a “Guest of Honor” and delivered an invited talk on “Development of Economy through Trade & Industry” organized by India International Grand Trade Fair (IIGTF), during 5 -15 Feb 2021, Gandhi Maidan, Durgapur, India.
16. Participated as a resource person and delivered an Invited talk on “Graph Theory and its Applications” in the Lecture Series on Mathematics on 04.02.2021 organized by Theivanai Ammal College for Women Villupuram.
17. Delivered an Invited talk on “National Science Day Celebration 2021” on 28.02.2021 organized by Jawahar Navodaya Vidyalaya, Durgapur.
18. Delivered an Invited talk on “Abstracting and Indexing of Journals” in the One-Day National Webinar on Indexing and Referencing of Journals in Research (WIRJR-2021) on 07.03.2021 organized by ORSI Durgapur.
19. Delivered an Invited talk on “Women Empowerment” in the International Women’s Day on 08.03.2021 organized by Ankit Educational and Social Welfare Society, Durgapur.

20. Delivered an Invited talk on “Introduction to Graph Theory” in the virtual workshop on collating Mathematics resources for teachers in higher education during 6th -7th October, 2020 organized by the National Resource Centre for Education, NIEPA, New Delhi, India.
21. Delivered an Invited talk on “An application of fuzzy and neutrosophic logic on an economic order quantity model” in the RAMCO-2021 during 26th -28th October, 2021 organized by the School of Computational and Integrative Science, JNU, India jointly with International Academy of Physical Sciences (IAPS).
22. Delivered an Invited talk on “Indexing of Journals” in the One-day National Webinar on indexing and referencing of journals in research WIRJR 2021 on 07th March 2021, organized ORSI Durgapur chapter.
23. Chaired a technical session in the RAMCO-2021 during 26th -28th October, 2021 organized by the School of Computational and Integrative Science, JNU, India jointly with International Academy of Physical Sciences (IAPS).
24. Delivered an Invited talk on “A study of fuzzy and neutrosophic economic order quantity model allowing delay in payment” in the CONIAPS-2021 during 26th -28th October, 2021 organized by NIT Agartala.
25. Chaired a technical session in the CONIAPS-2021 during 26th -28th October, 2021 organized by NIT Agartala.
26. Delivered an Invited talk for showcasing the talents of school students in the Kula Asman during 13th -14th January 2022 organized by NSHM Knowledge Campus, Durgapur.
27. Delivered an Invited talk in the International Conference on Recent Trends in Applied Mathematics (ICRTAM’22) during 10th -11th February 2022 organized by Loyola College, Chennai, India.
28. Delivered an Invited talk in the International Women’s Day-2022 on 9th March, 2022 organized by Asansol Institute of Engineering and Management-Polytechnic.
29. Delivered an Invited talk on “Optimization Using Graph Theory” in the 5-day Online Faculty Development Program on Emerging Technologies during 8th -12th March, 2022 organized by Dr. B. C. Roy Engineering College, Durgapur.
30. Delivered an Invited talk in the International Conference on Emerging Trends in Applied Mathematics during 25th -26th March, 2022 organized by Mount Carmel College, Bengaluru.
31. Delivered an Invited talk on “Modelling of Real Life Problems Using Graph Theoretic Approach” in the International Conference on Emerging Trends in Applied Mathematics during 21th -22th April, 2022 organized by Mount Carmel College, Bengaluru.
32. Delivered an Invited talk on “The Importance of Research and ORSID’s Contribution in This Field” in the Fundamental Research Using Application Software on 20th June, 2022 organized by Dr. B. C. Roy Engineering College, Durgapur in collaboration with ORSI, Durgapur Chapter.
33. Delivered an Invited talk in the International Conference on Computer Information Systems and Industrial Management-CISIM during 15th -17th July, 2022 organized by Universidad De La Costa, Colombia in collaboration with Bialystok University of Technology, Poland.
34. Delivered an Invited talk on “Graph Theory and Its Real-Life Applications” in the 5-Days National Workshop on Recent Research Trends in Computer Science and Engineering (Online) during 26th -30th July, 2022 organized by VIT AP University.
35. Delivered an Invited talk on “Graph Theory - Applications” in the Refresher Course in Mathematics and Statistics on 2nd August 2022 organized by Bharathiar University, Tamilnadu.
36. Participated as a resource person and delivered an Invited talk on “Optimization Using Graph Theory” in the two days’ workshop on Application of Optimization Techniques in Engineering and Social Sciences on 18th November 2022, organized by NSHM Knowledge Campus, Durgapur.

37. Delivered an Invited talk on “Modelling of Graphs in Real Life” in International Conference on Green Supply Chain Management: New Challenges to Sustain Green Environment on 19th November, 2022 organized by Kazi Nazrul University.
38. Chaired a technical session in the 2nd International Conference on Intelligent Vision and Computing (ICIVC 2022) on 26th November, 2022 organized by NIT Agartala.
39. Delivered an Invited talk on “Fuzzy graph theory and its applications” in International Conference on Applied Mathematics and Computing during 27th & 28th Feb, 2023 organized by DDGD Vaishnav College, Chennai.
40. Delivered an Invited talk on “Fuzzy graph theory” in International Mathematics Webinar on Advances of Soft Computing on 12 June 2023 organized by MDPI and the Journal *Mathematics*.
41. Delivered an Invited talk on “A study on the Economic order quantity model in a Fuzzy and neutrosophic environment” in International Workshop on Advanced Trends in Computational Mathematics (ATCM-2023) during 4th & 5th August 2023 organized by Department of Mathematics, KL University, Vijayawada, AP.
42. Delivered an invited lecture on” Modeling of Real-Life Problems Using the Graph-Theoretic Approach” in the international conference “22nd International Conference on Computer Information Systems and Industrial Management Applications (CISIM 2023 Conference)”, during September 22-24 organized by Tokyo Metropolitan University, Tokyo, Japan.
43. Delivered an invited lecture on “Application of Graph Theory in Computer Science and Engineering” in Vellore Institute of Technology on 3rd November, 2023.
44. Chaired a session titled TS 08: Emergies in the 3rd International Conference on Intelligent Vision and Computing (ICIVC 2023) held during November 25-26, 2023

Foreign Collaborators

1. Prof. J. Vicente de Julian-Ortiz, University of Valencia, Spain
2. Prof. Hoang Viet Long, Ton Duc Thang University, Ho Chi Minh City, Vietnam.
3. Prof. Jeong gon Lee, Wonkwang University, South Korea
4. Prof. Ismail naci Cangul, Bursa Uludag University, Turkey.
5. Prof. Cen Zuo, Chongqing College of Electronic Engineering, China.
6. Prof. Hossein Rashmanlou, Shahid Beheshti University, Iran.
7. Prof. Wei Gao, Yunnan Normal University, China.
8. Prof. Muhammad Imran, United Arab Emirates University, UAE.
9. Prof. Kinkar Chandra Das, Sungkyunkwan University, South Korea.
10. Prof. Michael Gr. Voskoglou, Graduate Technological Educational Institute (T.E.I.) of Western Greece, Patras, Greece.
11. Prof. Narayan C. Debnath, Winona State University, USA.

Foreign visits

1. Italy (2009):

Visited the Institute on Membrane Technology, Department of Chemical Engineering and Materials, Department of Mathematics, during March 05-20.

2. **China (2010):**
Participated in *International Conference on Electronic Business Intelligence*, **Org. by the CNAIS, Kunming, China** during December 19-21.
3. **Bangladesh (2011):**
 - (a) Delivered an Invited Talk on “Some applications of Graphs” on 19.03.2011 in the department of Mathematics, **Rajshahi University**, Rajshahi, Bangladesh.
 - (b) Delivered an Invited Talk on “Applications of Graphs in Real World” on 21.03.2011 in the department of Mathematics, **Jagannath University**, Dhaka, Bangladesh.
4. **Thailand (2011):**
Participated in *International Conference on Power and Energy Engineering*, **Org. by the IACSIT, Bangkok, Thailand** during July 29-31.
5. **Singapore (2011):**
Participated in *International Conferences ICOACE, CHCC-ICTMF, ICMEAT*, **Org. by Intelligent Information Technology Application Research Association, Singapore**, during May 05-06, and presented the paper entitled “Efficient Algorithm to Solve k-Domination on Permutation Graphs”.
6. **Malaysia (2011):**
Participated in *International Conference on Communication and Broadband Networking*, **Org. by IACSIT, Kuala Lumpur, Malaysia**, during June 17-19.
7. **Oman (2012):**
Delivered few lectures on Fourier series and Applications during 01.12.2012 to 05.12.2012 in the Department of Mathematics, **Caledonian College of Engineering**, Oman, Muscat.
8. **London (2013):**
Participated in *Science and Information Conference*, organized by Science and Information Organization, London, U.K., during October 07-09, presented a paper titled “Concepts of Fuzzy Planar Graphs”.
9. **USA (2014):**
Participated in the *International Conference on Computers and Their Applications*, **Org. by the International Society for Computers and Their Applications, Las Vegas, USA** during March 24-26.
10. **Hongkong (2014):**
Participated in *International Conference on Energy and Environmental Engineering*, **Org. by Science and Information Organizer, Hongkong**, during September 20-21, and presented the paper entitled “Searching Shortest Path in a Network Using Modified A* Search Algorithm”.
11. **Dubai (2015):**
Participated in *International Conference on Computer, Electrical, Electronic and Mechanical Engineering*, **Org. by International Scientific Academy of Engineering & Technology, Dubai (UAE)**, during May 20-21, and presented the paper entitled “The Effect of Globalization on Silk Weaver Using Fuzzy Models”.
12. **Bangladesh (2016):**
Delivered an Invited Talk on “Application of Graphs” on 07.02.2016 in the department of Mathematics, **Khulna University**, Bangladesh.

13. Greece (2016):

- (a) Delivered an invited lecture on “*Introduction to Fuzzy Graph Theory*” in Department of Computer Science, **Technological Educational Institute, Patras, Greece** on 24.05.2016.
- (b) Delivered an invited lecture on “*Fuzzy Graph and Fuzzy Planar Graph*” in Department of Business Administration, **Technological Educational Institute of Athens, Athens, Greece** on 26.05.2016.

14. Spain (2018):

Participated in *International Conference on Communication Management and Information Technology*, **Org. by Technical University of Madrid, Spain**, during April 02-04, and presented the paper entitled “Analysis of Faculty Teaching Using Multi Criteria Decision Making Approach” , during April 02-04

15. USA (2019):

Participated in *International Conference on Computer Applications in Industry and Engineering*, **Org. by the International Society for Computers and Their Applications, Minnesota, USA** during September 30- October 02.

16. Japan (2023):

Delivered an invited lecture in the international conference “22nd International Conference on Computer Information Systems and Industrial Management Applications (CISIM 2023 Conference)”, Tokyo Metropolitan University, Tokyo, Japan, during September 22-24.

Outreach Activity

- Acted as Honorary Secretary in Operational Research Society of India (ORSI) Durgapur chapter from 2018 to 2023.
- Acting as Vice President in Operational Research Society of India (ORSI) Durgapur chapter since November 2023.
- Acted as Board member in Purbachal Ananda Foundation, a Non-Profit Organization NGO (working for deprived man, woman and children) from 2009 to 2021.
- Acting as Vice President in Purbachal Ananda Foundation, an NGO since 2021.
- External Member of Gender Sensitization and Sexual Harassment cell of Durgapur Government College, Durgapur.

Anita Pal