List of Publications

- **Published/Accepted in Journals :**

1. L. Sunil Chandran, Uttam K. Gupta, **D. Pradhan**, List recoloring of planar graphs, **Discrete Applied Mathematics**, 363 (2025) 71–87
   DOI: 10.1016/j.dam.2024.11.031
2. M. A. Henning, P. Maniya, **D. Pradhan**, Paired versus double domination in forbidden graph classes, **Computational and Applied Mathematics**, 44 (2025) 71
   DOI: 10.1007/s40314-024-03025-6
3. D. Bakhshesh, M. A. Henning, **D. Pradhan**, Singleton coalition graph chains, **Computational and Applied Mathematics**, 43 (2024) 85
   DOI: 10.1007/s40314-023-02588-0
4. P. Maniya, **D. Pradhan**, Towards the conjecture on domination versus edge domination in graphs, **Bulletin of Malaysian Mathematical Sciences Society**, 47 (2024) 21
   DOI: 10.1007/s40840-023-01626-8
5. D. Bakhshesh, M. A. Henning, **D. Pradhan**, On the coalition number of trees, **Bulletin of Malaysian Mathematical Sciences Society**, 46 (2023) 95
   DOI: 10.1007/s40840-023-01492-4
6. Uttam K. Gupta, **D. Pradhan**, Strenthening Brooks' chromatic bounds on P_6-free graphs, **Discrete Applied Mathematics** 342 (2024) 334–346
   DOI: 10.1016/j.dam.2023.09.031
7. S. Banerjee, J. Chaudhary, **D. Pradhan**, Unique response Roman domination: Complexity and algorithms, **Algorithmica** (2023)
   DOI: 10.1007/s00453-023-01171-7
8. Uttam K. Gupta, S. Mishra, **D. Pradhan**, Cops and robber on subclasses of P_5-free graphs, **Discrete Mathematics**, 346 (2023) 113353
   DOI: 10.1016/j.disc.2023.113353
9. J. Chaudhary, **D. Pradhan**, Roman {3}-domination in graphs: Complexity and algorithms, **Discrete Applied Mathematics** (2022)
   DOI: 10.1016/j.dam.2022.09.017
10. **D. Pradhan**, S. Banerjee, J.-B. Liu, Perfect Italian domination in graphs: complexity and algorithms, **Discrete Applied Mathematics**, 319 (2022) 271-295
    DOI: 10.1016/j.dam.2021.08.020
11. B. S. Panda, P. Goyal, **D. Pradhan**, Differentiating-total domination: approximation and hardness results, **Theoretical Computer Science**, 876 (2021) 45-58
    DOI: 10.1016/j.tcs.2021.05.021
12. S. Paul, **D. Pradhan**, S. Verma, Vertex-edge domination in interval graphs and bipartite permutation graphs, **Discussiones Mathematicae Graph Theory** 43(4) (2023) 947–963.
    10.7151/dmgt.2403

13. M. A. Henning, S. Pal, **D. Pradhan**, Hop domination in chordal bipartite graphs, **Discussiones Mathematicae Graph Theory**, 43(3) (2023) 825–840.
DOI: 10.7151/dmgt.2403

14. S. Banerjee, M. A. Henning, **D. Pradhan**, Perfect Italian domination in cographs, accepted in **Applied Mathematics and Computation**, 391 (2021) 125703
DOI: 10.1016/j.amc.2020.125703

15. H. N. Kumar, **D Pradhan**, Y. B. Venkatakrishnan, Double vertex-edge domination in graphs: complexity and algorithms, **Journal of Applied Mathematics and Computing**, 66 (2021) 245–262
DOI:10.1007/s12190-020-01433-5

16. Uttam K. Gupta, **D. Pradhan**, Borodin–Kostochka's conjecture on (P_5, C_4)-free graphs, **Journal of Applied Mathematics and Computing**, 65 (2021) 877–884
DOI:10.1007/s12190-020-01419-3

17. **D. Pradhan**, S. Pal, An $O(n+m)$ time algorithm for computing a minimum semitotal dominating set in an interval graph, **Journal of Applied Mathematics and Computing**, 66 (2021) 733-747
DOI: 10.1007/s12190-020-01459-9

18. A. Jha, **D. Pradhan**, S. Banerjee, Algorithm and hardness results on neighborhood total domination in graphs, **Theoretical Computer Science**, 840 (2020) 16–32.
DOI:10.1016/j.tcs.2020.05.002

19. M. A. Henning, **D. Pradhan**, Algorithmic aspects of upper paired-domination in graphs, **Theoretical Computer Science**, 804 (2020) 98–114.
DOI: 10.1016/j.tcs.2019.10.045.

20. M. A. Henning, S. Pal, **D. Pradhan**, Algorithm and hardness results on hop domination in graphs, **Information Processing Letters**, 153 (2020) 105872
DOI: 10.1016/j.ipl.2019.105872.

21. M. A. Henning, S. Pal, **D. Pradhan**, The semitotal domination problem in block graphs, **Discussiones Mathematicae Graph Theory**, 42(1) (2022) 231–248
DOI:10.7151/dmgt.2254.

22. S. Banerjee, M. A. Henning, **D. Pradhan**, Algorithmic results on double Roman domination in graphs, **Journal of Combinatorial Optimization**, 39 (2020) 90–114.
DOI: 10.1007/s10878-019-00457-3.

23. S. Banerjee, J. Mark Keil, **D. Pradhan**, Perfect Roman domination in graphs, **Theoretical Computer Science**, 796 (2019) 1-21.
DOI: 10.1016/j.tcs.2019.08.017.

24. Anupriya Jha, **D. Pradhan**, and S. Banerjee, The secure domination problem in cographs, **Information Processing Letters**, 145 (2019) 30-38.
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25. **D. Pradhan** and B. S. Panda, Computing a minimum paired-dominating set in strongly orderable graphs, **Discrete Applied Mathematics**, 253 (2019) 37-50.
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26. S. Pal, **D. Pradhan**, The strong domination problem in block graphs and proper interval graphs, **Discrete Mathematics, Algorithms and Applications**, (2019)
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27. **D. Pradhan** and Anupriya Jha, On computing a minimum secure dominating set in block graphs, **Journal of Combinatorial Optimization**, 35 (2018) 613-631.
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28. J. Mark Keil, Joseph B. Mitchell, **D. Pradhan**, and M. Vatshelle, An algorithm for the maximum weight independent set problem on outerstring graphs, **Computational Geometry: Theory and Applications**, 60 (2017) 19-25.
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29. **D. Pradhan**, On the complexity of minimum outer-connected dominating set problem in graphs, **Journal of Combinatorial Optimization**, 31 (2016) 1-12.
DOI:10.1007/s10878-013-9703-z .

30. B. S. Panda and **D. Pradhan**, A linear time algorithm to compute a minimum restrained dominating set in proper interval graphs, **Discrete Mathematics, Algorithms and Applications**, 7(2) (2015) 1550020
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31. B. S. Panda, S. Paul, and **D. Pradhan**, Hardness results, approximation algorithms and exact algorithms for liar's domination problem in graphs, **Theoretical Computer Science**, 573 (2015) 26-42.
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32. J. Mark Keil and **D. Pradhan**, Computing a minimum outer-connected dominating set for the class of chordal graphs, **Information Processing Letters**, 113 (2013) 552-561.
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33. B. S. Panda and **D. Pradhan**, A linear time algorithm for computing a minimum paired-dominating set in convex bipartite graphs, **Discrete Applied Mathematics**, 161 (2013) 1776-1783.
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34. B. S. Panda and **D. Pradhan**, Minimum paired-dominating sets in chordal bipartite graphs and perfect elimination bipartite graphs, **Journal of Combinatorial Optimization**, 26 (2013) 770–785.
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35. **D. Pradhan**, Algorithmic aspects of k-tuple total domination in graphs, **Information Processing Letters**, 112 (2012) 816-822.
DOI: 10.1016/j.ipl.2012.07.010.

36. Gerard J. Chang, B. S. Panda, and **D. Pradhan**,Complexity of distance paired-domination problem in Graphs, **Theoretical Computer Science** 459 (2012) 89-99.
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37. **D. Pradhan**, Complexity of certain functional variants of total domination in chordal bipartite graphs, **Discrete Mathematics, Algorithms and Applications**, 4 (3)(2012) 1250045
DOI: 10.1142/S1793830912500450.

38. B. S. Panda and **D. Pradhan**, Acyclic matchings in subclasses of bipartite graphs, **Discrete Mathematics, Algorithms and Applications**, 4(4) (2012) 1250050
DOI: 10.1142/S1793830912500504.

39. B. S. Panda and **D. Pradhan**, Locally connected spanning trees in cographs, complements of bipartite graphs and doubly chordal graphs, **Information Processing Letters**, 110 (2010) 1067-1073.
DOI: 10.1016/j.ipl.2012.07.010.

- **Papers published in Conference Proceedings :**

1. S. Banerjee, Anupriya Jha, **D. Pradhan**, Algorithmic aspects of neighborhood total domination in graphs, Colonge-Twente Workshop(**CTW**)-2018.

2. J. Mark Keil, Joseph B. Mitchell, **D. Pradhan**, and M. Vatshelle, An Algorithm for the Maximum Weight Independent Set Problem onOutersting Graphs, Proc. of Canadian Conference on Computational Geometry (**CCCG**) 2015.