# **CURRICULUM VITAE**

1.Name : R. KALA

**2. Designation** : Professor

3. Address : Department of Mathematics

Manonmaniam Sundaranar University,

Tirunelveli – 627 012

**4. Date of birth** : 30.05.1967

**5. Academic Qualifications** : M. Sc, M. Phil, M. Ed, Ph. D

6. Academic achievements :

III Rank in B. Sc Mathematics (1984-1987, Holy Cross College) VIII Rank in M. Sc Mathematics (1987-1989, Holy Cross College) II Rank in M. Phil Mathematics (1989-1990, M. K. U)

**7. Area of research** : Graph theory

#### 8. Job Positions:

a) Worked as a Lecturer (permanent) in the Department of Mathematics, Sri Parasakthi College for women, Courtallam from 10.07.1996 to 21.03.2000.

- b) Joined as Lecturer in the Department of Mathematics, Manonmaniam Sundaranar University, Tirunelveli on 22.03.2000.
- c) Promoted as Reader in the Department of Mathematics, Manonmaniam Sundaranar University, Tirunelveli from 10.07.2005 to 09.07.2008.
- d) Promoted as Associate Professor in the Department of Mathematics, Manonmaniam Sundaranar University, Tirunelveli from 10.07.2008 to 09.07.2011
- e) Promoted as Professor in the Department of Mathematics, Manonmaniam Sundaranar University, Tirunelveli from 10.07.2011 to till date.

9. Teaching Experience : 27 years (10.07.1996 to till date )

10. Research Experience : 32 years

11. Research Guidance : Ph.D

Completed (as a guide) – 14 Completed (as a co-guide) – 17

Submitted - 2

Number of scholars pursuing research(as a guide): 7

#### 12. Publications:

Number of articles published in referred journals: 149

No. of BooksPublished: 3.

### 13. Number of Conferences (National and International ) attended: 143

14. h- index 14 i10 index 24

No. of citations -736

**Erdos Number-** 3

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### **15. Research Projects:**

1. Co-Investigator of a project of Department of Science and technology entitled "Reconstruction of graphs and N- reconstruction of digraphs."

Project period: 2011-2014 Total amount : Rs. 8, 99, 280

2. Co-Investigator of a project of Department of Science and technology entitled "Reconstruction of graphs and digraphs from (degree associated) subgraphs"

Project period: 2016-2019 Total amount: Rs. 9, 93, 300

3. Co-Investigator of a project of Science and Engineering Research Board of Department of Science and technology entitled "Generalized Additive graphs from Commutative rings"

Project period: 2021-2024 Total amount: Rs. 18,38,122

### **List of Research Publications in International Journals:**

- **1.** Kala, R. and S.Arumugam, Domination parameters of Star graphs, **ArsCombinatoria**, Volume 44 (1996), pp.93-962.
- 2. Kala, R. and S.Arumugam, Domination Parameters of Hypercubes, **Journal of the Indian Mathematical Society**, Vol 65, No.1-4 (1998).
- 3. Kala, R., and S.Arumugam, Domsaturation number of a graph, Indian Journalof pure and applied Mathematics, 33(ii):1617-1676, Nov.2002
- 4. Kala, R., and Arumugam, S., (2002):Connected domsaturation number of agraph, IndianJournal pureappliedMathematics, 35(10):1215-1676November 2002.

- 5. Kala, R., and Arumugam, S., (2006): Menger sets in graphs, **Indian Journal of Mathematics**, Volume-48, Number 3, December 2006.
- 6. Kala, R., and Nirmala Vasantha, T.R., :Restrained double dominationnumber of a graph, **AKCE International journal of graphs andCombinatorics**5, No.1(2008), pp.73-82.
- 7. Sattanathan, M and Kala, R., An introduction to order prime graph, **International Journal** of Contemporary Mathematical Sciences, Vol.4, 2009, No.10, 467-474
- **8.** Kala, R., and Arumugam, S., :Anote on global domination ingraphs, **ArsCombinatoria**, Volume 93, pp. 175-180(2009).
- 9. Kala, R.and NirmalaVasantha, T.R, restrained bondage number of a graph, **Journal of Discrete mathematical Sciences and Cryptography**, Vol.12, No.3, pp. 373-380 (2009).
- 10. Sattanathan, M and Kala, R., Degree prime graph, Journal of Discrete mathematical Sciences and Cryptography, Vol.12, No.2, pp. 167-173 (2009).
- 11. Kala, R., and NirmalaVasantha, T.R., : Global restrained domination Number of a graph, Algebra, graph theoryand their applications, narosa Publishing House, pp.39 -49 (2010).
- 12. John Arul Singh and R. Kala, Min-dom-colour number of a graph, International Journal of Contemporary Mathematical Sciences, Vol.5(2010), No. 41, 2019-2027
- 13. S. Ashaand R. Kala, Continuous monotonic decomposition of some special class of graphs, **International Journal of Mathematical Analysis**, Vol.4, No. 49-52, 2010
- 14. R. Ponraj, J. Vijaya Xavier Parthipan and R. Kala, Some results on Pair Sum labeling of graphs, International J. Math. Combin. Vol.4(2010), 53 –61
- 15. A. Nagarajan, S. Navaneetha Krishnan and R. Kala, The (a, d)- Ascending subgraph decomposition, International J. Math. Combin. Vol.2(2010), 81-94
- 16. Y. S. IrineSheela and R. Kala, Complementary signed Dominating functions in Graphs, International Journal of Contemporary Mathematical Sciences, Vol.6(2011), No.38, 1861-1870.
- 17. R. Ponraj, J. Vijaya Xavier Parthipan and R. Kala, A note on Pair- Sum graphs, **Journal of Scientific Research** 3(2) p.p.322-329 (2011)
- 18. P.Balakrishnan, M.Sattanathan and R. Kala, The center graph of a group, **South Asian Journal of Mathematics**, Vol.1(1), 21-28, 2011
- 19. K. Manickam, M. Marudai and R. Kala, Some Results on FelicitousLabeling of Graphs, J. Combin. Math. Combin. Comput.,81(2012), 273-279.
- 20. Y. S. IrineSheela and R. Kala, Complementary signed Domination number of certain Graphs, **International Journal of Mathematical Combinatorics**, Vol.3 (2011), pp. 34-46.

- 21. John Arul Singh and R. Kala, A note on dom-color number of a graph, **Indian Journal of Mathematics**, Vol53, No 3, 2011
- 22. R. Ponraj, J. Vijaya Xavier Parthipan and R. Kala, Some new families of PairSum Graphs, J. Math. Comput.Sci.2(2012), No. 3, p.p 747-758.
- 23. D. Nidha and R. Kala, A note on edge-domsaturation number of a graph, **Open Journal of Discrete mathematics**, 2012, 2, pp.109-113
- 24. P.Balakrishnan and R. Kala, The order difference interval graph of a group, **Transactions on combinatorics**, Vol.01, No. 2, pp 59-65, 2012.
- 25. V. Anusuya and R. Kala, A note on disjoint dominating sets in graphs, **International Journal of Contemporary Mathematical Sciences**, Vol.7, 2012, No.43, 2099-2110
- 26. S. Chelliah, M. Marudai and R. Kala, Best proximity point for mappings satisfying generalized contractive condition of rational type on a metric space, **Far East Journal of mathematical sciences (FJMS)**, Volume 69, Number 1, 2012, pp. 51-60
- 27. Vilfred, V, Kala, R and Suryakala, A, Decomposition of Integral sum graphsG<sub>0, n</sub> into Triangular books and Fan graphs, **Proceedings of the International Conference on Mathematics in Engineering And Business Management,** Stella Maris College, March 9-10, 2012
- 28. R.Ponraj, J.Vijaya Xavier Parthipan and R. Kala, Pair Sum labelling of some trees, **Journal of Indian Acad. Math.** Vol. 34, No. 2 (2012), pp.387-402
- 29. Raja Ponraj, JeyarajVijaya Xavier Parthipan and Rukhmoni Kala, Further results on Pair Sum Graphs, **Applied Mathematics**, Vol.3, Number 3, 2012, p.p 267-275.
- 30. R. Ponraj, S. Sathishnarayanan and R. Kala, Difference Cordial labeling of Graphs, **Global Journal of mathematical sciences,** Theory and Practical, Volume 5, Number 3 (2013), pp.185-196.
- 31. R. Ponraj, S. Sathishnarayanan and R. Kala, Difference Cordial labeling of Graphs obtained from double snakes, **International Journal of Mathematics Research**, Volume 5, Number 3 (2013), pp.317-322.
- 32. R. Ponraj, S. Sathishnarayanan and R. Kala, Difference Cordial labeling of subdivided graphs, **Scientia Magna**, Volume 9, Number 3 (2013), pp.57-66.
- **33.** R. Ponraj, S. Sathishnarayanan and R. Kala, Difference Cordial labeling of corona Graphs, J. .Math. Comput. Sci. 3 (2013), Number 5, pp.1237-1251.
- 34. V. Vilfred, R. Kala and A. Suryakala, (a, d)- Ascending Subgraph Decomposition of graphs  $K_n$  and  $G_{0,n}$ .
- 35. R. Kala and S. Kavitha, Nilpotent graphs of genus one, **Discrete Mathematics, Algorithms** and applications, Vol.6, No.3, 2014

- 36. R. Ponraj, S. Sathishnarayanan and R. Kala, On radio mean number of some graphs, **International Journal of Math. Combinatorics**, Vol.3, pp.41-48, 2014
- 37. R. Ponraj, S. Sathishnarayanan and R. Kala, Radio mean number of Some wheel relatedgraphs, **Jordan Journal of Mathematics and Statistics**, 7(4), pp.273-286, 2014
- 38. Y. Therese Sunitha Mary and R. Kala, Nonsplit domination number of agraph, **International Journal of computational and applied Mathematics**, Vol.9, No.1, pp 51-61, 2014
- 39. R. Ponraj, S. Sathishnarayanan and R. Kala, Difference cordial labelling of subdivision of snake graphs, **UniversalJournal of Applied Mathematics**, 2(1), pp.40-45, 2014
- 40. R. Ponraj, S.Sathishnarayanan and R. Kala, A note on difference cordial graphs, **Palestine Journal of Mathematics**, 4(1), pp.189-197, 2015
- 41. R. Ponraj, S. Sathishnarayanan and R. Kala, Difference cordiality of productrelated graphs, **Tbilisi Math. Journal**, 8(2), pp 41-47, 2015
- **42.** R. Kala and S. Kavitha, A typical graph structure of a ring, **Transactions on Combinatorics**, Vol.4(2), pp 37-44, June 2015
- 43. R. Ponraj, S. Sathishnarayanan and R. Kala, Radio mean labelling of a graph, **AKCE** International Journal of Graphs and combinatorics, 12 (2015), 224-228.
- 44. P. Uma and R. Kala, n-Path graph, **IOSR Journal of Mathematics**, Vol.11, Issue 1, 2015, pp. 51-57.
- 45. V. Anusuya and R. Kala, i(G) graph-G(i) of some special graphs, **IOSRJournal** ofMathematics, Vol.11, Issue 1, 2015, pp. 70-84.
- 46. R. Kala and S. Kavitha, Sum annihilating ideal graph of a commutative ring, **Palestine Journal of Mathematics**, Vol.5(2)(2016), p.p. 282-290
- 47. K. Manickam, M. Marudai and R. Kala, Some Results on super edge magic n-stars, **ARSCOMBINATORIA**, 126 (2016), pp 281-288
- **48.** R. Ponraj, Rajpal Singh and R. Kala, k- Prime Cordial graphs, **J. Appl. Math, & Informatics,** Vol.34(2016). No. 3-4, pp. 227-237
- 49. R. Ponraj, M. Maria Adaickalam and R. Kala, Quotient Cordial labeling ofgraphs, International J. Math. Combin. Vol. 1(2016), NO. 3-4, pp. 101-108
- 50. R. Kala and s. Kavitha, On the genus of the Cayley graph of a commutative ring, Discussionesmathematicae- General Algebra and applications, Vol.36, No.2, 2016, pp 147-155
- **51.** J. John Arul Singh and R. Kala, Hyperdomination in groups, **ARSCOMBINATORIA**, 125(2016), pp 97-108
- 52. R.Ponraj, M.MariaAdaickalam and R.Kala, k-difference cordial labeling of graphs, **International journal of mathematical combinatorics**, 2(2016), 121-131
- **53.** R. Kala and A. Mallika, Central sets and radii of  $\Gamma_1$  (R), **Palestine JournalofMathematics**, Vol.6(1)(2017), p.p. 271-279

- 54. S. Alagu and R. Kala, Asteroidal number of product of paths, **Journal of Mathematical and Computational Science**, Vol.7, No. 2, 2017, pp 307-320
- 55. R. Ponraj, K. Annathurai and R. Kala, k-Remainder Cordial, **Journal of Algorithms and computation**, 49(2), December 2017, pp. 41-52
- 56. S. Kavitha and R. Kala, On the genus of graphs from commutative rings, AKCE, International Journal of Graphs and Combinatorics(2017)http.//da.doi.org/10.1016/jakcej2016.11.006
- 57. A. Mallika and R. Kala, A note on zero-divisor graph of amalgamated duplication of a ringalong an ideal, AKCE International Journal of Graphs and Combinatorics, 14 (2017), pp 18-26
- 58. A. Mallika, R. Kala and K. Selvakumar, A note on ideal based zero-divisor graph of Commutative ring, Discussionesmathematicae General algebraand applications, 37(2017), pp 177-187.
- 59. R. Ponraj, S. Sathishnarayanan and R. Kala, Difference Cordial labelling of SomeSpecialgraphs, **PalestineJournal of Mathematics**, Vol.6, (Special Issue II) (2017), pp 135-140
- 60. A. Mallika and R. Kala, Rings whose co-zero divisor graph has cross capnumber atmost two, **Discrete Mathematics, Algorithms and Applications** Vol. 9, No. 6 (2017)
- 61. R. Kala and S. Kavitha, On the genus of graphs from commutative rings, **AKCEInt.**, **Journal** of graphs and combinatorics, 14(2017), pp 27-34
- 62. A. Mallika and R. Kala, Nilpotent graphs with crosscap at most two, **AKCE Int., Journal of graphs and combinatorics**, 2017
- 63. R. Kala, A. Mallikaand K. Selvakumar, The edge chromatic number of  $\Gamma(R)^*$ , Algebra and discrete mathematics, volume 24 (2017). Number 2, pp. 250–261
- 64. R. Ponraj, Rajpal Singh and R. Kala, Some more 4- Prime Cordial graphs, International J. Math. Combin. Vol.2(2017), pp. 105-115
- 65. R. Ponraj, Rajpal Singh and R. Kala, Some new families of 4- Prime Cordialgraphs, **International Journal of mathematical Combinatorics**, Vol.3 (2017), pp. 125-135
- 66. R. Ponraj, Rajpal Singh and R. Kala, 4- Prime Cordial labelling of some special graphs, **BULLETIN OF THE INTERNATIONAL MATHEMATICAL VIRTUAL INSTITUTE,** Vol. 8(2018), 89-97, DOI: 10.7251/BIMVI1801089P
- 67. R. Ponraj, Rajpal Singh and R. Kala, 4-Prime cordiality of some cycle and star RelatedGraphs, International Journal of Pure and Applied Mathematics Volume 118 No. 6, 2018, 235-241
- 68. R. Ponraj, Rajpal Singh and R. Kala, 4-prime cordiality of m copies of some graphs, **Palestine Journal of Mathematics**, Vol. 8 (1), 2019,307-311

- 69. R. Ponraj, Rajpal Singh and R. Kala, SOME 3-PRIME CORDIAL GRAPHS, accepted for publication in **ARS COMBINATORIA**.
- **70.** R.Ponraj, M.Maria Adaickalam and R.Kala, Further results on 3-difference cordial graphs, Accepted for publication in **Journal of Combinatorial Mathematics and Combinatorial Computing**.
- **71.** R.Ponraj, M.Maria Adaickalam and R.Kala, 3-difference cordiality of some special graphs, Jordan Journal of Mathematics and Statistics (JJMS) 11(2), 2018, pp 143 166
- 72. R. Kala and S. Kavitha, Cozero-divisor graph of commutative rings, **AKCEInt.**, **Journal of graphs and combinatorics**(accepted).
- 73. R. Kala and A. Mallika, Central sets and radii of  $\Gamma_1$  (R), **Palestine Journal of Mathematics**, Vol.6(1)(2017), p.p. 271-279
- 74. R. Kala and s. Kavitha, On the genus of the Cayley graph of a commutative ring, Discussiones mathematicae- General Algebra and applications, Vol.36, No.2, 2016, pp 147-155
- 75. S. Alagu and R. Kala, Asteroidal number of product of paths, **Journal of Mathematical and Computational Science**, Vol.7, No. 2, 2017, pp 307-320
- 76. R. Ponraj, K. Annathurai and R. Kala, Remainder Cordial labeling of graphs, **Journal of Algorithms and computation**, 49(1), June 2017, pp. 17-30
- **77.** R. Ponraj, Rajpal Singh and R. Kala, SOME 3-PRIME CORDIAL GRAPHS, Acceptedfor publication in ARS COMBINATORIA.
- **78.** R. Ponraj, M. Maria Adaickalam and R. Kala, Further results on 3-difference cordial graphs, Acceptedfor publication in **JCMCC**.
- **79.** R. Ponraj, K. Annaduraiand R. Kala, Someresults on 4-remaindercordial graphs, Acceptedfor publication in **ARS Combinatoria**
- 80. R. Ponraj, K. Annathurai and R. Kala, k-Remainder Cordial, **Journal of Algorithms and computation**, 49(2), December 2017, pp. 41-52
- 81. S. Kavitha and R. Kala, On the genus of graphs from commutative rings, **AKCE International Journal of Graphs and Combinatorics** (2017)http.//da.doi.org/10.1016/jakcej2016.11.006
- 82. A. Mallika and R. Kala, A note on zero-divisor graph of amalgamated duplication of a ring along an ideal, AKCE International Journal of Graphs and Combinatorics, 14 (2017), pp 18-26
- 83. A. Mallika, R. Kala and K. Selvakumar, A note on ideal based zero-divisor graph of Commutative ring, DiscussionesmathematicaeGeneral algebra and applications, 37(2017), pp 177-187

- 84. R. Ponraj, S. Sathishnarayanan and R. Kala, Difference Cordial labelling of some Specialgraphs, **PalestineJournal of Mathematics**, Vol.6, (Special Issue II) (2017), pp 135-140
- 85. A. Mallika and R. Kala, Rings whose co-zero divisor graph has cross cap number at most two, **Discrete Mathematics, Algorithms and Applications** Vol. 9, No. 6 (2017)
- 86. R. Kala and S. Kavitha, On the genus of graphs from commutative rings, **AKCE Int., Journal** of graphs and combinatorics, 14(2017), pp 27-34
- 87. A. Mallika and R. Kala, Nilpotent graphs with crosscap at most two, **AKCE Int.**, **Journal of graphs and combinatorics**, 2017
- 88. R. Kala, A. Mallikaand K. Selvakumar, The edge chromatic number of  $\Gamma(R)^*$ , Algebra and discrete mathematics, volume 24 (2017). Number 2, pp. 250–261
- 89. R. Kala and S. Kavitha, Cozero-divisor graph of commutative rings, **AKCE Int., Journal ofgraphs and combinatorics**(accepted).
- 90. B. Chandra & R. Kala, Group S<sub>3</sub> cordial prime Labeling of Wheel related Graph, **Global**Journal of Engineering Science and Researches, 5(12) December 2018.

  Doi:10.5281/zenodo.2390060
- **91.** R. Ponraj, M. Maria Adaickalam and R. Kala, Further Results on 3-Difference Cordial Graphs, ,Accepted for publication in **Journal of Combinatorial Mathematics and Combinatorial Computing.**
- 92. R. Ponraj, K. Annathurai and R. Kala, Remainder Cordiality of some Graphs, **Palestine Journal of Mathematics**, Vol. 8(1) (2019), 367-372.
- 93. R.Ponraj, Rajpal Singh, and R.Kala, 4-Prime cordiality of some special graphs, **Bulletin of international mathematical virtual institute**, 8(1)(2018), 89-97.
- 94. R.Ponraj, Annathurai, K., and Kala, R., k-Remaider cordial graphs, **Journal of Algorithms** and Computation, Vol.49(2), (2017), 41-52.
- 95. R.Ponraj, Annathurai, K., and Kala, R., 4-Remainder cordial labeling of some special graphs, **International Journal of Pure and Applied Mathematics**, Vol. 118, No.6 (2018), 399 405.
- 96. R.Ponraj, M.MariaAdaickalam and R.Kala3-difference cordiality of corona of double alternate snake graphs, **Bulletin of International Mathematical Institute Palestine journal of mathematics**, 2(2018), 245-258.
- **97.** R.Ponraj, M.MariaAdaickalam and R.Kala, 3-difference cordiality of some special graphs, Accepted for publication in **Jordan Journal of Mathematics and Statistics**.
- 98. R.Ponraj, Annathurai, K., Ponraj, R., and Kala, R., Some 3-Remainder cordial graphs, **Global Journal of Engineering Science and Researches**, Vol.5(6), (June 2018), 169 175.

- 99. R.Ponraj, Annathurai, K., Ponraj, R., and Kala, R., Further Results On 3-Remainder cordial labeling of graphs, **International Journal of Management, IT and Engineering**, Vol.8(8), (August-2018), 120 129.
- **100.** R.Ponraj, Ponraj, R. Annathurai, K., and Kala, R., 4-Remainder cordial labeling of some new families graphs, Accepted for publication in Palestine Journal of Mathematics.
- 101. R.Ponraj, Ponraj, R. Annathurai, K., and Kala, R., 4-Remainder cordial labeling of some graphs, International Journal of Mathematical Combinatorics, Vol.1, (March 2018), 138 145.
- 102. R.Ponraj, Ponraj, R., Annathurai, K., and Kala, R., 4-Reminder cordial labeling graphs obtained from ladder, Accepted for publication in **International Journal of Mathematical Combinatorics**.
- 103. R. Ponraj, K. Annathurai and R. Kala, Remainder Cordiality of some Graphs, **Palestine Journal of Mathematics**, Vol. 8(1) (2019), 367-372.
- 104. R. Ponraj, Rajpal Singh and R. Kala, 4-Prime Cordiality of m copes of some graphs, Palestine Journal of Mathematics, Vol. 8(1) (2019), 307-311.
- 105. R. Ponraj, S.Yesu Doss Philip and R.Kala, k-Total difference cordial graphs, **Journal of Algorithms and Computation**, 51(1) (2019), 121-128.
- 106. R. Ponraj, J.Maruthamani and R.Kala, k-Total Quotient cordial labeling of graphs, **Journal of Applied and Pure Mathematics**, Vol.1(3-4) (2019), 157-165.
- 107. R.Ponraj, Annathurai, K., and Kala, R., 4-Remainder cordial labeling of some graphs, International Journal of Mathematical Combinatorics, Vol.1, (March 2018), 138 145.
  - 108. V. Anusuya and R. Kala, Modified  $\gamma$  -graph –G( $\gamma_m$ ) of some grid graphs, Palestine Journal of Mathematics, Vol. 9(2), 2020, pp 691-697.
  - 109. R. Ponraj, K. Annathurai and R. Kala, Further results on 3-Remainder Cordial labeling of graphs, International Journal of Management, IT and Engineering, Vol. 8, Issue 8 (2019), 120-129
- 110. B. Chandra and R. Kala, Group S<sub>3</sub> Cordial prime labeling of graphs, Malaya Journal of Matematik, Vol.S, No.1 (2019), 403-407
- 111. S. Kavitha and Kala, R., A Note on Comaximal ideal graph of commutative rings, AKCE International Journal of Graphs and Combinatorics, Vol. 17:1, (2020), pp 453-460.
- 112. Venkat Narayanan G, Suresh Suseela J and Kala R, On 2 acyclic simple graphoidal covering of Bicyclic graphs, J. Math. Comput. Sci. 10(2020), No. 3 pp 606-632.
- 113. Venkat Narayanan G, Suresh Suseela J and Kala R, Simple Graphoidal cover on Tensor Product of Graphs, Advances and applications in Discrete Mathematics, Vol.22, Number 1, 2019 ,pp 1-40

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- 115. R.Ponraj, Rajpal Singh and Kala, R., 4-Prime cordiality of m-copies of some graphs, **Palestine Journal of Mathematics,** Vol. 8(1), (2019), pp 307-311.
- 116. R.Ponraj, S. Yesu Doss Philip and Kala, R., 4-total difference cordial labeling of union of some graphs, **Journal of Applied and Pure Mathematics**, Vol. 2, No.1-2 (2020), 9-16.
- 117. Sivaranjani B and Kala R, Fibonacci Mean Anti-magic labeling of some graphs, Advances in Mathematics: Scientific Journal 9(2020), No.5, pp 2561-2572.
- 118. Venkat Narayanan G, Suresh Suseela and Rukhmoni Kala, On 2-simple graphoidal cover of a graph, November 2020. AIP Conference Proceedings 2277(1):100010 DOI: 10.1063/5.0025497
- 119. Chandra B and Rukhmoni Kala, Group S3 cordial prime labeling of some splitting graphs, November 2020. AIP Conference Proceedings 2277(1):100009 DOI: 10.1063/5.0025803
- 120. R.Ponraj and Maruthamani J, 4-total prime cordial labeling of Butterfly, Double wheel and C<sub>n</sub><sup>2</sup>, November 2020. AIP Conference Proceedings 2277(1):100014 DOI: 10.1063/5.0025264
- 122. S. Alagu and R. Kala. Nonstandard analysis of Uniform spaces, Journal of Mathematical and Computational Science,11(1), 1053-1062,2021. (UGC care list)
  - 123. S. Alagu and R. Kala, Nonstandard  $\chi$ -hulls of Uniform spaces, Malaya Journal of Mathematik 9(1), 105-106, 2021. (UGC Care list)
  - 124. R.Ponraj and Maruthamani J, 4-total prime cordial labeling of Butterfly, Union of 4-total prime cordial graph G with the path Pn, October 2020, Proceedings of International Conference on Advances in Materials research
  - 125. Venkat Narayanan, Suresh Suseela and Kala, on 2 Acyclic Simple Graphoidal Covering of Bicyclic Graphs, Journal of Mathematical and Computational Science (JMCS), Vol: 10, No: 3, 2020, pages:606-632, UGC CARE LIST Journal.
  - 126. S. Alagu and R. Kala, Dense enough Nonstandard reals, Journal of Mathematical and Computational Science, 10(1),171-178, 2020. (UGC Care list)
- 127. S. Alagu and R. Kala, Logarithmic and Identric Mean labelings of graphs , Advances in Inequalities and applications, Article ID 8, 2020.
- 128. S.Alagu, R.Ponraj and R.Kala, k-parity Mean Cordial labeling of Graphs, Algebra letters, Article ID2, 2021.
- 129. Ponraj, K. Annathurai and Kala, R., Some results on 4-Remainder cordial labeling of graphs, Accepted for publication in ARS Combinatoria.
- 130. R.Ponraj, Rajpal Singh and Kala, R., Some 3-prime Cordial graphs, Accepted for publication in ARS Combinatoria.
- 131. E. Selvi and R. Kala, Domination Polynomials of the Jewel Graph and its Complement, South East Asian Journal of Mathematics and Mathematical Sciences, Vol.17, No.2(2021), pp.225-232.

- 132. B. Sivaranjani and R. Kala, Heronian Mea Anti-Magic Labeling of Some Graphs, Proceedings of ICAMMCT-2021, (ISBN: 978-93-85434-84-6), (2021), 117-124.
- 133. E. Selvi and R. Kala, A note on Strong Split Domination Polynomial of a Graph, Proceedings of ICAMMCT-2021, (ISBN: 978-93-85434-84-6), (2021), 125-130.
- 134. S. Velmurugan and R. Kala, Restrained Domination Polynomial of Paths, Proceedings of ICAMMCT-2021, (ISBN: 978-93-85434-84-6), (2021), 131-136.
- 135. R. Kala, Domination and coloring in graphs, South East Asian J. of Mathematics and Mathematical Sciences, Vol. 20, Proceedings (2022), pp. 261-268.
- 136. E. Selvi and R. Kala, Strong split domination polynomial of Cycles, Journal of Xi'an Shiyou University, Natural Science Edition, VOLUME 18 ISSUE 7 July 2022 509-513
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- 138. E. Selvi and R. Kala, Strong split domination polynomial of graphs, Palestine Journal of Mathematics, Vol. 12(Special Issue II)(2023), 73–78.
- 139. B. Sivaranjani and R. Kala, Some classes of Heronian mean anti-magic graphs, Palestine Journal of Mathematics, Vol. 12(Special Issue II)(2023), 79–87.
- 140. S. Velmurugan and R. Kala, Restrained domination polynomial of join and corona of graphs, Discrete Mathematics, Algorithms and Applications Vol. 15, No. 5 (2023) 2250118 (10 pages)
- 141.V. P. Asan Nagoor Meeran and R. Kala, Complement of Center graph of a group, Proceedings of the National Conference on Algebraic Graph Theory, Graph Theory and Analysis (MSUMEC 2023), pages 8-14
- 142. Therese Sunitha Mary and R. Kala, Strong Non-split domsaturation number of a graph, Discrete Mathematics, Algorithms and Applications, Vol 16, No. 7, 2024, Pages 2350089-1 to 9
- 143. B. Sivaranjani and R. Kala, On Heronian mean anti-magic labeling of some graphs, Accepted for publication in TWMS J. App. Eng. Math.

## **List of Research Publications in national Journals:**

- 1. Vilfred, V, Kala, R and Suryakala, A, (a, d) –Ascending subgraph Decomposition of graphs  $K_n$  and G  $_{0, N}$ , Proceedings of the International Conference on Applied mathematics and theoretical Computer Science, 24-25 Jan 2013, St. xavier's Catholic College of Engineering, Kanyakumari .
- 2. Vilfred, V, Kala, R and Suryakala, A, Decomposition of Integral sum graphs G<sub>0, n</sub> into Triangular books and Fan graphs, Proceedings of the International Conference on Mathematics in Engineering And Business Management, Stella Maris College, March 9-10, 2012

- 3. Kala, R., and Nirmalavasantha, T.R., Connected Restrained domination number of a graph, Proceedings of the National Conference on Algebra and Graph Theory, Apublication of Manonmaniam Sundaranar University, March 2010, Editors: T. TamizhChelvam, et al., pp.37-48(2010).
- 4. Kala, R, Domsaturation number of a graph: Aspects and dimensions, Recentadvancements in Mathematics, Apublication of Manonmaniam Sundaranar University, March 2010, Editors: J. Paulraj Joseph et. Al., pp.01-17(2010)
- 5. Kala, R., and NirmalaVasantha, T.R., (2007): Graphs with equal restraineddomination and restrained domsaturation numbers, Proceedings of the fourthnational conference on Mathematical and computational models, PSGCollege of Technology, Coimbatore, pp. 196-200December 2007.
- 6. Kala, R., and Therese Sunitha, Y., (2007): The nonsplit domination number of a graph, Proceedings of the fourth national conference on Mathematical and computational models, PSG College of Technology, Coimbatore, pp 218-224, December 2007.
- 7. Kala, R., and Immaculate, M., (2006): GCD of INS(n), A generalization of Pythagorean triples, The Mathematics Teacher, Volume-42-Issues: 3 and 4, 2006.
- 8. Kala, R., andTherese SunithaMary(2005): Changing Independentdomination in graphs, Proceedings of the third national conference onMathematical and computational models, PSG college of Technology, Coimbatore. December 15-16 2005.
- 9. Kala, R., and S.Arumugam, Completeness of dominationparameters, Proceedings of the Conference on Graph connections, Jan. 28-31, 1998, Cochin, pp.67-71.

# **Publications (Books):**

Year	Title	Publication	National/ Internationa	ISBN No.
2009-10	Algebra, Graph Theory and their Applications	Narosa Publishing House, New Delhi	National	978-81-8487-069-5
2009-10	Proceedings of the National Conference on Algebra and graph theory	A publication of Manonmaniam Sundaranar University	National	978-81-908352-4-4
2009-10	Recent Advancements in Mathematics	A publication of Manonmaniam Sundaranar University	National	978-81-908352-6-8

### **Conferences (National and International ) attended:**

- 1. Attended the Eighth Annual Conference of Ramanujan Mathematical Society organized by Department of Mathematics of Sri Venkateswara University at Tirupathi from 24.06.1993 to 26.06.1993 and presented a paper.
- 2.Attended the one-day Seminar on Graph Theory and its applications organized by Department of Mathematics of Manonmaniam Sundaranar University at Tirunelveli on 17.10.1993.
- 3. Attended the Eighth Annual Conference of Ramanujan Mathematical Society organized by Department of Mathematics of Sri Venkateswara University at Tirupathi from 24.06.1993 to 26.06.1993 and presented a paper.
- 4. Attended the one-day Seminar on Graph Theory and its applications organized by Department of Mathematics of Manonmaniam Sundaranar University at Tirunelveli on 17.10.1993.
- 5. Attended the one-day Symposium on Mathematical Methods and applications organized by Department of Mathematics of I.I.T, Chennai on 22.12.1993 and presented a paper.
- 6. Attended the National Seminar on Algebra, Number Theory and theirapplications to Graph theory organized by Department of Mathematics of Manonmaniam Sundaranar University at Tirunelveli from 03.03.1994 to 04.03.1994.
- 7.Attended the National Workshop on Graph theory organized by Department of Mathematics of Manipal Institute of Technology at Manipalfrom 04.04.1994 to 10.04.1994 and presented a paper.
- 8. Attended the Ninth Annual Conference of Ramanujan Mathematical Society organized by Department of Mathematics of University of Kerala at Thiruvananthapuram from 17.05.1994 to 18.05.1994 and presented a paper.
- 9. Attended the International Conference on Discrete Mathematics And Number Theoryorganized by Ramanujan Mathematical Society at Tiruchirappalli from 03.01.1996 to 07.01.1996.
- 10. Attended the National workshop on Graph theory and itsapplications organized by Department of Mathematics of Manonmaniam Sundaranar University at Tirunelveli from 21.02.1996 to 23.02.1996 and presented a paper.
- 11. Attended the Ninth Annual Conference of Ramanujan Mathematical Society organized by Department of Mathematics of University of Kerala at Thiruvananthapuram from 17.05.1994 to 18.05.1994 and presented a paper.
- 12. Attended the International Conference on Discrete Mathematics And Number Theoryorganized by RamanujanMathematical Society at Tiruchirappalli from 03.01.1996

to 07.01.1996.

- 13. Attended the National workshop on Graph theory and itsapplications organized by Department of Mathematics of Manonmaniam Sundaranar University at Tirunelveli from 21.02.1996 to 23.02.1996 and presented a paper.
- 14. Attended the Ninth Annual Conference of Ramanujan Mathematical Society organized by Department of Mathematics of University of Kerala at Thiruvananthapuram from 17.05.1994 to 18.05.1994 and presented a paper.
- 15. Attended the International Conference on Discrete Mathematics And Number Theoryorganized by RamanujanMathematical Society at Tiruchirappalli from 03.01.1996 to 07.01.1996.
- 16. Attended the National workshop on Graph theory and itsapplications organized by Department of Mathematics of Manonmaniam Sundaranar University at Tirunelveli from 21.02.1996 to 23.02.1996 and presented a paper.
- 17. Attended the one-day Seminar on Pattern Recognition organized by Department of Computer Science and Department of Mathematics of Manonmaniam Sundaranar University at Tirunelveli on 30.03.1996.
- 18. Attended the National Seminar on Combinatorial Mathematics and its applications organized by Department of Mathematics of Karnataka University at Belgaum from 25.09.1997 to 27.09.1997 and presented a paper.
- 19. Attended the Conferenceon Graph connectionsorganized by Department of Mathematics of CochinUniversity of Science and Technology at Cochin from 28.01.1998 to 31.01.1998 and presented a paper.
- 20. Attended the thirteenth annual Conference of Ramanujan Mathematical Societyorganized by Department of Mathematics of Manonmaniam Sundaranar Universityat Tirunelveli from 04.06.1998 to 06.06.1998 and presented a paper.
- 21. Attended the National workshop on Emerging Frontiers in Combinatorial Optimizationorganized by Department of Mathematics of Pune Universityat Pune from 21.06.2002 to 28.06.2002 (Sponsored by DST)
- 22. Attended the Intercollegiate Seminar organized by Department of Mathematics of Scott Christian College at Nagercoil on 28.02. 2004 and gave an invited talk on "current Trends in Mathematics".
- 23. Attended the Intercollegiate Seminar organized by Department of Mathematics of V.V.V.College at Virudhunagar on 23.08.2004 and gave an invited talk. ( Cluster of Colleges)
- 24. Attended the Intercollegiate Seminar organized by Department of Mathematics of A. P. C. Mahalaxmi.College, Tuticorin on 23.09.2005 and gave an invited talk. (UGC(COSIP))

- 25. Attended the Intercollegiate Seminar organized by Department of Mathematics of V.V.V.College at Virudhunagar on 23.08.2004 and gave an invited talk. ( Cluster of Colleges)
- 26. Attended the Conference "Recent advancements in Graph Theory and its Applications-SCRAGA-2006" organized by Department of Mathematics of S. F. Rajaratnam College for women, Sivakasi On 18.08.2006 and 19.08.2006 and gave an invited talk. ( UGC)
- 27. Attended the Seminar organized by Department of Mathematics of S. F. Rajaratnam College for women, Sivakasi On 24.11.2006 and gave an invited talk. (Cluster of Colleges)
- 28. Attended the Conference "Recent Trends in the application of Mathematics" organized by Department of Mathematics of Holy Cross College, Nagercoil On 09.03.2007and gave an invited talk. ( UGC)
- 29. Attended the Seminar "Analysis and Graph Theory" organized by Department of Mathematics of the M. D. T. Hindu College, Tirunelveli On 12.03.2007 and 13.03.2007 and gave an invited talk.
- 30. Attended the National conference "Algebra, Graph Theory and their Applications-NCAGA07 "(UGC-SAP) organized by Department of Mathematics of Manonmaniam Sundaranar University, Tirunelveli during December 5-7, 2007.
- 31. Resource person for "Computer Awareness Programme specially for High School Mathematics Teachers "organized by Department of Mathematics, Sri ParasakthiCollege for women, Courtallamon 28.01.2008.
- 32. Attended the International conference on Discrete Mathematics (ICDM 2008) and Graph Theory Day-IV and their Applications- NCAGA07 "(UGC-SAP) organized by Department of Mathematics of University of Mysore, June 8-10, 2008 (ADMA)
- 33. Attended the Seminar on "Recent developments in Pure and applied Mathematics" organized by Department of Mathematics of SRNM College, Sattur during August22-23, 2008 and gave an invited talk. (Tamilnadu State Council for Higher Education)
- 34. Attended the National Seminar on "Algebra, Analysis and Discrete Mathematics (NSAADM- 2008)" organized by Department of Mathematics of University of Kerela, during December 10-12, 2008 and gave an invited talk.
- 35. Attended the national Seminar on "New vistas in today's Mathematics (NVTM 08)" organized by Department of Mathematics of Fatima College, Madurai 17.12. 2008 and gavean invited talk.
- 36. Attended the National conference "Algebra, Graph Theory and their Applications-NCAGA09 "( UGC-SAP) organized by Department of Mathematics of Manonmaniam Sundaranar University, Tirunelveliduring Feb. 3-5, 2009.
- 37. Attended the Seminar on "Rings and Ideals" organized by Department of Mathematics of Lekshmipiram College of Arts and Science, Neyyoor on 31.03. 2009 and gave an invited talk.

- 38. Attended the Staff Development Program on Computer Algorithms and Complexity organized by Department of Mathematics of Noorul Islam College of Engineering, Kumaracoilduring 04.05.2009 -16.05.2009 and gaveinvited talks on 12.05.2009 and 15.05.2009. (AICTE, New Delhi)
- 39. Attended the Platinum Jubilee 75<sup>th</sup> Annual Conference of IMS at Kalasalingam University, Krishnancoil during December 27-30, 2009.
- 40. Attended the State levelSeminar on "ApplicableMathematics" organized by Department of Mathematics of Madura College, Madurai on 10.2. 2010 and gave an invited talk.
- 41. Delivered a lecture in the Mathematics Association of Aditanar College, Tiruchendur on March 26, 2010
- 42. Delivered a lecture in the Mathematics Association of KamarajCollege, Thoothukudi on April 8, 2010
- 43. Delivered a lecture in the Mathematics Association of St. John's College, Palayamkottaion August 3, 2010.
- 44. Delivered a lecture in the Mathematics Association of Sri Parasakthi College for women, Courtallam on August10, 2010
- 45. Attended and delivered an invited talk in the National Conference on recent trends in Discrete Mathematics organized by the Department of Mathematics, Nazareth Margoschis College during Dec. 9-11, 2010.
- 46. Attended and delivered an invited talk in the Seminar on recent AdvancesinMathematics organized by the Department of Mathematics, SadakkathullahAppa College on 29.12.2010.
- 47. Attended and delivered an invited talk in the National Conference on Emerging trends in Fluid Mechanics and graph theory organized by the Department of Mathematics, Christ University, Bangalore during Feb. 11–12, 2011.
- 48. Attended the National Conference on non-linear functional analysis organized by the Department of Mathematics, Manonmaniam Sundaranar University during Mar 3-5, 2011.
- 49. Resource person for the refresher Course of UGC Academic Staff Collegeand gave four lectures on Domination and Colorings in University of Kerala, Kariavattom, Thiruvananthapuram on 4.7.2011 and 5.7.2011.
- 50. Delivered a lecture in the Mathematics Association of SadakathullahAppa College, Palayamkottai on October 7, 2011

- 51. Resource person for the one day national Level seminar on Recent Developments in Mathematics organized by Department of Mathematics, S. T. Hindu College, nagercoil on 22.12.2011.
- 52. Delivered a lecture in the National Conference on Theoretical Computer Science and Discrete Mathematics (NCTCSDM 2012) on 10.01.2012 at Kalasalingam University
- 53. Delivered a lecture in the State level Seminar on Recent Trends in Mathematics Organized by GovindammalAditanar College For Women, Tiruchendur on 03.02.2012
- 54. Resource person for the refresher Course on Advanced analysis and its Applicationsof UGC Academic Staff College and gave two lecturesin Madurai Kamaraj University, Madurai on 14.02.2012.
- 55. Delivered a lecture in the Valedictory function of the Science Society held at PET Engineering College, Valliioor0n 22.03.2012.
- 56. Resource person for the Eighth Annual Conference of Academy of Discrete Mathematics and Applications (ADMA) and Graph Theory Day VIII organized by Department of Mathematics, V.V.Vanniaperumal College, Virudhunagar during June 04-07. 2012
- 57. Delivered a lecture in the Mathematics association of WavooWajeeha Women's College of arts and science, Kayalpatnamon18.12.2012.
- **58.** Resource person for one day state level seminar on "Mathematics to face challenges of the present Scenario" organized by the Department of Mathematics, Sri parasakthi College for women Courtallam, on 23.01.2013.
- **59.** Resource person for one day state level seminar on "Vistas in Mathematics" organized by the Department of Mathematics, Sri S. Ramasamy Naidu Memorial College, Satturon 09.02.2013.
- 60. Attended the third InternationalConferenceon Discrete Mathematics 2013 organised by ADMAand Karnatak University, Dharwad during June 10-14, 2013 at Karnatak University, Dharwad.
- 61. Delivered the inaugural lecture in the Mathematics association of SadakathullahAppaCollege, Palayamkottai on01.08. 2013.
- 62. Resource person for the refresher Course of UGC Academic Staff College and gave two lectures on Topological graph theoryin University of Kerala, Kariavattom, Thiruvananthapuram on 24.08.2013.
- 63. Resource person for one day state level seminar on "Emerging trends in graph theory and fuzzy Mathematics" organized by Department of Mathematics of A. P. C.

- Mahalaxmi.College for women, Tuticorin on 06.09.2013 and gave an invited talk on Graphs- domination and colorings.
- 64. Resource person for the refresher Course of UGC Academic Staff College and gave two lectures on Advances in algebra and analysis in Madurai Kamaraj University on 25.11.2013.
- 65. Resourceperson for one day State level seminar on Fuzzy logic and its applications organizedby Department of mathematics, SreeAyyappa College for women, Chunkankadai on 27.12.2013.
- 66. Resource person for the national Conference on emerging trends in graph connection organized by Department of Mathematics, University of Kerala, Kariavattom, Thiruvananthapuramduring Jan 8-10, 2014.
- 67. Resource person for one dayseminar on "Steering Mathematical brains towards research "organized by the Department of Mathematics, V.V. V. College for women, Virudhunagar on 29.1.2014.
- 68. Resource person for DST sponsored Instructional workshop on domination in graphs at kalasalingam University on 30.1.2014 and 01.2.2014.
- 69. Resource person for one day National Conferenceon "Discrete mathematics and Optimization Techniques "organized by the Department of Mathematics, MepcoSchlenk Engineering College, Sivakasi on 19.03.2014
- 70. Delivered the valedictory address in the one day state level seminar on Applications of modern Mathematics organized by the Department of mathematics, St. John's College on 28.03. 2014.
- 71. Delivered the Inaugural address in the state level symposiumon recent trends in Mathematics organized by the Department of mathematics, Sri Ram NallamaniYadava College of arts and Science, Kodikurichi
- 72. Chief Guest for the Ladies Hostel Council Inauguration at SadakathullahAppa collegeon26.08 2014.
- 73. Resource person for UGC sponsored National seminar on Emerging trends in Pure and applied Mathematics organized by the Department of mathematics, Pope's College, Sawyerpuramon 25.07. 2014.
- 74. Resource person forone day state level seminar on Recent trends in Mathematics organized by the Department of mathematics, G.V.N. College, Kovilpattion 18.10. 2014.
- 75. Resource person for RMS and ADMA sponsored Two day Workshopon Graph Theory and its Applicationsorganized by the Department of Mathematics, The Madura College, Maduraion 28.11. 2014.

- 76. Resource person for UGC sponsored National seminar on Emerging trends in Graph theoryorganized by the Department of Mathematics, Holy Cross College, Nagercoilon 30.01. 2015.
- 77. Resource person for UGC sponsored National seminar on Recent Advancements in Graph Theory and applied Mathematics organized by the Department of mathematics, SFR College, Sivakasion 02.03. 2015
- 78. Resource person for Annual Conference of ADMA organized by the Department of Mathematics, Abdur Rahman University, Vandalur, Chennaion 11.06. 2015.
- 79. Resource person for the state level symposiumon Moderntrends in Discrete Mathematics organized by the Department of Mathematics, AnnaiVelankanniCollege, Tholayavattam on 12.08.2015
- 80. Resource person for the refresher Course of UGC Academic Staff College and gave two lectures on Distance related concepts in graphs in University of Kerala, Kariavattom, Thiruvananthapuram on 12.08.2015.
- 81.Resource Person for the one day IQAC national level seminar on "Updating, Upgrading Quality in higher Education'atSree Devi Kumari college, Kuzhithurai on 8<sup>th</sup> January 2016.
  - 82. Resource person for the one day seminar at FatimaCollege, Madurai on22.01.2016.
  - 83. Served As Quiz Master for the Undergraduate Quiz Competition at Noorul Islam University on 16<sup>th</sup> February 2016.
  - 84. Resource person for the one day seminar at Sardar Raja Arts and Science College, Vadakangulamon23.02.2016.
  - 85. Resource person for the one day National Conference seminar at Sri G. V. G. Visalakshi College for women, Udumalpeton29.02.2016.
  - 86. Chief Guest for the college day celebrated on 16<sup>th</sup> April2016 in Holy Cross Home Science College, Thoothukudi
  - 87. Chief Guest of Mathematics association meeting and lecture on NET / SET Examinations for PG students in Wavoo Wajeeha Women's College of Arts and science, Kayalpatnamon 24. 08. 2016.
  - 88. Delivered a lecture in APC Mahalaxmi College for women on 31.01.2017 under "counseling Cell."
  - 89. Served As Quiz Master for the Undergraduate Quiz Competition at Noorul Islam University on 14<sup>th</sup> February 2017.

- 90. Resource Person for the two day national level seminar on "Pure and Discrete Mathematics" at Vivekananda College, Agasteeswaram on 16<sup>th</sup> and 17<sup>th</sup> February 2017.
- 91. Resource Person for the one day national level seminar on "Achievements and Challenges in Mathematics" at Lekshmipuram College of Arts and Science, Neyyooron22nd February 2017.
- 92. Resource Person for the two day national level seminar on "Current Trends in Graph Theory and Computation" at ThiagarajarCollege of Engineering, Madurai on23rd and 24<sup>th</sup> February 2017.
- 93. Resource Person for one day national level seminar on Learning skills of engineering Mathematicsat V. V. College of Engineering, Tisayanvilai on 6.10.2017.
- 94. Resource Person for National Conference on Algebra and Graph theory on Domination coloring in graphs at St. Xavier's College, Palayamkottai on 15.2.2018
- 95. Resource Person forNational Conference on Recent trends in Applied Mathematics onVarieties of domination in graphs at VHSN college, Viruthunagar on 26.9.2018
- 96. Resource Person forNational Conference on Advances in graph theory and combinatorics onDerived graphsat St. Stephen's College, Pathanapuram on 28.9.2018
- 97. Resource Person forOne day seminar on topology and Graph theory on Domination Polynomial of graphs at Kamaraj College, Thoothukudi on 17.10.2018
- 98. Resource Person forOne day seminaron Domination Polynomial of graphsat SFR College, Sivakasi on19.12.2018
- 99. Resource Person for UGC sponsored Refresher Courseat Madurai Kamaraj University, Madurai on 16.11.2018 and 03.12.2018
- 100. Resource Person for One day seminaron Domination Polynomial of a graphatPioneer Kumaraswamy College, Nagercoil on 11.01.2019
- 101.Resource Person forInternational Conference on novel trends in pure and applied MathematicsonVarieties of domination polynomials atDepartment of Mathematics, Kerala University, kariavattom on 24.01.2019
- 102. Resource Person for National Conference on Graph theory and algebraon Trends of research in Domination Theory at Nirmala College for women, Coimbatore on 21.02.2019
- 103.Resource Person forOne day International Conference on Graph theory and its Applicationson Introduction to various topics of research in Graph theory atSadakathullahAppa College on 27.02.2019

- 104. Resource Person for One day seminar on analysis and graph theory on Graphs associated with groups at Lekshmipuram College, Neyyoor on 25.3.2019
- 105. Resource Person for UGC sponsored Refresher Course in the Academic Staff College, KeralaUniversity, Kariavattom on 20.9.2019
- 106. Resource Person for one day seminar at Kamaraj College, Thoothukudi on 27.9.2019
- 107. Resource Person for one day seminar at Thiagarajar College, Madurai on 22.10.2019
  - 108. Resource Person for two days seminar at Noorul Islam University, Kumaracoil on 31.10.2019
  - 109. Resource Person for four days workshop at Department of Mathematics at Kerala University, Kariavattom on 11.12.2019
  - 110. Resource Person for one day National Conference on Recent trends in Applied Mathematics at VHSN College, Viruthunagar on 10.01.2020.
  - 111. Resource Person for National Seminar on Graph Theory and its applications at Kerala University, Kariavattom on 21.1.2020.
  - 112. Served As Quiz Master for the Intercollegiate Undergraduate Quiz Competition at Noorul Islam University on 11<sup>th</sup> February 2020.
  - 113. Resource Person for one day State level Seminar on Graph theory at Kamaraj College, Thoothukudi on 15.02.2020.
  - 114. Resource Person for one day National Conference on Recent trends in Algebra and Graph Theory at Nanjil Catholic College of Arts and Science, Nagercoil on 20.02.2020.
- 115. Resource Person for National Conference on Advances in Mathematics (Sponsored by SERB) at St. Mary's College, Thoothukudi on 12.03.2020 and 13.03.2020.
  - 116. Resource person in National level webinar on Polynomials associated with graphs organized by Department of Mathematics, TDMNS College, T. Kallikulam on 15.6.2020
  - 117. Resource person in National level webinar on Some new directions in Graph theory organized by Department of Mathematics, S. T. Hindu College, Nagercoil on 19.6.2020.
  - 118. Resource person in International Web Conference on Smart Engineering Technologies organized by Ramco Institute of technology on 26.6.2020 and 27.6.2020.
  - 119. Resource person in Three days National level webinar on New Approach in Graph theory organized by Department of Mathematics, Fatima College, Madurai during 18.7.2020 to 20.7.2020.

- 120. Resource person in International webinar on Special Functions and Discrete Mathematics organized by Department of Mathematics, Kerala University, Kariavattom from 2.8.2020 to 5.8.2020
- 121. Resource person in National Seminar (online) on Algebraic Graph theory organized by Department of Mathematics, NSS Hindu College, Changanacherry, Kerala on 12.11.2020 and 13.11.2020.
- 122. Resource Person for Refresher Course in Mathematics at Academic Staff College, Kerala University and gave a talk on 9.12.2020
- 123. Resource Person for Refresher Course in Mathematics at Academic Staff College, Madurai Kamaraj University and gave a talk on 18.12.2020
- 124. Resource Person for Second International Conference on Applied Mathematics and Intellectual Property Rights conducted by PG and Research Department of Mathematics , A.P. C Mahalaxmi College for Women, Thoothukudi during 9.3.2021 -10.3.2021 and gave a talk on 10.3.2021.
- 125. Delivered inaugural address in the association meeting of Department of Mathematics, Sri Parasakthi College for women, Courtallam 26.3.2021
- 126. Resource Person for one week online International Faculty Development programme on Recent Trends in Mathematics organized by Department of Mathematics, V.O. C College, Thoothukudi during 21-25, June 2021 and gave a talk on "An Introduction to semigraphs" on 21.6.2021.
- 127. Resource person for National Seminar on Recent trends in Graph theory and its Applications organized by Department of Mathematics, G.V.N. College, Kovilpatti and gave a talk on "An Introduction to semigraphs" on 26.11.2021.
- 128. Resource person for International Conference on Algebra and discrete Mathematics organized by Department of Mathematics, Fatima Matha national College( Autonomous), Kollam and gave a talk on "Domination and Graph Coloring "on 14.04.2022.
- 129. Resource person for International Conference on Advances and Applications in Mathematical Sciences organized by Department of Mathematics, Government Arts and Science College, Konam and gave a talk on "Some Special Graphs and their Applications "on 20.04.2022.
- 130. Resource person for National Seminar on Recent trends in Graph theory organized by Department of Mathematics, Pioneer Kumarasamy College, Nagercoil and gave a talk on "some open Problems And Conjectures in Mathematics "on 29.04.2022.
- 131. Resource person for State level Conference on Current Trends in Mathematics organized by Department of Mathematics, V.O.C College, Thoothukudi and gave a talk on "Domination And Graph Coloring" on 06.05.2022.
- 132. Resource person for National Seminar on Recent trends in Mathematics and its Applications organized by Department of Mathematics, Scott Christian College, Nagercoil and gave a talk on "Domination and Graph Coloring" on 10.05.2022.
- 133. Resource person for International Conference on Advances in Mathematics and Computer Engineering organized by Department of Mathematics, Nesamony Memorial Christian College, Martandam and gave a talk on "Varieties of Domination in Graphs" on 19.05.2022.

- 134. Resource person for International Seminar on emerging trends in Graph theory and its Applications organized by Department of Mathematics, ANJA College, Sivakasi and gave a talk on "Graphs fromVector Spaces "on 02.06.2022.
- 135. Resource Person for International Conference on organized by Department of Mathematics, St.Jude's College, Thoothoor on 29.07.2022.
- 136. Resource Person for National Conference on Emerging Trends in Discrete Mathematics organized by Department of Mathematics, A.P.C on 01.09.2022.
- 137. Resource Person for National Conference on Algebra and Discrete Mathematics organized by Department of Mathematics, Mannar Thirumalai Naicker College, Madurai and gave a talk on 07.10.2022.
- 138. Resource Person for National Conference organized by Department of Mathematics, VOV College, Thoothukudi and gave a talk on "Some Conjectures and open problems in Mathematics " on 14.10.2022.
- 139. Resource Person for National Conference organized by Department of Mathematics, Wavoo Wajeeha College, Kayalpattinam and gave a talk on 10.1. 2023.
- 140. Resource Person for National Conference organized by Department of Mathematics, Margoschis College, Nazareth and gave a talk on 13.2. 2023.
- 141. Resource Person for National Conference organized by Department of Mathematics, Nanjil Catholic College, Kaliyakkavilai and gave a talk on 17.2. 2023.
- 142. Resource Person for State level Conference on Emerging Trends in Pure and Applied Mathematics organized by Department of Mathematics, TDMNS College, Kallikulam and gave a talk on "Some new graph Parameters 11.8. 2023.
- 143. Resource Person for Three days workshop on Fundamentals of Mathematics organized by Department of Mathematics, MMS College, Malayinkeezhu, Thiruvananthapuram and gave a talk on "Fundamentals of Graph Theory "on 14.9. 2023.
- 144. Resource Person and Quiz Master for Ramanujan Day Celebrations organized by Department of Mathematics, Sri Ayyappa College for women, Nagercoil on 19.01.2024.
- 145. Resource Person for National Seminar on Recent Applications in Graph Theory organized by Department of Mathematics, Pioneer Kumarasamy College, Nagercoil on 09.02.2024.
- 146. Delivered Women's day Address at Ambai Arts College, Ambasamudram on 11.03.2024
- 147. Delivered Key Note Address in National Seminar on Fundamentals of Real analysis organized by Department of Mathematics, Thiruvalluvar College, Papanasam on 01.04.2024
- 148. Delivered the Inaugural Address in the College Union Inauguration, Sri Parasakthi College for Women, Courtallam on 09.8.2024
- 149. Resource Person for the National Seminar on The Dynamics of Graph Theory: Normed Graphs and Position Games organized by Department of Mathematics, Vivekananda College, Agasteeswarm on 09.09.2024.

#### 13. Endowment Lectures:

- 1. Delivered Mrs. Krishnammal Endowment lecture in Holy Cross College, Nagercoil on 08.02.2012.
- 2. Delivered Rev Dr. A. Antonysamy SJ Golden Jubilee Endowment Lecture organized by Department of Mathematics, St. Xavier's College, Palayamkottai on 22.01.2024.

### 14. Consultancy Services:

Reviewer for Math Reviews (No. 73182)

### 15. Any other Information:

#### **A. Administrative Positions Held**

- From 24-09-2003 to 30-06-2009 -Programme Officer of Youth Red Cross, University Departments, Manonmaniam Sundaranar University, Tirunelveli
- From 26-11-2009 to November 2011 Co-ordinator of Mano Research Forum, Manonmaniam Sundaranar University, Tirunelveli
- From 29-02-2008 to October 2012 Member of Women's welfare Committee, Manonmaniam Sundaranar University
- Chair Person of Women's Welfare Committee since October 2012.
- From 28-01-2010 to April 2015-Member of Internal Quality Assurance Cell Co-ordinator of IQAC from April 2015 to January 2017
- Head of the Department of Mathematics from April 3, 2019 to June 30,2022.
- Member Syndicate of M. S.University from 28.2.2023
- Dean of the Faculty of Sciences since 18.4.2024
- Chairperson of the School of Mathematical Sceinces from 2024-25 for a period of 2 years.

### **B. Academic Positions Held**

- Member of PG (CBCS) Board of Studies. Manonmaniam Sundaranar University from 01-07-2003 to till date
- Member of Board of Studies inSri Parasakthi College for Women (Autonomous) for the period from 2008-09 to 2009-2010.
- University representative in the Committee of St. Xavier's College of Education (Autonomous) from 24.5.2007 to 23.5.2009.
- Member of the Board of Studies in Mathematics of Holy Cross College, Nagercoil from 11.6.2007 to 10.6.2011
- Member of the Board of Studies in PG Mathematics, Sathakathula Appa College, Palayamkottai(Autonomous) from 27.08.2009 to 26.8.2011

- Member of the Board of Studies in Mathematics, Sarah Tucker College, (Autonomous) from 2008
- University Nominee in Academic Council of Sarah Tucker College(Autonomous) for the period 2009-2011.
- University Nominee in College Committee Sadakathullah Appa College(Autonomous) for the period22.01.2013 to 21.01.2015.
- Member of the Governing board of Holy Cross College, Nagercoil from 30.11.2012to 16.8.2013.
- Member of the Board of Studies in PG Mathematics, SadakathulaAppa College, Palayamkottai(Autonomous) from 27.07.2016 to 26.7.2019
- Member of the Academic Council of Holy Cross College, Nagercoil from 2016.
- Member of the Board of Studies in PG Mathematics, St.Mary's College, Thoothukudi(Autonomous) from 2014 -2017
- Reviewer for Math Reviews (No. 73182)
- University Representative for Aditanar College of Arts and Science, Tiruchendur from 2019.
- Mentor for DBT at Nirmala college, Coimbatore for 2019-2020.
- University Representative to Sarah Tucker college (Autonomous) Tirunelveli for the period 05.02.2021 to 04.02.2023
- Member of the Governing body of Sri Parasakthi College for Women, Courtallam from 29.4.2019 to 28.4.2022.
- University Representative for Aditanar College of Arts and Science, Tiruchendur from 2019.
  - Member of the Board of Studies in Mathematics at St. Xavier's College, Palayamkottai (Autonomous) from 18.01.2021 to 17.01.2024
- Member Syndicate of M. S. University for three years from 28.2.2023.
  - Member of Governing body of St.Xavier's College.
- University Representative for Ambai Arts College.

### **C.Extension Activities**

- ❖ Conducted Quiz Competition for U.G. students in Mathfest 2009 organised by Department of mathematics, St. Xavier's College, Palayamkottai on 21.12.2009.
- Conducted Quiz Competition for U.G. students from Colleges affiliated to Manonmaniam Sundaranar University. This is organised by Department of Mathematics, Manonmaniam Sundaranar University, Tirunelveli on 10.3.2010.

- Conducted Quiz Competition for U.G. students from Colleges affiliated to Manonmaniam Sundaranar University. This is organised by Department of Mathematics, Noorul Islam University, Kumaracoil on 16.2.2016.
- Conducted Quiz Competition for U.G. students from Colleges affiliated to Manonmaniam Sundaranar University. This is organised by Department of Mathematics, Noorul Islam University, Kumaracoil on 14.2.2017.
- Served As Quiz Master for the Intercollegiate Undergraduate Quiz Competition at Noorul Islam University on 11<sup>th</sup> February 2020.

# D.Membership of Professional Bodies, Societies etc.:

- 1.Life member of Academy of Discrete Mathematics and its Application (ADMA)(Regn. No. 838/2005-06).
- 2. Life member of Indian School of Sciences.