

Dr. R. Balakrishnan
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Department of Mathematics
Bharathidasan University,
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Degrees

- B.Sc., (Hons.) in Mathematics, 1957, Annamalai University..
- M.A. in Mathematics, 1959, Annamalai University.
- M.Sc. (by Research), 1963, Annamalai University.
- Ph. D., 1968, University of Maryland, USA

Positions held

1958-1964 and 1968-1973 - Lecturer in Mathematics, Annamalai University.

1973-1986 - Post-Graduate Professor and Head of the Department of Mathematics, National College, Tiruchirappalli.

1986-1998 - Chairman, Department of Mathematics, Annamalai University,

1998 - 2002 - Worked as NBHM Emeritus Professor (Two terms), Bharathidasan University, Tiruchirappalli.

2002-2004 AICTE Emeritus Professor (one term), Bharathidasan University, Tiruchirappalli.

2004 – 2008 DST Chair in Discrete Mathematics , SRC. SASTRA University. Kumbakonam.

2009 – 2012 DST Project Principal Investigator , Bharathidasan University, Tiruchirappalli.

2012 onwards Adjunct Professor, Bharathidasan University, Tiruchirappalli.

Current Areas of Research

- Algebraic Graph Theory and Graph Coloring.

Books Published

1. (with N. Ramabhadran) A Textbook of Modern Algebra, Vikas Publishing House, New Delhi.

2. (With K. Ranganathan) A textbook of Graph Theory , (Revised and Enlarged) Second Edition, Springer 2012.

- 3. (with S. Sridharan, Perpignan University, France) Foundations of Discrete Mathematics, CRC Press (Taylor & Francis), 2018.**
- 4. (with S. Sridharan, Perpignan University, France) Discrete Mathematics (Graph Algorithms: Algebraic Structures, Coding Theory and Cryptography), CRC Press (Taylor & Francis), 2019.**
- 5. (with Xuding Zhu, Zhejiang Normal University, China) Combinatorial Nullstellensatz: With Applications to Graph Colouring, CRC Press, 2021.**

Books Co-edited

- 1. Proceedings of the Ramanujan Centennial International Conference held at Annamalai University in December 1987; published by the Ramanujan Mathematical Society.**
- 2. Proceedings of the International Conference on Discrete Mathematics held at Tiruchirappalli in January 1996. Proceedings was published as Vol. 206 (August 1999) of the North Holland (now Elsevier) Journal: Discrete Mathematics.**
- 3. Proceedings of the January 1998 Conference on Graph Connections held at Cochin University of Science and Technology; published by M/s. Allied Publishers, India.**
- 4. Proceedings of the March 2001 Conference on Graph Theory and its Applications, Anna University, Chennai; published by Narosa Publishing House.**
- 5. Proceedings of the International Conference on Discrete Mathematics, December 2006, held at Indian Institute of Science, Bangalore; published under the RMS-LNS Lecture Notes Series, International Press, Boston.**
- 6. Proceedings of the ICM 2010 Satellite Congress on Recent Trends in Graphs and Combinatorics (ICRTGC - 2010)- Discrete Mathematics 312 (2012).**

International Conferences Organized

One of the principal organizers for the following:

- 1. Ramanujan Centennial International Conference, 1987, held at Annamalai University.**
- 2. International Conference on Number Theory and Discrete Mathematics, January 3-6, 1996, held at Tiruchirappalli.**
- 3. International Conference on Discrete Mathematics ICDM 2006, held at Indian Institute of Science, Bangalore.**
- 4. International Conference on Discrete Mathematics ICDM 2008, held at University of Mysore, Mysore.**
- 5. International Conference on Discrete Mathematical Chemistry (2007), PESIT, Bangalore.**

- 6. International Conference on Discrete Mathematical Chemistry (2008), Kalapet, Kerala**
- 7. First India-Taiwan Conference in Discrete Mathematics, November 2009, Taipei, Taiwan.**
- 8. International Workshop on Graph Coloring June 2010, Bharathidasan University, Tiruchirappalli.**
- 9. Second India - Taiwan Conference on Discrete Mathematics, Amrita University, Coimbatore, September 8-11, 2011.**
- 10. Third India - Taiwan Conference on Discrete Mathematics held in National Chiao Tung University, Taiwan during November 18-22, 2013.**
- 11. Fourth India-Taiwan Conference on Discrete Mathematics held at the Indian Institute of Technology, Madras, July 10-13, 2015.**
- 12. International Conference on Graph Coloring and Spectral Graph Theory held at Pondicherry University, July 15-16, 2015.**
- 13. International Conference on Graph Theory and its Applications, Amrita University, Coimbatore, December 16-19, 2015**
- 14. 31st Annual (International) Conference of the Ramanujan Mathematical Society held at National college campus, Tiruchirappalli, during June 18-21, 2016.**
- 15. International conference on Graph theory, South Asian University, New Delhi, September 15-17, 2016.**
- 16. Workshop on Interconnection Networks, Amrita University, Coimbatore, April 25-29, 2017.**
- 17. 13th Annual Conference of the Academy of Discrete Mathematics and Applications, SSN College of Engineering, Chennai, June 8-10, 2017.**
- 18. Fifth India –Taiwan Conference on Discrete Mathematics, Tamkang University, Taipei, Taiwan, July 18- 21, 2017.**
- 19. Sixth India-Taiwan Conference on Discrete Mathematics, Indian Institute of Technology Varanasi, November 15-18, 2019.**
- 20. International Conference in Discrete Mathematics, SSN College of Engineering, Chennai, November 20-22, 2019.**

Other Facts

- 1. Founder - Secretary of the Ramanujan Mathematical Society**
- 2. Life Member of Ramanujan Mathematical Society, Indian Mathematical Society, American Mathematical Society and Academy of Discrete Mathematics and Applications**

(ADMA).

- 3. Chief Editor of Mathematics Newsletter from 1991 to 2004, published by the Ramanujan Mathematical Society and sponsored by the National Board for Higher Mathematics, India.**
- 4. President of Academy of Discrete Mathematics and Applications (ADMA) for the period 2016-2018.**
- 5. (An) Editor-in-Chief, Indian Journal of Discrete Mathematics for the period 2018-2021.**
- 6. With Professor P. Paulraja as Co-investigator operated at Annamalai University a collaborative project on 'Factorizations and Decompositions of Graphs' under the Indo-French Centre for Collaborative Research with Professors Jean-Claude Bermond and Dominique Sotteau as French Collaborators during the three years 1993-95.**
- 7. First to initiate the Compact Course program in Mathematics with a course of lectures delivered at the Department of Mathematics, Indian Institute of Science, Bangalore.**
- 8. My Springer book: A Textbook of Graph Theory (With K. Ranganathan as Co-author) crossed **one thousand citations** during December 2021.**

Research Guidance - Completed Ph. D Students

- 1. N. Sudharsanam**
- 2. K. Ranganathan**
- 3. P. Paulraja**
- 4. A. Rahim Basha**
- 5. V. Yegnanarayanan**
- 6. R. Sampathkumar**
- 7. B.Selvam**
- S. S. Francis Raj**
- 9. T. Kavaskar**
- 10. A. Anuradha**

Papers published:

1. **On the structure of Magic Matrices, Math. Student 30 (1962), 193-198.**
2. **On general rings with descendant chain conditions, Math. Annalen, 157 (1964), 337-339.**
3. **On the algebra of Magic Matrices, Math. Student 34 (1966), 201-206.**
4. **On the representation of linear complexes by conics in the plane, Math. Student 31, 41-45.**
5. **On the Apollonian Hyperbolas of a pencil of conics, Math. Student, 31.**
6. **Characteristic polynomials of Incidence Matrices, J. Combin. Theory 7 (1969), 322-330.**
7. **Multiplier Groups of Difference sets, J. Combin. Theory 7 (1971), 133-139.**
8. **(With P. Paulraja) Graphs whose squares are chordal, Indian J. Pure Appl. Math. 12 (1981), 193-194.**
9. **(With N. Sudharsanam) Cycle-vanishing edge-valuations of a graph, Indian J. Pure Appl. Math. 12 (1982), 313-316.**
10. **(With N. Sudharsanam) Extension of Chvatal-Lovasz theorem to locally-finite infinite digraphs, Nat. Acad. Science Letters (India) 5 (1982), 163-164.**
11. **(With N. Sudharsanam) Orthogonality of Matroids, J. Comb Information and System Sciences 7 (1982), 197-202**
12. **(With K. Ranganathan) Isomorphism of Hypergraphs, J. Comb Information and System Sciences 7 (1982), 281-283.**
13. **(With K. Ranganathan and N. Sridharan) Existence of B-Graphs with given groups, 1982.**
14. **(With K. Ranganathan) Isomorphism of Hypergraphs, J. Comb. Information and System Sciences 7 (1982), 278-280.**
15. **(With K. Ranganathan) Graphs whose neighbourhood hypergraphs are balanced, Proceedings Seminar on Combinatorics and Applications, Indian Statistical Institute, Calcutta (1982), 48-54.**
16. **(with P. Paulraja) Solution to a problem of Grünbaum and Malkevitch, Proceedings Seminar on Combinatorics and Applications, Indian Statistical Institute, Calcutta (1982), 55-56.**
17. **(With P. Paulraja) Counterexample to a conjecture of Haggkvist and Thomassen,**

Proceedings Seminar on Combinatorics and Applications, Indian Statistical Institute, Calcutta (1982), 44-47.

18. (With P. Paulraja) Powers of Chordal Graphs, J. Australian Math. Soc. Ser. A 35 (183), 211-217.

19. (With P. Paulraja) Existence of Graphs with edge-connectivity 3 and 1-Hamiltonian index 2, J. Comb. Information and System Sciences, 8 (1983), 3032.

20. (With P. Paulraja) Note on the existence of directed $(k+1)$ cycles in disconnected complete k -partite digraphs, J. Graph Theory 8 (1984), 423-426.

21. (With K. Ranganathan) Comfomarl Neighbourhood Hypergraphs, J. Comb. Information and Sysyem Sciences

22. (With P. Paulraja Line graphs of subdivision graphs, J. Comb. Information and Sysyem Sciences 10 (1985), 33-35.

23. (With P. Ramachandran) Not every 3-spread is Hamiltonian, Proceedings of the symposium on Optimization and design of Experiments and Graph Theory, IIT Bombay (186), 243-246.

24. (With P. Paulraja) Chordal graphs and some of their derived graphs, Congresses Numerantium 53 (1986), 33-35.

25. (With P. Paulraja) Self-Clique Graphs and Diameter of Iterated Clique Graphs, Utilitas Mathematica 29 (1986), 263-268.

26. (With P. Paulraja and A Rahim Basha) Packing Half-complete Graphs with trees, Utilitas Math. 31(1987), 131-148.

27. Some Decomposition Problems of Graphs, The Proc. of the 56th Conference of the Indian Mathematical Society.

28. (with R. Sampathkumar) Almost balanced colouring of Infinite sets of Lattice Points, Proceedings of the symposium on graph theory and combinatorics, Kochi, Kerala, India, 17-19 May 1991, pp 15-18.

29. (With R. Sampathkumar) Decomposition of complete tripartite graphs, Congressus Numerantium 93 (1993), 115-130.

30. Hadamard Martices, Proceedings of the national seminar in Algebra, April 1993.

31. (With R. Sampathkumar) Decomposition of complete graphs into isomorphic bipartite subgraphs, Graph and Combinatorics, Springer-Verlag, 10, No.1, (1994), 19-25.

32. (With R. Sampathkumar) Existence and nonexistence of certain labellings in $K_n^c \vee 2K_2$, Utilitas Mathematica 46 (1994), 97-102.

33. (With R. Sampathkumar) Decompositions of regular graphs in $K_n^c \vee 2K_2$, *Discrete Mathematics* 156 (1996), 19-29.
34. (With R. Sampathkumar) A special labelling of graphs, in the proceedings of the national seminar on Recent Developments in Mathematics, Karnatak University, Dharwad, 16-18, Dec. 1993, (1996), pp. 123-126..
35. Hadamard Matrices, in the proceedings of the national seminar on Recent Developments in Mathematics, Karnatak University, Dharwad, 16-18, Dec. 1993, (1996), pp. 163-168.
36. (With A. Selvam) k -Neighbourhood regular graphs, in the proceedings of the National Workshop on Graph Theory and its Applications, Manonmaniam Sundaranar University, Tirunelveli, February 21-27, 1996, pp. 35-45.
37. (With A. Selvam and V. Yegnanarayanan) On Felicitous Labelling of Graphs, , in the proceedings of the National Workshop on Graph Theory and its Applications, Manonmaniam Sundaranar University, Tirunelveli, February 21-27, 1996, pp. 47-61.
38. (with Jean-Claude Bermond, Michael Jacobson and P. Paulraja) Combinatorics and Number Theory. Selected papers of the international conference on discrete mathematics and number theory, Tiruchirappalli, India, 206 (1) (1996) (Edited the Graph Theory Part).
39. (with Selvam Avadayappan and V Yegnanarayanan) Some results on elegant graphs, *Indian Journal of Pure and Applied Mathematics* 28(7) (1997).
40. (With R. Sampathkumar and V. Yegnanarayanan) Extremal graphs in some colouring problems, *Discrete Mathematics*, 186 (1998), 15-24.
41. (With P. Paulraja) Hamilton cycles in tensor product of graphs, *Discrete Mathematics*, 186 (1-3) (1998), 1-13.
42. (with Jean-Claude Bermond, Michael Jacobson and P. Paulraja, Combinatorics and number theory – Preface, *Discrete Mathematics* 206(1-3) (1999), 1-1.
43. (with V Yegnanarayanan and R. Sampathkumar) On the existence of graphs with prescribed coloring parameters, *Discrete Mathematics*, 216 (1-3) (2000), 293-297.
44. (with Bermond, J.C, and Paulraja P) On Hamilton cycle decompositions of the tensor product of complete graphs, *Discrete Mathematics*, 268 (1-3)(2003), 49-58.
45. The energy of a graph, *Linear Algebra and its applications*, 387 (1) (2004), 287-295.
46. (With N. Sridharan and K. Viswanathan Iyer) The Weiner Index of Odd Graphs, *Journal of Indian Institute of Science*, 86 (2006), 527-531.
47. (With K. Viswanathan Iyer and K.T. Raghavendra) Weiner Index of two special tress, *MATCH Communications, Math. Comput. Chem.* 57(2007), 385-392.

48. (With N. Sridharan and K. Viswanathan Iyer) A Sharp lower bound for the Wiener Index of a graph, *ArsCombinatoria*, 2011
49. (with C. Adiga and Wasin So) The Skew Energy of a Digraph, *Linear Algebra and its Applications*, 432(2010), 1825-1835.
50. (with T. Kavaskar and Wasin So) The energy of the Mycielskian of regular graphs, *Australasian Journal of Combinatorics*, 52 (2012), Pages 163–171.
51. (with S. Francis Raj) Connectivity of the Mycielskian of a Graph, *Discrete Mathematics*, 308(2008), 2607-2610.
52. (with S. Francis Raj) The Wiener number of Kneser Graphs, *Discussiones Mathematicae Graph Theory*, 28(2008), 219-228.
53. (with S. Francis Raj) Bounds for the b-chromatic Number of Vertex Deleted Subgraphs and the Extremal Graphs, *Electronic Notes in Discrete Mathematics*, 34(2009), 353-358.
54. (with S. Francis Raj) The Wiener Number of Powers of the Mycielskian, *Discussiones Mathematicae Graph Theory*, 30 (2010).
55. (with T. Kavaskar) Fall Coloring of Graphs-I, *Discussiones Mathematicae Graph Theory*, 30 (2010), 385-391.
56. (with T. Kavaskar) Fall Coloring of Graphs-II, *Journal of Combinatorial Mathematics and Combinatorial Computing*, 76 (2011), 21-31.
57. (with T. Kavaskar) Color Chain of a Graph, *Graphs and Combinatorics*, Springer, 27 (2011), 487-493.
58. *Lecture Notes in Spectra and Energies of Graphs*, Manipal Institute of Technology, Manipal University Press (2012), 16-26.
59. (With T. Kavaskar) b-coloring of Kneser graphs, *Disc. Applied Math. (Elsevier)* 160 (2012), 9-14.
60. (With S. Francis Raj and T. Kavaskar) b-chromatic number of Cartesian product of some families of graphs, *Disc. Applied Math. (Elsevier)* 160 (2012), 2709-2715.
61. (With A. Anuradha) Skew Spectrum of the Cartesian product of an Oriented Graph with an Oriented Hypercube, *Proc. International Workshop and Conference on Combinatorial Matrix Theory and Generalized Inverses of Matrices (2012)*, Springer.
62. (with S. Francis Raj) Bounds for the b-chromatic number of $G-v$, *Discrete Applied Mathematics*, 161 (2013), 1173-1179.
63. (With A. Anuradha, Xiaolin Chen, Xueliang Li, HuishuLian and Wasin So), *Skew*

Spectra of Oriented Bipartite Graphs, *The Electronic Journal of Combinatorics*, 20(4) (2013), # of pages 18.

64. (With T. Kavaskar) Interpolation theorem for partial Grundy coloring, *Disc. Mathematics (Elsevier)* 313 (2013), 949-950.
65. (With A. Anuradha and Wasin So), Skew spectra of graphs without even cycles, *Linear Algebra and its Applications (Elsevier)*, 444 (2014), 67-80.
66. (With A. Anuradha and G. Indulal) Some New Families of Integral Graphs, *Indian Journal of Pure and Applied Mathematics (Springer)*, (2014), 805-817.
67. (With S. Francis Raj and T. Kavaskar) Bounds for the b-chromatic number of Cartesian product of graphs, *Graphs and Combinatorics (Springer)*, 30, 511-520 (2014).
68. A Chapter on "Adjacency Spectrum and Laplacian Spectrum of a graph" in the book: "Handbook of Graph Theory, Combinatorial Optimization and Algorithms", C.R.C. Press, December 2015.
69. (With S. Francis Raj and T. Kavaskar), b- Coloring of Cartesian product of trees, *Taiwanese Journal of Mathematics*, Vol. 20, No. 1, pp. 1-11, February 2016.
70. (with S. Francis Raj) Bounds for the b-chromatic Number of the Mycielskian of some families of graphs, *ARS Combinatoria*, 12, pp. 85- 96, 2015.
71. (with G. Indulal) Distance Spectrum of Indu-Bala Products of Graphs, *AKCE International Journal of Graphs and Combinatorics*, July 2016.
72. (with P. Paulraja, Wasin So and M. Vinay) Some properties of the Knodel graphs W_k ($k \geq 4$), *Australasian Jour. of Combinatorics*, 74 (2019), pp. 17-32, 2019.

Invited Talks Delivered:

1. Indian Mathematical Society Conference, Madras, 1963. Title: Algebra of Magic Matrices.
2. Third Waterloo International Conference on Combinatorics, Waterloo, 1968. Title : Characteristic Polynomials in Incidence Matrices.
3. Indian Mathematical Society Conference, Bangalore, 1968. Title: Multiplier groups of Difference sets.
4. International Conference in Mathematics and Physics, Madras, 1969. Title: Some results in Multilinear algebra.
5. Summer Institute in Mathematics,, Annamalai University, 1972. Title: Lectures on Topology
6. ISI conference on Combinatorics, New Delhi, 1972. Title: Multiplier theorem for Difference of sets.

7. COSSIP programme, St. Joseph's college, Trichy, 1973. Title: Lectures on group representations (10 Lectures).
8. National seminar on Algebra, Madras, 1980. Title: Cycle mappings of Graphs.
9. International conference on Combinatorics, ISI Calcutta, 1980. Title: Cycle mappings of graphs.
10. Indian Mathematical Society conference, Bangalore, 1980, Power of chordal graphs.
11. COSSIP programme, Aditanar Colleges, Thiruchendur, 1981.
12. Chaired a session at International conference on Combinatorics and applications, ISI Calcutta, 1982.
13. National Seminar on current trends on Mathematics, Ramanujan Institute of Mathematics, Madras, Feb 29, 1992. Title: Colouring point sets in the plane.
14. Seventh Annual conference of the Ramanujan Mathematical Society, Jiwaji University, Gwalior, June 25-27, 1992. Title: Some graph decomposition problems.
15. Seminar on graph theory, Madurai Kamaraj University, Madurai, September 11-12, 1992. Title: Decomposition of complete tripartite graphs.
16. Department of Mathematics, Louisville, Kentucky, USA, Feb 15-19. Title: Lectures on Decompositions and Labelling of Graphs.
17. School of Business, University of Louisville, USA, Feb 17, 1993. The teleprinter problem.
18. International conference on combinatorics, graph theory and computing, Florida Atlantic University, Feb 22-26, 1993, USA. Title: Decomposition of complete tripartite graphs.
19. Department of Mathematics and Department of Computer Science, University of Georgia, USA, March 1-2, 1993. Title: Joint Colloquium talk on some decomposition and labelling problems of graphs.
20. Department of Mathematics, University of South Carolina, Clemson, USA, March 3, 1993. Title: Some problems in graph theory.
21. Department of Mathematics, Moorehouse college, Atlanta, USA, March 4, 1993. Title: Graphs theory and its applications.
22. Department of Mathematics, Washington, D.C., USA, March 5, 1993. Title: Some open problems in Graph theory.
23. Department of Industrial Engineering, University of Toronto, Canada, March 8, 1993.
24. National Seminar on Algebra and its applications, Bharathidasan University, Tiruchirappalli, April 11-19. Title: Hadamard Matrices.

25. University of Paris, Laboratoire Recherches Informatique, Orsay, Paris, France, May 28 – June 11, 1993. Title: Graph Decompositions.
26. CNRS University of Nice, Sophia Antipolis, France, June 11-27, 1993. Title: Some problems in graphs decompositions.
27. National seminar on recent developments in mathematics, Karnatak University, Dharwad, Dec 16-18, 1993.
28. National workshop on graph theory and its applications, Manipal Institute of Technology, April 4-10, 1994. Title: Lectures on orthogonal Latin square.
29. Ninth Annual conference of the Ramanujan mathematical society, Kerala University. Trivandram, May 17-19, 1994.
30. Chaired a session at the International Workshop on Graph Theory, National Sun-Yatsen University, Kaohsiung, Taiwan, August 14-16, 2012. Also delivered a lecture on : Skew spectra of Oriented Graphs.
31. University of Paris, Laboratoire Recherches Informatique, Orsay, Paris, France, Sep 11-Oct 10, 1994. Title: Graph Colourings.
32. CNRS University of Nice, Sophia Antipolis, France, Sep 24-Oct 4, 1994. Title: Pseudoachromatic colouring of graphs.
33. Prof. R. Vaidyanathaswamy Centennial Colloquium at the Ramanujan Institute of Mathematics, University of Madras, Madras, Dec 7-8, 1994. Title: Tensor product of graphs.
34. National Seminar in Mathematics, Sri Venkateswara University, Tirupati, Dec 10, 1994. Title: Hadamard Matrices.
35. Seminar on graph theory and stochastic processes, AVC college, Mayiladuthurai, Feb 2, 1995. Title: Applications of graph theory to phasing of traffic lights.
36. Seminar on graph theory and its applications, Loyola College, Madras, March 3, 1995. Title: 1-Factorizations of complete graphs.
37. 10th Annual conference of the Ramanujan Mathematical Society, Rishikesh, May 24-26, 1995. Title: The Pseudo achromatic number of $2Kn, m$.
38. National Seminar on Graph theory, MS University Tirunelveli, Feb 21-22, 1996. Title: Nowherezero flows in networks.
39. “Choosability in Graphs” at the Workshop on Graph Coloring held at Indian Statistical Institute, Chennai during January 25-27, 2013.
40. The India-Slovenia Conference in Discrete Mathematics held at the Department of Future Studies, Kerala University, Thiruvananthapuram. Topic: Skew Spectrum of the Cartesian Product of an Oriented Graph with an Oriented Hypercube.
41. Delivered a course of 5 lectures in the Workshop preceding International Conference on Discrete Mathematics (ICDM 2013) on Spectral Graph Theory on June

7-9, 2013 at Karnatak University, Dharwad.

42. The National Conference on Graph Coloring and its Applications, Dr. Ambedkar Institute of Technology, Bangalore July 27-28, 2013

43. “Coloring Games in Graphs” at the National Conference on Graph Theory and its Applications held at Periyar University, Salem, January 6-7, 2014.

44. Delivered the Frank Harary Endowment Lecture at the Annual Conference of ADMA, Reva University, Bengaluru, June 10-13, 2014. Title: Two major theorems in graph theory.

45. Interconnection Networks at the Conference on Graph Theory held at St. Xavier’s College for Women, Aluwa, Kerala, August 7-9, 2014.

46. Workshop on Linear Algebra held at Reva University, Bangalore on December 15, 2014.

47. National Conference on Graph Theory at SSN College of Engineering, Chennai, held during December 18-20, 2014 Title: Knodel Graphs in Interconnection Networks.

48. National Conference on Graph Theory and Automata held at St. Joseph’s College, Tiruchirappalli held during January 9-10, 2015 Title : Ramanujan Graphs.

49. International Conference on Graph Coloring and Spectral Graph Theory held at Pondicherry University during July 15- 16, 2015 Title : The automorphism group of Knodel graphs.

50. Seethalakshmi Ramaswami College, Trichy on January 19, 2016 Title : Polynomials with Integer Coefficients.

51. Pre-conference workshop on “Algebraic and Applied Combinatorics” held at National College, Tiruchirappalli, June 15-17, 2016. Delivered a course of lectures on Combinatorial Nullstellensatz.

52. Dhirubhai Ambani Institute of Information and Communication Institute, Gandhi Nagar, Gujarat, June 2018, Title : Interconnection Networks.

53. Symposium organized in honour of Professor S.S. Shrikhande by the Indian Mathematical Society at its annual meet: December 17-20, 2020. Delivered an invited talk on: The List Chromatic Number of a Graph.

54. National Science Day meeting organized by Kalasalingam Academy for Research and Education, December 22, 2020.

Other Academic Activities

I am presently involved in organizing an Outreach Program in Mathematics at the Ramanujan Mathematical Society Building, National College Campus at Tiruchirappalli for the benefit of M.Sc. M.Phil. and Ph.D. scholars in mathematics.

These scholars are being taught the foundations of mathematics and the methods to solve problems so that they would be better placed to meet the National Entrance Tests like NET, SLET etc. with greater confidence. It is a continuing program which is being conducted for 3 days in a month and for a longer period during summer vacation.

Updated: April 2022.