



Jay S. Bagga, Ph. D.
Curriculum Vita
February 2024

CURRENT POSITION AND CONTACT INFORMATION	Professor of Computer Science Department of Computer Science Ball State University Muncie, Indiana jbagg@bsu.edu
RESEARCH EXPERTISE AND INTERESTS	Graph Theory, Graph Algorithms, and their Applications to Computer Science and other areas; Theory of Computation; Combinatorics and Discrete Structures.
EDUCATION	Purdue University , W. Lafayette, Indiana Ph.D., Mathematics - Graph Theory , 1984 M.S., Mathematics 1977 Ball State University , Muncie, Indiana M.S., Computer Science , 1988
PROFESSIONAL EXPERIENCE	Professor of Computer Science 1992 to present Department of Computer Science, Ball State University
PERSONAL HONORS & AWARDS	<ul style="list-style-type: none">• Mira TechPoint Technology in Education Excellence & Innovation Finalist 2012• Ball State Summer Commencement Speaker 2012• Ball State Outstanding Faculty Award 2010• Third Harary Memorial Lecture Speaker, Department of Computer Science, New Mexico State University 2009• Harary Plenary Lecture Speaker, MIGHTY (Midwest Graph Theory Conference), Indiana University Purdue University Fort Wayne 2006• Ball State Outstanding Research Award 2002• Fulbright Senior Scholar and Visiting Professor, University of Zimbabwe 2000• Foundation Fellow of the Institute of Combinatorics & its Applications 1992

BOOKS

- **Line Graphs and Line Digraphs**, couthored with Lowell W. Beineke, Springer, 2021, <https://doi.org/10.1007/978-3-030-81386-4>
- **Theoretical Computer Science and Discrete Mathematics**, First International Conference, ICTCSDM 2016, 2017, co-edited with S. Arumugam, Lowell W. Beineke, and B.S. Panda. <https://doi.org/10.1007/978-3-319-64419-6>

DOCTORAL/
THESIS ADVISOR/
COMMITTEE
MEMBER /
THESIS EXAMINER

- (Ph.D Committee Member) Jessica Weir: *Big Data for the Benefit of Aquatic Invasive Species Management*, Ball State University (2023).
- (Ph.D Thesis Examiner) Neeta Shinde: *Graph Theoretical Aspects in Coding Theory*, University of Pune, India (2022).
- (Ph.D Advisor) Pambe Junior: *Labeling Problems in Graphs*, University of Cameroon (2017).
- (Ed.D. Advisor) Adrian Heinz: *Algorithms and Software Systems for Learning and Research*, Ball State University (2009).
- (PhD. Thesis Examiner) C. Sivagananam: *Studies in Graph Theory – Neighbor Connected and Neighborhood Total Domination in Graphs*, Annamalai University, India (2008).
- (Ph.D. Thesis Examiner) R. Lakshmi: *Contributions to the Theory of Optimal Orientations of Graphs*, Annamalai University, India (2006).
- (Ed.D. Advisor) Brian Simmons, Computer Science Cognate, Ball State University (1996).

TEACHING
EXPERIENCE

- Network and Computer Security; Design and Analysis of Algorithms; Graph Theory and Graph Algorithms with Applications; Research Methods in Computer Science; Theory of Computation; Advanced Theory of Computation; Model Checking; Applied Computational Geometry; Bioinformatics Algorithms Discrete Structures; Data Structures; Combinatorics and Discrete Mathematics; Computer Science 1 and 2; Calculus 1 and 2; Finite Mathematics; Number Theory; Statistics.

PROGRAM AND
COURSE
DEVELOPMENT

- Online Masters Program in Computer Science at Ball State University; Masters Program in Computer Science at Ball State University; Masters Program in Computer Science at University of Hanoi; Masters Program in Computer Science at University of Zimbabwe.
- New courses developed and taught at Ball State University and other institutions: Topics in Cryptography and Cybersecurity; Research Methods in Computer Science; Theory of Computation 1 and 2; Graph Algorithms and Applications; Advanced Topics in Graph Theory; Software Verification and Model Checking; Bioinformatics Algorithms; Discrete Structures; Design and Analysis of Algorithms; Applied Computational Geometry; Combinatorics and Discrete Mathematics.

SCHOLARLY
PUBLICATIONS

1. Big data from a popular app reveals that fishing creates superhighways for aquatic invaders, with Jessica L Weir, Kirsten Vacuraa, Adam Berland, Kieran Hyder, Christian Skov, Johan Attbyg, and Paul A Venturelli, PNAS Nexus, 2022, 1, 1–9, <https://doi.org/10.1093/pnasnexus/pgac075>
2. New results and open problems in line graphs, with Lowell W. Beineke, AKCE International Journal of Graphs and Combinatorics, 2022, <https://doi.org/10.1080/09728600.2022.2093146>

3. A survey of line digraphs and generalizations, Jay S. Bagga and Lowell W. Beineke, *Discrete Math. Lett.* 6 (2021) 68–83, <https://doi.org/10.47443/dml.2021.s109>
4. Graphoidal graphs and graphoidal digraphs: a generalization of line graphs, with S. Arumugam, *AKCE International Journal of Graphs and Combinatorics*, 2020.
5. A survey and a new class of graceful unicyclic graphs, with Max Pambe Biatch', S. Arumugam, *AKCE International Journal of Graphs and Combinatorics*, 2020.
6. Discovery of Some New Classes of Graceful Unicyclic Graphs, with L. Fotso and Max Pambe, *Journal of Combinatorial Mathematics and Combinatorial Computing*, Volume 109, 2019, 105-127.
7. A number theoretic problem on super line graphs, Jay Bagga, Lowell Beineke and Badri Varma, *AKCE International Journal of Graphs and Combinatorics*, Volume 13, Issue 2, August 2016, Pages 177-190.
8. *New Classes of Graceful Unicyclic Graphs*, *Electronic Notes in Discrete Mathematics* 48 (2015) 27-32. (with Laure Pauline Fotso, Pambe Biatch' Max, S. Arumugam).
9. *Network Motif Identification and Structure Detection with Exponential Random Graph Models*, *Network Biology*, 2014, 4(4): 155-169.
10. *An Algorithm for graceful labelings of certain unicyclic graphs*, *VNU Journal of Science: Comp. Science & Com. Eng.* Vol. 30, No. 3 (2014) 1–11 (with Pambe Biatch' Max and Laure Pauline Fotso).
11. *On Dominator Colorings in Graphs*, Springer, *Proceedings Mathematical Sciences*, 10.1007/s12044-012-0092-5, 2012 (with S. Arumugam and K. Raja Chandrasekar).
12. *Graphical Modeling for High Dimensional Data*, *Journal of Modern Applied Statistical Methods*, 2012, Vol. 11, No. 2, (with M. Begum and A. Blakey)
13. *Graceful Labelings - Properties and Algorithms*, *Graph Theory Research Directions*, pp. 49-58, 2011, Narosa Publishing House, India.
14. *The Spectra of Super Line Multigraphs*, *Proc. ICDM, RMS-Lecture Notes Series* No. 13, 2010, pp. 81–89. (with R. Ellis and D. Ferrero).
15. *Software Systems for Research in Graph Theory*, *The Journal of Combinatorial Mathematics and Combinatorial Computing*, vol. LXIX, May 2009, pp 53-62. (with A. Heinz).
16. *Degree Sets in Polygon Visibility Graphs*, *The Journal of Combinatorial Mathematics and Combinatorial Computing*, vol. LXIX, May 2009, pp 63-74. (with John Emert, J. Michael McGrew, and Frank W. Owens).
17. *An Algorithm for Graceful Labelings of Cycles*, *Congressus Numerantium* 186 (2007), pp-57-63. (with Adrian Heinz and Mahbubul Majumder)
18. *Properties of Graceful Labelings of Cycles*, *Congressus Numerantium* 188 (2007), pp 109-1115. (with Adrian Heinz and Mahbubul Majumder)
19. *Software Systems for Implementing Graph Algorithms for Learning and Research*, *ICTACS 2006, Proceedings of the First International Conference on Theories and Applications of Computer Science 2006*, World Scientific Publishers. (with Adrian Heinz).
20. *On Avoiding a Clash of Arms at a Round Table*, *Congressus Numerantium*, 179 (2006), pp. 215-219. (with John Emert, J. Michael McGrew, and Frank W. Owens).

21. *The structure of super line graphs*, Proceedings, 8th International Symposium on Parallel Architectures, Algorithms & Networks (I-SPAN 2005), pp 468-471. IEEE Computer Society. (with Daniela Ferrero).
22. *The structure of super line graphs*, Proceedings, 8th International Symposium on Parallel Architectures, Algorithms & Networks (I-SPAN 2005), pp 468-471. IEEE Computer Society. (with D. Ferrero).
23. *Old and New Generalizations of Line Graphs*, International Journal of Mathematics and Mathematical Sciences 2004: 29, 1509-1521.
24. *Connectivity Properties of Visibility Graphs*, Congressus Numerantium, 165 (2003), pp. 189-194. (with John Emert and M. McGrew).
25. *A Cluster-Oriented Mutual Exclusion Algorithm for Mobile Ad-hoc Networks*, Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications, Volume II, CSREA Press, 2003. (with S. Udgata).
26. *JGraph - A Java Based System for Drawing Graphs and Running Graph Algorithms*, Lecture Notes in Computer Science, 2265 (2002), Springer Verlag. (with A. Heinz).
27. *Directed Polygons as Boundaries of Visibility Graphs*, Congressus Numerantium, 142 (2000), pp. 57-63. (with John Emert and M. McGrew).
28. *Hamiltonian Properties in Bipartite Graphs*, Bulletin of the Institute of Combinatorics and its Applications, 26 (1999). (with B. Varma).
29. *Independence and Cycles in Superline Graphs*, Australasian Journal of Combinatorics, 19 (1999). (with L. Beineke and B. Varma).
30. *The Super Line Graph L_2* , Discrete Mathematics, 206 (1999) (with L. Beineke and B. Varma).
31. *Directed Polygons Visibility Graphs*, Congressus Numerantium, vol. 132, (1998), pp. 61-67. (With John Emert and M. McGrew).
32. *The Complexity of Illuminating Polygons by α - floodlights*, International Informatics Series 5, Canadian Conference on Computational Geometry, 1996. (with L. Gewali and D. Glasser).
33. *Illuminating Simple Polygons by Floodlights*, Vision Geometry IV, The International Society for Optical Engineering, 1995. (with L. Gewali and D. Glasser)
34. *The Line Completion Number of a Graph*, Graph Theory, Combinatorics, and Algorithms, John Wiley, 1995. (with L. Beineke and B. Varma),
35. *Super Line Graphs*, Graph Theory, Combinatorics, and Algorithms, John Wiley, 1995. (with L. Beineke and B. Varma).
36. *On the Pure Edge Integrity of Graphs*, Graph Theory, Combinatorics, and Algorithms, John Wiley, 1995. (with J. Deogun).
37. *Edge Integrity - A Survey*, Discrete Applied Math, vol. 124(1994), pp 3-12. (with L. Beineke, M. Lipman, and R. Pippert).
38. *On the Sizes of Some Visibility Graphs*, Congressus Numerantium vol. 104, 1994, pp 25-32. (with J. Emert, M. McGrew, and W. Toll).
39. *Vertex Transitive Graphs of Toughness One*, The Bulletin of ICA, 10, 39-49, 1994. (with M. Lipman).
40. *Super Line Graphs and Their Properties*, in Proceedings of the Third China-USA International Graph Theory Conference, Beijing, 1993. (with L. Beineke and B. Varma).

41. *The Super Line Graph L_2 for Hypercubes*, Congressus Numerantium, vol. 93, 1993, pp 111-113. (with Maria Rosario Vasquez).
42. *On the Size of Minimal Visibility Graphs*, Department of Mathematical Sciences Technical Report #87, Ball State University, 1993. (with M. McGrew, J. Emert, and W. Toll).
43. *Some Bounds and An Algorithm for the Edge Integrity of Trees*, Ars Combinatoria, 35-A, pp 225-238, 1993. (with L. Beineke, M. Lipman, and R. Pippert, and R. L. Sedlmeyer).
44. *A Classification Scheme for Vulnerability and Reliability Parameters of Graphs*, Mathematical and Computer Modeling, 17/11, 1993, pp13-16. (with L. Beineke, M. Lipman, and R. Pippert).
45. *On the Honesty of Graph Complements*, Discrete Math, 122, pp 1-6, 1993. (with L. Beineke, M. Lipman, and R. Pippert).
46. *A Survey of Integrity*, Discrete Applied Mathematics, vol. 37-38, 1992, pp 13-28. (with L. Beineke, M. Lipman, and R. Pippert).
47. *Two Problems on Coloring Tournaments*, Vishwa International Journal of Graph Theory, vol. 1, December 1992. (with L. Beineke and F. Harary).
48. *A Variation on the Edge-Integrity*, Congressus Numerantium, vol. 91, 1992, pp207-211. (with J. Deogun).
49. *Degree Conditions and Long Cycles in Bipartite Graphs*, Congressus Numerantium, vol. 85, 1991, pp 123-128. (with B. Varma).
50. *Some Graph Theoretic Properties of Petri Nets*, Graph Theory, Combinatorics, and Applications, vol. 1, pp 19-28, John Wiley & Sons, 1991. (with F. Owens).
51. *Extensions of an Algorithm for Computing the Edge Integrity of Trees*, Graph Theory, Combinatorics, and Applications, vol. 1, pp 41-54, John Wiley & Sons, 1991. (with L. Beineke, M. Lipman, R. Pippert).
52. *Petri Nets, State Machines and Deadlocks*, ACM Nineteenth Annual Computer Science Conference, March 1991. (Abstract) (with F. Owens).
53. *Bipartite Graphs and Degree Conditions*, Graph Theory, Combinatorics, Algorithms, and Applications vol. 54, SIAM, 1991. (with B. Varma).
54. *The Concept of Leverage in Network Vulnerability*, Graph Theory, Combinatorics, and Applications, vol. 1, pp 29-40, John Wiley & Sons, 1991. (with L. Beineke, M. Lipman, R. Pippert).
55. *Explorations into Graph Vulnerability*, Graph Theory, Combinatorics, and Applications, vol. 1, pp 143-158, John Wiley & Sons, 1991. (with L. Beineke, M. Lipman, R. Pippert).
56. *Low Dimensional Middle Cubes are Hamiltonian*, Computing in the 90's, Lecture Notes in Computer Science #507, pp8-14, Springer Verlag, 1990. (with F. Owens).
57. *On Some Classes of Petri Nets*, ACM Eighteenth Annual Computer Science Conference, February 1990. (Abstract) (with F. Owens).
58. *On the Numbers of Some Subtournaments of a Bipartite Tournament*, Annals of the New York Academy of Sciences, vol. 555, 1989. (with L. W. Beineke).
59. *On Superstrong Tournaments and Their Scores*, Annals of the New York Academy of Sciences, vol. 555, 1989. (with L. W. Beineke).

60. *Deadlocks and Traps in Complete Petri Nets*, ACM Seventeenth Annual Computer Science Conference, February 1989. (Abstract) (with F. Owens).
61. *A Good Algorithm for the Computation of the Edge-Integrity of Trees*, *Congressus Numerantium*, vol. 67, 1988, pp 225-232 (with L.W. Beineke, M.J. Lipman , R.E. Pippert , and R.L. Sedlmeyer).
62. *The Separation Sequence and Network Reliability*, *Congressus Numerantium*, vol. 66 , 1988, pp 293-300 (with L.W. Beineke, M.J. Lipman , R.E. Pippert).
63. *Variations on a Theorem of Petersen*, *Periodica Mathematica Hungarica*, vol. 19(3), 1988, pp. 241-247. (with L.W. Beineke, G. Chartrand, and O.R. Oellermann).
64. *On the Edge Integrity of Graphs*, *Congressus Numerantium*; vol. 60, 1987, pp. 141-144. (with L.W. Beineke, M.J. Lipman , R.E. Pippert).
65. *On Superstrong Bipartite Tournaments*, *Congressus Numerantium*, vol. 53, 1987, pp. 113-119. (with L. W. Beineke)
66. *Uniquely Realizable Score Lists in Bipartite Tournaments*, *Czechoslovak Mathematical Journal*, vol. 37, no. 112, 1987, pp. 323-333. (with L. W. Beineke).
67. *Some Results on Binary Matrices Obtained via Bipartite Tournaments*, in *Graph Theory and its Applications to Algorithms and Computer Science*, John Wiley & Sons, 1985, pp. 47-56. (with L. W. Beineke).
68. *On Upsets in Bipartite Tournaments*, in *Graph Theory and its Applications to Algorithms and Computer Science*, John Wiley & Sons, 1985, pp. 37-46.

RECENT
NATIONAL,
INTERNATIONAL,
INVITED, AND
OTHER
PRESENTATIONS

1. Two invited presentations *Algorithms, Complexity and Applications to Graph Algorithms* and (jointly with Lowell Beineke) *Some Recent Advances in Line Graphs and Line Digraphs* at International Workshop on Algorithms, Complexity and Some Recent Advances in Graph Theory - 2023 Atmiya University, Rajkot, Gujarat, India, in association with Hemchadracharya North Gujarat University, Patan, Gujarat, India.
2. *Models of Computing, AI, and Machine Learning: Applications to Health Sciences and Orthopedics*, invited faculty presentation at the 41st Annual Conference of Gujarat Orthopedic Association (GOACONN), Bharuch, Gujarat, India, from 3-5 February 2023.
3. *Recent Advances in Line Graphs and Line Digraphs*. invited presentation as the Prof. S. Arumugam Endowment Lecturer, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, 27 January 2023.
4. Eight lectures on *Topics in Cryptography and Cybersecurity* to about one-hundred juniors and seniors in the Computer Engineering program at Ramco Institute of Technology, Rajapalayam, Tamilnadu, India, 23-26 January 2023.
5. Two presentations in *Workshop on Line Graphs & Labelings of Graphs* at Birla Institute of Science and Technology (BITS) Campus, Goa, India, 18-19 January, 2023.
6. *New Research Directions in Line Graphs*, invited presentation (with Lowell Beineke) at the International Conference on Graphs, Networks and Combinatorics (ICGNC 2023), New Delhi, India, 10-12 January 2023.
7. *Computational Complexity of Some Graph Algorithms and Graph Recognition Problems*. Seminar at Indiana University Purdue University Indianapolis (IUPUI), Department of Computer Science, April 2022.

8. *Computational Complexity of Some Graph Algorithms and Graph Recognition Problems*. Colloquium at Ball State University, Department of Computer Science, April 2022.
9. *New Results and Open Problems in Line Graphs..* Invited presentation (with Lowell Beineke) at the International Conference on Graphs, Combinatorics and Optimization, BITS Pilani, Dubai Campus, February 2022.
10. *Some Open Problems in Line Graphs and Line Digraphs*. Invited Speaker and Inaugural Speaker at the International Conference on Theoretical Computer Science and Discrete Mathematics, Sri Sivasubramaniya Nadar College of Engineering, India, December 2021.
11. *Graph Labeling Algorithms and Applications to Computer Science* Tech Talk, Colloquium Presentation at Georgia Gwinnett College, October 2021.
12. *Properties of Graceful Labelings of Graphs and Digraphs*. Invited Keynote Speech at IWOGL 2021 (International Workshop On Graph Labeling), September 2021.
13. *Computational Complexity and Applications of Graph Algorithms*. Invited presentation at the Second International Conference on Applied Mathematics and Intellectual Property Rights, A.P.C. Mahalaxmi College For Women, March 2021.
14. *Graceful Labelings of Unicyclic Graphs*. 52nd Southeastern International Conference on Combinatorics, Graph Theory and Computing, Florida Atlantic University, March 2021.
15. Keynote Speaker at INNOVATIONS IN INTERDISCIPLINARY RESEARCH VIRTUAL INTERNATIONAL CONFERENCE, Kalasalingam Academy of Research and Education, India, 2020
16. Chief Guest and Inaugural Speaker at INNOVATIONS IN INTERDISCIPLINARY RESEARCH VIRTUAL INTERNATIONAL CONFERENCE, Kalasalingam Academy of Research and Education, India, 2020.
17. Professor S. Arumugam Endowment Lecturer, Manonmaniam Sundranar University, India, 2020.
18. Invited Presentation at International Conference on Theoretical Computer Science and Discrete Mathematics at Kalasalingam University, India, December 2016.
19. (2018) Graceful Labelings of Unicyclic Graphs, International Conference on Discrete Mathematics and its Applications to Network Science, BITS Pilani, Goa Campus, India.
20. (2016) Are trees Graceful? Indiana University Purdue University Fort Wayne, March 23, 2016.
21. (2016) An Optimization Problem on Super Line Graphs. 57th Midwest Graph Theory (MIGHTY) Conference held at Wright State University, Dayton, Ohio, April 9, 2016.
22. (2016) Super Line Graphs and the Line Completion Number, Research Presentation at International Conference on Theoretical Computer Science and Discrete Mathematics at Kalasalingam University, India, December 2016.
23. (2013) Graceful Labeling Algorithms, invited lecture at Kalasalingam University, January 2013
24. (2013) Three Lectures in Bioinformatics, Invited lectures at Kalasalingam University, January 2013.

25. (2013) (Invited Plenary Presentation) Graphical Models in Bioinformatics, International Conference in Applied Mathematics Theoretical Computer Science (ICAMTCS 2013), St. Xavier's Catholic College of Engineering, Tamilnadu, India, January 24-25, 2013.
26. (2012)(Invited Plenary Presentation) Graphical Models of Biological Networks, International Conference on Statistical Data Mining for Bioinformatics, Health, Agriculture and Environment, 21-24 December 2012, Rajshahi University, Bangladesh.
27. (2012) Algorithms in Bioinformatics, International Conference on Statistical Data Mining for Bioinformatics, Health, Agriculture and Environment, 21-24 December 2012, Rajshahi University, Bangladesh. (2011)Graceful Labellings of Graphs, University of Engineering and Technology, Vietnam National University, December 2011.
28. (2010)Super Line Graphs, International Conference on Recent Trends in Graph Theory and Combinatorics (ICRTGC - 2010), Cochin, India, August 12-15, 2010.
29. (2009)Workshop in Graph Theory, Algorithms, and Applications, University of Yaoundé I, Cameroon, September 7-11, 2009.
30. (2009)(Invited Presentation) Frank Harary's Graph Theory in Games, Tournaments and Social Networks (Annual Frank Harary Lecture Series), Department of Computer Science, New Mexico State University, April 8, 2009.
31. (2009)A Course in Graph Theory and its Applications, A three lecture course given to researchers and fellows at United Nations University - International Institute for Software Technology (UNU-IIST), Macau, China, March 17-23, 2009.
32. (2009)(Invited Presentation) Graceful Labelings of Some Classes of Unicyclic Graphs -Properties and Algorithms, Texas A&M University, Galveston, February 4, 2009.
33. (2008)Graceful Labelings of Unicyclic Graphs, International Conference on Discrete Mathematics (ICDM 2008), Mysore, India, June 6-10, 2008.
34. (2008)Graceful Labelings – Properties and Algorithms, Indian Institute of Technology (IIT), Kharagpur, India, May 2008.
35. (2007)Properties and of Graceful Labelings of Cycles, International Conference on Recent Developments in Combinatorics and Graph Theory, Kalasalingam University, India, June 2007.
36. (2007)Properties of Graceful Labelings of Cycles, The Thirty-Eighth Southeastern International Conference on Combinatorics, Graph Theory, and Computing, March 2007 in the University Center at Florida Atlantic University in Boca Raton, FL.
37. (2007)Knowledge Management Software Systems in Academia and Industry, Invited presentation at the 94th Indian Science Congress, Annamalai University, India, January 2007.
38. (2006)Software Systems for Implementing Graph Algorithms for Learning and Research, The First International Conference on Theories and Applications of Computer Science (ICTACS'06), Vietnam, August 2006.
39. (2005)Model Checking with SPIN and its Industrial Applications (Tutorial), ICTAC05 - International Colloquium on Theoretical Aspects of Computing, Hanoi, Vietnam, October 2005.

JOURNAL EDITOR/
REFEREE

- Editorial Board Member, South East Asian Journal of Mathematics and Mathematical Sciences, published by Ramanujan Society of Mathematics and Mathematical Sciences.
- Associate Editor, VNU Journal of Science: Computer Science and Communication Engineering.
- Co-Editor, Journal of Combinatorial Math and Combinatorial Computing, Volume 84, 2012.
- Program Committee Member and Reviewer, Fourth International Conference on Knowledge and Systems Engineering (KSE 2012).
- Co-Editor, Journal of Combinatorial Math and Combinatorial Computing, Volume 69, 2009.
- Served on Review Panels for several National Science Foundation (NSF) SBIR-STTR proposals.
- Served on Fulbright Review Committee.
- Co-Editor, Congressus Numerantium, Volumes 63 and 64, 1988.
- Reviewer/Referee for Australasian Journal of Combinatorics; South East Asian Journal of Mathematics and Mathematical Sciences; The Journal of Combinatorial Mathematics and Combinatorial Computing; Congressus Numerantium; Discrete Math; Ars Combinatoria; Math Reviews Several books; Several Conference Proceedings; External reviewer for awards/promotions to full professor, External reviewer for grant proposals; Asian Applied Computing Conference.

MEMBERSHIP IN
PROFESSIONAL
SOCIETIES

- ACM (Association for Computing Machinery)
- Institute of Combinatorics and its Applications