

## DETAILED BIO – DATA

1. Name and Full Correspondence Address: Dr. S. BALAMURUGAN

ASSISTANT PROFESSOR

RESEARCH DEPARTMENT OF

MATHEMATICS

SRI MEENEKSHI GOVERNMENT ARTS

COLLEGE FOR WOMEN (Autonomous)

MADURAI – 625 002

2. E mail (s) and Contact Numbers : [balapoojaa2009@gmail.com](mailto:balapoojaa2009@gmail.com)

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3. Institution : SRI MEENEKSHI GOVERNMENT ARTS

COLLEGE FOR WOMEN (Autonomous)

MADURAI – 625 002

4. Date of Birth : 20.07.1978

5. Gender : Male

6. Academic Qualification

S.No	Degree	Year of Passing	Subject	Name of the University	% of Marks
01.	B.Sc	Aug 1999	Mathematics	Madurai Kamaraj University	51%
02.	M.Sc	Nov 2002	Mathematics	Madurai Kamaraj University	71.87 %
03.	M.Phil	Dec 2003	Mathematics	Madurai Kamaraj University	68.53 %
04.	Ph.D	Jan 2009	Mathematics	Madurai Kamaraj University	----
05.	D.Sc.,	Doing	Mathematics	Madurai Kamaraj University	----

7. Ph.D thesis title, Guide's Name, Institute / University, Year of Award

Title of Ph.D thesis	Name of the Guide	University	Year of Award
A Study of Chromatic Strong domination in Graphs	Prof. Dr.V. SWAMINATHAN Director, Ramanujan Research Centre in Mathematics, Saraswathi Narayanan College, Madurai - 625 022, Tamilnadu	Madurai Kamaraj University, Madurai	09.01.2009

8. Work experience (in chronological order)

S.No	Positions held	Name of the Institution	From	To	Pay Scale
01.	Assistant Professor	Thiagarajar College, Madurai	05.09.2008 Aided Regular	2.03.2011	8000-275-13500
02.	Assistant Professor	Sethupathy Govt. Arts College, amanathapuram	03.03.2011	01.11.2012	15600-39100 +AGP 6000
03.	Assistant Professor	Raja Doraisingam Govt. Arts College, Sivagangai	02.11.2012	05.09.2014	22810-39100 + AGP 7000
04.	Assistant Professor	Government Arts College, Melur	05.09.2014	19.02.2023	23680-39100 +AGP
05.	Assistant Professor	Sri Meenakshi Government Arts College for women , Madurai	19.02.2023	Till date	98400+ AGP

9. Professional Recognition / Award / Prize / Certificate, Fellowship received by the applicant

S.No	Name of the Award	Awarding Agency	Year
01.	Junior Research Fellow (JRF) in Rajiv Gandhi National Fellowship	Funded by UGC, New Delhi, India at <b>Ramanujan Research Center, Saraswathi Narayanan College, Madurai, India.</b>	2005-2007
02.	Senior Research Fellow (SRF) in Rajiv Gandhi National Fellowship		2007 – 2008 (August )
<b>Details of Projects</b>			
S.No	Title of the Project	Funding Agency with Amount	Status of the Project

01.	A Study of Chromatic Weak Domination in Graphs	UGC – SERO, 0.8 Lakh	Completed
02.	A Study of Dom – Chromatic and Chromatic Strong Weak Domination in Graphs	DST – SERB, 8.64 Lakh	Completed

### 10. Publications

Sl. No.	Title of the Article	Name of the journal Vol.No.&PP/Month &Year	Whether you are the	No.of Co-Authors	Impact Factor
01.	On Chromatic Strong Dominating Sets in Graphs	International Journal of Engineering Science, Advanced computing and Bio – Technology, Vol. 2 Issue 3, PP: 139-149, (2011)	Yes	2	0.2
02.	Equality of strong and Chromatic strong domination in graphs	International Journal of Mathematics and Soft Computing, Vol. 1, No. 1 PP : 69-76 (2011)	Yes	2	5.12
03.	On Disconnected Domination Number of a Graph	International Journal of Mathematics and Soft Computing, Vol. 1, No. 4, PP : 17-20 (2013)	Yes	1	5.12
04.	Fact type Results in Half Domination in Graphs	International Journal of Mathematics Trends and Technology, Vol. 8, Issue 1, PP :1-11 (2014)	Yes	1	1.355
05.	A note on Chromatic Transversal weak domination in graphs,	International Journal of Mathematics Trends and Technology, Vol. 17, Issue 2, pp 89 – 95 (2015).	Yes	2	1.355
06.	Neighbourhood Chromatic Domatic Partition in Graphs	International Journal of Mathematics Trends and Technology, Special Issue Vol. 1, No.1, pp 72– 81 (2015).	Yes	2	1.355
07.	$I_{gm}$ - Closed Sets	International Journal of Mathematics Trends and Technology, Vol. 40, No.3, pp 200 - 211 (2016).	No	2	1.355

08.	Chromatic Weak Domatic Partition in Graphs	Turkic World Mathematical Society Journal of Applied and Engineering Mathematics	Yes	2	3.176
09.	Chromatic Strong (Weak) Excellent in $K_m \cup P_n$	International Journal of Mathematics Trends and Technology, Vol. 53, Issue 6, PP :496 -500 (2018)	Yes	1	1.355
10.	Graphical Equations on Neighbourhood Chromatic Domination in Graphs	International Journal of Mathematics Trends and Technology, Vol. 54, Issue 3, PP :253 -261 (2018)	Yes	1	1.355
11.	A Note on Chromatic Weak Dominating Sets in Graphs	International Journal of Mathematics Trends and Technology, Vol. 53, Issue 6, PP :464 -474 (2018)	Yes	1	1.355
12.	Similarity Reductions and Intermediate Integrals of the Phi – Four Equation	Journal of Ultra Scientist of Physical Sciences, Vol. 30 (4), PP; 239-246 (2018)	Yes	1	2.90
13.	Exact Solutions for a compound KDV – Burgers Equation with forcing term	International Journal of Mathematics Trends and Technology, Vol. 56, Issue 5, PP :320 -330 (2018)	Yes	1	1.355
14.	Complexity of Chromatic Strong Domination in Bipartite Graphs	International Journal of Pure and Applied Mathematics, Vol. 119, No. 15, PP :57-60 (2018)	Yes	1	7.19
15.	Chromatic Strong Domatic Partition in Graphs.	International Journal of Pure and Applied Mathematics, Vol. 119, No. 15, PP :51-56 (2018)	Yes	1	7.19
16.	Strong Dominating Sets and Chromatic Strong Dominating Sets in Bipartite Graphs	International Journal of Pure and Applied Mathematics, Vol. 119, No. 15, PP :689-698 (2018)	Yes	1	7.19
17.	Chromatic Weak Domination on Cartesian Product	International Journal of Pure and Applied Mathematics, Vol. 119, No. 15, PP :69-73 (2018)	Yes	1	7.19
18.	Relationship between the family of Neighbourhood Chromatic Dominating Sets and Dom – Chromatic Sets in Certain Classes of Graphs	International Journal of Pure and Applied Mathematics, Vol. 119, No. 15, PP :667-674 (2018)	Yes	1	7.19

19.	Strong Efficient Open Domination in Graphs	International Journal of Mathematics and Its Application Vol. 6(1-B), PP: 337 – 342 (2018)	Yes	1	5.09
20.	Some Results on Strong Efficient Open Domination in Graphs	International Journal of Pure and Applied Mathematics, Vol. 119, No. 15, PP :641 -648 (2018)	Yes	1	7.19
21.	On Graphs Whose Dom-Chromatic and Chromatic Strong Domination Number is upto four	International Journal of Pure and Applied Mathematics, Vol. 119, No. 15, PP :61 -68 (2018)	Yes	1	7.19
22.	On Graphs Whose Neighbourhood Chromatic Domination Number is Two.	International Journal of Pure and Applied Mathematics, Vol. 119, No. 15, PP :213 - 224 (2018)	Yes	1	7.19
23.	Various Domination Parameters in Mycielski's Graphs	International Journal of Pure and Applied Mathematics, Vol. 119, No. 15, PP :203 -211 (2018)	Yes	1	7.19
24.	Chromatic Strong Very Excellent Caterpillar	International Journal of Mathematics and Soft Computing, Vol. 8, No. 2, PP : 11-16 (2018)	Yes	1	5.12
25.	Physicochemical ,ADMET and Druggable Properties of Myricetin : A Key Flavonoid in Syzygium cumini that regulates metabolic inflammations.	Journal of Drug Delivery and Therapeutics, Vol. 12, No. 2, PP 66-73 (2021)	Yes	4	5.73
26.	Profile of Bioactive Phyto-compounds in Essentail Oil in Cymbopogon martinii from Palani Hills ,Western Ghats ,India	Journal of Drug Delivery and Therapeutics, Vol. 11 No. 2, PP 60-65 (2021)	Yes	4	5.73

27.	Closed Support of a Graph under Addition - I	International Journal of Mathematics Trends and Technology, Vol. 65 No. 5, PP 120 – 122 (2019)	Yes	2	1.33
28.	Artificial Intelligence and Machine Learning Approach based in silicon ADME – Tox and Pharmacokinetic Profile of Alpha – Linolenic acid from catharanthus roseus (L) G. Don.	Journal of Drug Delivery and Therapeutics, Vol. 12 No. 2, PP 96 - 109 (2022)	Yes	3	5.73
29.	Modelling of Reaction – Diffusion process at carbon nanotube – Redox enzyme composite modified electrode biosensor .	Chemical Physics Letters , Vol. 715 No. 2, PP 20 - 28 (2018)	Yes	2	3.12
30.	Closed Support of a Graph under Multiplication	International Journal of Mathematics Trends and Technology, Vol. 65 No. 5, PP 129 – 133 (2019)	Yes	2	1.12
31.	Chromatic Connected Domination in Graphs	Journal of Discrete Mathematical Sciences and Cryptography Vol. 22 No. 5, PP 753 - 760 – 133 (2019)	Yes	2	2.12
32.	Chromatic Total Domination in Graphs	Journal of Discrete Mathematical Sciences and Cryptography Vol. 22 No. 5, PP 745 – 751 (2019)	Yes	2	2.12
33.	A Study on Chromatic Total Domination in Jahangir Graphs	International Journal of Advanced and Applied Research, Vol. 9 No. 5, PP 672 – 674 (2022)	Yes	2	3.72

34.	Weighted dom – chromatic number of some classes of Type – I weighted caterpillars	International Journal of Mathematics Trends and Technology, Vol. 66 No. 5, PP 180 - 191 (2019)	Yes	2	2.12
35.	A Note on Fuzzy Majority Domination in Fuzzy Graphs	International Journal of Health Sciences, Vol. 6 No. 5, PP 3052 - 3053 (2022)	Yes	2	4.06
36.	Equality of Total Domination and Chromatic Total Domination in Graphs	International Journal of Health Sciences, Vol. 6 No. 5, PP 3044 - 3051 (2022)	Yes	2	4.06
37.	Degree Co Prime Domination and Degree Non – Co Prime Domination in Graphs	International Journal of Health Sciences, Vol. 6 No. 5, PP 5134 – 5138 (2022)	Yes	2	4.06
38.	Average Chromatic Total Domination on Graphs	International Journal of Health Sciences, Vol. 6 No. 5, PP 399 - 405 (2022)	Yes	3	4.06
39.	Gamma <sup>n</sup> - Graphs of Graph	International Journal of Mechanical Engineering, , Vol. 7 No. 5, PP 264 - 274 (2022)	Yes	3	0.321
40.	Physicochemical, Druggable, ADMET Pharmacoinformatics and Therapeutic Potentials of Azadirachtin – a prenol Lipid ( Triterpenoid ) from seed oil Extracts of Azadirachta Indica A. Juss	Journal of Drug Delivery and Therapeutics, Vol. 11 No. 2, PP 1 - 14 (2021)	Yes	6	5.73
41.	Weighted dom – chromatic number of Type – II weighted paths	International Journal of Mathematics Trends and Technology, Vol. 66 No. 5, PP 207 - 218 (2019)	Yes	2	2.12

42.	Weighted domination chromatic number of Type – I weighted complete caterpillars	International Journal of Mathematics Trends and Technology, Vol. 66 No. 5, PP 207 - 218 (2019)	Yes	1	2.12
43.	Hop Domination Number of Caterpillar Graphs	Advanced in Mathematics Scientific Journal, Vol. 9 No. 5, PP 2739 – 2748 (2020)	Yes	1	0.45
44.	Analysis of non – linear process of biodegradation and kinetics for the removal of toluene, biomass growth and carbon dioxide production	Pramana Research Journal , Vol. 9 No. 6, PP 207 - 218 (2019)	Yes	2	0.12
45.	Hop Excellence of Graphs	International Journal of Innovative Technology Exploring Engineering , Vol. 8 No. 10 S, PP 2739 – 2748 (2020)	Yes	2	0.135
46.	Closed Support of a Graph under Addition - II	International Journal of Mathematics Trends and Technology, Vol. 65 No. 5, PP 123 – 128 (2019)	Yes	2	1.33
47.	Open Support of a Graph under Multiplication	International Journal of Mathematics Trends and Technology, Vol. 65 No. 5, PP 134 – 138 (2019)	Yes	2	1.33
48.	A Note on Open Support of a Graphs under Addition - II	International Journal of Mathematics Trends and Technology, Vol. 65 No. 5, PP 115 – 119 (2019)	Yes	2	1.33
49.	A Note on Open Support of a Graphs under Addition - I	International Journal of Mathematics Trends and Technology, Vol. 65 No. 5, PP 110 – 114 (2019)	Yes	2	1.33
50.	Hop Dominator Coloring of Graphs	Mathematical Sciences International Research Journal, Vol. 7 No. 2, PP 216 – 272 (2018)	Yes	2	0.21



### 11. Accepted for Publication

Sl. No.	Title of the Article	Name of the journal Vol.No.&PP/Month & Year	Whether you are the main Author	No.of Co-Authors	Impact Factor
1.	Approximate analytical solution for concentration of biomass, substrate, product using New Homotopy perturbation method	Russian Journal of Physical Chemistry A	Yes	02	0.386

### 12. List of Submitted Articles for Publication (s).

Sl. No.	Title of the Article	Name of the journal With Submission ID No.	Whether you are the main Author	No.of Co-Authors	Impact Factor
1.	Strong (Weak) Efficient Open Domination in $C_m U C_n$	AKCE International Journal of Graphs and Combinatorics AKCEJ_2018_168	Yes	02	0.625
2.	The Average Parameter for Neighbourhood Chromatic Domination Number of a Graph	AKCE International Journal of Graphs and Combinatorics AKCEJ_2018_173	Yes	02	0.625

### 13. Other reputed Journals as notified by the UGC (Conference Proceedings as full papers)

Sl. No.	Title of the Article	Author	No. Co-Author(s)	Name of the Journal Vol.No.&PP/Month & Year	Impact Factor
01.	The Local Domination and Local Co – Domination Number of a Graph	S. Balamurugan	V. Swaminathan G. Prabakaran	Proceedings of National Symposium on Interdisciplinary Applications of Mathematical Modeling at V.V. Vanniaperumal College for Women, Virudhunagar PP. 129-132	--

	On Graphs whose Neighbourhood Chromatic Domination number is two	S. Balamurugan	P. Aristotle V. Swaminathan G. Prabakaran	Proceedings of National Conference (UGC Sponsored) Recent Developments on Emerging Fields in Pure and Applied Mathematics organized by Thiagarajar College, Madurai. ISBN No. 978-93-83209-02-6 PP 88-89 (2015)	--
03.	Geodomination in Product Graphs	G. Prabakaran	V. Swaminathan S. Balamurugan	Proceedings of National Conference (UGC Sponsored) on Recent Advancement in Algebraic Graph Theory PP 39-46 (2007)	--
04.	Majority Neighbourhood Number of a Graph	J. Joseline Manora	V. Swaminathan S. Balamurugan	Proceedings of National Conference (UGC Sponsored) on Recent Advancement in Algebraic Graph Theory PP 17-28 (2007)	--
05.	Convexity in Signed Graphs	S.V. Padmavathi	V. Swaminathan S. Balamurugan	Proceedings of National Conference (UGC Sponsored) on Recent Advancement in Algebraic Graph Theory PP 17-28 (2007) PP 29-38	--
06.	New Exact Solutions to the Kdv – Type Equations	S. Balamurugan	S. Balamurugan S. Vigneshwaran	Proceedings of the International Conference on Algebra and Discrete Mathematics, ICDM-2018. ISSN: 2348 - 6600	---

07.	The Average Parameter for Neighbourhood Chromatic Domination Number of a Graph.	S. Balamurugan	S. Balamurugan P. Aristotle	Proceedings of the International Conference on Algebra and Discrete Mathematics, ICDM-2018. ISSN: 2348 – 6600	---
08.	Modeling of Reaction – Diffusion Process at Carbon Nanotube – Redox Enzyme composite Modified Electrode Biosensor.	S. Balamurugan	S. Balamurugan M. Kirthiga	Proceedings of the International Conference on Algebra and Discrete Mathematics, ICDM-2018. ISSN: 2348 – 6600	---
09.	Changing and Unchanging Properties of the Neighborhood Connected Domination Number of Graph	S. Balamurugan	S. Balamurugan P. Palanikumar	Proceedings of the International Conference on Algebra and Discrete Mathematics, ICDM-2018. ISSN: 2348 – 6600	---
10.	Strong (Weak) Efficient Open Domination in $C_m \cup C_n$	S. Balamurugan	S. Balamurugan M. Anitha	Proceedings of the International Conference on Algebra and Discrete Mathematics, ICDM-2018. ISSN: 2348 – 6600	---

### 13. DETAILS OF PATENTS

S.No	Patent title	Name of the Applicant	Patent No	Award Date	Agency	Status
1.	AN ION EXCHANGE PROCESS FOR INDUSTRIAL WASTE WATER TREATMENT	S. BALAMURUGAN ASSISTANT PROFESSOR OF MATHEMATICS SRI MEENAKSHI GOVERNMENT ARTS COLLEGE FOR WOMEN (A). MADURAI	2021102691	19 MAY 2021	AUSTRALIAN GOVERNMENT	ONGOING

#### 14. Books / Reports / Chapters / General Articles etc.

S.No	Title	Author's Name	Publisher	Year of Publication
01.	Special Issue on Recent Trends in Coloring Graphs and Digraphs (International Journal of Mathematics and Soft Computing)	Dr. S. Balamurugan Co – Editor (Special Issue)	SweDha Publication	2012
02.	Special Issue on Recent Developments on Coloring, Domination and Distinguishing Codes in Graphs ( International Journal of Mathematics Trends and Technology)	Dr. S. Balamurugan Co – Editor (Special Issue)	Seventh Sense Research Group	2015

#### 15. Administrative activities in College

Position	Committee	Name of the Activities	Period	
			From	To
1.		❖ Acted as a member of Board Study for PG and M. Phil., Level at Hajee Karutha Rowther Howdia College, Uthamapalayam	2016	2017
2.	<b>Academic Committee:</b>	❖ Appointed as a <b>NAAC</b> Committee Member as well as UGC Expert Committee and Assessment Committee Member at Raja Doraisingam Government Arts College, Sivagangai	2013	2014
		❖ Appointed as a <b>RUSA</b> Committee Member, acted for Academic Activities Officer at Raja Doraisingam Government Arts College, Sivagangai	2014	2015
		❖ Appointed as a <b>IQAC</b> and <b>RUSA</b> Committee Member at Government Arts College, Melur	2015	2017

	<p><b>Academic Committee:</b> (Organized Conferences )</p>	<ul style="list-style-type: none"> <li>❖ Organized Inter Collegiate Student’s Seminar on <b>Recent developments in Mathematical Modeling</b> funded by Autonomic Grant, UGC at Thiagarajar College, Madurai on 22<sup>nd</sup> March 2008</li> <li>❖ Organized Two Day National Seminar on <b>Recent Trends in Coloring Graphs and Digraphs</b> funded by UGC, Hyderabad at Srinivasa Ramanujan Reseach Center in Mathematics, Sethupathy Government Arts College, Ramanathapuram on 24<sup>th</sup> &amp; 25<sup>th</sup> August 2012</li> <li>❖ Organized Two day National Seminar on <b>Recent Developments in Application of Graph Theory</b> funded by Tamilnadu State Council for Higher Education (TANSICHE) at PG &amp; Research Department o Mathematics, Raja Doraisingam Government Arts College, Sivagangai on 2<sup>nd</sup> &amp; 3<sup>rd</sup> August 2013</li> <li>❖ Organized Three day National Conference on “<b>Recent Developments in Domination, Coloring and Distinguishing Codes in Graphs</b> at PG Department of Mathematics, Government Arts College, Melur on 6<sup>th</sup> – 8<sup>th</sup> August 2015</li> </ul>	<p>2008</p> <p>2012</p> <p>2013</p> <p>2015</p>	
	<p><b>Sports Activities</b></p>	<ul style="list-style-type: none"> <li>❖ Member in Sports Committee at Government Arts College, Melur</li> </ul>	<p>2016</p>	<p>2017</p>

### 16. Professional activities in other colleges / universities

Position	Name of the College / University (BOS / External Examiner / Others)	Activities	Period	
			From	To
<b>Subject Expert</b>	<b>Board of Studies:</b> <ul style="list-style-type: none"> <li>❖ Acted as a member of Board of Study for PG and M. Phil., Level at Hajee Karutha Rowther Howdia College, Uthamapalayam</li> <li>❖ Acted as a member of Board of Study PG Level at Madurai Kamaraj University (Affiliated Colleges), Madurai</li> </ul>	Curriculum review, advice Curriculum modernization Curriculum Review and Preparation of Syllabus	2014 2013 2017	2016 2014
<b>Examiner</b>	<ul style="list-style-type: none"> <li>❖ The American College, Madurai</li> <li>❖ Madurai Kamaraj University, Madurai</li> <li>❖ E.M.G. Yadava College, Madurai</li> </ul>	Valuing Examination papers for PG and M. Phil Students	2008	Till date
<b>Orientation</b>	<ul style="list-style-type: none"> <li>❖ Academic Staff College, Madurai Kamaraj University, Madurai</li> <li>❖ Academic Staff College, University of Madras</li> </ul>	<ul style="list-style-type: none"> <li>❖ UGC Sponsored <b>Orientation Programme</b>, Academic Staff College, Madurai Kamaraj University, Madurai</li> <li>❖ <b>Orientation Course (Intensive Training)</b> Programme conducted by Tamilnadu State Council for Higher Education and UGC Academic Staff College, University of Madras</li> </ul>	15.07.2009  04.05.2011	11.08.2009  02.06.2011
<b>Refresher Courses/Training Programmes</b>	<ul style="list-style-type: none"> <li>❖ Academic Staff College, Madurai Kamaraj University.</li> </ul>	<ul style="list-style-type: none"> <li>❖ <b>Refresher Course</b> conducted by Academic Staff College, Madurai Kamaraj University. Madurai theme in “Advanced in Algebra and</li> </ul>	07.11.2013	27.11.2013

		Analysis”		
	❖ Academic Staff College, Bharathidasan University, Tiruchirappalli	❖ Refresher Course in Gender Studies (Inter Disciplinary) conducted by , Bharathidasan University, Tiruchirappalli	20.12.2017	09.01.2018
	❖ Anurag University, Hyderabad	❖ Faculty Development Programme on Data Science and Analytics	07-07-2020	29-08-2020
	❖ OP Jindal University, Raigarh, Chhattisgarh	❖ Faculty Development Programme on Emerging Trends in Power Electronics and power system	24.08.2020	29-08-2020
<b>Refresher Courses/Training Programmes</b>	❖ Bharathidasan University, Tiruchirappalli	❖ Refresher Course in Teacher Education (MD) conducted by Bharathidasan University, Tiruchirappalli	24.02.2021	09.03.2021
	❖ AMET University, Chennai	❖ Faculty Development Programme on Pedagogy and Research Methods conducted by AMET University, Chennai	24.05.2021	06.06.2021
	❖ Madurai Kamaraj University, Madurai	❖ Swayam Online 4 credit course Graph Theory with a consolidated score of 75% conducted by Madurai Kamaraj University, Madurai	August 2021	

**17. Research participation:**

Sl. No.	Name of Seminar / Conference/ Workshop	Date	Address of organizing institution
01.	International Conference on Discrete Mathematics.	06.06.2008 to 10.06.2008	University of Mysore, Mysore
02.	UGC Sponsored National Seminar on Analysis and its Applications,	08.12.2011 to 09.12.2011	University of Kerala, Kerala
03.	National Conference on Theoretical Computer Science and Discrete Mathematics	09.01.2012 to 11.01.2012	Kalasalingam University, Krishnankovil
04.	International Workshop on Graph Products : Structure and Algorithms at Department of Futures Studies	07.02.2012 to 08.02.2012	University of Kerala, Kerala
05.	National Conference on Recent Trends in Pure and Applied Mathematics	24.02.2012	H.H. Rajah's College, Pudukkottai
06.	Two day National Seminar on Recent Trends in Distance in Graphs	12.03.2012 to 13.03.2012	Ayya Nadar Janaki Ammal College, Sivakasi
07.	National Conference on Recent Development in Graph Structures	16.03.2012 to 17.03.2012	Thiagarajar College of Engineering , Madurai
08.	Pre – Conference Workshop on Algebraic Graph Theory.	04.06.2012 to 07.06.2012	VVV College, Virudunagar



09.	Eighth Annual Conference of Academy of Discrete Mathematics and Applications (ADMA) & Graph Theory Day VIII	08.06.2012 to 10.06.2012	VVV College, Virudunagar
10.	Pre – Conference Workshop on Recent Advances in Spectral Graph Theory	05.06.2013 to 09.06.2013	Karnatak University, Dharwad.
11.	Interactive Group Discussion on Domination Theory	21.10.2013 to 22.10.2013	Department of Mathematics E.M.G. Yadava College, Madurai - 14
12.	International Conference on Mathematical Computation and Modelling,	06.01.2014	The Madura College, Madurai.
13.	International Conference on Algebra and Discrete Mathematics	04.03.2014 To 06.03.2014	Government College, Kattappana, Kerala.
14.	National Conference on Recent Trends in Mathematical Models	12.03.2014 to 13.03.2014	Government College for Women, Pudukottai, Tamilnadu
15.	National Seminar on Higher Education Transformation in India: Changing Contexts & Institutional Responses	28.04.2014 to 29.04.2014	Indian Academy Degree College, Bangalore.
16.	International Conference on Theoretical Computer Science and Discrete Mathematics	08.12.2014 to 10.12.2014	SSN College of Engineering, Kalavakkam, Tamilnadu.
17.	State Level Workshop on Graph Decomposition	22.09.2015	V.V.Vanniaperumal College for Women, Virudhunagar
18.	State Level Seminar on Recent Developments in Algebra and Graph Theory	30. 09.2015	A.P.C. Mahalaxmi College for Women, Thoothukudi

19.	National Seminar on Topological Aspects of Graph Theory	18.12.2015	Thiagarajar College of Engineering, Madurai.
20.	National Conference on Recent Trends in Graph Theory.	18.01.2017	Department of Mathematics, Fatima College, Madurai
21.	Three day Train the Trainer National Workshop on Creating Alternative Digital Teaching Learning Environment in Higher Education Institutions.	06.09.2018 to 08.09.2018	Department of English Fatima College, Madurai
22.	Delivered on invited talk on Degree Divisor Graphs in the Three day National level webinar – Dr. V. Swaminathan Endowment Lecture Series on Recent Trends in Graph Theory during on 22.06.2020 to 24.06.2020. Organized by PG & Research Department of Mathematics, Government Arts College, Paramakudi	22.06.2020 to 24.06.2020	PG & Research Department of Mathematics, Government Arts College, Paramakudi
23.	Participated in the Three day Online Workshop from 29.07.2020 to 31.07.2020 at St. Joseph's Institute of Technology, Chennai	29.07.2020 to 31.07.2020	St. Joseph's Institute of Technology, Chennai
24.	Participated in the One day Training Cum Orientation Programme at Bharathiar University, Coimbatore on 30.08.2020	30.08.2020	Bharathiar University, Coimbatore
25.	Participated in the Moodle Learning Management System organized by IIT Bombay January 2020	January 2020	IIT Bombay
26.	Participated in the Online National Webinar on Advanced Time Series Model and Its Application, Organized by Department of Mathematics, St. Joseph's Institute of Technology, Chennai		Department of Mathematics, St. Joseph's Institute of Technology, Chennai
27.	Participated in the Online National Webinar on "Spectral Graph Theory : A Brief Introduction" Organized by Department of Mathematics, St. Joseph's Institute of Technology, Chennai		St. Joseph's Institute of Technology, Chennai
28.	Participated in the Online National Webinar on "Artificial Intelligence (AI) and	05.07.2020	Vivekanand Education Society Institute of Management Studies

	Data Science at Vivekanand Education Society Institute of Management Studies & Research on 05.07.2020		& Research
29.	Participated in the Online Workshop on “ Socio Economics and Cultural Impact of Corona in India organized by PG & Research Department of History, Government Arts College, Melur		PG & Research Department of History, Government Arts College, Melur
30.	Participated in the UGC – Sponsored Webinar on NEP 2020 : Perspectives and Prospects conducted by UGC – HRDC Bharathidasan University , Tiruchirappalli on 18.08.2021	18.08.2021	UGC – HRDC Bharathidasan University , Tiruchirappalli
31.	Participated in the webinar on Antenna design : Trends and Applications organized by department of Electronics , Government Arts College, Kulithalai on 10.06.2020	10.06.2020	Government Arts College, Kulithalai
32.	Participated in the UGC – Sponsored Webinar on Climate Change organized by UGC – HRDC Bharathidasan University , Tiruchirappalli on 11.08.2021	11.08.2021	UGC – HRDC Bharathidasan University , Tiruchirappalli
33.	Participated in the UGC – Sponsored Webinar on Yoga for Wellness organized by UGC – HRDC Bharathidasan University , Tiruchirappalli on 06.08.2021	06.08.2021	UGC – HRDC Bharathidasan University , Tiruchirappalli
34.	Participated in the UGC – Sponsored Webinar on Academic Leadership organized by UGC – HRDC Bharathidasan University , Tiruchirappalli on 24.08.2021	24.08.2021	UGC – HRDC Bharathidasan University , Tiruchirappalli
35.	Participated in the One day National Webinar on Graph Theory organized by Department of Mathematics, Government Arts College, C. Mutlur , Chidambaram on 12.06.2020	12.06.2020	Government Arts College, C. Mutlur , Chidambaram
36.	Participated Three day Online workshop on Exposure to Data Analytics Software organized by the department of Mathematics from 29 <sup>th</sup> to 31 <sup>st</sup> July 2020.	29 <sup>th</sup> to 31 <sup>st</sup> July 2020	department of Mathematics

37.	Participated in the National level online webinar on spectral Graph Theory : A Brief Introduction organized by Department of Mathematics St. Joseph's of Technology, Chennai on 20 <sup>th</sup> July 2020.	20 <sup>th</sup> July 2020	Department of Mathematics St. Joseph's of Technology, Chennai
38.	Participated in the National level online webinar on Advanced Time Series Model and it's Application organized by Department of Mathematics St. Joseph's of Technology, Chennai on 22 <sup>nd</sup> July 2020.	22 <sup>nd</sup> July 2020	Department of Mathematics St. Joseph's of Technology, Chennai
39.	Participated in the live National webinar on Qualitative Analysis of Stochastic Epidemic Models organized by Government Arts College for women, Nilakottai on 04.07.2020	04.07.2020	Government Arts College for women, Nilakottai
40.	Participated in A two day state level workshop on spectrum of linear operator organized by PG and Research Department of Mathematics jointly with IQACMDT Hindu College, Tirunelveli on 8 <sup>th</sup> to 9 <sup>th</sup> July 2020	8 <sup>th</sup> to 9 <sup>th</sup> July 2020	PG and Research Department of Mathematics jointly with IQACMDT Hindu College, Tirunelveli
41.	Participated in webinar on Composite Materials – Properties and Applications organized by Government Arts College for Women , Krishnagiri on 10.06.2020	10.06.2020	Government Arts College for Women , Krishnagiri
42.	Participated in the Online FDP on Data Science and Analytics organized by Anurag University, Hyderabad on 7 <sup>th</sup> – 11 <sup>th</sup> July 2020	7 <sup>th</sup> – 11 <sup>th</sup> July 2020	by Anurag University, Hyderabad
43.	Participated as a Resource Person in the International Webinar on Recent Trends in Pure and Applied Mathematics organized by the PG Department of Mathematics, Syed Ammal Arts and Science College, Ramanathapuram from 24 <sup>th</sup> – 26 <sup>th</sup> March 2022.	24 <sup>th</sup> – 26 <sup>th</sup> March 2022	PG Department of Mathematics, Syed Ammal Arts and Science College, Ramanathapuram
44.	Participated in in the one day Training cum Orientation Programme conducted by Department of English and Foreign Languages and Department of Linguistics , Bharathiar University, Coimbatore .		Department of English and Foreign Languages and Department of Linguistics , Bharathiar University, Coimbatore

## 18. Research presentation

S.No	Title of Research Paper(s)	Name of conference/ seminar	Address of organizing Institution	Date
1.	A Note on Local Domination and Local Co-domination Number of Graphs	State Level Seminar on Graph Theory and its Applications	Lady Doak College, Madurai – 625 002	2 <sup>nd</sup> & 3 <sup>rd</sup> August 2004
2.	Changing and Unchanging Properties of Chromatic Strong Domination in Graphs	National Seminar on Discrete and Fuzzy Mathematics	M.E.S College Nedumkandam, Idukki, Kerala	26 <sup>th</sup> to 28 <sup>th</sup> March 2007
3.	Dom – Chromatic Domatic Partition in Graphs	National Conference on Recent Advancements in Algebraic Graph Theory	Ramanujan Research Center, Saraswathi Narayanan College, Madurai – 625 022	29 <sup>th</sup> to 31 <sup>st</sup> March 2007
4.	On Chromatic Strong Domination Number of a Graph	National Conference on Discrete Mathematics and Its Applications	Thiagarajar College of Engineering, Madurai –	27 <sup>th</sup> to 29 <sup>th</sup> September 2007
5.	On Chromatic Transversal Weak Domination of a Graph	National Conference on Recent Trends in Pure and Applied Mathematics	PG & Research Department of Mathematics, H.H. The Rajah's College, Pudukkottai	Feb 24, 2012
6.	Complexity Results on Chromatic Strong Domination in Graphs	National Conference on Recent Developments in Graph Structures	Mannar Thirumalai Naicker College, Madurai	16 <sup>th</sup> March 2012
7.	Chromatic Strong Dominating Sets in Bipartite Graphs	3 <sup>rd</sup> International Conference on Discrete Mathematics (ICDM – 2013)	Karnatak University, Dharwad	10 <sup>th</sup> to 14 <sup>th</sup> June 2013
8.	Changing and Unchanging Properties of dom – chromatic and Chromatic weak Domination in Graphs	International Conference on Mathematical Computation and Modeling	Department of Mathematics, The Madura College, Madurai	6 <sup>th</sup> Jan 2014
9.	Strong (Weak) Chromatic domatic Partition in Graphs	International Conference on Theoretical Computer Science and Discrete	SSN College of Engineering, Department of Mathematics, Chennai	8 <sup>th</sup> to 10 <sup>th</sup> December 2014

		Mathematics		
10.	On Graphs whose Dom – Chromatic and Chromatic Strong Domination Number is up to Four	International Conference on Graph Theory and its Applications	Ramanujan School of Mathematical Sciences, Pondicherry University, Pondicherry	15 <sup>th</sup> & 16 <sup>th</sup> July 2015
11.	Efficient Domination in Mycielski's Graph	National Conference on Recent Trends in Graph Theory	Department of Mathematics, Fatima College, Madurai	18 <sup>th</sup> Jan 2017
12.	Weighted Dom – Chromatic Number of a Tree	International Conference on Advances in Pure and Applied Mathematics	School of Mathematics, Madurai Kamaraj University, Madurai	7 <sup>th</sup> sep 2018

## 19. Invited Lectures & Presentations

S.No	Name of seminar / conference / workshop / others	Date	Address of organizing institution
01.	One day State Level A.Michaelraj Endowment Lecture	27 Feb 2013	Department of Mathematics, Ananda College, Devakottai
02.	Key Note Address Deliver in Mathematical Association Meeting,	25 <sup>th</sup> Feb 2016	Department of Mathematics. Association Meeting, Government Arts & Science College, Tiruvadana
03.	Key Note Address Deliver in Mathematical Association Meeting	1 <sup>st</sup> September 2016	Department of Mathematics, E. M. G. Yadava College for Women's, Madurai
04.	Delivered a special Lecture for UGC Sponsored NET / SET Couching Classes		Department of Mathematics, Saiva Bhanu Kshatriya (SBK) College, Aruppukottai
05.	Delivered a talk on Functions and Limits for UGC Sponsored NET / SET Couching Classes	12 <sup>th</sup> January 2017	Department of Mathematics, Yadava College, Madurai
06.	Delivered a talk on Magic with Numbers for Mathematical Association Meeting	Feb 2017	Department of Mathematics, Government Arts & Science College, Nilakkottai.
07.	Delivered a guest lecture on Coloring & Dominations	7 <sup>th</sup> Feb 2017	Department of Mathematics, Sourashtra College, Madurai.
08.	Delivered a talk on Basic Number Theory for Mathematical Association Meeting	Feb 2017	Department of Mathematics S. V. N. College, Madurai
09.	Delivered a Lecture on Various Domination Parameters in Graphs for International Conference on Modern Trends in Mathematics	10 <sup>th</sup> Sep 2018	Hajee Karutha Rowther Howdia College, Uthamapalayam

## 22. Details of Ph.D.'s awarded / submitted

Name of the Guide	Name of the Scholar	Title of Thesis	Year of Registration and Year of Award / Submitted
Dr. S. BALAMURUGAN	Mr. P. Aristotle	Studies in Graph Theory with special Reference to Neighbourhood Chromatic Domination	Date of Ph.D. Awarded on 19.03.2019
	Mrs. P. Selvalakshmi	A Study of Chromatic Weak Domination in Graphs	Date of Ph.D. Awarded on 09.04.2019
	Mrs. M. Anitha	A Study on Mycielskian Number in Graph Theory with various Domination Parameters	Date of Ph.D. Awarded on 11.05.2018
	P. Vikneshwaran	Transformation of some non linear evaluation Equations and their invariant solutions	Date of Ph.D. Awarded on 30.12.2018
	P. Palanikumar	Studies in Graph Theory with special reference to Degree Divisor Graph and Weighted on Various Domination Parameters	Date of Ph.D. Awarded on 15.06.2020 at Madurai Kamaraj University, Madurai
	C. Karnan	Studies in Graph Theory with special reference to Open ( Closed ) Support and Multiplicity of a Graph	Date of Ph.D. Awarded on 15.06.2020 at Madurai Kamaraj University, Madurai
	M. Kirthiga	Approximate Analytical Solution for Non – Linear Equations Using Iterative Methods	Date of Ph.D. Awarded on 15.06.2020 at Madurai Kamaraj University, Madurai
	M. Angala Eswari	<b>A Study on Chromatic Total Domination in Graphs</b>	Date of Ph.D. submitted on 15.10.2022 at Madurai Kamaraj University, Madurai
	P. Getchial Pon Packiavathi	<b>A Study on Excellent, Just Excellent and Very Excellent Graph</b>	Date of Ph.D. submitted on 22.10.2020 at Madurai Kamaraj University, Madurai



**11. Any other relevant matter :**

Dr. S. Balamurugan has more than Eighteen years of research experience and fifteen years of teaching experience in reputed institutions at various positions. I have published more than 55 papers. I have attended more than 48 National / International Conferences, Seminars and Workshops. I have organized four Seminars and two Conferences at National Level funded by UGC, NBHM and TANSCHER respectively. I have produced 10 Ph.D., Scholars and 35 M.Phil Scholars. Presently 4 part time Ph.D Scholars are working under my guidance. Additionally I have completed one Major Research Project funded by DST (SERB) and also completed one minor Research Project funded by UGC.

S. BALAMURUGAN