

Name of the Department : **MATHEMATICS**
Name of the faculty member : DR (Mrs) G S GRACE PREMA
Present Designation : ASSOCIATE PROFESSOR
Residential Address : 8.B, DEVALOGA STREET,
MILITARY LINES, PALAYAMKOTTAI - 627002
Contact Nos. : **Landline** :0462 - 2573209 **Mobile**:9944107638
Email : sgrasutha@gmail.com
Gender : FEMALE
Community : BC
Date of Birth and Age : 15/07/1965, 56 yrs
Date of joining the present post : 13/12/1995
Date of Retirement : 31/07/2025



1. Particulars of Educational Qualification: (Awarded only)Ref.No./Date/Copy to be enclosed

Category	Name of the Degree	Specialization	Year of Passing	Name of the College	Name of the University	% of Marks / Grades obtained	Class obtained
UG	B.Sc.	Mathematics	1986	Sarah Tucker College	M K University	59.9	II
PG	M.Sc.	Mathematics	1989	TDMNS College	M K University	85	I
M.Phil	M.Phil	Mathematics	1990	Ramanujan Institute for Advanced Study in Mathematics	Madras University	72	II
Ph.D.	Ph.D.	Graph Theory	2009	-	M S University	-	-

1.1.Additional Qualification

NET / SLET : SLET (1990)

- 1.2. a. Title of the M.Phil Thesis** : Maximal Abelian Sub Algebras for Some Lie Algebras.
b. Title of Ph.D. Thesis : A Study on Domination Theory in Graphs
c. Faculty/Discipline/Subject in which Ph.D. was awarded :MATHEMATICS

1.3. Ph. D scholars under Guidance (University wise):

S.No	Name of the Scholar	Register Number	Date of Registration	Name of the University
1.	Juliet Mercy J	18221272092009	05.07.2018	M S UNIVERSITY

2.	Christy Gold Bency. C	182112720920010	05.07.2018	M S UNIVERSITY
3.	Angeline Ruba ,	19211272092013	30.08.2019	M S UNIVERSITY
4.	Benita D	19211272092005	16.07.2019	M S UNIVERSITY
5.	John Sekar A	192212720920010		M S UNIVERSITY
6.	Uthaya Tharagai. R	19211272092007	20.07.2019	M S UNIVERSITY

1.4. Academic Experience:(as on 31/12/2021)

Name of the College	Whether Govt/Aided/S.F.	Designation	Joining Date	Relieving Date	Experience		
					Years	Months	Days
St.John's College	SF	Assistant Professor	01/12/1995	12/12/1995	2		11
St.John's College	Aided	Associate Professor	13/12/1995		22	4	
Total					24	4	11

1.5. Papers presented / Published :

- **“Equality of domination numbers”** ARS Combinatoria 95(2010) pp 103-111.
- **“Inverse Domination in Grid Graphs”**, Algebra, Graph Theory and their Applications Narosa Publishing House Pvt Ltd, ISBN 978-81-8487-069-5.2010
- **“Sum of Domination and Inverse Domination”** Proceedings of the National Conference on Algebra and Graph Theory ISBN 978-81-908352-4-4.
- **“Inverse Domination in grid Graphs”**, Algebra, Graph Theory and their Applications, Narosa Publishing House. May 2013
- The paper entitled **“ Inverse Domination in Graphs”** published in LAMBERT Academic Publications in 2013.
- Presented a paper **“Wavelet transform for fuzzy-integrable Boehmian”** in two day **“International Virtual Conference on Recent Trends And Technology of Mathematics And Science”** organized by Queens college of Arts and science for women, Punalkulam, Near Thanjavur, Pudukkottai-613 303 on 7th & 8th, October 2020.
- The paper entitled **“ Integral transform on fuzzy-integrable Boehmians (Book of Abstracts)”**, National conference on Mathematics and Computer Applications (ISBN 978-93-81899-36-6), (2020), 22-23.
- The paper entitled **“ Fourier transform for pan-integrable Boehmians”**, International conference on Advanced Research in Mathematical Sciences (ISBN 978-93-89507-84-3), (2021), 136-143.
- The paper entitled **“ Hartley transform for fuzzy-integrable Boehmians”**, International Virtual Conference on Pure and Applied Mathematics. (ISBN: 978-93-88761-77-2), (2021), 153-161.
- The paper entitled **“ Fourier transform for fuzzy-integrable Boehmians”**, Malaya Journal of Matematik.(to be published).
- The paper entitled **“ Fourier transform for fuzzy-integrable Boehmians”**, Malaya Journal of Matematik.(to be published).
- The paper entitled **“ Hartley Transform for Pan Integable Boehmians”** presented in an International conference on Advanced Research in mathematical science organised by Department of Mathematics, Sri Manakula Vinayagar Engineering College on 24th and 25th February 2021.

- The paper entitled presented in an International conference on “**Advanced Research in mathematical science**” organised by Department of Mathematics, Sri Manakula Vinayagar Engineering College on 24th and 25th February 2021.
- The paper entitled presented in an International conference on “**Aggregation operation on fuzzy graph**” organised by Department of Mathematics, Sri Sarada College for women on 2nd and 3rd September 2021.
- The paper entitled presented in an International conference on “**Aggregation operation on anti fuzzy graph and intuitionistic fuzzy graphs**” organised by Department of Mathematics, St. John’s College on 23rd and 24th September 2021.
- The paper entitled presented in an National Web Conference on “**Comparison between $N\eta^*$ -closed set and other generalized closed sets in Nano Topological Spaces**” organized by Ramco Institute Of Technology on 19th and 20th March 2021 .

1.6. Participation in Refresher / Orientation :

- Orientation Programme conducted by M.K University Orientation from 23-08-2000 to 20-09-2000.
- Refresher course in Mathematics conducted by department of Mathematics, M.S University from 21-11-2001 to 11-12-2001.
- Refresher course organized by Holy Cross College, Nagercoil from 06-11-2002 to 26-11-2002.
- Refresher course conducted by St. Xavier’s College of Education from 05-11-2003 to 25-11-2003

1.7. National / State Level/ International Seminars/ Workshops:

- Attended One day seminar on recent trends in Mathematics 17-03-2004 organised by M.S. University.
- Attended Prof. S. Arumugam First Endowment lecturers organized by M.S. University on 05-08-2004.
- Attended State level Conference in Modern trends in Mathematics organized by St. Mary’s College, Tutcorin, during 24-25 February 2005.
- Attended State level Workshop on recent development in Graph Theory conducted by St. Xavier’s College on 26-02-2007.
- Attended One day Seminar on Aids Awareness sponsored by Tamilnadu State Aids Control Society, Chennai, through J.D. of Collegiate education at St. John’s College.
- Attended One day Seminar on career guidance to PG students sponsored by Career Guidance Cell, St. John’s College.
- Attended National Conference at St. Xavier’s College, Palayamkottai on 24,25-02-2011.
- Attended One day state level Seminar in Applications of Modern Maths – St. John’s College, Palayamkottai on 28-03-2014.
- Attended the 65th Anniversary of Geneva Convention Celebration at MSU(YRC) on 20-02-2015.
- Attended State level Seminar on Recent trends in Modern Mathematics, St. John’s College, Palayamkottai on 27-03-2015.
- Attended a International Conference on Recent Trends in Modern Mathematics organized by , St. John’s College, Palayamkottai on 23.09.2021 and 24.09.2021.
- Attended an International conference on Recent trends in Mathematical modeling on 12-02-2016 held in Rani Anna govt. College for women, Tirunelveli.
- Participated in an International Conference on Emerging trends in Mathematical Strategies on 26TH February 2018 at Sarah Tucker College, Tirunelveli.
- Participated in an International Conference on Recent Trends in Modern Mathematics on 23rd & 24th September 2021 at St. Johns College , Palayamkottai.

List of Articles under guidance

Sl. No	Title	Status of the Article	Name of the Journal	Page	Year	Journal No ISSN/ ISBN/ Impact factor no
1	Degree Divisor harmonious graph on groups	Published	Malaya Journal Of Matematik	288-289	2021	ISSN(P): 2319-3786 ISSN(O): 2321-5666
2	Annihilator domination decomposition for some graphs	Published	AIP Conference Proceedings		2020	2261, 030081
3	Integral Transform On Fuzzy –Integrable Boehmians(Book Of Abstracts)	Published	National Conference on Mathematics and computer Applications	22-23	2020	ISBN 978-93-81899-36-6
4	Sum labeled Annihilator Domination	published	Journal of Xian shiyu university	638-645	2020	
5	Fourier Transform for Pan-integrable Boehmians	Published	International Conference on Advanced research in Mathematical Sciences	136-143	2021	ISBN 978-93-89507-84-3
6	Hartley Transform for Fuzzy-Integrable Boehmians	Published	International virtual Conference on Pure and Applied Mathematics	153-162	2021	ISBN 978-93-88761-77-2
7	Fourier transform for fuzzy-integrable Boehmians	Published	Malaya Journal of Matematik	606 – 611	2021	ISSN(P) 2319-3786 ISSN(O) 2321-5666

8	Hartley transform for pan-integrable Boehmians	Published	Malaya Journal of Matematik	608 – 609	2021	ISSN(P) 2319-3786 ISSN(O) 2321-5666
9	WaveletFractional Fuzzy Boehmians	communicated	AIP Conference Proceedings			
10	WaveletTransform for Pan Boehmians	Communicated	AIP Conference Proceedings			
11	Factorial Harmonious graph of a group	communicated	Turkish Journal of Computer and Mathematics Education	3344- 3347	2021	
12	Fibonacci Harmonious graph of a group	Published	Design Engineering	5926-5936	2021	ISSN 0011-9342
13	Bonacci Harmonious graph of a group	Published	Design Engineering	8493-8503	2021	ISSN 0011-9342
14	Prime Harmonious graph of a group	Published			2021	ISBN 978-93-915532-7-2
15	Factorial Harmonious graph on finite group					ISBN 978-81-951315-2-5
16	Aggregation operation on fuzzy graph	Published	Modern mathematical methods and high performance computing in science and technology		2021	ISBN 978-81-951315-2-5

1.8.Experience as Research Guide for M.Phil Dissertation / Ph.D Thesis :

a. **M.Phil :**

S.NO	Name	Reg. No	Topic	Awarded the year
1.	K. Ramalakshmi	7111292	A Study on Unique Minimum Domination in Graphs.	SEP-08
2.	H. Rosenece	9111579	A Study on Colorings and Decompositon of Graphs.	SEP-10
3.	H. HaseenaBanu	9111572	A Study on Inventory models in Operation Research.	SEP-10
4.	G.G. Hemalatha	1014756	A Study on total restrained Domination in Graphs.	SEP-11
5.	Mary Magdaline	11012949	A Study on colorings and Domination.	SEP-12
6.	S. Muthuselvi	11012951	A Study on Topological groups.	SEP-12
7.	K. Iyammal	21013097	A Study on Lie Groups.	SEP-13
8.	R. Ramalakshmi	31012222	A Study on Hyper graphs.	SEP-14
9.	S. Avudaiammal	31012218	A Study on Geodetic and edge Geodetic numbers of graph.	SEP-14
10.	D. Leenu	31012219	A Study on Dual Graphs.	SEP-14
11.	R. Anusuya	41013033	A Study on Domination in Graphs.	SEP-15
12.	B. ParvadaVarthini	410130	ERDOS conjecture for cubic planar graph small world network and erdosreny graph.	SEP-15
13.	S. Piramanayagam	410131	A Study On automorphism Group of graphs.	SEP-15
14.	S. Anushya Devi	51013248	A Study on Algebraic hyper structures.	SEP-16
15.	A. Jansi Rani	51013253	A Study on some fixed points in Banach space.	SEP-16
16.	U. KanagaSubha	51013256	A Study on Graceful Labeling.	SEP-16
17.	Y. PriyankaJayanthiJeba	51013257	A Study on Affine Spaces.	SEP-16
18.	M. Banumathi	61013576	A Study on fixed point theorems in metric spaces.	APR-17
19.	E. Olive Eben Lizzie	61013583	A Study on Fundamental group of Algebraic Topology.	APR-17
20.	G. Sebasthiyal	61013587	A Study on Derivation in Hypergraphs and prime hyper rings.	APR-17

21.	R. Anusuya	20171273545202	A Study on Magic Labeling.	APR-18
22.	M. Usha	20171273545211	Independent and Efficient Domination on Graphs.	APR-18
23.	A.Mercy		A Study on prime graph of a Ring	Apr 2020
24.	J. Sharmila Priya	20191273545106	A Comparative study of a few recent methods in transportation problem	Apr 2020
25.	P.E. Sri Gnana Krishni Mathi	20191273545107	A Study on a few new methods in assignment problem	Apr 2020
26.	P. Aruna	20191273545101	A comparative study of VAM, AVAM, LD-VAM and ASM methods in transportation problem	Apr 2020

b. Ph.D:

S. NO	Name	Reg. No	Topic	Status
1.	Juliet Mercy J	18221272092009	A Study on Fuzzy Graph Theory.	Guide
2.	Christy Gold Bency. C	182112720920010	A Study on Domination Parameters.	Guide
3.	Angeline Ruba ,	19211272092013	A Study on new variants of hydrocarbon in algebraic graph theory	Co- Guide
4.	Benita D	19211272092005	A Study on $\alpha\beta$ generalized closed sets in Ideal Topological spaces	Co-Guide
5.	John Sekar A	192212720920010	A Study on Eigen value of graph form finite groups.	Co-Guide
6.	Uthaya Tharagai. R	19211272092007	A Study on fuzzy sets and logic and its application in decision matching.	Co-Guide

1.9. Any other relevant information :

- Organised a First Aid Course for our students jointly with the Indian Red Cross Society Tirunelveli Branch 13-03-2015.
- Organised a First Aid Course for our students jointly with the Indian Red Cross Society Tirunelveli Branch 26-09-2015.
- Organised cycle Rally with our students jointly with the Indian Red Cross Society Tirunelveli Branch and Shiffa Hospitals on 29-09-2015 on behalf of World Heart Day.
- Orientation Programme. YRC- Zonal level – MSU Organised a Dental Care Programme on behalf of YRC on 05-02-2016.
- Organised a Medical Camp at Manimoorthiswaram on behalf of JRC On 27-02-2016.
- Organised Several Competitions on behalf of YRC and Women Cell On 08-03-2016.

- Organised an Association Meeting giving Career Counselling on 30-03-2016.
- Organised One day National Seminar on Emerging Trends in Pure and Applied Mathematics on 06-01-2017.
- Organised several Competitions jointly with Criminology Department, M.S. University on behalf of Women's Day on 21.02.2018.
- Served as the co-ordinator of Youth Red Cross of St. John's College for 8 years.
- Serving as women cell co-ordinator since 2017.
- Organised several Competitions jointly with Criminology Department, M.S. University on behalf of Women's Day on 08.03.2018.

Participation as a resource person

Sl. No	Institution	Date	Topic of Presentation
1	Annai Velankanni College, Kanyakumari	10.02.2014	Application in graph theory
2	Rani Anna Government College for women.	07.10.2015	Domination in graphs.

Doctoral Committee member for the Research Scholars

1. J. Jafrin Jony (Reg No 19211272092004)

Administrative Position held

1. Serving as a Governing board member for Bishop Selwyn Community College since 2017.
2. Served as a Governing board member for St. John's College from 2019-2020

