

# Jamal Mohamed College (Autonomous), Tiruchirappalli-20

**RESUME (as on 31.03.2023)**

## Department of Mathematics (Aided)



1. Name : **Dr. A. MOHAMED ISMAYIL**
2. Sex : *Male*
3. Designation : *ASSOCIATE PROFESSOR IN MATHEMATICS*
4. Date of Birth : *04-06-1973*
5. Address:

### **Residential**

*Abdul Rahim Manzil  
63 TSN Avenue  
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### **Office**

*P.G & Research Department of Mathematics  
Jamal Mohamed College (Autonomous)  
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## 6. Educational Qualifications :

|                  | <b>Examination Passed</b>                                    | <b>College/University</b>      | <b>Year</b> |
|------------------|--|--------------------------------|-------------|
| UG Degree        | B.Sc., (Mathematics)   | A.P.A. College/M.K. University | 1994        |
| Master's Degree  | M.Sc., (Mathematics)   | Jamal Mohamed College /BDU     | 1996        |
| Research degree  | M.Phil., (Mathematics)                                       | Jamal Mohamed College /BDU     | 2003        |
|                  | Ph.D (Mathematics)   | Jamal Mohamed College /BDU     | 2015        |
| Any other degree | PGDCA  | Jamal Mohamed College /BDU     | 1996        |
|                  | State Level Eligibility Test (SLET) Bharathidasan University |                                | 1999        |

## 7. Experience:

| <b>Teaching Experience</b>         | <b>From</b> | <b>To</b>  | <b>Total No. years</b> |
|------------------------------------|-------------|------------|------------------------|
| The New College, Chennai - 14      | 02.02.1998  | 01.02.2000 | 2                      |
| Jamal Mohamed College, Trichy - 20 | 15.02.2000  | Till today | 22                     |

*Under Graduate: 24 Years  
Post Graduate: 22 Years  
M.Phil.: 17 Years*

8. Language known : *Tamil and English*

9. Area of Specialization : *Graph, Fuzzy Graph and Intuitionistic fuzzy Graph Theory*

10. Subjects Taught

:

**Under Graduate:**

1. *Mechanics*
2. *Numerical Methods*

**Post Graduate:**

1. *Numerical Analysis*
2. *Functional Analysis*

**M.Phil.:**

1. *Functional Analysis*
2. *MATLAB*

11. **Research Supervision:** (*List given in Annexure- I & II*)

*M.Phil Degree – Dissertation Completed – 54*

*Pursuing – Nil*

*Ph. D Degree – Thesis Completed – Nil*

*Pursuing -- 06*

12. **Conference / Seminar/Workshop/Training attended without Presenting Papers:**

1. UGC Sponsored State Level Seminar On *Mathematical Methods In Social Sciences*, on 8<sup>th</sup> And 9<sup>th</sup> September 2004, At Jamal Mohamed College, Trichy.
2. UGC Sponsored National Seminar On *Mathematical Modelling To Social And Managerial Problems* On 24<sup>th</sup> And 25<sup>th</sup> September 2004 At ADM College For Women, Nagapattinam
3. Participated in the UGC Sponsored *State Level Seminar on Mathematical Methods and Fuzzy Applications* organized by PG and Research Department of Mathematics, Jamal Mohamed College (Autonomous), Tiruchirappalli-20 on 27 February, 2006.
4. Participated in the UGC Sponsored one day *State Level Seminar on Recent Trends in IT*, Organized by UGC-Academic Staff College, Bharathidasan University, Conducted at Jamal Mohamed College, (Autonomous), Tiruchirappalli-20, during 2 - 4 March 2006.
5. DST-FIST, UGC Sponsored *Training On Matlab* Organized By Department Of Mathematics And Offered By The Cranes Software International Limited Bangalore On 22<sup>nd</sup> February 2008 At Bishop Heber College, Trichy.
6. Participated in the *Workshop on Software Tools in Mathematical Modeling*, Organized by PG and Research Department of Mathematics, Jamal Mohamed College (Autonomous), Tiruchirappalli-20, under Autonomous grant, 28.02.2009 to 04.03.2009.
7. UGC Sponsored National seminar on *Applications of Algebra and Number Theory* organized by the Department of Mathematics, National College, Tiruchirappalli during Dec.4-5,2009.
8. UGC sponsored state level seminar on *Examination Reforms*, Organized by Jamal Mohamed College, Tiruchirappalli, March 12, 2010.
9. One day national level Seminar on *Graph Theory, Algorithms and Modelling (GAM-2010)* organized by Department of Mathematics, Jamal Mohamed College under UGC Autonomous Grant held on 19.03.2010.
10. International workshop on *Graph coloring and its Application* Sponsored by DST, NBHM and CSIR Organized by Bharathidasan University, Tiruchirappalli, August 7-9, 2010.
11. A Seminar on *Creating Competitiveness to excel in higher education – a TQM approach* organized by IQAC, Jamal Mohamed College, Trichy, on Dec-8, 2010.

12. Workshop on *LATEX*, organized by ISTE Chapter and Department of I.T, Dr. Sivanthi Aditanar College of Engineering, Tiruchendur on November 15,2011.
13. Diamond Jubilee Celebrations Workshop on *Mathematical Modelling* Organized by PG and Research Department of Mathematics, Jamal Mohamed College (Autonomous), Tiruchirappalli-20, under Autonomous grant from January 19 to 25,2011.
14. One day State Level seminar on *Online Access to Research Journals and Books* Organized by General Library, Jamal Mohamed College, Tiruchirappalli held on 12.01.2012.
15. UGC sponsored one day seminar on *Discrete Mathematics and its applications* under Autonomous grant on 9<sup>th</sup> March 2013, Organized by PG and Research Department of Mathematics, Jamal Mohamed College (Autonomous), Tiruchirappalli-20.
16. *International conference on Mathematical Methods and Computations* on 13-14 February 2014, Organized by PG and Research Department of Mathematics, Jamal Mohamed College (Autonomous), Tiruchirappalli-20.
17. *International conference on Mathematical Methods and Computations* on 22-23 January 2015, Organized by PG and Research Department of Mathematics, Jamal Mohamed College (Autonomous), Tiruchirappalli-20.
18. *National conference on Graph theory, Fuzzy graph theory and their Applications* on 10-11 February 2016, Organized by PG and Research Department of Mathematics, Jamal Mohamed College (Autonomous), Tiruchirappalli-20.
19. Tiruchirappalli Chapter in Technical Collaboration with IEEE Podhigai Sub-section and IEEE Signal Processing/Computational Intelligence / Computer Joint Societies Chapter(SIPCICOM)of Madras Section and Centre for University Industry Collaboration, Bharathidasan University, Tiruchirappalli Organized Two day International Workshop on *Image Processing Research with Matlab* at Bharathidasan University Technology Park, on 31.07.2015 and 01.08.2015.
20. UGC Sponsored Six day workshop on *Research Methodology and SPSS* organized by Department of Mathematics, Jamal Mohamed College, Tiruchirappalli from 20-25.10.2016.
21. National Conference on *Matrix Algebra* organized by the Department of Mathematics, Karur Vellalar College for Arts and Science for Women held on 28.09.2018.
22. Bharathiar University and Association of Principals of Colleges of Bharathiar University Jointly organized Two Day workshop on *Revised NAAC Norms and Procedures* during 26-27.10.2018 at Bharathiar University, Coimbatore.
23. UGC CPE Sponsored Two day Workshop on *Professional Development for Academic Leadership in Curriculum Design* organized by Curriculum Development Cell, Jamal Mohamed College, Tiruchirappalli on 18.01.2019 and 19.01.2019.
24. NAAC Sponsored Two day Workshop on *Benchmarking the Best Practices in Teaching and Learning in Higher Education* organized by the Internal Quality Assurance Cell, Bishop Heber College, Tiruchirappalli on 14.02.2019 and 15.02.2019.
25. UGC Sponsored workshop for *Professional Development of Academic Administrators on Institutional Assessment and Accreditation* Organized by UGC-Human Resource Development Centre and Internal Quality Assurance cell, Bharathidasan University on 01.03.2019 and 02.03.2019.
26. International workshop on *Python Programming* Organized by the Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 18.02.2020.
27. Workshop on *Edmodo ICT Tool* Organized by the Internal Quality Assurance Cell, Jamal Mohamed College, Tiruchirappalli on 04.02.2020.

28. Two days Virtual workshop on Differential Equations and its Applications Sponsored by Indian Academy of Science (IASc), Bengalure, Indian National Science Academy (INSA), New Delhi and National Academy of Science (NASI), Allahabad organized by the Department of Mathematics, Jamal Mohamed College, Tiruchirappalli from 21.12.2021 to 22.12.2021.
29. Faculty Development Programme on Advanced Latex conducted by Division of Mathematics, School of Advanced Science, Vellore Institute of Technology, Vellore, during 27 to 29-06-2022.
30. A Three Day Workshop on Fundamentals of Probability Theory and Detection Estimation Theory jointly organized by the Department of Mathematics, Jamal Mohamed College, Trichy and Pentagon Technologies, India and Pentagon Research UK Ltd, Birmingham, United Kingdom from 06.10.2022 to 08.10.2022.
31. National Intellectual Property Awareness Mission, Organized by Intellectual Property Office, India on 04-01-2023.
32. Faculty Development Programme on MOOCS & SWAYAM, Organized by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 16-12-2022.

#### **E-Conferences Attended:**

1. National Level Workshop [Webinar] on *Cyber Security During Covid-19* organised by Smt. K. G. Mittal College [IQAC Committee] & IAA-TB on 3.05.2020.
2. National Mission on Education through ICT, MHRD funded *LaTeX training*, course material provided by IIT Bombay organised at D.K.M. College for Women on 04.05.2020.
3. Webinar on *Safeguard Yourself In Cyber Space* organised by the Internal Quality Assurance Cell and Youth Red Cross of Sri Kanyaka Parameshwari Arts and Science College for Women, Chennai on 04.06.2020.
4. Webinar on *Future approach to aerospace vehicle design* organised by Institutions Innovation Council of Francis Xavier Engineering College, Tirunelveli on 06.07.2020.
5. National level Webinar on *Engaging Remote Learners in Higher Education* organised by Lady Willingdon Institute of Advanced Study in Education, Chennai on 08.06.2020.
6. One day Webinar on *Total Labeling in Graphs* organised by Thiagarajar College of Engineering, Madurai on 08.07.2020.
7. National Level Webinar on *Indian Economy in Post COVID19: Prospects and Challenges* organised by Department of Economics and IQAC of T.H.K. Jain College, Cossipore, Kolkata on 09.06.2020.
8. International Online Workshop on *Cyber Crimes: Challenges and Prevention/ Precautions* jointly organised by Research Foundation of India and World Virtual Conference Forum on 09.06.2020.
9. National Mission on Education through ICT, MHRD funded *GeoGebra 5.04 training* course material provided by IIT Bombay organised at Jamal Mohamed College, Tiruchirappalli on 10.05.2020.
10. Webinar on *Repair and Rehabilitation of Structures and Significance of NDT Tests* Organised by Department of Civil Engineering, Sri Ramakrishna Engineering College, Coimbatore on 11.06.2020.
11. National Webinar on *Role of IQAC in Higher Educational Institutions* organised by IQAC Department, Badruka college of Commerce and Arts, Kachiguda, Hyderabad on 12.06.2020.

12. National Mission on Education through ICT,MHRD funded *R training* course material provided by IIT Bombay organised at Jamal Mohamed College, Tiruchirappalli on 15.05.2020.
13. *Legal and Academic Awareness Programme* organised by St Alphonsa College of Arts and Science in collaboration with District Legal Services Authority Kanyakumari, Nagercoil on 15.07.2020.
14. One day Webinar on *Graph Theory and Applications- An Overview* organised by Department of Computer Engineering , Government Polytechnic, Daman and Diu on 15.07.2020.
15. Webinar on *Quality Metrics in Higher Education* funded under UGC paramarsh scheme organised by The IQAC cell, Sadakathullah Appa College, Tirunelveli on 21.05.2020.
16. International Workshop on *Inferential Statistics with MS excel as Tool IWIST-2020* organised by Research Foundation of India on 22.05.2020.
17. Webinar on *Introduction to Graphs from Algebraic Structures* organised by the PG Department of Mathematics ,G.T.N. Arts College, Dindigul on 22.05.2020.
18. National Training Workshop on *Research Proposal for UGC STRIDE Projects: Preparation & Submission Protocol* organised by Department of English in association with Audacious Dreams Foundation , JP College of Arts & Science , Tenkasi on 27.05.2020.
19. Webinar on *Activity Based Learning Method* hosted by Department of English, G.T.N. Arts College, Dindigul on 27.05.2020.
20. Webinar on *DATA ANALYTICS:ENROUTE TO AI & ML* organised by ISTE chapter, Department of Computer Science and Engineering , City Engineering College, Bangalore on 27.06.2020.
21. Webinar on *Mathematical Modelling and Applications* organised by Department of Science and Humanities , RMK college of Engineering and Technology , Chennai on 27.07.2020 and 28.07.2020.
22. National Webinar on *Applications of Numerical Analysis in Mathematics* organised by Auroras Degree & PU college , Hyderabad on 29.06.2020.
23. Webinar on *Optimization Models using Fuzzy Numbers* organised by PG and Research Department of Mathematics, Holy Cross College Tiruchirappalli on 30.06.2020.
24. International Workshop IWHWLRP on *How to Write Literature Review in Papers* organised by World Virtual Conference Forum in association with International Research Guide Federation and sponsored by World Federation of Science and Technology on 31.05.2020.
25. International Virtual Conference on Recent Trends in Applied Mathematics organized by Sri Ramakrishna Institute of Technology, Coimbatore on 07.10.2022.

### 13. Paper Presented in Seminars / Conferences :

1. *Matching in a fuzzy graph*, At Tamilnadu State Council for Science and Technology sponsored National Conference on Fuzzy Mathematics and Graph Theory, PG and Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli, March 27 – 28, 2008.
2. *On Odd and Even Supper Edge Magic Labelling of Graphs*, At Tamilnadu State Council for Science and Technology sponsored National Conference on Fuzzy Mathematics and Graph Theory, PG and Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli, March 27 – 28, 2008.

3. *Domination, Independent Domination and its parameters in Fuzzy Graph*, At UGC sponsored International Conference on Mathematical Methods and Computation, PG and Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli, July 24-25, 2009.
4. *Perfect and Complete Matching in a Fuzzy Graph* At National Seminar on Fuzzy Mathematics and its Applications, School of Mathematics, Alagappa University, Karaikudi, March 09, 2009.
5. *Neighborhood number of a fuzzy graph*, National Seminar on Application of Algebra and Number Theory, National College, Tiruchirappalli, Dec.4-5, 2009.
6. *Neighborhood critical vertex in an M-strong fuzzy graph*, UGC Sponsored one day national Seminar on Application of Mathematics (Autonomous grand), Jamal Mohamed College, Feb. 22, 2012.
7. *Different neighborhood numbers in an M-strong fuzzy graph*, Heber International Conference on Application of Mathematics and Statistics, Bishop heber College, Tiruchirappalli, 5-7 Jan, 2012.
8. *Critical neighbourhood edge in an M-strong fuzzy graph*, UGC Autonomous Funded international conference on Mathematics and its applications, Islamia college, Vaniyambadi, Aug. 29, 2012.
9. *M-domination in an M-strong fuzzy graph*, UGC Autonomous Funded international conference on Discrete Mathematics and its application, Mar. 9, 2013.
10. *Complementary Nil Domination in a fuzzy graph*, International Conference on Mathematical Methods and Computing, Organized by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli, between 13-14 Feb. 2014.
11. *Accurate split (Non-Split) Domination Fuzzy Graphs*, International Conference on Mathematical Methods and Computations, Organized by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 19.02.2020.
12. *Perfect g-Eccentric Domination in Fuzzy Graph*, International Conference on Mathematical Methods and Computations, Organized by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 21.12.2022.
13. *Accurate Strong Non-Split Domination in Graphs*, International Conference on Mathematical Methods and Computations, Organized by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 21.12.2022.
14. *The Minimum Eccentric Domination Energy of Graphs*, International Conference on Mathematical Methods and Computations, Organized by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 21.12.2022.
15. *Minimum Equitable Eccentric Domination Energy of Graphs*, International Conference on Mathematical Methods and Computations, Organized by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 21.12.2022.
16. *The Minimum Superior Eccentric Domination Energy of Graphs*, International Conference on Mathematical Methods and Computations, Organized by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 21.12.2022.
17. *Common Neighbourhood and Eccentric Domination and its Energy of Graphs*, International Conference on Mathematical Methods and Computations, Organized by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 21.12.2022.
18. *On Domination in Complex Fuzzy Graph*, International Conference on Mathematical Methods and Computations, Organized by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 21.12.2022.

#### 14. Publications:

##### Scopus:

1. Ismayil, A. Mohamed, and S. Muthupandiyan. "Complementary Nil G-Eccentric Domination in Fuzzy Graphs." *Advances in Mathematics: Scientific Journal* 9 (2020), no.4, <https://research-publication.com/amsi/all-issues/vol-9-no-4-2020/amsi2020-n4-28/>
2. A. Mohamed Ismayil and Tejeskumar. "Eccentric Domination Polynomial of Graphs." *Advances in Mathematics: Scientific Journal* 9 (2020), no.4, 1729-1739. <https://research-publication.com/amsi/all-issues/vol-9-no-4-2020/amsi2020-n4-29/>
3. Ismayil, A. Mohamed, and S. Muthupandiyan. "Perfect G-Eccentric Domination in Fuzzy Graphs", *Journal of Mathematical Control Science and Applications* Vol. 7 No. 2 (July-December, 2021).

##### Web of Science:

1. S. Ismail Mohideen and A. Mohamed Ismayil, *Domination in fuzzy graph: a new approach*, *Int. Jour. of Computational Science and Math.* ISSN 0974-3189. Vol. 2, Number 3 pp. 101-107, (Dec.2010).
2. S. Ismail Mohideen and A. Mohamed Ismayil, *The edge neighborhood number of an M-strong fuzzy graph*, *Advances in Fuzzy sets and Systems*, Vol.8, NO.2, pp:89-96, (July 2011).
3. Ismail Mohideen,S and Mohamed Ismayil,A, *Independent, perfect and connected neighborhood number of an M-strong fuzzy graph*, *Discrete Mathematics, Elixir Dis. Math.*, 41pp:5816-5820, (2011).
4. Mohamed Ismayil,A, and Ismail Mohideen,S, *Complementary nil domination in a fuzzy graph*, *Annals of Fuzzy Mathematics and Informatics*, Vol.8, No.5,pp. 785-792, (Nov.2014).
5. Mohamed Ismayil. A and Mohamed Ali. A, *On Strong Interval-Valued Intuitionistic Fuzzy Graph*, *Int. Jour. Of Fuzzy Mathematics and Systems*, Vol.4, No.2, pp. 161-168, (2014).
6. Mohamed Ismayil And S. Muthupandiyan, *Connected g-Eccentric Domination in Fuzzy Graph*, *Journal of Algebraic Statistics*, Volume 13, No. 2, p. 3377-3382, (2022).
7. Mohamed Ismayil And S. Muthupandiyan, *Distance Closed g-Eccentric Domination in Fuzzy Graphs* *Journal of Algebraic Statistics*, Volume 13, No. 2, p. 3346-3352, (2022).
8. Mohamed Ismayil And S. Muthupandiyan, *Inverse g-Eccentric Domination in Fuzzy Graphs*, *Journal of Algebraic Statistics*, Volume 13, No. 3, p. 1905-1912, (2022).

##### UGC - CARE List:

1. Ismail Mohideen,S and Mohamed Ismayil,A, *Neighborhood critical vertices of an M-strong fuzzy graph*, *Advances in Fuzzy Mathematics*, Vol.8, No.1, pp:35-39, (2013). <https://www.ripublication.com/Volume/afmv8n1.htm>
2. Mohamed Ismayil,A, and Ismail Mohideen,S, *Mixed Domination in an M-strong fuzzy graph*, *Malaya Journal of Matematik*, 3(2)(2015) 153–160, (2015). [https://www.malayajournal.org/selected\\_article.php?id=149](https://www.malayajournal.org/selected_article.php?id=149)
3. C. Gurubaran, A. Prasanna and A. Mohamed Ismayil, *2 – Equitable Domination in Fuzzy Graphs*, *International Journal of Applied Engineering Research* ISSN 0973-4562 Volume 13, Number 16 pp12531-12535, (2018). <https://www.ripublication.com/Volume/ijaerv13n16.htm>



4. Ismayil, A. Mohamed, and R. Priyadharshini. "Complementary nil detour eccentric domination number of a graph." *Malaya Journal of Matematik (MJM)* 1, 2020 (2020): 491-495. [http://malayaajournal.org/selected\\_article.php?id=952](http://malayaajournal.org/selected_article.php?id=952)
5. Ismayil, A. Mohamed, and A. Riyaz Ur Rehman. "Equal eccentric domination in graphs." *Malaya Journal of Matematik (MJM)* 8.1, 2020 (2020): 159-162. [https://www.malayaajournal.org/selected\\_article.php?id=798](https://www.malayaajournal.org/selected_article.php?id=798)
6. A Mohamed Ismayil<sup>1</sup> and Riyaz Ur Rehman<sup>A2</sup>, *Accurate Eccentric Domination in Graphs*, Our Heritage, ISSN: 0474-9030, Vol 68, Issue 4, pp: 209-216 (Jan 2020).
7. Mohamed Ismayil And S. Muthupandiyar, *G-Eccentric Domination in Fuzzy Graphs*, Our Heritage, ISSN: 0474-9030, Vol 68, Issue 4, pp: 191-200, (Jan 2020).

#### **AMS-MathSciNet:**

1. Mohamed Ismayil, A, and Mohamed Ali, A, *Complementary nil domination in Intuitionistic fuzzy graph using effective edges*, Annals of Fuzzy Mathematics and Informatics, Volume 8, No. 5, pp. 785-792, (November 2014).
2. A. Mohamed Ismayil and A. Mohamed Ali, *Complementary nil dominating set in intuitionistic fuzzy graph using effective edges*, Annals of Fuzzy Mathematics and Informatics, Volume 10, No. 5, (November 2015), pp. 765-774.
3. A. Mohamed Ismayil and A. Mohamed Ali, *An algorithm for finding complementary nil dominating set in a fuzzy graph*, New Trends in Mathematical Sciences, NTMSCI **5**, No. 3, 1-6 (2017).

#### **Science Direct, Google Scholar, DOAJ, Copernicus, Scimago, Proquest and Other Indexed:**

1. Ismail Mohideen, S., Mohamed Ismayil, A., Parvathy, G., and Rajalaxmi (@)Subahashini, D., *Super Edge Magic Labeling of Graphs*, Jamal academic Research Journal: An Interdisciplinary, Vol.4, No.2, 69-76, (2007).
2. S. Ismail Mohideen and A. Mohamed Ismayil, *The vertex neighborhood number of a fuzzy graph*, Int. Jour. Mathematics Research, vol.2, Number 3 pp. 71-76, (2010).
3. Ismail Mohideen, S and Mohamed Ismayil, A, *Neighborhood critical edges of an M-strong fuzzy graph*, International Journal of Scientific and Engineering Research, Vol.3, issue 11, pp:47-51, (Nov. 2012).
4. Mohamed Ismayil. A and Mohamed Ali, A, *On Complete interval-valued Intuitionistic fuzzy graph*, Advances in Fuzzy sets and Systems, Vol.18, No.1, pp. 71-86, (Sept.2014).
5. Mohamed Ismayil, A, and Mohamed Ali, A, *Isomorphism on Interval valued Intuitionistic fuzzy graph*, Jamal Academic Research Journal: an Inter-disciplinary, Vol.8 No. 1 &2, pp:93-(2015).
6. A. Mohamed Ismayil and A. Mohamed Ali, *Some Properties of Vertex Degree And Edge Degree of Interval-Valued Fuzzy Graphs*, I.J. Mathematical Sciences and Computing, 1, 1-12, (2015).
7. A. Mohamed Ismayil and A. Mohamed Ali, *A Note On Edge Regular Interval-Valued Fuzzy Graph*, Jamal Academic Research Journal: An Interdisciplinary, Special Issue, pp: 97-102, ISSN 0973 – 0303, (February 2016).
8. Gurubaran, C., A. Prasanna, and A. Mohamed Ismayil. "2-Equitable Domination in Fuzzy Graphs." *International Journal of Applied Engineering Research* 13.16 (2018): 12531-12535.
9. C. Gurubaran, A. Prasanna And A. Mohamed Ismayil, *Paired Equitable Domination In Fuzzy Graphs*, International Journal of Mathematical Archive-9(6), 43-47, ISSN 2229 – 5046, 2018.



10. Mohamed Ismayil A, Riyaz Ur Rehman A, Tejaskumar, *Edge Domination in Picture Fuzzy Graphs*, International Journal of Computational Engineering Research (IJCER), ISSN (e): 2250 – 3005 , Volume, 09 , Issue, 8, August – 2019.
11. A. Mohamed Ismayil, R. Priyadharshini, *Detour Eccentric Domination In Graphs*, Bulletin of Pure and Applied Sciences, Vol. 38E (Math & Stat.), No.1, P.342-347. ISSN 0970 6577(2019).
12. A.Mohamed Ismayil and N.Asha Bosley, *Domination in Picture Fuzzy Graphs*, American International Journal of Research in Science, Technology, Engineering & Mathematics, ISSN (Print): 2328-3491, (2019)

#### **15. Resource Person in State Level / Symposium/ National / International Conference/Workshop:**

1. A Four day workshop on LATEX and SPSS, from 31.9.2014 to 01-10.2014 for Male staff members at Jamal Mohamed College, Trichy.
2. A Four day workshop on LATEX and SPSS, from 04.10.2014 to 05-10.2014 for Female staff members at Jamal Mohamed College, Trichy.
3. UGC Sponsored One Day Workshop on LATEX, organized by Department of Mathematics, Rajah Sarfoji Government of College, Tanjore on 4<sup>th</sup> March 2014.
4. Coordinated in International Conference on Mathematical Methods and Computations organized by the Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 17.12.2017.
5. Coordinated in International Conference on Mathematical Methods and Computations organized by the Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 20-21.02.2019.
6. Chairperson in an International Conference on Mathematical Methods and Computations organized by the Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 20-21.02.2019.
7. Coordinated in International Conference on Mathematical Methods and Computations organized by the Department of Mathematics, Jamal Mohamed College, Tiruchirappalli on 20-19.02.2020.
8. Two days National Webinar on Domination in Graphs Organized by C. Abdul Hakeem College (Autonomous), Melvisharam on 18<sup>th</sup> August 2021.
9. Young Student Scientist Program (YSSP-2022) Supported by Tamil Nadu State Council for Science and Technology and conducted at Jamal Mohamed College, Tiruchirappalli on 26.05.2022.
10. One day State Level Workshop on LaTeX, Organized by Annai Veilankanni Arts and Science College, Tahanjavur on 20.10.2022.
11. Judge for Oral Presentation in the *International Conference on Scientific and Technological Advancements for Reliable and Sustainable – future (STARTS 2022)* Organized by the Deanery of Academics and all the Science Departments of Bishop Heber College, Tiruchirappalli on 16.11.2022

#### **16. International / National / State Level Seminars / Conferences / Workshops Organized:**

1. State Level Quiz Competition on 06.03.2012 at Jamal Mohamed College, Tiruchirappalli.

2. A Four day workshop on LATEX and SPSS, from 29.9.2014 to 01-10.2014 for Male staff members at Jamal Mohamed College, Tiruchirappalli.
3. A Four day workshop on LATEX and SPSS, from 02.10.2014 to 05-10.2014 for Female staff members at Jamal Mohamed College, Tiruchirappalli.
4. UGC Sponsored National Conference on Graph Theory, Fuzzy Graph Theory and Their Applications under Autonomous Grant conducted at Jamal Mohamed College, Tiruchirappalli during 10-11.02.2016.
5. Organized an online course on Quantitative Aptitude held from 24.04.2020 to 02.05.2020 under the aegis of DBT Star College Scheme in Jamal Mohamed College, Tiruchirappalli.
6. Organized an One Week Faculty Development Programme on Data analytics & Mathematical Software Tools by the Department of Mathematics, Jamal Mohamed College, Tiruchirappalli in collaboration with the Twaching Learning Centre (TLC), Ramanujan College of Delhi from 25.02.2022 to 03.03.2022.
7. Coordinated an Online Training Programme for Higher Secondary School Mathematics Teachers' Organized by Jamal Mohamed College, Tiruchirappalli from 12.09.2022 to 30.09.2022.

#### **17. Membership in Autonomous Programme:**

*Coordinator – Mathematics (Self Finance Women}*

*Member- Board of studies, Department of Mathematics June 2004 – Till date.*

*Member – Autonomous Examination Committee.*

*Member – Internal Quality Assurance Cell.*

*Member – Grievance Appeal Committee.*

#### **18. Orientation/Refresher courses:**

1. *UGC Sponsored Orientation Course from 16-08-2002 to 12-09-2002 and obtained the grade 'A' at UGC Academic Staff College, Bharathidasan University, Trichy.*
2. *UGC Sponsored Refresher Course In Applicable Mathematics from 05-11-2003 to 25-11-2003 at obtained the grade 'A' at UGC refresher course centre, Gandhigram Rural institute Deemed University, trichy.*
3. *UGC Sponsored Refresher Course In Mathematical Sciences From 22-11-2007 To 12-11-2007 And Obtained The Grade 'A' At Ugc Academic Staff College, Bharathidasan University Trichy.*
4. *UGC sponsored refresher course in mathematical modeling and advanced computing from 22-1-2010 to 11-2-2010 and obtained grade 'A' at UGC academic staff college, Madurai Kamaraj University, Madurai.*

#### **19. Faculty development programme / Faculty Improvement programme:**

1. *UGC Organized Faculty Development Programme on Fuzzy Mathematics Conducted by the Department Mathematics, AIMA College of Arts and Science for Women, Tiruchirappalli on 11.10.2019.*
2. *Faculty Development Programme on Pure and Applied Mathematics organised by the Department of Science and Humanities of Hindusthan College of Engineering and Technology, Coimbatore on 06.07.2020 and 07.07.2020.*

3. *National Level Faculty Development Programme organised by the IQAC, K.M.G. College of Arts and Science, Vellore on 08.06.2020 to 09.06.2020.*
4. *Faculty Development Programme on Funding Opportunities for Research Projects conducted by IQAC cell, Periyar E.V.R. College, Tiruchirappalli on 24.06.2020.*
5. *FDP on International Webinar on the Topic: Introduction to E-Learning and its Challenges organised by Department of Corporate Secretaryship, Patrican College of Arts and Science, Chennai on 28.06.2020.*
6. *International Faculty Development Programme on 50+ Ways of Teaching Learning Process jointly organised by MTC Global, Bangalore and Dhaka International University, Dhaka, Bangladesh held on 30.05.2020.*
7. *Faculty Improvement Programme on Advances in Linear Algebra and Differential Equation organised by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli between 09.07.2020 and 10.07.2020.*
8. *Faculty Development Programme on Algebra and Analysis organized by PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli from 09.02.2021 to 11.02.2021.*
9. *One Week Faculty Development Programme on ICT Tools for E-Content Development PG & Research Department of Mathematics, Jamal Mohamed college, Tiruchirappalli from 24.01.2022 to 29.01.2022.*
10. *Faculty Improvement Programme on Exordium to MOOCS & SWAYAM Organized by PG & Research Department of Mathematics, Jamal Mohamed college, Tiruchirappalli on 16.12.2022.*

## 20. Study Materials / Books written & Published:

### **Study Material written:**

1. *Classical and Fluid Mechanics* for Bharathidasan University –Center for Distance Education.
2. *Business Mathematics(English)* for Bharathidasan University –Center for Distance Education.
3. *Business Mathematics(Tamil)* for Bharathidasan University –Center for Distance Education.

### **Book Published:**

1. *Business Mathematics and Statistics – Dr. Ismail Mohideen, A. Mohamed Ismayil and A. Prasanna-Raja Publication, Trichy (Dec. 2013) ISBN:978-93-80243-84-9.*

## 21. Details of Online Certification Courses Completed:

### a. Faculty Members:

| Name of the Faculty Member | Department  | Course Name                       | Awarding Agency<br>NPTEL /<br>SWAYAM /<br>Others (specify) | No. of Weeks | Date of Enrollment | Date of Completion |
|----------------------------|-------------|-----------------------------------|--|--------------|--------------------|--------------------|
| A. Mohamed Ismayil         | Mathematics | Numerical Methods                 | NPTEL  | 8            | 26.08.2019         | 18.10.2019         |
| A. Mohamed Ismayil         | Mathematics | Graph Theory                      | NPTEL  | 8            | 27.01.2020         | 20.03.2020         |
| A. Mohamed Ismayil         | Mathematics | Scientific Computing Using Matlab | NPTEL  | 12           | 14.09.2020         | 04.12.2020         |

|                           |                    |   |              |          |                   |                   |
|---------------------------|--------------------|---|--------------|----------|-------------------|-------------------|
| <b>A. Mohamed Ismayil</b> | <b>Mathematics</b> | <b>Matrix Analysis with Applications</b>          | <b>NPTEL</b> | <b>8</b> | <b>14.09.2020</b> | <b>04.12.2020</b> |
| <b>A. Mohamed Ismayil</b> | <b>Mathematics</b> | <b>Essential Mathematics for Machine Learning</b> | <b>NPTEL</b> | <b>8</b> | <b>14.09.2020</b> | <b>04.12.2020</b> |

(A. MOHAMED ISMAYIL)

#### ANNEXURE I

| <b>Sl. No.</b> | <b>Register No.</b> | <b>Name of the Student</b> | <b>Year of submission</b> | <b>Project Title</b>  |
|----------------|---------------------|----------------------------|---------------------------|---|
| 1.             | 06CD 30691          | A.BRINDHA                  | Aug. 2007                 | A Gradient Pivotal Solution Algorithm   |
| 2.             | 06CD 30753          | R.THILAGAVATHI             | Aug. 2007                 | Graphoidal Covering Number of a Graph   |
| 3.             | 06CD 30744          | M.SUBHASREE                | Aug. 2007                 | Push and Pull Algorithm   |
| 4.             | 06MFMA18            | A.PADMA                    | Aug. 2007                 | A Study on variational inequalities   |
| 5.             | A656301             | M.SULTHANA RAJIA           | Sep. 2007                 | Post-Optimal Analysis   |
| 4.             | 07MFM11             | G.PARVATHY                 | Aug. 2008                 | Graceful and Nearly Graceful Labeling of some standard Graphs   |
| 6.             | 07MFM22             | H.SHAGITHA PARVEEN         | Aug. 2008                 | A Study on Fuzzy Metric Spaces  |
| 7.             | 08MFM06             | M.MOHAMED RIYAZUDEEN       | Aug. 2009                 | Bondage Number and Efficient Domination of Vertex Transitive Graph  |
| 8.             | 08UFM23             | A.SATHYA                   | Aug. 2009                 | Odd and Even Super Edge Magic Graph   |
| 9.             | 09UFM06             | P.SUDHA                    | FEB. 2011                 | (T1,T2)* SG Continuous MAPPS in a Bitoplogical spaces.  |
| 10             | 09MFMA08            | K.RAJIV GANDHI             | Aug. 2010                 | A study on total domination in complements of graphs containing no $K_{4,4}$ and least domination in tree |
| 11.            | 09MFMA17            | S. SHAMIRA BEGUM           | Aug. 2010                 | A study on Roman domination in graphs   |
| 12.            | 09MFMA26            | K. MALATHI                 | Aug. 2010                 | A study on M-normed fuzzy matrices  |
| 13.            | 10MFMA05            | T.DINESH KUMAR             | Aug.                      | A Study on vertex magic Total   |

|     |            |                     |           |   |
|-----|------------|---------------------|-----------|---|
|     |            |                     | 2011      | Labeling Graphs   |
| 14. | 10MFMA14   | K.RAJENDRAN         | Aug. 2011 | A Study on Distance domination in Graphs.   |
| 15. | 10MFMA31   | A.NAFIUNISHA        | Aug. 2011 | A Study on M strong, product and M strong product Fuzzy Graphs  |
| 16. | 10MPMA14   | A.VINOTH            | -         | A study on Weak and Strong Domination in a Graph.   |
| 17. | 11MPFMA037 | S. SAHISTHA BANU    | Aug. 2012 | A Study on Semi total and Total Block graph of a graph.   |
| 18. | 11MPFMA038 | S.SAMEERA FARHATH   | Aug. 2012 | A Study on Global domination Number, Global set domination number and Total global domination number. |
| 19. | 11MPFMA043 | M. THAHIRA BANU     | Aug. 2012 | A Study on $\alpha$ - Domination  |
| 20. | 12MPFMA020 | R. AARTHEE          | Aug. 2013 | A Study on Domination in product Intuitionistic fuzzy graph   |
| 21. | 12MPFMA021 | S. AMEENA BANU      | Aug. 2013 | A Study on Vertex-colouring edge-weights of garphs  |
| 22. | 12MPFMA029 | K.S. KANSUL FATHIMA | Aug. 2013 | Different Domination number in graph.   |
| 23. | 13MPFMA013 | M.A. RIFAYATHALI    | Aug. 2014 | A Study on fuzzy sub group and fuzzy ideal of a ring.   |
| 24. | 13MPFMA015 | G. VINOTH           | Aug. 2014 | A Study on complement isomorphism for fuzzygraph.   |
| 25. | 13MPFMA032 | A.S. TAMILSELVI     | Aug. 2014 | A Study on Domatic number of Regular and planar graph.  |
| 26. | 14MPFMA001 | A.MOHAMED ALI       | Aug. 2015 | A Study on Interval Valued Intuitionistic fuzzy graph.  |
| 27. | 14MPFMA006 | S. KUMERASAN        | Aug. 2015 | A Study on Regular and Irregular fuzzy graph.   |
| 28. | 14MPFMA023 | H. NITHYAA          | Aug. 2015 | A Study on Domination in Fuzzy graph  |
| 29. | 15MPFMA020 | A.AZEENA BEGAM      | Aug. 2016 | A Study on Split domination in fuzzy graph.   |
| 30. | 15MPFMA026 | S. JANAKAMANI       | Aug. 2016 | A Study on Strong efficient domination in graph   |
| 31. | 15MPFMA031 | L. PRIYANGA         | Aug. 2016 | A Study on Intutionistic fuzzy line graph and strong IVIFG.   |
| 32. | 15MPFMA032 | P. PUNITHA          | Aug. 2016 | A Study on Different types of product of fuzzy graph.   |
| 33. | 15MPFMA036 | M. SANGEETHA        | Aug. 2016 | A Study on Type 2 triangular and trapezoidal fuzzy matrices.  |
| 34. | 16MPFMA012 | P. SRIDHARAN        | Aug. 2017 | A Study on Equitable domination in fuzzy graph.   |

|     |            |                      |            |   |
|-----|------------|----------------------|------------|---|
| 35. | 16MPFMA017 | N. DHIVYA            | Aug. 2017  | A Study on Fuzzy and anti fuzzy PS-ideals of PS algebra.                                  |
| 36. | 16MPFMA018 | K. INDUMATHI         | Aug. 2017  | Fuzzy ideals of KU-algebra and bipolar fuzzy n-fold KU ideal of KU algebra.               |
| 37. | 16MPFMA021 | S. PRIYA             | Aug. 2017  | A Study on Fuzzy eccentric domination and complementary nil eccentric domination in graph |
| 38. | 17MPFMA022 | M. JENIFER RUTH      | Aug. 2018  | A Study on anti intuitionistic fuzzy graph.   |
| 39. | 17MPFMA028 | T. MEENA KUMARI      | Aug. 2018  | A Study on Fuzzy graph and fuzzy Hyper vector space.                                      |
| 40. | 17MPFMA033 | J. RAJAMANOHARI      | Aug. 2018  | A Study on Co-total domination number of a graph.   |
| 41. | 17MPPMA001 | P. ARARU             | April 2019 | A Study on Strong weak connected and perfect domination in fuzzy graph.                   |
| 42. | 17MPPMA005 | M. KUMAR             | April 2019 | A Study on Different domination in graphs.  |
| 43. | 18MPFMA008 | A.RIYAZ UR REHMAN    | Aug. 2019  | A Study on different edge domination in fuzzy graph.                                      |
| 44. | 18MPFMA010 | R. TEJES KUMAR       | Aug. 2019  | A Study on different inverse domination in fuzzy graph.                                   |
| 45. | 18MPFMA015 | S. JANNATHUL FIRDOUS | Aug. 2019  | A Study on irregular fuzzy graph.   |
| 46. | 18MPFMA018 | T. MAHALAKSHMI       | Aug. 2019  | A Study on regular fuzzy graph.   |
| 47. | 19MPFMA012 | S . THILAKAVATHI     | Aug. 2020  | A Study on Application of Graph Colouring   |
| 48. | 19MPFMA011 | M. Arockia Jermia    | Aug. 2020  | Excellent Domination in Fuzzy Graph   |
| 49. | 19MPFMA003 | S. SYED ASAD AHMED   | Aug. 2020  | A Study On Blocks In Fuzzy Graphs   |
| 50. | 19MPFMA010 | M. MAHALAKSHMI       | Aug. 2020  | A STUDY ON $S-\alpha$ FUZZY SEMIGROUP ON SOME FUZZY SEMIGROUP                             |
| 51. | 20MPFMA006 | K. PRIYA             | AUG. 2021  | A STUDY ON SUM OF AN ABSOLUTE DIFFERENCE LABELING GRAPHS                                  |
| 52. | 20MPPMA018 | S. JOYCE MARY        | June 2022  | A Study on Isolate Domination and Its Polynomial in Graphs                                |
| 53. | 20MPPMA015 | K. PONMALAR          | June 2022  | A Study on Multiplicative and Sum Labelling Graphs  |
| 54. | 20MPPMA011 | S. RUKMANI           | June 2022  | A Study on Different Dominating Polynomial in Graphs                                      |

# ANNEXURE II

| Sl. No. | Ref.No./ Register No.   | Name of the Student    | Mode      | Date/Year of Admission | Title of the Thesis |
|---------|---|------------------------|-----------|------------------------|---------------------|
| 1.      | Ref: No. 16739 / Ph.D. K1 / Mathematics / P-T(3-5) / Prov.Regn /May 2019<br>Dated: 29.04.2019 | Ms. R. Priyadharshini  | Part Time | May 2019               | Pursuing            |
| 2.      | BDU1910180215   | Mr. S. Muthupandiyar   | Full Time | 17.12.2019             | Pursuing            |
| 3.      | BDU2010180365   | Mr. A. Riyaz Ur Rehman | Full Time | 25.02.2020             | Pursuing            |
| 4.      | BDU2010180363   | Mr. R. Tejaskumar      | Full Time | 25.02.2020             | Pursuing            |
| 5.      | BDU2020182778544  | Ms. H. Sabitha Begum   | Part Time | 30.07.2020             | Pursuing            |
| 6.      | BDU/PhD/21/0038   | Mr. N. Azhagendran     | Part Time | 01.07.2021             | Pursuing            |