

RESUME

Name : J.UMAMAHESWARI

Qualification : M.SC., M.Phil., Ph.D.,

Designation : Associate Professor

***Department and College
where working now*** : Department of Mathematics
St. Joseph's College (Autonomous)
Trichirappalli-620 002
Tamil Nadu, India.

Date of Appointment : 18- 10 – 2007

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Address (Residential) : Lakshmi Illam,
P.No:86, II Cross,
Aruna Avenue,
Karumandapam,
Trichy 620 001

Area of Specialization : Fuzzy Graph Theory.

Academic Qualification :

Degree	Subject	University	Year of Passing	Class/Division Grade/Merit Obtained
B.Sc.,	Mathematics	Bharathidasan University, Trichy	April, 1988	First Class (70%)
M.Sc.,	Mathematics	Bharathidasan University, Trichy	May, 1990	First Class with Distinction (79%)
M.Phil.,	Mathematics	Bharathidasan University, Trichy	Feb, 1993	First Class (72%)
Ph.D.,	Mathematics	Mother Teresa Women's University, Kodaikanal	Dec,2013	Commended

Research Experience:

Research Experience & Training : 17years (2007 – 2024)

Title of the Ph.D. : A STUDY ON FUZZY DETOUR DISTANCE IN FUZZY GRAPHS

Thesis submitted : May 2013

Viva date : 06.12.2013

University: Mother Teresa Women's University, Kodaikanal-624102, Tamil Nadu, India

Professional Experience :

- 1999-2001, Department of Mathematics, Bishop Heber College, Tiruchirappalli under UGC(FIP)-post.
- 2001-2007, Department of Mathematics, St. Joseph's college, Tiruchirappalli under Management post.

- 2007-present, Department of Mathematics, St. Joseph's college Tiruchirappalli under Aided post.

Research Adviser : Bharathidasan University

Tiruchirappalli-620 024 from 06-03-2017.

Papers Published in the International Journals :

1. Nagoor Gani,A., and Umamaheswari,J., "*Fuzzy Detour μ -Centre in Fuzzy Graphs*", International Journal of Algorithms, Computing and Mathematics (*IJACM*) , Vol. 3, No2, May2010, pp 57-63.
2. Nagoor Gani,A., and Umamaheswari,J., "*Fuzzy Detour as a Hamiltonian Path in Fuzzy Graphs*", International Journal of Maths Science and Engineering Applications(*IJMSEA*), ISSN- 0973-9424, vol.5,No II,March 2011, pp 161-166.
3. Nagoor Gani,A., and Umamaheswari,J., "*Fuzzy Detour Boundary Vertices in Fuzzy Graphs*", International Journal of Contemp. Math. Sciences (*IJCMS*), vol.6, No.35, 2011, pp 1725-1731.
4. Nagoor Gani, A., and Umamaheswari,J., "*On Some Aspects of Fuzzy Detour Boundary Vertices in Fuzzy Graphs*" – Communicated to the International Journal of Mathematical and Computer Science.

5. Nagoor Gani, A., and Umamaheswari, J., "*Fuzzy Detour Eccentric Vertices in Fuzzy Graphs*" – Communicated to the International journal of Advances in Computational Mathematics and its Applications.
6. Umamaheswari, J., and Anbarasan, A., "*Best Proximity Points: Existence And Convergence Theorems For p - Cyclic Weak ϕ Contractions Mappings*" _ International Journal of Pure & Engg. Mathematics (IJPEM), ISSN 2348-3881, vol.4, No.I, April, 2016, pp 77-87.
7. Umamaheswari, J., and Anbarasan, A., "*Banach Fixed Point Theorem For Contraction Mapping Principle in a Cone B- Pentagonal Metric Spaces*" _ International Journal of Mathematics Trends and Technology (IJMTT), P-ISSN 2349-5758, vol.37, Number-4, September 2016, pp.11-20
8. Umamaheswari, J., and Ravichandran, M., "*Generalized Common Fixed Point Result in Cone Metric Spaces*" _ International Journal of Mathematics Trends and Technology (IJMTT), ISSN 2349-5758, vol.39, Issue-2, November 2016, pp .25-34
9. Umamaheswari, J., Anbarasan, A and Ravichandran, M., "*Some Best Proximity Points for Generalized $\alpha - \phi$ -Proximal Penta - Contractive Mappings*" _ International Journal of Mathematics Trends and Technology (IJMTT), ISSN 2349-5758, vol.60, Issue- 4, Part III, August 2018, pp .09-21.

10. Umamaheswari,J., Anbarasan.A and Ravichandran.M.,"*Generalized Results for Fixed Point Theorems in Complex Valued Metric Spaces* " _ International Journal of Research and Analytical Reviews (IJRAR), Journal no.43602,E ISSN 2348-1267,Print ISSN 2349-5138,vol.6, Issue- 1,Jan-March 2019, COSMOS Impact Factor 4.236, Impact Factor 5.75.
11. J.Uma Maheshwari, A.Anbarasan, M.Ravichandran, "Some Best Proximity Points for Generalized α - \emptyset - Proximal Penta -Contractive Mappings," *International Journal of Mathematics Trends and Technology (IJMTT)*, vol. 60, no. 4, pp. 241-253, 2018. *Crossref*, <https://doi.org/10.14445/22315373/IJMTT-V60P537>
12. J. Uma Maheswari¹ & A. Anbarasan² & M. Ravichandran² "Generalized Results for Fixed Point Theorems in Complex Valued Metric Spaces"
13. J. Uma Maheswari, M. Ravichandran and A. Anbarasan "A Common Fixed Point Result for Three self mappings in Cone b-pentagonal metric spaces"
14. *Advances in Mathematics: Scientific Journal* 9 (2020), no.5, 2791–2800 ISSN: 1857-8365 (printed); 1857-8438 (electronic) <https://doi.org/10.37418/amsj.9.5.40>
15. J. Uma Maheswari , A. Anbarasan , M. Ravichandran (2021). Fixed Point Theorems in Complex Valued Quasi b-Metric Spaces for Satisfying Rational Type Contraction. *Mathematics and Statistics*, 9(1), 59 - 64. DOI: 10.13189/ms.2021.090110.
16. J. Uma Maheswari and M. Ravichandran 2021, Common Fixed Points of Almost Generalized (ψ, ϕ) -Quasi Rational Contraction in Ordered Metric Spaces, *J. Phys.: Conf. Ser.* 1724 012054 DOI 10.1088/1742-6596/1724/1/012054

17. J.Uma Maheshwari, A. Anbarasan, "Banach fixed point theorem for Contraction Mapping Principle in a Cone b-pentagonal metric spaces," *International Journal of Mathematics Trends and Technology (IJMTT)*, vol. 37, no. 4, pp. 243-252, 2016. *Crossref*, <https://doi.org/10.14445/22315373/IJMTT-V37P534>
18. J. UMA MAHESHWARI, AND A. ANBARASAN, BEST PROXIMITY POINTS : EXISTENCE AND CONVERGENCE THEOREMS FOR p -CYCLIC WEAK φ CONTRACTIONS MAPPINGS, *International J. of Pure & Engg. Mathematics (IJPEM) ISSN 2348-3881, Vol. 4 No. I (April, 2016)*, pp. 77-87
19. FIXED POINT THEOREMS OF GENERALIZED $(\Psi, \Phi)_s$ -RATIONAL TYPE CONTRACTIVE MAPPINGS IN QUASI b -METRIC SPACES J. UMA MAHESHWARI, M. RAVICHANDRAN, A. ANBARASAN LAKSHMI NARAYAN MISHRA AND VISHNU NARAYAN MISHRA, *Journal of Fractional Calculus and Applications, Volume 12, Issue 3, 2021*
20. Maheswari, J. U. ., A. Anbarasan, L. N. . Mishra, and V. N. . Mishra. "Common Fixed Point Theorem Satisfying Rational Contraction in Complex Valued Dislocated Metric Space". *Malaya Journal of Matematik*, vol. 9, no. 04, Oct. 2021, pp. 222-7, [doi:10.26637/mjm904/006](https://doi.org/10.26637/mjm904/006).
21. Maheswari, J.U., Anbarasan, A., Gunaseelan, M. *et al.* Solving an integral equation via C^* -algebra-valued partial b -metrics. *Fixed Point Theory Algorithms Sci Eng* 2022, 18 (2022). <https://doi.org/10.1186/s13663-022-00728-5>
22. J. Uma Maheswari , M. Ravichandran , and A. Anbarasan , A Result on Coupled Fixed Point Theorem in Complex Valued Partial b -Metric Space Using Contractive Conditions,

Juni Khyat ISSN: 2278-4632 (UGC Care Group I Listed Journal) Vol-10 Issue-5 No. 14
May 2020.

23. Jeevanandam, Uma Maheswari, Annadurai, Anbarasan, Mani, Gunaseelan and Kumar, Santosh. "Some common fixed point theorem of rational contractive mappings in dislocated metric spaces" *Topological Algebra and its Applications*, vol. 11, no. 1, 2023, pp. 20220135. <https://doi.org/10.1515/taa-2022-0135>
24. Maheswari JU, Dillibabu K, Mani G, Thabet STM, Kedim I, Vivas-Cortez M (2024) On new common fixed point theorems via bipolar fuzzy b-metric space with their applications. PLoS ONE 19(6): e0305316.
<https://doi.org/10.1371/journal.pone.0305316>

Papers Published in the International and National Conferences :

1. Nagoor Gani,A., and Umamaheswari,J., "Fuzzy Detour μ - Distance in Fuzzy Graphs", Proceedings of the International Conference on Mathematical Methods And Computations, Allied Publications, Jamal Mohamed College, Trichy, Tamil Nadu, India, 24-25th July 2009, Pp 184-187.
2. Nagoor Gani,A., and Umamaheswari,J., "Relational Properties of Fuzzy Detour μ - Distance in Fuzzy Graphs", Proceedings of the National Conference on Advances in Mathematics; Scientific Development And Engineering Applications, Narosa Publications, Kunthavai Naachiyar Govt. Arts College For Women (Autonomous), Thanjavur-17, Sep 2009, pp 366-371.

3. Nagoor Gani,A., and Umamaheswari,J., *“On Fuzzy Detour and Cut Nodes in Fuzzy Graphs”*, Proceedings of the Heber International Conference on Applications of Mathematics and Statistics (HICAMS), Excel India Publications, Bishop Heber college, Trichy, Tamil Nadu, India, 5th-7th January 2012,pp 477-480.
4. Umamaheswari,J., and Anbarasan.A ., *“Sequence Convergences Strongly to a Fixed Point on Generalized β -Non Expansive Mappings”*, Proceedings of the International Conference on Emerging Trends and Challenges in Mathematics NPR Arts &Science College(Affiliated to Madurai University) Natham , Dindigul Dt , Tamil Nadu, India, 28th December 2018.
5. Umamaheswari,J., and Ravichandran.M., *“Banach Contraction Principle for three Self-Mappings in Core b-Pentagonal Metric Spaces”*, Proceedings of the International Conference on Emerging Trends and Challenges in Mathematics NPR Arts &Science College(Affiliated to Madurai University) Natham , Dindigul Dt , Tamil Nadu, India, 28th December 2018.

Paper Presented in the International and National Conferences :

1. Nagoor Gani,A., And Umamaheswari,J., *“ Fuzzy Detour μ - Distance in Fuzzy Graphs”*, International Conference On Mathematical Methods And Computations, Jamal Mohamed College, Trichy, Tamil Nadu, India, 24-25 July 2009.
2. Nagoor Gani,A., And Umamaheswari,J.,*“ Relational Properties of Fuzzy Detour μ - Distance in Fuzzy Graphs”* ,National Conference on Advances in Mathematics;

Scientific Development And Engineering Applications, Kunthavai Naachiyar Govt. Arts College For Women (Autonomous), Thanjavur-17, Sep 2009.

3. Nagoor Gani,A., And Umamaheswari,J., “*On Some Aspect Of Fuzzy Detour μ -Distance in Fuzzy Graphs*”, National Symposium On Mathematical Methods And Applications (NSMMA 2009) , IIT, Madras, Tamil Nadu, India, 22nd Dec 2009.
4. Nagoor Gani,A., And Umamaheswari,J., “ *On Fuzzy Detour and Cut Nodes in Fuzzy Graphs*”, Heber International Conference On Applications Of Mathematics And Statistics (HICAMS),Bishop Heber College, Trichy, Tamil Nadu, India, 5th-7th January 2012.

Ph.D. and M.Phil. Guidance : Completing Ph.D., students - 2

Ph.D., Guiding: Full Time -1, Part Time – 1.

M.Phil., Guiding – 3, Completed – 3.

Technical Qualification : MATLAB.

Orientation Courses Attended : Attended from 02-03-2010 to 29-03-2010 at UGC Academic Staff College, Barathidasan University, Tiruchirappalli - 620 023.

Refresher Courses Attended :

- Attended from 05-11-2014 to 25-11-2014 at UGC Academic Staff College, Barathidasan University, Tiruchirappalli-620 023.
- Attended from 06-07-2017 to 26-07-2017 at UGC Human Resource Development Centre UGC-HRDC, Pondicherry University (A Central University), Pondicherry.
- Attended from 20-07-2021 to 03-08-2021 at Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching.

Other Affiliations :

- ***Coordinator***, Girl Students' Welfare Committee, 2003-2017.
- ***Member***, Equal Opportunity Centre, 2010- 2017
- ***Coordinator***, Prevention of Sexual Harassment Committee, 2010-2017
- ***Member***, Student's Welfare Committee, 2011- 2017, 2023-2024
- ***Member***, Internal Complaints Committee, 2019-2020
- ***Member***, Anti Ragging Committee, 2022-2025
- ***Member***, Staff Grievance Redressal Committee, 2024-2025
- ***President*** of Mathematics Association 2008

- **MQC- Coordinator** , Maths Department 2017-2020
- **Co-ordinator**, Internship Programme of Maths Department, 2019-2020
- **Member**, Training and Placement Cell, 2021-2024
- **Joint Secretary**, ACTA, St, Joseph's College Unit, 2013-2015.
- **Executive member**, Staff Association of St, Joseph's College, 2013-2015.
- **Vice-President**, ACTA, St, Joseph's College Unit, 2018-2020 and 2023-2025
- **Vice-President**, , Staff Association of St, Joseph's College, 2023-2025.

Any other information :

- Served as the **Presiding Officer** in Thuraiyur Assembly Constituency Election in Trichirappalli district held on 13.04.2011.
- Served as the **Presiding Officer** in Trichirappalli Assembly Constituency Election held on 16.05.2016.
- Served as the **Presiding Officer** in Tiruchirappalli Assembly Constituency Election held on 18.04.2019.

DATE: 09-09-2024

Dr.J.UMAMAHESWARI.