

## PROFILE



**NAME** : DR.W.RITHA

**GENDER** : MALE  FEMALE

**DEPARTMENT** : MATHEMATICS

**EDUCATIONAL QUALIFICATION** : M.SC.,M.PHIL., PH.D.,PGDCA

| S.NO. | DEGREE / DIPLOMA | SUBJECT / MAIN | NAME OF THE COLLEGE / UNIVERSITY                              |
|-------|------------------|----------------|---------------------------------------------------------------|
| 1.    | U.G.             | MATHEMATICS    | HOLY CROSS COLLEGE<br>BHARATHIDASAN UNIVERSITY                |
| 2.    | P.G.             | MATHEMATICS    | SEETHALAKSHI RAMASAMY<br>COLLEGE,<br>BHARATHIDASAN UNIVERSITY |
| 3.    | M.PHIL.          | MATHEMATICS    | A.V/V/M POONDI PUSPAM COLLEGE<br>BHARATHIDASAN UNIVERSITY     |
| 4.    | PH.D.            | MATHEMATICS    | MOTHER TERESA WOMEN<br>UNIVERSITY                             |

### TECHNICAL QUALIFICATION:

| S.NO. | DEGREE / DIPLOMA | SUBJECT / MAIN      | NAME OF THE COLLEGE / UNIVERSITY                    |
|-------|------------------|---------------------|-----------------------------------------------------|
| 1.    | PGDCA            | COMPUTER<br>SCIENCE | BISHOP HEBER COLLEGE<br>BHARATHIDASAN<br>UNIVERSITY |
| 2.    | M.C.A            | COMPUTER<br>SCIENCE | MADURAI KAMARAJ<br>UNIVERSITY                       |

**AIDED**  **MANAGEMENT**

TEACHING EXPERIENCE AT HOLY CROSS COLLEGE: 14 YEARS

TEACHING EXPERIENCE OUTSIDE HOLY CROSS COLLEGE: 13 YEARS

**POSITIONS HELD (VP / DEAN/ HOD / DIRECTOR/ OVERALL COORDINATOR ETC.)**

| S. NO. | NAME OF THE POSITION           | PERIOD             |
|--------|--------------------------------|--------------------|
| 1.     | VICE PRINCIPAL                 | 2010 – 2013        |
| 2.     | UGC – MERGE SCHEME COORDINATOR | XI PLAN & XII PLAN |
| 3      | HOD                            | 2019 -2022         |

**MEMBERSHIPS IN ACADEMIC BODIES (BOARD OF STUDIES, DOCTORAL COMMITTEE MEMBER)**

1. DOCTORAL COMMITTEE MEMBER FOR 8 RESEARCH SCHOLARS

**E-LESSONS DEVELOPED:**

| S.NO | TITLE OF E-LESSONS     |
|------|------------------------|
| 1.   | CAT ENARY              |
| 2.   | DIFFERENTIAL EQUATIONS |

**RESEARCH:**

*M.PHIL.* GUIDED: 10

GUIDING: -

*PH.D.* AWARDED : 21

GUIDING: 05

**JOURNAL / ARTICLES PUBLISHED:**

1. Ritha, W., Kalaiarasi, K., Optimization of Fuzzy Integrated Vendor-Buyer Inventory Models, Annals of Fuzzy Mathematics and Informatics, Vol.2, No.2. (Oct. 2011), pp.239-257.
2. Ritha, W., Kalaiarasi, K., Optimization of Fuzzy Integrated Two Stage Vendor-Buyer Inventory System, International Journal of Mathematical Sciences and Applications, Vol.1, No.2. (May 2011).
3. Ritha, W., Kalaiarasi, K., Optimization of EOQ Model with Taguchi's Cost of Poor Quality, has been accepted for publication in the International Journal of Mathematics and Soft Computing.
4. Ritha, W., Kalaiarasi, K., Optimization of EOQ Model on the Boundaries of the Fillrate, International Mathematical Forum, Vol.6, No.63, 2011, pp.3101-3110.

5. Ritha, W., Kalaiarasi, K., Optimization of a Multiple Vendor Single Buyer Integrated Inventory Model with a Variable Number of Vendors, International Journal of Mathematical Sciences and Engineering Applications (IJMSEA) ISSN.0973-9424, Vol.5, No.V. (Sep 2011), pp.173-188.
6. Ritha, W., Kalaiarasi, K., Optimization of Single Supplier Multiple Cooperative Retailers Inventory Model with Quantity Discount and Permissible Delay in Payments, International Journal of Advanc in Mathematical Sciences, ISSN: 0973-5798, Vol.1, No.61. (Jan-June 2011).
7. Ritha, W., Kalaiarasi, K., Fuzzy EOQ Model with the Impact of Stochastic Lead time Reduction on Inventory Cost under Order Crossover, Fuzzy Sets, Rough Sets and Multivalued operations and Applications, Serial Publications, July-Dec.2011.
8. Ritha, W., Kalaiarasi, K., Optimization of EOQ Inventory Models with Two Backorders, International Journal of Mathematics, IJAM, Vol.2, 2010-2011.
9. Ritha, W., Sreelekha, B., Machine Repair Problem under Uncertain Environment, International Journal of Mathematical Sciences and Engineering Applications, Vol.2, No.3, Oct-2010, pp.213-225.
10. Ritha, W., Sreelekha, B., Analysis of Fuzzy Erlang's Loss Queuing Model and Fuzzy Tandem Queues, International Journal of Fuzzy Mathematics and Systems, Vol.1, No.1, (2011) pp.1-10.
11. Ritha, W., Sreelekha, B., Fuzzy Analysis of Mean and Variance of Sojourn Time Distribution in Tandem Queues, has been published in the proceedings of the International Conference ICMCM-11, PSG College of Technology, Coimbatore during 19.12.11 to 21.12.11, pp.227234.
12. Ritha, W., Sreelekha, B., Fuzzy N Policy Queues with Infinite Capacity, Journal of Physical Sciences, Vol.15, (Dec. 2011), pp.73-82.
13. Ritha, W., Sreelekha, B., Fuzzy Optimal Management of the N Policy  $M/E_k/1$  Queuing System with a Removable Service Station, International Journal of Advanced and Innovative Research, Vol.1, No.1.
14. Ritha, W., Sreelekha, B., Analysis of a Fuzzy Queuing System with a Removable and Non Reliable Server, Journal of Computing Technologies, Vol.2, No.1.
15. Ritha, W., Sreelekha, B., Fuzzy Steady State Analysis of  $M^x/M(a,b)/1$  Queue Models with Random Breakdowns, accepted for publication in International Journal of Computing.
16. Ritha, W., Sreelekha, B., Analysing the Waiting Time of Passengers in an Escalator at the Railway Station using Monte Carlo Methods in Fuzzy Queuing Theory, Arya Bhatta Journal of Mathematics & Informatics.
17. Ritha, W., Sreelekha, B., A Fuzzy Queuing Theoretic Approach to Child Care Quality and Regulations, Applied Mathematics, Elixir Publication.
18. Ritha, W., Lilly Robert. Application of Fuzzy Set Theory to Retrial Queues, International Journal of Algorithms Computing and Mathematics, Volume 2, Number 4, November 2009, Pages 9-18.
19. Ritha, W., Lilly Robert. Fuzzy Queues with Priority Discipline, Applied Mathematical Sciences, Volume 4, Number 9-12, 2010, Number 12, Pages 575 – 582.
20. Ritha, W., Lilly Robert. Fuzzy Retrial Queues : Modified Interval Arithmetic Approach, International Journal of Mathematical Sciences and Engineering Applications, Volume 4, Number IV, October 2010, Pages 253-263.
21. Ritha, W., Lilly Robert. Optimum Selection Of Retrial Rate For Queueing Model With Fuzzy Parameter, International Journal of Fuzzy Systems and Rough Systems, Volume 3, Number 1, January-June 2010, Pages 21-24.

22. Ritha, W., Lilly Robert. Machine Interference Problem with Fuzzy Environment, International Journal of Contemporary Mathematical Sciences, Volume 5, 2010, Number 39, Pages 1905-1912.
23. Ritha, W., Lilly Robert. Parametric Non linear Programming Approach to Fuzzy Queue with State Dependent Service, International Journal of Fuzzy Mathematics and Systems, Volume 1, Number 1, January-June 2011, Pages 33-46.
24. Ritha, W., Lilly Robert. Profit Analysis Of Fuzzy M/E<sub>K</sub>/1 Queuing System Non Linear Zero One Programming Approach, International Journal of Advanced and Innovative Research, Volume 1, Issue 2, July 2012, Pages 1-14.
25. Ritha, W., Merline Vinotha, J., Multi-objective Two Stage Fuzzy Transportation Problem, Journal of Physical Sciences, Vol.13, 2009, pp.107-120.
26. Ritha, W., Merline Vinotha, J., Multi-objective Transportation Problem Under Uncertain Environment, International Journal of Computing and Applications, Vol.5, No.2, December 2010, pp.129-145.
27. Ritha, W., Merline Vinotha, J., Total Time Minimization of Fuzzy Transportation Problem, Journal of Intelligent and Fuzzy Systems, 22, 2012, pp.1-7.
28. Ritha, W., Merline Vinotha, J., Multi-index Fixed Charge Bi-criterion Fuzzy Transportation Problem, Proceedings of International Conference on Stochastic Modeling and Simulation, Vel-Tech University, 15-17, December 2011, pp.244-251.
29. Ritha, W., Merline Vinotha, J., Linear Programming Approach for Two Echelon Supply Chain with Multi-product and Multi-time Period, Proceedings of International Conference on Mathematics and Business Management, March 9-10, 2012, Stella Maris College and Loyola College, Chennai, pp.339-346.
30. Ritha, W., Merline Vinotha, J., Heuristic Algorithm for Multi-index Fixed Charge Fuzzy Transportation Problem, Elixir Computer Science and Engineering, 46, 2012, pp.8346-8353.
31. Ritha, W., Merline Vinotha, J., Fuzzy Possibilistic Linear Programming Approach for Two Echelon Supply Chain with Multi-Product and Multi-Time Period, Elixir Applied Mathematics, 46, 2012, pp.8334-8345.
32. Ritha, W., Merline Vinotha, J., A Priority Based Fuzzy Goal Programming Approach for Multi-Objective Solid Transportation Problem, International Journal of Advanced and Innovative Research, Volume 1, Issue 4, 2012, pp.263-277.
33. Ritha, W., Mary Mejrullo Merlin, M. Teacher's Beliefs About Mathematics - A FCM Approach, International Journal of Mathematical Sciences and Engineering Applications, Vol.4, No.3, August 2010, 165-181, ISSN 0973-9424.
34. Ritha, W., Mary Mejrullo Merlin, M. Predictors of Interest in Cosmetic Surgery - An Analysis Using Induced Fuzzy Cognitive Maps (IFCMs), Annals of Fuzzy Mathematics and Informatics, Vol.2, No.2, October 2011, 161-169, ISSN 2093-9310.
35. Ritha, W., Mary Mejrullo Merlin, M. An Analysis on the Contribution of Different Factors in Promoting Labour Migration Using Multi-step Fuzzy Cognitive Mapping Approach, International Journal of Mathematical Sciences and Applications, Vol.1, No.3, September 2011, 1039-1048.
36. Ritha, W., Mary Mejrullo Merlin, M. An Introspective Analysis of the Recommendations for the Effective English language Acquisition Using Fuzzy Cognitive Map Model, Proceedings of the

- International Conference on Mathematics in Engineering and Business Management, Vol.I, March 2012, 333-338, ISBN 97881-8286-015-5.
37. Ritha, W., Mary Mejrullo Merlin, M. “Peaceless Adolescent Girls” – An Introspective Study of the Challenges Faced by Adolescent Girls in the Present Social and Educational Scenario Using Fuzzy Cognitive Map Model, *International Journal of Elixer Social Sciences*, 46, May, 2012, 8422-8431, ISSN 2229-7127.
  38. Ritha, W., Mary Mejrullo Merlin, M. “Are Creative Teachers Blissful or Stressful?” - An Empirical Study Using Fuzzy Cognitive Map Constructor, *Journal of Computing Technologies*, Vol 2, Issue 1, June 2012, ISSN 2278- 3814.
  39. Ritha, W., Mary Mejrullo Merlin, M. The Elevation of Interactive Whiteboard Advantages Using Fuzzy Cognitive Map with Genetic Algorithm, *International Journal of Applied Engineering and Technology*, ISSN : 2277-212X (Online), 2013 Vol.3 (1) January-March, pp.27-34, Research Article 27.
  40. Ritha, W., Mary Mejrullo Merlin, M. Prioritizing the Key Competence Expectations of Employers from the University Graduates – A FCM’s Perspective, *Aryabhata Journal of Mathematics*, Vol.5, Issue 2, Nov. 2013, Impact factor 0.2933.
  41. Ritha, W., Mary Mejrullo Merlin, M. An Assessment of Early Career Researcher’s Challenges using Fuzzy Cognitive Map Rule Extraction Techniques, *International Journal of Mathematical Research & Science (IMRS)*, Vol.1, Issue 4, September 2013.
  42. Ritha, W., Mary Mejrullo Merlin, M. Using Fuzzy Cognitive Time Map for Modeling Trust Elements of Successful Interdisciplinary Research, *Zadeh Journal of Mathematics*, July – October Issue, 2013.
  43. W.Ritha and S.Rexlin Jeyakumari, Multi Level Inventory Management Decisions with Transportation Cost Consideration in Fuzzy Environment, *Annals of Fuzzy Mathematics and Informatics*, Volume 2, Number 2 (2011), pp.171-181.
  44. W.Ritha and S.Rexlin Jeyakumari, Optimum Shipment Quantity for Three Echelon Joint Model with Fuzzy Parameter, *International Journal of Fuzzy Mathematics and Systems*, Volume 1, Number 2 (2011), pp.121-135.
  45. W.Ritha and S.Rexlin Jeyakumari, Fuzzy Economic Production Model with Learning Effects, *Mathematical and Computational Models* (2011), pp.235-245.
  46. W.Ritha and S.Rexlin Jeyakumari, Optimization of Single Supplier Multiple Cooperative Retailer Inventory Model with Discount and Delay in Payments, *International Journal of Advanced and Innovative Research*, ISSN : 2278-7844, Volume 1, Issue 2. (July, 2012), available online at <http://ijair.jctjournals.com>.
  47. W.Ritha and S.Rexlin Jeyakumari, Fuzzy Inventory Model for Imperfect Quality Items with Shortages, *Annals of Pure and Applied Mathematics*, Volume 4, Number 2 (2013), pp. 127-137. ISSN: 2279-087X (P), 2279-0888 (online).
  48. W.Ritha and S.Rexlin Jeyakumari, The Complete Solution Procedure for the Fuzzy EOQ Inventory Model with Linear and Fixed Backorder Cost, *Aryabhata Journal of Mathematics and Informatics*, ISSN : 0975-7139, Impact Factor 0.293, Volume 5, Issue 1(Jan-Jul, 2013).

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50. W.Ritha and S.Rexlin Jeyakumari, Fuzzy Inventory Models for Items with Imperfect Quality and Shortage Backordering, International Journal of Mathematical Research and Science (IJMRS), ISSN : 2347-3975, Volume 1, Issue 5 (October, 2013), pp.41-51.
51. Ritha, W., Sumathi, M., Fuzzy EOQ Model with one time discount offer and allowed backorders. Aryabhata Journal of Mathematics and Informatics, Vol-4, No.1, (JanJune, 2012), pp.13-22. ISSN 0975-7139.
52. Ritha, W., Sumathi, M., Optimization of fuzzy integrated production distribution model for a deteriorating inventory item. International Journal of Advanced and Innovative Research, Vol-1, Issue.1 June 2012 (IAIR).
53. Ritha, W., Sumathi, M., An optimization of fuzzy inventory model of a retailer in a supply chain, has been accepted for publication in TI Journal.
54. Ritha, W., Sumathi, M., Optimization of a single-vendor single-buyer fuzzy inventory model with discrete delivery order, random machine unavailability time and lost sales, Journal of Computing Technologies (JCT), pp.17-22, ISSN 2278-3814.
55. Ritha, W., Sumathi, M., Optimization of fuzzy inventory model with ordering cost reduction and permissible delay in payments using Yager ranking method, Zadeh Journal of Mathematics, Vol-13, pp.79-87.
56. Ritha, W., Sumathi, M., An optimal trade credit and lotsize policies in fuzzy economic production quantity models with learning curve production costs via geometric programming, IJERT, Vol-10, pp.101-110.
57. Ritha, W., Sumathi, M., An EOQ model for perishable product with special sale and shortage using fuzzy dynamic programming, IJEA, Vol-12, pp.82-93.
58. Ritha, W., Lilly Merline, W., Contributing factors and consequences of Childhood Obesity – An analysis using Induced Fuzzy Cognitive Maps (IFCMs), Elixir Soc. Sci. 48 (2012) 9416-9419.
59. Ritha, W., Lilly Merline, W., Factors associated with Low Birth Weight Newborns – Analysis using Activation Functions in Fuzzy Cognitive Maps has been accepted in Gulf Journal of Mathematics.
60. Ritha, W., Lilly Merline, W., An analysis of Help-Seeking Behaviour among Women with Urinary Incontinence using Fuzzy Cognitive Map Model, International Journal of Engineering Associates, 2012, ISSN : 2320- 0804.
61. Ritha, W., Lilly Merline, W., Empirical study on prevalence and associated risk factors of Gestational Diabetes Mellitus - a Fuzzy Cognitive Map approach, International Journal of Mathematical Science & Engineering Applications, Vol.8, No.V, 2014, pp.114-132.
62. Ritha, W., Lilly Merline, W., Risk Factors of Meningitis in Adults - An Analysis Using Fuzzy Cognitive Map with TOPSIS, International Journal of Scientific and Innovative Mathematical Research (IJSIMR) Volume 2, Issue 4, April 2014, PP 418425 ISSN 2347-307X (Print) & ISSN 2347-3142 (Online).
63. Ritha, W., Lilly Merline, W., Fuzzy Cognitive Map with Consensus Centrality Measure for Diagnosis of Developmental Dyslexia in Adulthood, has been accepted in International Journal of Computer and Information Technology.



64. Ritha, W., Lilly Merline, W., An Analysis on Impact of Psoriasis on Quality of Life Using Multi-step Fuzzy Cognitive Mapping Approach, *Zadeh Journal of Mathematics*, 2(1), 2014, 27-40.
65. Ritha, W., Lilly Merline, W., An Analysis on Risk Factors of Coronary Heart Disease Using Simple and Weighted Fuzzy Cognitive Map, *Intern. J. Fuzzy Mathematical Archive*, Vol.3, 2013, 76-85, ISSN: 2320–3242 (P), 2320–3250 (online).
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67. Ritha, W., Nivetha Martin., Replenishment Policy for EMQ model with Rework, Multiple Shipments, Switching and Packaging. *International Journal of Engineering Research and Technology*, Vol-2, Issue-1 January 2013.
68. Ritha, W., Nivetha Martin., EOQ Model for Small Scale Retailers with Local Advertisements, *International Journal of Engineering Sciences*, Vol.2, Issue-2(2013) pp.28-33.
69. Ritha, W., Nivetha Martin., Environmental Oriented Inventory Model and Benefits of Incineration as Waste Disposal Method, *Ariyabatta Journal of Mathematics*, Vol-13, Issue-1(2014), pp.79-87, Impact Factor : 0.0489.
70. Ritha, W., Nivetha Martin., A Step Towards Building Environmentally Sustainable Inventory Models with the Incorporation of Environmental Costs, *Journal of Mathematical and Computation Sciences*, Vol-4, Issue-3(2014), pp.674-686.
71. Ritha, W., Nivetha Martin., Economic Production Inventory Model with the Associated Costs of Internet Advertising to Acquire Customers Residing Worldwide, *International Journal of Computers and Technology*, Vol-12, Issue-9(2014), pp.39213926, Impact Factor : 1.532.
72. Ritha, W., Nivetha Martin., Overage Management with Customer Acquisition, has been accepted for publication in *International Journal of Mathematics and Soft Computing*.
73. Ritha.W., Antonitte Vinoline .I (2013). Environmentally Sustainable Inventory Model under Permissible Delay in Payments, *International Journal of Computers and Technology*, Volume 11, and No: 10, Pages 3071 -3078, ISSN: 2277 – 3061.
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75. Ritha.W., Antonitte Vinoline.I (2014).Quality Improved Integrated Inventory Model with Trade Credit and Preservation Technology, *Elixir applied Mathematics*, Volume 72, Pages 25764 - 25777,ISSN: 2229 – 712x.
76. Ritha.W., Antonitte Vinoline.I (2014).Optimization of EPQ Inventory Models of two level Trade Credit with Payment Policies under Cash discount, *Annals of Pure and Applied Mathematics* , Volume 8, No: 1,Pages 39 – 55, ISSN: 2279 – 087 x(P) , 2279 – 0888
77. Ritha.W., Antonitte Vinoline.I (2015) .A Comprehensive Extension of an Integrated Inventory Model with Ordering Cost Reduction and Permissible Delay in Payments, *International Journal of Applied Computational Science & Mathematics (IJACSM)*, Volume 5, No: 1, Pages 44 – 57,ISSN: 2249 – 3042
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84. Ritha.W., Sutha.S (2015). Pricing and Advertisement in a Manufacturer- Consumer Supply Chain with Credit Period System, Applied Mathematics, Elixir Appl. Math. 83 33059-33063.
85. Ritha.W., Sutha.S (2015). Product Variety and Pricing Assortment with Channel Structure Strategy for A Manufacturer Supply Chain, International Journal of Research in Engineering and Applied Sciences, IJREAS VOLUME 5, ISSUE 9) (ISSN 2249-3905).
86. Ritha.W., Sutha.S (2015). New Approach on the Upgrading Policy for Redesigning the Components with Reliability and Quality Considerations, International Journal of Engineering Associates (ISSN: 2320-0804) # 18 / Volume 4 Issue 12.
87. Ritha.W., Sutha.S (2015). Optimal Inventory Policy for Perishable Products with Stock Sensitive Demand under Three Level Trade Credit Capacities, International Journal of Advanced and Innovative Research (2278-7844) / # 135 / Volume 4 Issue 12.
88. Ritha.W., Francina Nishandhi.I (2015). Economic Order Quantity Models With Repair And Buy Options Using Backorder, International Journal of Applied Computational Science & Mathematics (IJACSM) ISSN 2249-3042 Volume 5, pp. 58-68.
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90. Ritha.W., Francina Nishandhi.I (2015). Optimization of two stage supply chain Inventory Models sales decision with advertising, International Journal of Research in Engineering and Applied Sciences, Ijreas Volume 5, Issue 9 (ISSN 2249-3905)
91. Ritha.W., Francina Nishandhi.I (2015). Single Vendor – Multi Buyer’s Integrated Inventory Model with Rejection of Defective Supply Batches, InternationalJournal of Mathematics and Computer Research, [Volume 3 issue 10], Page No.1182-1187, ISSN: 2320-7167.
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93. Ritha.W., Haripriya.S (2015). An Integrated Vendor-Buyer Investment Model for Reducing the Defect Rate with Delay in Payments, *Applied Mathematics, Elixir Appl. Math.* 83 , 33069-33074.
94. Ritha.W., Haripriya.S (2015). Environmentally Preferable Inventory Model with Scrap in Production and Backlogging Derived Without Derivatives, *International Journal of Engineering Associates Volume 4 Issue 4*, 32-36.
95. Ritha.W., Haripriya.S (2015). Inventory Model on Organic Poultry Farming, *International Journal of Research in Engineering and Applied Sciences*, Volume 5, Issue 9, 30-38.
96. Ritha.W., Eveline.J.C (2017). Three-Echelon Synchronized supplychain deterministic inventory models with the Inclusion of Emission cost, *International Journal of Engineering Sciences and Management*, ISSN : 2277-5528, Volume 7, Issue : 1, pp. 115 – 121.
97. Ritha. W., Eveline. J.C (2017). The Effect of Variable Lead time in an Integrated vendor-buyer inventory system with Transportation cost, *Elixir International Journal (Advanced Mathematics)*, ISSN : 2229-712X, Volume 111, pp. 48681 – 48686.
98. Ritha. W., Eveline. J.C (2017). An integrated single Vendor-Buyer stochastic inventory model with partial backordering under imperfect production and Carbon emissions, *International Journal on Recent and Innovation Trends in Computing and Communication (IJRITCC)*, ISSN:2321-8169, Volume 6, Issue 1, pp. 68-74.
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101. Ritha, W., & Eveline, J. C. (2019). Environmentally sustainable supply chain inventory model with imperfect quality items under trade credit financing. *International journal of Research in Advent Technology (IJRAT)*, pp. 150-155, E-ISSN: 2321-9637.
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- trade. International journal of Research in Advent Technology (IJRAT), pp. 145-149, E-ISSN: 2321-9637.
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  131. K. Jayanthi & W. Ritha (2020), “A New Ranking Principle of Trapezoidal Cloudy Fuzzy Numbers with Geometric Programming application of Replenishment policy for Economic Manufacturing Model with Rework, Multiple Shipments, Switching and Packaging”,Sambodhi(UGC Care Journal),Vol-43,No.04(VII)October-December 2020, ISSN:2249-6661.

## DETAIL OF PATENTS

| S.No | Patent Title                                                                        | Name of Applicant(s) | Patent No.     | Award Date | Agency/ Country                      | Status  |
|------|-------------------------------------------------------------------------------------|----------------------|----------------|------------|--------------------------------------|---------|
| 1.   | An IOT enabled foot operated two wheeler steering mechanism for handicapped persons | W.Ritha              | 2020102<br>133 | 30.09.2020 | IP Australia / Australian Government | Granted |

## CONFERENCE/SEMINAR/WORKSHOP/ TRAINING PROGRAMME ATTENDED -ACADEMIC & GENERAL: (LAST FIVE YEARS)

| Name of the Staff                | Title of the Programme Conducted                                                                                                                            | Place and Duration                                                                                             |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>DEPARTMENT OF MATHEMATICS</b> |                                                                                                                                                             |                                                                                                                |
| <b>Dr. W. Ritha</b>              | Chair Person in the International Conference on Innovation, Research and Networking in Higher Education for a Sustainable Society: Challenges and Channels. | Holy Cross College(Autonomous), Tiruchirapalli – 2.<br>25 – 27 , July 2018                                     |
|                                  | Resource Person in the National Conference on “ Recent Trends in Pure and Applied Mathematics ” – Sponsored by CSIR                                         | PG and Research Department of Mathematics, Bon Secours College for Women, Thanjavur.<br>4, February 2019       |
|                                  | Chair Person in the International Conference on “Mathematical Methods and Computation”                                                                      | Jamal Mohamed College (Autonomous) Tiruchirapalli – 20.<br>20 <sup>th</sup> and 21 <sup>st</sup> February 2019 |
|                                  | Resource Person for valediction: “Mathematics – God’s Language for nature”                                                                                  | Jamal Mohamed College (Autonomous) Tiruchirapalli – 20.                                                        |
|                                  | Resource person for One Day Seminar on “Recent Trends in Fuzzy Operations Research” Sponsored by UGC                                                        | PG and Research Department of Mathematics, Periyar E.V.R. College, Tiruchirapalli – 23.                        |

**PROJECTS UNDERTAKEN:**

| <b>S. NO.</b> | <b>CATEGORY MAJOR/ MINOR</b> | <b>RESEARCH AREA</b>                                              | <b>FUNDING AGENCY</b> | <b>SANCTIONED AMOUNT (RS.)</b> | <b>PERIOD</b> |
|---------------|------------------------------|-------------------------------------------------------------------|-----------------------|--------------------------------|---------------|
| 1.            | STUDENT PROJECT              | A STUDY ON ENVIRONMENTAL IMPACT OF TOURISM USING FUZZY SET THEORY | TNSCST                | 10,000                         | 2010          |
| 2.            | MINOR PROJECT                | FUZZY QUEUES                                                      | UGC                   | 70,000                         | 2009 – 2010   |
| 3.            | MAJOR PROJECT                | FUZZY INVENTORY MODELS                                            | UGC                   | 8,75,000                       | 2011-2014     |

**DETAILS OF ORIENTATION AND REFRESHER COURSES**

| <b>NAME OF THE COURSE</b>                                   | <b>ACADEMIC STAFF COLLEGE, UNIVERSITY</b>   | <b>DURATION IN DAYS</b> | <b>FROM – TO (MENTION DATE HERE)</b> |
|-------------------------------------------------------------|---------------------------------------------|-------------------------|--------------------------------------|
| ORIENTATION COURSE                                          | Bharathidasan University                    | 27 days                 | 02.05.2009 TO 29.05.2009             |
| REFRESHER COURSE IN MATHEMATICS                             | Bharathidasan University                    | 21 Days                 | 10.11.2010 TO 30.11.2010             |
| REFRESHER COURSE IN HUMAN RIGHTS (MULTI DISCIPLINARY)       | Bharathidasan University                    | 21 Days                 | 01.12.2012 TO 21.12.2012             |
| REFRESHER COURSE IN MATHEMATICS                             | Ramanujan Research centre, Delhi University | 15 days                 | 16.03.2021 to 30.03.2021             |
| FACULTY DEVELOPMENT PROGRAMME PEDAGAGY AND RESEARCH METHODS | AMET, ( HRDC and IQAC )                     | 14 days                 | 24.5.2021 TO 06.06.2021              |

**PH.D. AWARDED:**

| S.No. | Name                   | University                                        | Year<br>(degree<br>awarded year) |
|-------|------------------------|---------------------------------------------------|----------------------------------|
| 1     | B.Sreelekha Menon      | Manonmaniam<br>Sundaranar University, Tirunelveli | 2013                             |
| 2     | R.Kalaiarasi           | Manonmaniam<br>Sundaranar University, Tirunelveli | 2013                             |
| 3     | Lilly Robert           | Manonmaniam<br>Sundaranar University, Tirunelveli | August<br>2013                   |
| 4     | J.Merline Vinotha      | Manonmaniam<br>Sundaranar University, Tirunelveli | August<br>2013                   |
| 5     | Sr.A.Sagaya Rani       | Manonmaniam<br>Sundaranar University, Tirunelveli | 2014                             |
| 6     | S.Rexlin Jeyakumari    | Manonmaniam<br>Sundaranar University, Tirunelveli | May 2014                         |
| 7     | M.Mary Mejrullo Merlin | Manonmaniam<br>Sundaranar University, Tirunelveli | May 2014                         |
| 8     | M.Sumathi              | Bharathidasan University,<br>Tiruchirappalli      | April 2014                       |
| 9     | W.Lilly Merlin         | Bharathidasan University,<br>Tiruchirappalli      | 2015                             |
| 10    | Nivetha Martin         | Bharathidasan University,<br>Tiruchirappalli      | 2015                             |
| 11    | I.Francina Nishathini  | Bharathidasan University,<br>Tiruchirappalli      | 2017                             |
| 12    | I.Antonitte Vinoline   | Bharathidasan University,<br>Tiruchirappalli      | 2018                             |
| 13.   | S.Haripriya            | Bharathidasan University,<br>Tiruchirappalli      | 2019                             |
| 14.   | Infancy Vimal Priya    | Bharathidasan University,<br>Tiruchirappalli      | 2019                             |
| 15    | P.Bharathi             | Bharathidasan University,<br>Tiruchirappalli      | 2019                             |
| 16    | S.Sudha                | Bharathidasan University,<br>Tiruchirappalli      | 2019                             |
| 17.   | S.Poongodi Sathiya     | Bharathidasan University,<br>Tiruchirappalli      | 2019                             |
| 18.   | J.C.Eveline            | Bharathidasan University,<br>Tiruchirappalli      | 2020                             |
| 19.   | A.Theresal Jeyaseeli   | Bharathidasan University,<br>Tiruchirappalli      | 2020                             |
| 20.   | S.Josphine Vinnarasi   | Bharathidasan University,<br>Tiruchirappalli      | 2021                             |
| 21    | K.Jayanthi             | Bharathidasan University,<br>Tiruchirappalli      | 2021                             |



**DETAILS OF MEMBERSHIP IN PROFESSIONAL BODIES /JOURNALS, EDITORS,  
CONSULTANCY, RESOURCE PERSON**

1. EDITOR - INTERNATIONAL JOURNAL OF MATHEMATICS AND COMPUTERS
2. Member of International Association of Computer Science and Information Technology (IACSIT).

**VISIT TO FOREIGN COUNTRIES: NIL**

**OTHER HONORS /AWARDS/ACHIEVEMENTS/ RESPONSIBILITIES:**

| <b>S.No.</b> | <b>Name of Award</b>       | <b>Awarding Agency</b> | <b>Year</b> |
|--------------|----------------------------|------------------------|-------------|
| 1.           | Sr.Dona award for Research | Holy Cross College     | 2019- 2020  |
| 2.           | Sr.Dona award for Research | Holy Cross College     | 2020 - 2021 |

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