

CURRICULUM - VITAE



S. REXLIN JEYAKUMARI
Assistant Professor
PG and Research Department of Mathematics
Holy Cross College (Autonomous)
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EDUCATIONAL QUALIFICATION

COURSE	SCHOOL/COLLEGE	DURATION OF STUDY	UNIVERSITY	% OF MARKS
Ph.D. Mathematics	Thesis Title: Fuzzy EOQ Model	Apr 2010 – Nov 2013	Manonmaniam Sundaranar University, Tirunelveli – 627 012	-
M.Phil Mathematics	St.Joseph's College (Autonomous), Trichy- 620 002.	July 2002 – Aug 2003	Bharathidasan University	84%
M.Sc. Mathematics	Holy Cross College, (Autonomous), Trichy- 620 002.	June 2000 – May 2002	Bharathidasan University	84%
B.Sc. Mathematics	Holy Cross College, (Autonomous), Trichy- 620 002.	June 1997 – May 2000	Bharathidasan University	76%
HSC	Boiler Plant Girls Higher Secondary School, Kailasapuram, Trichy - 620 014	June 1995 - March 1997	-	75%
SSLC	Boiler Plant Girls Higher Secondary School, Kailasapuram, Trichy - 620 014	June 1994 - April 1995	-	85%

ACADEMIC EXPERIENCE

Joined as an Assistant Professor in Mathematics at Holy Cross College on 30th June 2003.

CURRENT POSITION:

Assistant Professor, Department of Mathematics,
Holy Cross College (Autonomous),
Tiruchirappalli - 620 002.

TEACHING EXPERIENCE

Under Graduate level : 21 Years
Post Graduate level : 15 Years
M.Phil. Mathematics : 5 Years

Ph. D.GUIDESHIP

S. No.	Degree	No. of Students pursuing/Awarded
1	Ph. D.	Pursuing 3
2.	Ph. D.	Awarded 3

POSITIONS HELD IN HOLY CROSS COLLEGE

- Internal test core committee member from 2013-2017.
- Alumnae Association core committee member from 2013-2022.
- NAAC parameter VII core committee member from 2013 -2020
- CICRSD core committee member from 2017 - 2023.
- E-Content core committee member from 2017-2021
- SWAYAM core committee member from 2017-2019
- Bible Day core committee member from 2017 - 2021.
- FM Radio and YouTube Channel core committee member 2020-2021.
- DBT core committee member from 2019-2020
- I CARE Outlook award core committee member 2019 - 2020

- India Today award core committee member 2019 - 2020
- STAR College Scheme core committee member 2019- 2020
- NAAC parameter VI core committee member from 2020-2023.
- SOC COME ALIVE CLUB Coordinator since 2022-till date

DOCTORAL COMMITTEE MEMBER

- Bishop Heber College (Autonomous), Trichy- 620 017
- Nehru Memorial College, Puthanampatti, Thuraiyur.

M.PHIL EXAMINER

- Nehru Memorial College, Puthanampatti, Thuraiyur..
- St.Joseph's College (Autonomous), Trichy- 620 002.
- Bishop Heber College (Autonomous), Trichy- 620 017.

AREA OF INTEREST

Operations Research, Differential Equations, Numerical Analysis, Graph Theory, Discrete Mathematics, Classical Mechanics, Calculus, Trigonometry, Statistics.

PUBLICATIONS

- 1.W.Ritha and S.Rexlin Jeyakumari, **Multi Item Inventory Management Decisions with Transportation Cost Consideration in Fuzzy Environment**, Annals of Fuzzy Mathematics and Informatics, Volume 2, Number 2 (2011), pp.171-181.
- 2.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.
- W.Ritha and S.Rexlin Jeyakumari, **Fuzzy Economic Production Model with Learning Effects**, Mathematical and Computational Models (2011), pp.235-245.
- 3.W.Ritha and S.Rexlin Jeyakumari, **Fuzzy 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>.
- 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).
- 4.W.Ritha and S.Rexlin Jeyakumari, **The Complete Solution Procedure for the Fuzzy EOQ Inventory Model with Linear and Fixed Backorder Cost**, AryaBhatta Journal of Mathematics and Informatics, ISSN : 0975-7139, Impact Factor 0.293, Volume 5, Issue 1(Jan-Jul, 2013).
- 5.W.Ritha and S.Rexlin Jeyakumari, **An Improved Fuzzy EOQ Model for Supplier Selection under Capacity Constraint and Multiple Criteria**, Zadeh Journal of Mathematics, Volume 12 (2013), pp.101-112.
- 6.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.
- 7.Dr.S.Rexlin Jeyakumari, **Fuzzy Optimization Inventory Model with Allowable Shortage Using Hexagonal Fuzzy Numbers** International Journal of Advanced and Innovative Research (2278-7844) / # 58 / Volume 5 Issue 8, August 2016, pp 58-64.
- 8.Dr.S.Rexlin Jeyakumari, **Optimization of Fuzzy Inventory Model for Allowable Shortage**, International Journal of Computer Science and Mobile Computing, Vol.5 Issue.8, August- 2016, pg. 114-122 . Available Online at www.ijcsmc.com
- 9.Merline Laura S. **A Fuzzy Inventory Model with Green Environment by Controlling Carbon Emissions**. Malaya J. Mat. – Malaya Journal of Matematik (MJM), P-ISSN 2319-3786, O-ISSN 2321-5666, Volume 8, No. 4, P 1454-1457, August - 2020. **(UGC-CARE list Journal – Journal Id: 101001038)**
- 10.Jerline Zita S., Arockia Theo J., Merline Laura S. & Rexlin Jeyakumari S. **A Fuzzy Inventory Model with Permissible Delay in Payments**. AMSJ – Advances in Mathematics: Scientific Journal (AMSJ), P-ISSN 1857-8365, E- ISSN 1857-8438, Volume 9, No 4, P 2065-2073, 2020. **(UGC Approved Scopus Journal – Source Id: 21100913565)**
- 11.Merline Laura S., Jerline Zita S., Arockia Theo J. & Rexlin Jeyakumari S. **A Fuzzy Inventory Model with Environmentally Responsible Waste Disposal**.AMSJ – Advances in Mathematics: Scientific Journal (AMSJ), P-ISSN 1857-8365, E- ISSN 1857-8438, Volume 9, No 4, P 2055-2064, 2020. **(UGC Approved Scopus Journal – Source Id: 21100913565)**
- 12.Arockia Theo J., Merline Laura S., Jerline Zita S. & Rexlin Jeyakumari S. **Analyzation on Fuzzy Inventory Model with Shortages utilizing Kuhn-Tucker Technique**. AMSJ – Advances in Mathematics: Scientific Journal (AMSJ), P-ISSN 1857-8365, E- ISSN 1857-8438, Volume 9, No 4, P 2099-2105, 2020. **(UGC Approved Scopus Journal – Source Id: 21100913565)**
- 13.Rexlin Jeyakumari S., Merline Laura S. & Jerline Zita S. **Optimization of Deterministic Inventory Model with Allowable Shortages under Uncertainty**. IJRAR - International Journal of Research and Analytical Reviews (IJRAR), E-ISSN 2348-1269, P- ISSN 2349-5138, Volume 6, Issue 1, P 641-646, March - 2019.

14. Jerline Zita S., Merline Laura S. & Arockia Theo J. **On Optimal Total Cost and Optimal Order Quantity using Trapezoidal Fuzzy Numbers**. IJRAR - International Journal of Research and Analytical Reviews (IJRAR), E-ISSN 2348-1269, P- ISSN 2349-5138, Volume 6, Issue 1, P 371-377, March - 2019.
15. Rexlin Jeyakumari S., Jerline Zita S. & Merline Laura S. **On Optimal Total Cost and Optima Order Quantity for Fuzzy Inventory Model without Shortage**. IJRAR - International Journal of Research and Analytical Reviews (IJRAR), E-ISSN 2348-1269, P- ISSN 2349-5138, Volume 6, Issue 1, P 41-48, February - 2019.
16. Rexlin Jeyakumari S., Merline Laura S. & Arockia Theo J. **Fuzzy EOQ Model with Penalty Cost using Hexagonal Fuzzy Numbers**. IJESRT - International Journal of Engineering Sciences & Research Technology (IJESRT), ISSN 2277-9655, Volume 7, Issue 7, P 185-193, July - 2018.
17. Rexlin Jeyakumari S., Jerline Zita S. & Merline Laura S. **Fuzzy Optimization Inventory Model using Kuhn-Tucker Technique**. IJESRT - International Journal of Engineering Sciences & Research Technology (IJESRT), ISSN 2277-9655, Volume 7, Issue 2, P 546-552, February - 2018.
18. Jerline Zita S. & Merline Laura S. **Optimization of Fuzzy Inventory Model for Degenerating items with Allowed Shortage using Hexagonal Fuzzy Numbers**. IMRF – Mathematics Sciences International Research Journal (IMRF), ISSN 2278-8697, Volume 7, Spl. Issue 4, P 113-120, March - 2018.
19. Merline Laura S. & Arockia Theo J. **Optimization of Fuzzy Production Inventory Model with Repairable Defective Products using Hexagonal Fuzzy Numbers**. IMRF – Mathematics Sciences International Research Journal (IMRF), ISSN 2278-8697, Volume 7, Spl. Issue 1, P 106-111, January - 2018.
20. Rexlin Jeyakumari S. & Merline Laura S. **Fuzzy Inventory Model without Shortages using Triangular Fuzzy Numbers**. IJAIR – International Journal of Advanced and Innovative Research (IJAIR), ISSN 2278-7844, Volume 5, Issue 10, P 36-39, October 2016.
21. Jerline Zita S., Arockia Theo J., Merline Laura S. & Rexlin Jeyakumari S. **A Fuzzy Inventory Model with Permissible Delay in Payments**. AMSJ–Advances in Mathematics: Scientific Journal (AMSJ), P-ISSN 1857-8365, E- ISSN 1857-8438, Volume 9, No4, P 2065-2073, 2020. **(UGC Approved Scopus Journal – Source Id: 21100913565)**
22. Merline Laura S., Jerline Zita S., Arockia Theo J. & Rexlin Jeyakumari S. **A Fuzzy Inventory Model with Environmentally Responsible Waste Disposal**. AMSJ–Advances in Mathematics: Scientific Journal (AMSJ), P-ISSN 1857-8365, E- ISSN 1857-8438, Volume 9, No4, P 2055-2064, 2020. **(UGC Approved Scopus Journal – Source Id: 21100913565)**.
23. Arockia Theo J., Merline Laura S., Jerline Zita S. & Rexlin Jeyakumari S. **Analyzation on Fuzzy Inventory Model with Shortages utilizing Kuhn-Tucker Technique**. AMSJ–Advances in Mathematics: Scientific Journal (AMSJ), P-ISSN 1857-8365, E- ISSN 1857-8438, Volume 9, No4, P 2099-2105, 2020. **(UGC Approved Scopus Journal – Source Id: 21100913565)**
24. Rexlin Jeyakumari S., Merline Laura S. & Jerline Zita S. **Optimization of Deterministic Inventory Model with Allowable Shortages under Uncertainty**. IJRAR - International Journal of Research and Analytical Reviews (IJRAR), E-ISSN 2348-1269, P- ISSN 2349-5138, Volume 6, Issue 1, P 641-646, March - 2019.
25. Rexlin Jeyakumari S., Jerline Zita S. & Merline Laura S. **On Optimal Total Cost and Optima Order Quantity for Fuzzy Inventory Model without Shortage**. IJRAR - International Journal of Research and Analytical Reviews (IJRAR), E-ISSN 2348-1269, P- ISSN 2349-5138, Volume 6, Issue 1, P 41-48, February - 2019.
26. Rexlin Jeyakumari S., Jerline Zita S. & Arockia Theo J. **Optimization of Fuzzy Inventory Model with Minimum Transportation to Reduce Carbon Emissions**. IJRAT - International Journal of Research in Advent Technology (IJRAT), E-ISSN 2321-9637, Volume 6, No12, P 3537-3540, December - 2018.
27. Rexlin Jeyakumari S., Jerline Zita S. & Merline Laura S. **Fuzzy Optimization Inventory Model using Kuhn-Tucker Technique**. IJESRT - International Journal of Engineering Sciences & Research Technology (IJESRT), ISSN 2277-9655, Volume 7, Issue 2, P 546-552, February - 2018.
28. Jerline Zita S. & Merline Laura S. **Optimization of Fuzzy Inventory Model for Degenerating items with Allowed Shortage using Hexagonal Fuzzy Numbers**. IMRF–Mathematics Sciences International Research Journal (IMRF), ISSN 2278-8697, Volume 7, Spl. Issue 4, P 113-118, January - 2018.
29. Dr. S. Rexlin Jeyakumari, I. Shiny Bridgette & A. Alphonse Anitha, **Optimization Of Fuzzy Supply Chain Coordination Model**, IJRAR – International Journal of Research and Analytical Reviews (IJRAR), e-ISSN 2348-1269, P- ISSN 2349-5138, Volume 6, Issue 1, Pages 438-445, March 2019. <http://www.ijrar.org/IJRAR19J3650.pdf>.
30. S. Rexlin Jeyakumari, I. Shiny Bridgette, M. Mary Jansirani, A. Alphonse Anitha, **Optimization of Fuzzy Inventory Model Without Shortages**, European Journal of Molecular & Clinical medicine, December 2020, 2515-8260, 3116 – 3124.
31. Dr. M. Mary Jansi Rani, A. Alphonse Anita, Dr. S. Rexlin Jeyakumari, Shiny Bridgette, **N-Generated T – Intuitionistic Fuzzy Subgroups**, PalArch's Journal of Archaeology of Egypt/ Egyptology 2020, ISSN 1567-214x, 17(12), 981-987.
32. Alphonse Anitha, Dr. M. Mary Jansirani, Dr. S. Rexlin Jeyakumari, I. Shiny Bridgette, **K-Dimensional Intuitionistic Multi Fuzzy Sub near-Ring**, European Journal of Molecular & Clinical Medicine 2020, ISSN 2515-8260 Volume 07, Issue 11, 5816-5822.
33. I. Shiny Bridgette, S. Rexlin Jeyakumari, **Comparison Between Kuhn – Tucker and Lagrangean Methods On Fuzzy Inventory Model**, European Journal of Molecular & Clinical Medicine, August 2021, Volume 8, Issue 2, ISSN : 2515-8260, 1123 - 1129.
34. X. Arul Selvaraj, J. Jayaraj, and S. Rexlin Jeyakumari, **Triangular norm (δ, γ) - fuzzy interior-Ideals of hemi rings and its properties**, Published Online: 23 September 2021 Cite as: AIP Conference Proceedings 2364, 020014 (2021); <https://doi.org/10.1063/5.0062917>

35. ALDA.W.S, REXLIN JEYAKUMARI.S **A Fuzzy Green Inventory Model By Controlling Carbon Emissions**, 2021 International Journal of Research and Analytical Reviews (IJRAR) October 2021, e 8, Issue 4 www.ijrar.org (E-ISSN 2348-1269, P- ISSN 2349-5138).
36. Vinola Elisabeth.V, REXLIN JEYAKUMARI.S, **Fuzzy Green Inventory Model with Vendor Buyer Environmental Sustainability**, 2021 International Journal of Research and Analytical Reviews (IJRAR), October 2021, Volume 8, Issue 4 www.ijrar.org (E-ISSN 2348-1269, P- ISSN 2349-5138)
37. S. REXLIN JEYAKUMARI. , Dr. M. Mary Mejrullo Merlin , M. Fabiana Jacintha Mary, **Green Inventory Model By Controlling Carbon Emissions Under Uncertainty**, Nat. Volatiles & Essent. Oils, 2021; 8(4):9994-10004
38. J. Jayaraj, X. Arul Selvaraj, and S. REXLIN JEYAKUMARI, **Some (δ, γ) -fuzzy homomorphism theorem on rings**, Cite as: AIP Conference Proceedings 2364, 020011 (2021); <https://doi.org/10.1063/5.0062910>, Published Online: 23 September 2021.
39. J. Jayaraj, X. Arul Selvaraj, I. Shiny Bridgett, S. REXLIN JEYAKUMARI, et al., **Optimization of Fuzzy Inventory Model using Kuhn – Tucker Technique and Lagrangean Method** Cite As: AIP Conference Proceedings 2364, 020013 (2021); <https://doi.org/10.1063/5.0062913>, Published Online: 23 September 2021.
40. X. Arul Selvaraj, J. Jayaraj, I. Shiny Bridgett, S. REXLIN JEYAKUMARI, et al., Optimization of EOQ model without shortages under uncertainty Cite as: AIP Conference Proceedings 2364, 020012 (2021); <https://doi.org/10.1063/5.0062915>, Published Online: 23 September 2021.
41. Dr. REXLIN JEYAKUMARI S Merline Laura S. & Arockia Theo J. Fuzzy Eoq Model With Penalty Cost Using Hexagonal Fuzzy Numbers. International Journal Of Engineering Sciences & Research Technology. ISSN: 2277-9655. (July 2018).
42. Dr. REXLIN JEYAKUMARI.S , Jerline Zita.S , Arockia Theo.J. Optimization of Fuzzy Inventory Model with Minimum Transportation to Reduce Carbon Emissions. International Journal of Research in Advent Technology, Vol.6, No.12, E-ISSN: 2321-9637 (December 2018).
43. Jerline Zita .S Merline Laura .S Arockia Theo .J. On Optimal Total Cost And Optimal Order Quantity Using Trapezoidal Fuzzy Numbers. International Journal Of Research And Analytical reviews.(IJRAR) . (E-ISSN 2348-1269, P- ISSN 2349-5138) Volume 6, Issue 1. (March 2019).
44. Dr. REXLIN JEYAKUMARI. S Arockia Theo.J Jerline Zita.S. Fuzzy Optimization Inventory Model With Allowable Shortage Using Hexagonal Fuzzy Numbers. International Journal Of Research And Analytical reviews.(IJRAR) . (E-ISSN 2348-1269, P- ISSN 2349-5138) Volume 6, Issue 1. (March 2019).
45. J. Arockia Theo, S. Merline Laura, S. Jerline Zita, S. REXLIN JEYAKUMARI. Analyze of Fuzzy Inventory Model With Shortages Utilizing Kuhn-Tucker Technique. Advances in mathematics. Scientific Journal 9(2020)(ISSN:1857-8365) spec. Issue on NCFCTA-2020
46. S. Merline Laura, S. Jerline Zita, J. Arockia Theo, S. REXLIN JEYAKUMARI. A Fuzzy Inventory model with environmentally responsible waste disposal. Advances in mathematics. Scientific Journal 9(2020)(ISSN:1857-8365) spec. Issue on NCFCTA-2020
47. S. Jerline Zita, J. Arockia Theo, S. Merline Laura, S. REXLIN JEYAKUMARI. A Fuzzy Inventory model with permissible delay in payments. Advances in mathematics. Scientific Journal 9(2020)(ISSN:1857-8365) spec. Issue on NCFCTA-2020
48. J. Arockia Theo, I. Shiny Bridgette, S. REXLIN JEYAKUMARI. Optimization of fuzzy inventory model using Kuhn-tucker technique by decagonal fuzzy numbers. International journal of Computer Trends and Technology. ISSN:2231-2803. Volume 69 Issue 4, 74-82, April 2021.
49. J. Arockia Theo, S. REXLIN JEYAKUMARI. Fuzzy EPQ Inventory model using Yager's Ranking Methodology with Lot size Predicated Ordering Costs. International Journal of Research and Analytical Reviews. (E-ISSN:2348-1269, P-ISSN 2349-5138), March 2021, Vol 8, Issue 1.
50. J. Arockia Theo, S. REXLIN JEYAKUMARI. Fuzzy Inventory model using Lagrangean strategy without shortages. International Journal of Research and Analytical Reviews. (E-ISSN:2348-1269, P-ISSN 2349-5138), March 2021, Vol 8, Issue 1.
51. J. Arockia Theo, I. Shiny Bridgette, S. REXLIN JEYAKUMARI. A Fuzzy Inventory Model of Eco-Responsible waste Disposal. International Journal of Mathematics Trends and Technology. (ISSN:2231-5373) Vol 67, Issue 5, 1-7, May 2021.
52. J. Arockia Theo, S. REXLIN JEYAKUMARI. A Fuzzy Inventory model with Permissible Delay in Payments. International journal of Innovative science, Engineering & Technology. ISSN:2348-7968. Vol 8, Issue 8, August 2021
53. J. Arockia Theo, S. REXLIN JEYAKUMARI. Calculation of optimum backorder quantity using fuzzy inventory model. Journal of Mathematical Control science & Applications. ISSN:0974-0570. Vol.7 No.1 (January – June 2021)
54. J. Arockia Theo, S. REXLIN JEYAKUMARI. A Fuzzy Inventory model by controlling carbon emissions with green environment. Journal of Mathematical Control science & Applications. ISSN:0974-0570. Vol.7 No.2 (July – December 2021)
55. Shiny Bridgette I & REXLIN JEYAKUMARI S, Optimization of Green Manufacturing Inventory Model using Hexagonal Fuzzy Number, International Journal of Scientific Research and Modern Education (IJSRME) Impact Factor: 7.137, ISSN (Online): 2455 – 5630 (www.rdmodernresearch.com) Volume 6, Issue 2, 2021.
56. Shiny Bridgette I. and REXLIN JEYAKUMARI S., A Fuzzy Inventory Model with Various Source of Pollution using Decagonal Fuzzy Number , International Journal of Research and Analytical Reviews (IJRAR), June 2022, Volume 9, Issue 2.
57. Shiny Bridgette. I, REXLIN JEYAKUMARI. S “ Optimization Of Green— Manufacturing Inventory Model Using Hexagonal Fuzzy Number” International Journal of Scientific Research and Modern Education(IJSRME) ISSN: 2455- 5630, Volume 6,

2021.

58.Shiny Bridgette. I, Rexlin Jeyakumari. S “Fuzzy Inventory Model With Various Defuzzification Methods Using Kuhn - Tucker Technique”

59.Shiny Bridgette. I, Rexlin Jeyakumari. S “A Fuzzy Production Inventory Model For Deterioration Item Using Preservation Technology”

60.Shiny Bridgette. I, Rexlin Jeyakumari. S “Optimal Fuzzy Inventory Model For Rice Farming Using Lagrangean Method”
The Scientific Temper, E- ISSN: 2231 – 6396, ISSN: 0976 – 8653, pp: 2473-2477, Volume 15(3), 2024 (Web of science)

61.Shiny Bridgette. I, Rexlin Jeyakumari. S “Fuzzy Inventory Model With Warehouse Limits And Carbon Emission” The Scientific Temper, E- ISSN: 2231 – 6396, ISSN: 0976 – 8653, pp: 2478-2480, Volume 15(3), 2024. (Web of science)

PERSONAL INFORMATION

Date of Birth	:	27.05.1980
Age	:	44 Years
Nationality	:	Indian
Community	:	BC
Religion	:	Christian
Languages Known	:	Tamil, English
Husband Name	:	S. Thiyagarajan
Elder Son	:	T. Sam Remington
Younger Son	:	T. Joel Bennet
Residential address	:	C3, Plot No.7, 1/553, Cauvery Nagar, 11 th Street, Kattur, Trichy – 620 019.

DECLARATION

I declare that the particulars furnished above are true to the best of my knowledge and belief.

Place: Trichy
Date: 13.10.2024

S.REXLIN JEYAKUMARI
Tiruchirappalli
13.10.2024 .