A.D.M.COLLEGE FOR WOMEN, (AUTONOMOUS), NAGAPATTINAM

PG & RESEARCH DEPARTMENT OF MATHEMATICS

Publication of Journals

Books Authored - 2

Name	Book	Publishers
Dr. R. Sophia Porchelvi	A Chapter entitled 'Chance constrained fuzzy goal programming with penalty functions for academic resource planning in University Management using genetic algorithm'	'Nature Inspired Computing and Optimization: Theory and Applications', **Springer Publishing, Germany.**
	'Integral Transforms and Partial Differential Equations with Matlab Codings'	Prentice Hall of India, New Delhi (Under Print)

Elsevier / Springer Link - 11

Name	Title of the Paper Published	Name of the Journal	Volume, Issue, ISSN, & ISBN No:
Dr. R. Sophia Porchelvi	On Solving a Multi Objective Fuzzy Number Linear Programming Problem	International Journal of Pure and Applied Mathematical Sciences	Vol. 7(1), 9-13, impact factor: 0.635, H index: 24, (2014),
	Solving Intuitionistic Fuzzy Multi-Objective Linear Programming	International Journal of Pure and Applied Mathematics",	1314-3395, (online), impact factor: 0.635, H index: 24.
	On Studying Antibiotic in the Blood Stream by the Method of Dynamic Model	International Journal of Physical Sciences	Vol. 25(1), 135-138, impact factor: 0.50, immediacy index: 0.02, google scholar h5- index:29, (2013)
	Shortest path problem in a network using Intuitionistic fuzzy number – A case study about Kanyakumari Roadways network.	Elixir Appl. Math	Vol. 82, 32655 – 32657, (2015), impact factor:6.025, ICV(2015):74.39.
	On Taking & Using Insurance Policies at the right time – a Study using Fuzzy Matrices	Elixir Appl. Math.	Vol. 82, 32658 – 32660, (2015), impact factor:6.025, ICV(2015):74.39.
	On Evaluating the Performance of Students using Fuzzy Techniques	Elixir Appl. Math.	Vol. 82, 32665 – 32669, (2015), impact factor:6.025,

			ICV(2015):74.39
	On Taking & Using Insurance Policies at the right time – a Study using Fuzzy Matrices	Elixir Appl. Math	Vol. 82, 32658 – 32660, (2015), impact factor:6.025, ICV(2015):74.39
	On Evaluating the Performance of Students using Fuzzy Techniques	Elixir Appl. Math.	Vol. 82, 32665 – 32669, (2015), impact factor:6.025, ICV(2015):74.39.
	A Study on socio-economic and demographic factors on anemia among rural women	Elixir International Journal	February 2016, impact factor:6.025, ICV(2015):74.39.
	Linear Programming Model for Energy Efficient in Buildings	Elixir International Journal	February 2016, impact factor:6.025, ICV(2015):74.39.
	Decision making model to reduce the burden on Municipalities	Elixir International Journal of Environment and Forestry	Vol.72, pp.25405-25409,(2014), impact factor:6.025, ICV: 74.39.

UGC List of Journals - 27

Name	Title of the Paper Published	Name of the Journal	Volume, Issue, ISSN, & ISBN No:
Dr. R. Sophia Porchelvi	On studying a health problem using Fuzzy Matrices	International Review of Fuzzy Mathematics	Vol. 6(1), (2011) p.15-20.
	On Solving a Multi objective Fuzzy Linear Programming Problem Using Modified Arithmetic	International Review of Fuzzy Mathematics	Vol.7, No.1, p.21-25, (2012)
	On Solving a Fuzzy Linear Programming Using Simplex Procedure with Symmetric Trapezoidal Fuzzy Numbers".	International Review of Fuzzy Mathematics	Vol.7, No.2, p.59-64,(2012)
	A modified algorithm for solving shortest path problem with Intuitionistic fuzzy arc lengths	International Journal of Scientific and Engineering Research	Vol. 4(10), 844-847, impact factor:0.18, (2013), ICV(2013): 7.5 points.
	Solving multi-objective Intuitionistic linear programming using Triangular Intuitionistic fuzzy number	International Journal of Scientific and Engineering Research	Vol.4, No.9.p.87-89, (2013), impact factor:0.18, ICV(2013): 7.5 points

	Biomass for Energy production and Interval Transportation Problem to minimize transportation cost	International Organization of Scientific Research	ISSN: 2319-7668, pp 31-35, (2013), impact factor: 1.759, H index: 16.
	Critical path analysis in a project network using ranking method in Intuitionistic fuzzy environment	International Journal of Advance Research	3(3), 14-20, ISSN: 2320-9143,(2015), impact factor:5.336, H index: 10.
	On Solving Bivariate Unconstrained Optimization Problems using Interval Analysis	International Journal of Scientific and Engineering Research	Vol.6 (2), 842 and 843, ISSN: 2229-5518, (2015), impact factor:0.18, ICV(2013): 7.5 points
	A New Algorithmic approach to linear multi objective fractional Transportation problem	International Journal of Scientific and Engineering Research	Vol.6, No 3, page 229 – 231, (2015), impact factor:0.18, ICV(2013): 7.5 points.
	Regression Model for the people working in Firework Industry - Virudhunagar District	International Journal of scientific and Research Publications	Vol. 5, No.4, p.1-6, ISSN 2250 – 3153, (2015), impact factor:5.971, ICV(2015):5.72, H index: 24.
	A New Algorithmic approach to linear multi objective fractional Transportation problem	International Journal of Scientific and Engineering Research	Vol.6, No 3, page 229 – 231, (2015) impact factor:0.18, ICV(2013): 7.5 points
	Regression Model for the people working in Firework Industry - Virudhunagar District	International Journal of scientific and Research Publications	Vol. 5, No.4, p.1-6, ISSN 2250 – 3153, (2015), impact factor:5.971, ICV(2015):5.72, H index: 24.
	Upper Bounds of Linear Fractional Capacitated Transportation Problem and its Paradox	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp. 69-77, impact factor: 2.38., Scopus indexed, H index: 6.
	Fuzzy Modelling and HIV Infection of Tamil Nadu and Andhra Pradesh in India	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp. 199-217, impact factor:

			2.38., Scopus indexed, H index: 6.
	"Transportation of Urea: A case study using Multi – Objective Transportation Problem	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp. 199-217, impact factor: 2.38., Scopus indexed, H index: 6.
	On solving Multi – Objective Linear Programming Problem with Hexagonal Intuitionistic Fuzzy Number (IVIFNS)	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp. 225-231, impact factor: 2.38., Scopus indexed, H index: 6.
	Mathematical Modelling for Retail Product rating using Triangular Intuitionistic Fuzzy Numbers	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp. 445-453, impact factor: 2.38., Scopus indexed, H index: 6.
	On solving Multi – Objective Linear Programming Problem with Pentagonal Intuitionistic Fuzzy Number (IVIFNS)	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp. 489-495, impact factor: 2.38., Scopus indexed, H index: 6.
	Solving Fuzzy Non-linear unconstrained Optimization Problem using Newton's Method"	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp. 552-557, impact factor: 2.38., Scopus indexed, H index: 6
	Case Study: Decision Making in Mushroom Cultivation	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp. 889-899, impact factor: 2.38., Scopus indexed, H index: 6.
	Fuzzy DIJKSTRA'S Algorithm for Shortest Path Problem in Image Segmentation	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp. 1034-1039, impact factor: 2.38., Scopus indexed, H index: 6.
	Biomass from Water Hyancith – Mathematical Modeling using	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp.1040-

	Regression		1047, impact factor: 2.38., Scopus indexed, H index: 6.
	A New Algorithmic Approach for Algebraic Elimination Method to solve Fuzzy Linear Complementarity Problem	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp.445-453, impact factor: 2.38., Scopus indexed, H index: 6.
	Variable Dimension Algorithmic approach to solve Intuitionistic Fuzzy Linear Complementarity Problem	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp.496-504, impact factor: 2.38., Scopus indexed, H index: 6.
	A study on Diet Planning and Preventing Diseases with Linear Programming	Global journal of Pure and Applied Mathematics	Volume 13, Number 2 (2017), pp.1141-1145, impact factor: 2.38., Scopus indexed, H index: 6.
	A Multiobjective Fuzzy Linear Programming Problem Using Ranking Functions of Symmetric Trapezoidal Fuzzy Numbers	International Journal of Scientific and Engineering Research	Vol. 4, No.10, 848-851, (2013), impact factor:0.18, ICV(2013): 7.5 points
	Computation of shortest path in a network using Triangular intuitionistic fuzzy numbers	International Journal of Scientific and Engineering Research	Vol.5(4) , 1254-1257, (2014), ISSN : 2229-5518, impact factor:0.18, ICV(2013): 7.5 points

Anna University Annexure - I Journals - 7

Name	Title of the Paper Published	Name of the Journal	Volume, Issue, ISSN, & ISBN No:
Dr. R. Sophia Porchelvi	Iterative Goal Programming Approach for Solving Multi-objective Intuitionistic Fuzzy Linear Programming Problem	Asian Journal of Research in Social Sciences and Humanities	Vol.6, No.9, 2016", impact factor:4.557, ICV:5.05.
	A Fuzzy Shortest Path Algorithm For Optimal Boundary Extraction In Image Processing	Asian Journal of Research in Social Sciences and Humanities	Vol.6, No.9, 2016, impact factor:4.557, ICV:5.05.

	Mathematical Modeling of The Spread of An Epidemic Disease –Mumps	Asian Journal of Research in Social Sciences and Humanities	Vol.6, No.9 September 2016, pp.2002-2016, ISSN 2249-7315, impact factor:4.557, ICV:5.05
	Solving Linear Fractional Programming Problem Using LU Factorization Method	Asian Journal of Research in Social Sciences and Humanities	vol.6,no.10,october 2016 , pp : 1929-1938, ISSN:2249-7315, impact factor:4.557, ICV:5.05.
	A Diversified Approach For Solving An Assignment Problem	Asian Journal of Research in Social Sciences and Humanities	vol.6,no.10,october 2016 , pp : 1945-1954, ISSN:2249-7315, impact factor:4.557, ICV:5.05.
	Iterative Goal Programming Approach for Solving Multi-objective Intuitionistic Fuzzy Linear Programming Problem	Asian Journal of Research in Social Sciences and Humanities	Vol.6, No.9, 2016, impact factor:4.557, ICV:5.05.
	A Mathematical Diet Problem For The Nutritional Health Disorder	Asian Journal of Research in Social Sciences and Humanities	Vol. 6, No.9 September 2016, pp.1994-2001, ISSN 2249-7315, impact factor:4.557, ICV:5.05

Anna University Annexure - II Journals - 8

Name	Title of the Paper Published	Name of the Journal	Volume, Issue, ISSN, & ISBN No:
Dr. R. Sophia Porchelvi	Critical path problem under Intuitionistic fuzzy environment	International Journal of Applied Engineering Research	Vol.10(51), 975-978, ISSN: 0973 – 4562, (2015), impact factor:0.14, H index: 9.
	On Applying Numerical Methods to Unconstrained Optimization Problems	International Journal of Applied Engineering Research	Vol. 10 (51), 1002-1005, (2015), ISSN: 0973-4562, impact factor:0.14, H index:
	Mathematical Modeling and Optimization of Biomass energy production from the aquatic weed Water Hyacinth – Eichchornia Crasspes	International Journal of Applied Engineering Research	Vol.10, No 51, p. 897-901, ISSN 0973 – 4562, (2015), impact factor:0.14, H index: 9.

	A Simple Integer Linear Programming Model for Hybrid Wind-Solar Systems	International Journal of Applied Engineering Research	Vol.10, No 51, p. 1051-1053, ISSN 0973 – 4562, (2015), impact factor:0.14, H index: 9.
	On solving Muti-Objective Intuitionistic Fuzzy Linear Programming problem	International Journal of Applied Engineering Research	Vol.10, No 51, page 1046-1050, ISSN 0973 – 4562, (2015), impact factor:0.14, H index: 9.
	Ranking function methods for Solving Fuzzy Multiobjective Linear Programming Problems	International Journal of Applied Engineering Research	Vol.10, No 51, p. 935-939, ISSN 0973 – 4562, (2015), impact factor:0.14, H index: 9.
	Paradox in a Linear Multi-Objective Fractional Transportation Problem	International Journal of Applied Engineering Research	Vol.10, No 51, page 1037-1040, ISSN 0973 – 4562, (2015) impact factor:0.14, H index: 9.
	A Mathematical modeling of epidemic with excel	Bulletin of Pure and Applied Sciences	Vol.28(2), p.71-80, impact factor: 0.011, ICV: 91.92, (2012)

Other Journals - 44

Name	Title of the Paper Published	Name of the Journal	Volume, Issue, ISSN, & ISBN No:
Dr. R. Sophia Porchelvi	Multidimensional Birth and Death representation of a queueing system with heterogeneous exponential servers	Computational Mathematics, Narosa Publishing House Pvt. Ltd., New Delhi	pp 225- 231. ISBN 81-7319-619-2, (2005)
	An Algorithmic Approach to Multi Objective Fuzzy Linear Programming Problem	International Journal of Algorithms, Computing and Mathematics	Vol.3(4),p.61-70, (2010)
	A Shortest Path Algorithm for Optimal Boundary Extraction in Image Processing	Journal of Ultra Scientist of Physical Sciences	Vol.22(3).p.741-746, (2010), impact factor: 2.7.
	A New Algorithm for Optimal Boundary Extraction in Image Processing	International Journal of Computer, Mathematical Sciences and Applications	Vol.4(3), p.269-275, (2010) impact factor: 4.655.
	A Statistical survey and analysis report on people working in Match Box Industry-Kovilpatti and their level of satisfaction	International Review of Pure and Applied Mathematics	Vol.8, No.1, p.37-47, (2012), Impact Factor:0.233, H

	towards the working Environment and other aspects		index: 23.
	On Solving Unconstrained Optimization Problem using Numerical methods	International Journal of Algorithm and Computing and Mathematics	Vol.5,No.2, p. 32-38, (2012)
	On Solving a Multi Objective fuzzy variable linear programming problem using ranking functions	International Journal of Science and Research	Vol.2 , No.1, p.733-735, impact factor:0.547, (2013), ICV(2013): 6.14 points.
	A Newton's method for solving nonlinear unconstrained optimization problems with two variables	International journal of Science and Research	Vol.2, No.1, 726-728, (2013), impact factor:0.547, ICV(2013): 6.14 points
	On Solving a Multi Objective Fuzzy Number Linear Programming Problem	International Journal of Pure and Applied Mathematical Sciences	Vol.7(1), 9-13, impact factor: 0.635, (2014), H index: 24.
	A method for Minimization of Unconstrained Problems via Non Linear Equations	Proceedings of the International Conference on Mathematical Methods and Computation	p.803-806, ISSN 0973 – 0303, (2014)
	On solving a Multiobjective fractional linear programming problems	International Journal of Current Research	Vol.6(8),8095 - 8102,ISSN : 0975-833X, 2014, impact factor:0.675, H index: 5.
	Modeling and Optimizing the Transhipment problem of Municipal solid waste management	International Journal of Engineering Research	Vol.2, No.8, pp.117-130, 2014, impact factor: 0.421, H index: 12, ICV: 5.49.
	A New Approach for finding minimum path in a network using Triangular Intuitionistic Fuzzy number	International Journal of Current Research	Vol.6, No.8, pp. 844-847, impact factor:0.675, 2014, H index: 5.
	Fuzzy Shortest Path Method using λ-triangular LR Intuitionistic Fuzzy numbers	International Journal of Applied Mathematical Sciences	Vol.7 No.1, pp. 33-39, 2014.
	Modified Approach on Shortest Path in Intuitionistic Fuzzy Environment	Indian Journal of Applied Research,	Vol.4 No.9, pp. 341-342, 2014, impact factor:0.454, ICV: 79.96
	Group Decision Making for safe disposal of Commercial Fish waste	International Journal of Sientific and Research Publications	Volume 5, Issue 4, p.1-6, ISSN 2250 – 3153, 2015, impact factor:0.18,

			ICV(2013): 7.5 points.
	A Comparative study of optimum solution between Fractional Transportation and Fractional Transhipment problem	International Journal of Science and Research	Vol.4, No 3, page 1102-1105, 2015, impact factor:0.23, ICV(2015): 78.96.
	A Comparative study of optimum solution between Fractional Transportation and Fractional Transhipment problem	International Journal of Science and Research	Vol.4, No 3, page 1102-1105, 2015, impact factor:0.23, ICV(2015): 78.96.
	Modified New Operations for Interval Valued Intuitionistic Fuzzy numbers: Linear programming Problems with pentagonal Intuitionistic Fuzzy numbers	Iranian International Journal	2015, impact factor:0.534.
	On Analysing Anaemia using Fuzzy Matrices	International journal of Fuzzy Mathematical Archive	Vol. 9, No.2, 2015, pp 203-209. ISSN: 2320 –3242 (P), impact factor:1.137.
	An Application of Fuzzy Matrices in Medical Diagnosis	International journal of Fuzzy Mathematical Archive	Vol. 9, No.2, 2015, pp 211-216, ISSN: 2320 –3242 (P), impact factor:1.137.
	The Solution Procedure "PASEB" for Solving Fuzzy Multi Objective Linear Programing Problem	International journal of Fuzzy Mathematical Archive	Vol. 9, No.2, 2015, pp 197-202, ISSN: 2320 –3242 (P), 2320 –3250 (online), impact factor:1.137.
	On Solving a Multi-Objective Intuitionistic Fuzzy Linear Fractional Programming Problem	International journal of Fuzzy Mathematical Archive	Vol. 9, No.2, 2015, pp 189-196, ISSN: 2320 –3242 (P), 2320 –3250 (online), impact factor:1.137.
	Solution Procedures for Multi-Objective Intuitionistic Fuzzy Linear and Fractional Linear Programming Problems using Weighting Factor	International journal of Fuzzy Mathematical Archive	Vol. 9, No.2, 2015, pp 179-187, ISSN: 2320 –3242 (P), 2320 –3250 (online), impact factor:1.137
	A Linear Fractional Interval Transportation Problem with and Without Budgetary Constraints	International journal of Fuzzy Mathematical Archive	Vol. 9, No.2, 2015, pp 165-170, ISSN: 2320 –3242 (P), 2320 –3250 (online), impact factor:1.137.
	A Simple Integer Linear Programming Model for Hybrid Wind-Solar Systems	International Journal of Applied Engineering Research	Vol.10, No 51, 2015, p. 1051-1053,

			ISSN 0973 – 4562, impact factor:0.14, H index: 9.
	Goal Programming model for the people working in match box industry and firework industry – Virudhunagar district	Proceedings of International Conference on Advances in Science, Mathematics, English and its Applications	ISBN no 978–93–84893–27-9, impact factor:2.3.
	Cost Benefit Analysis of installing Renewable Energy	International Journal of scientific and research publications	Vol.5, issue 4. April 2015, ISSN 2250-3153, impact factor:5.971, ICV(2015):5.72, H index: 24.
	Multi objective decision making model for modern dairy farm using solar pv system	International Journal of Pure and Applied Mathematics	
	Analysis of Ground Water Quality by Fuzzy Comprehensive Evaluation in Cauvery Delta Region, Tamil Nadu, India	**American Journal of Mathematical Analysis**	Vol. 5, No. 1, 1-6, 2017
	An Assessment of Drinking Water Quality in Cauvery Delta Region and Palar Region, Tamil Nadu	**Scholedge International Journal of Multidisciplinary & Allied Studies**	Vol (3) , No.12, 2016, ISSN No: 2394-336X
	Multi objective Fuzzy nonlinear programming problem via Taylor Series Approach	International conference on Stochastic Modeling and Simulation Allied publishers Pvt. Ltd., Delhi	p. 142-146, ISBN 978-81-8424-743-5, (2011)
	Multi Objective Linear Programming in a Fuzzy Environment	Proceedings of International conference on Stochastic Modeling and Simulation, Allied publishers Pvt. Ltd., Delhi	p. 147-150, ISBN 978-81-8424-743-5, 2011
	Problems Faced By Tourist in Nagapattinam District- A Statistical Analysis	**IEEE Conference Publications**	p.56 – 62, 2012
	Extension of the modified family of Schroder method for multiple roots of nonlinear equation with two variables	Proceedings of **IEEE-International Conference** on Research and Development Prospects on Engineering and Technology	ISBN:978-1-4673-4948-2, 2013
	On Analyzing TB/HIV Co-infection using fuzzy cognitive map	Proceedings of International Conference on Mathematical Methods and Computation	p. 541-545, ISSN 0973 – 0303, 2014
	Intuitionistic Fuzzy Critical Path in a Network	Proceedings of International Conference on Mathematical Methods and Computation	p. 692-696, ISSN 0973 – 0303, 2014
	Simplex Method for Fuzzy Linear Programming Problem with Trapezoidal Fuzzy Numbers Using Ranking Functions	Proceedings of International Conference on Mathematical Methods and Computation	p.697-700, ISSN 0973 – 0303, 2014
	Goal Programming model for the people working in match box industry and firework	Proceedings of International Conference on Advances in	ISBN No. 978–93–84893–27-9. 2015

	industry – Virudhunagar district	Science, Mathematics, English and its Applications	
	An Algorithmic Approach to Fuzzy Integer Programming Problem, p.	Proceedings of the National Conference on Fuzzy Mathematics and Graph Theory, Gigo Publications	110-115, ISBN 81-88338-07, 2008
	On Solving a Socially Relevant Fuzzy Goal Programming model using Taylor Series Approach	Proceedings of the International Conference on Mathematical Methods and Computation Allied publishers Pvt. Ltd., Delhi	p. 472-478, ISBN 978-81-8424-466-3, 2009
	Application of Optimization Techniques to Image Processing	Proceedings of the National Conference on Fuzzy Mathematics, Graph Theory and Applications, Gigo Publications	p. 36-39, ISBN 81-88338-08, 2009
	An approach to find the optimal paths using trapezoidal Intuitionistic fuzzy number	Proceedings of the National Conference on Recent advances in Mathematical Analysis and Applications	ISBN: 978-93-82338-70-3, 2013
	On solving nonlinear equations using Numerical Methods	Proceedings of National conference on Recent Advances in Mathematical Analysis & Applications	ISBN: 1978-93-82338-69-7, 2013