

Dr. Debjani Chakraborty

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◆ **Date of Birth:** 17th June 1966

◆ **Academic Qualification:**

B.Sc. (Hons) in Mathematics, University of Calcutta, 1986.

M.Sc. in Mathematics, I.I.T., Kharagpur, 1989

Ph.D. in Mathematics, I.I.T., Kharagpur, 1995

◆ **Award:**

- Young Scientist Award 1997 in Mathematics by Indian Science Congress Association.
- Young scientist Scheme from DST, India in 1997
- Nominated Member of Indian National Academy of Sciences, Allahabad, India
- Research Associateship from CSIR, New Delhi in 1996
- Research Fellowship from CSIR, New Delhi in 1989
- *Best paper award* in International conference World Congress in Lateral Computing (WCLC 2004), Indian Institute of Science, Bangalore, India
- *Best paper award* in International Conference on Systems in Medicine and Biology (ICSMB 2010), IIT Kharagpur, India
- Best paper in Presidency and state level in 24th West Bengal State Science and Technology Congress, 2016

◆ **Research Guidance**

Ph.D.: 8 (completed) 8 (ongoing) Master's project: 72

◆ **Research interests :**

Multi-criteria decision analysis

Optimization in imprecise and uncertain environment

Fuzzy logic & approximate reasoning in medical imaging

◆ **Video course developed**

○ 20 lectures on Optimization in NPTEL Phase II in 2015.

○ 30 Lectures on *Constrained and Unconstrained Optimization* in MOOC in 2017.

◆ Research projects & consultancy:

1. *Individual Scientist* in project entitled, *Development of an integrated technology to promote decision in fuzzy and/or stochastic environment* sponsored by DST, Govt. of India (Year 1996-1999).
2. *Consultant-in-charge* of a consultancy entitled, *Data integration for Developing Management Information Systems* for Bayer (India) Limited, Mumbai (Year 2001).
3. *Consultant-in-charge* of a consultancy entitled *Development of software for Demand Forecasting* for Bayer (India) Ltd., Mumbai (Year 2001).
4. *Co-consultant* in a consultancy entitled *Computerization of pension scheme for Coal Mines Pension Fund Organisation* (Year 1999-2001).
5. *Principal Investigator* in research project, *Processing of experts' linguistic opinions in an 'evaluation process': Object-oriented decision modeling in multicriteria - multiexpert framework* sponsored by CSIR, New Delhi (Year 2001-2004).
6. *Principal Investigator* in a research project, *Linguistic Information Processing for Decision Making in An Evaluation Programme* sponsored by SRIC IIT Kharagpur (Year 2004-2005).
7. *Principal Investigator* in research project, *A Genetic Algorithmic Approach to Solve Generalized Non-Linear Optimization Models with Hybrid Data* sponsored by MHRD, New Delhi (Year 2004-2007).
8. *Principal Investigator* in a research project, *Integration of Fuzziness and Randomness with Special Emphasis to Re-modeling of Inventory Problems* sponsored by DST, New Delhi (Year 2003-2008).
9. *Principal Investigator* in research project, *Continuous and Periodic Review Inventory model in fuzzy and / or stochastic environment* sponsored by DST New Delhi (Year 2008-2012).
10. *Co-Principal Investigator* in research project, *Noninvasive characterization of healing and non-healing wounds and development of honey-biomaterial and stem cell based wound therapy* sponsored by MHRD New Delhi (Year 2014-2017).
11. *Co-Principal Investigator* in research project, *Multimodal and Multi-Scale Imaging for early diagnosis and interventional management of oral pre-cancers and cancer* sponsored by MHRD New Delhi (Year 2014-2017).
12. *Principal Investigator* in research project, *Amalgamation of fuzziness and randomness in geometric programming problem* sponsored by DST New Delhi (Year 2014-2017).

◆ List of Publications

Journal

1. Sushil Kumar Bhuiya, Debdas Ghosh and **Debjani Chakraborty** (2019) On the distribution-free continuous review (Q, r, L) inventory model with lead-time-dependent partial backlogging, *International Journal of Management Science and Engineering Management*.
2. **Debjani Chakraborty** and Abhijit Chatterjee (2019) Multi-objective Fuzzy Geometric Programming Problem Using Fuzzy Geometry, *Trends in Mathematics and Computational Intelligence* (123-129).
3. **Debjani Chakraborty** and Suman Das (2018) Fuzzy geometry: Perpendicular to fuzzy line segment, *Information Sciences*, 468(213-225).
4. **Debjani Chakraborty**, Sushil Kumar Bhuiya and Debdas Ghosh (2018) A fuzzy random continuous (Q,r,L) inventory model involving controllable back-order rate and variable lead-time with imprecise chance constraint.

5. Indra Neil Choudhury, Aishwaryaprajna, Arundhuti Ghosh, Saunak Chatterjee, Atasi Sarkar, Souptik Basu, Jyotirmoy Chatterjee, Anup Sadhu, Tandra Sarkar , Subhankar Poddar , Atanu Sengupta , Abhijit Chatterjee and **Debjani Chakraborty**,(2018) A Semi-automated Fuzzy Multi-criteria Decision Support System for Radiological Diagnosis of Lung Cancer, 5th International Conference on Signal Processing and Integrated Networks (SPIN), *IEEE Xplore*.
6. Debdas Ghosh and **Debjani Chakraborty** (2018). A Study on Fuzzy Triangle and Fuzzy Trigonometric Properties. In International Conference on Mathematics and Computing (341-359). Springer, Singapore.
7. VP Singh and **Debjani Chakraborty** (2017) Solving bi-level programming problem with fuzzy random variable coefficients, *Journal of Intelligent & Fuzzy Systems* 32 (1), 521-528.
8. SPK Karri, **Debjani Chakraborty** and J Chatterjee (2017) Transfer learning based classification of optical coherence tomography images with diabetic macular edema and dry age-related macular degeneration ,*Optical Society of America Biomedical Optics Express* 8(2) 579-592.
9. **Debjani Chakraborty** and VP Singh (2017), A method to solve separable fuzzy nonlinear programming problem- International Journal of Operational Research, 29(3), 360-375.
10. Debdas Ghosh and **Debjani Chakraborty** (2017), Quadratic Interpolation Technique to Minimize Univariable Fuzzy Functions, *International Journal of Applied and Computational Mathematics* 3(2), 527-547.
11. **Debjani Chakraborty** and SK Bhuiya (2016) A Continuous Review Inventory Model with Fuzzy Service Level Constraint and Fuzzy Random Variable Parameters, *International Journal of Applied and Computational Mathematics*, 3(4) 3159-3174.
12. Satarupa Banerjee, Aishwaryaprajna, **Debjani Chakraborty**, Amita Giri, Ranjan Ghosh, Badal C Sarkar and Jyotirmoy Chatterjee (2016) Application of Fuzzy Consensus for Oral Pre-Cancer and Cancer Susceptibility Assessment, *Egyptian Informatics Journal* 17(3), 251-263.
13. SPK Karri, Niladri Garai, Debaleena Nawn, Sambuddha Ghosh, **Debjani Chakraborty**, Jyotirmoy Chatterjee (2016) Simultaneous reconstruction and restoration of sparsely sampled optical coherence tomography image through learning separable filters for deep architectures, *IEEE Xplore*.
14. SPK Karri, **Debjani Chakraborty** and Jyotirmoy Chatterjee (2016), Rapid training of layer specific edges for segmentation of retinal layers in OCT, *Current Indian Eye Research Journal of Ophthalmic Research Group* 3 (8), 73.
15. SPK Karri, **Debjani Chakraborty** and Jyotirmoy Chatterjee (2016), Learning layer-specific edges for segmenting retinal layers with large deformations, *Biomedical optics express* 7 (7), 2888-2901.
16. Sushil Kumar Bhuiya and **Debjani Chakraborty** (2016), A fuzzy random EPQ model with fuzzy defective rates and fuzzy inspection errors, *Journal of Intelligent and Fuzzy Systems*, 30(6), 3527-3541.
17. Oshmita Dey, Bibhas Giri and **Debjani Chakraborty** (2016), A fuzzy random continuous review inventory model with a mixture of backorders and lost sales under imprecise chance constraint, *International Journal of Operational Research*, 26(1) 34 – 51.
18. Debdas Ghosh and **Debjani Chakraborty** (2016), Analytical fuzzy plane geometry III, *Fuzzy Sets and Systems*, Volume 283, Pages 83–107.
19. Debdas Ghosh and **Debjani Chakraborty** (2015), A method for capturing the entire fuzzy non-dominated set of a fuzzy multi-criteria optimization problem, *Fuzzy Sets and Systems*, 272, Pages 1- 29.
20. **Debjani Chakraborty**, Debashree Guha and Bapi Dutta (2015), Multi-objective optimization problem under fuzzy rule constraints using particle swarm optimization, *Soft Computing*, Pages 1-15.
21. Debdas Ghosh and **Debjani Chakraborty** (2015), On Fuzzy Ideal Cone Method to Capture Entire Fuzzy Nondominated Set of Fuzzy Multi-criteria Optimization Problems with Fuzzy Parameters, *Facets of Uncertainties and Applications* Chakraborty, M., Skowron, A., Maiti, M., Kar, S. (Eds. In Springer), pages 249 – 260.
22. Vishnu Pratap Singh and **Debjani Chakraborty** (2015), A dynamic programming algorithm for solving bi-objective fuzzy knapsack problem, *Mathematics & Statistics* (2015), Volume 139, Pages 289-306.
23. **Debjani Chakraborty** and V.P. Singh (2014), On Solving Fuzzy Knapsack Problem by Multistage Decision Making using Dynamic Programming, *Advanced Modeling and Optimization*, Volume 16, Number 3, Pages 575-585.
24. Debdas Ghosh and **Debjani Chakraborty** (2014), A new Pareto set generating method for multi-criteria optimization problems, *Operations Research Letter*, 42, Pages 514–521.

25. Debdas Ghosh and **Debjani Chakraborty** (2014), A new method to obtain fuzzy Pareto set of fuzzy multicriteria optimization problems, *Journal of Intelligent and Fuzzy Systems*, 26(3) Pages 1223–1234.
26. Debdas Ghosh and **Debjani Chakraborty** (2015), On general form of fuzzy lines and its application in fuzzy line fitting, *Journal of Intelligent and Fuzzy Systems*, 29, 659–671.
27. Debdas Ghosh and **Debjani Chakraborty** (2015), A direction based classical method to obtain complete Pareto set of multi-criteria optimization problems, *Opsearch*, 52(2), 340-366.
28. **Debjani Chakraborty** (2015), Solving Geometric Programming Problems With Fuzzy Random Variable Coefficients, *Journal of Intelligent and Fuzzy Systems* vol. 28, no. 6, pp. 2493-2499.
29. Soumen Bag and **Debjani Chakraborty** (2014), An inventory model for deteriorating items with fuzzy random planning horizon, *Advanced Modeling and Optimization*, 16(1), 185-197.
30. Soumen Bag and **Debjani Chakraborty** (2014), An integrated inventory model of imperfect quality products with fuzzy chance constraint , *Journal of Uncertainty in Mathematics Science*, 2014, 1-19, <http://dx.doi.org/10.5899/2014/jums-00013>.
31. Debdas Ghosh and **Debjani Chakraborty** (2012), Analytical fuzzy plane geometry I, *Fuzzy sets & systems* 209, Pages 66–83.
32. **Debjani Chakraborty** and Debdas Ghosh (2013), Analytical fuzzy plane geometry II, *Fuzzy sets & systems, Fuzzy Sets and Systems*, 243, 84–109.
33. **Debjani Chakraborty**, C. Das and H. Das (2013), Aggregation of sensory data using fuzzy logic for sensory quality evaluation of food, *International Journal of Food Science Technology*, 50(6):1088-96.
34. Debdas Ghosh and **Debjani Chakraborty** (2013), On similarity of fuzzy triangles, *International Journal of Fuzzy Logic Systems* 3 (4), Pages 1–15.
35. Debdas Ghosh and **Debjani Chakraborty** (2013), A study on parametric form of fuzzy line, *Journal of Uncertainty in Mathematics Science*, Vol. 2013, Pages 1 – 11.
36. Soumen Bag, **Debjani Chakraborty** (2014), Fuzzy EPQ model with dynamic demand under bi-level trade credit policy, *Annals of Fuzzy Mathematics and Informatics*, 7(6), 969-989.
37. Soumen Bag, **Debjani Chakraborty** (2014), Fuzzy EOQ model under bi-level trade credit policy *Annals of Fuzzy Mathematics and Informatics*, 7(4), 607-617.
38. Debdas Ghosh and **Debjani Chakraborty** (2013), Fuzzy Ideal Cone: A Method to Obtain Complete Fuzzy Non-dominated Set of Fuzzy Multi-criteria Optimization Problems with Fuzzy Parameters, FUZZ IEEE 2013, IEEE Xplore, pp. 1–8.
39. Debashree Guha and **Debjani Chakraborty** (2013), Multi-objective Optimization based on Fuzzy If-Then Rules, FUZZ IEEE 2013, IEEE Xplore, pp. 1–7.
40. Debashree Guha and **Debjani Chakraborty** (2012), A new similarity measure of intuitionistic fuzzy sets and its application to estimate the priority weights from intuitionistic preference relations, *Notes on Intuitionistic Fuzzy Sets*, 18 (1) 37 – 47.
41. Debdas Ghosh and **Debjani Chakraborty** (2013), A method to obtain fuzzy Pareto set of fuzzy multi-criteria quadratic programming problems, *Annals of Fuzzy Mathematics and Informatics*. 6(2) 433–446.
42. Pankaj Dutta, **Debjani Chakraborty** & A.R. Roy (2012) Uncertain demand in (Q,r) inventory systems: A fuzzy optimization approach, *International Journal of Fuzzy Mathematics*, 20 (3) 501 – 514.
43. Oshmita Dey, **Debjani Chakraborty** (2012), A Fuzzy Random Periodic Review System with Variable Lead-time and Negative Exponential Crashing Cost, *Applied Mathematical Modelling* 36 (12) Pages 6312–6322
44. Oshmita Dey, **Debjani Chakraborty** (2010), A single period inventory model with a truncated normally distributed fuzzy random variable demand, *International Journal of Systems Science*, 43 (3) 518 – 525.
45. Oshmita Dey, **Debjani Chakraborty** (2011), A Fuzzy Random Continuous Review Inventory System, *International Journal of Production Economics*, 132 (1) 101–106.
46. Oshmita Dey and **Debjani Chakraborty** (2012), A fuzzy random periodic review system: A technique for real-life application, *International Journal Operational Research*, 13 (4) 395 - 405
47. Debashree Guha and **Debjani Chakraborty** (2010), Addition of two generalised fuzzy numbers, *International Journal of Industrial Mathematics*, 2, 9-20.
48. Debashree Guha and **Debjani Chakraborty** (2011), Fuzzy multi attribute group decision making method to achieve consensus under the consideration of degrees of confidence of experts' opinions, *Computers & Industrial Engineering*, 60(4) 493-504.

49. Snigdha Pal Chaudhury, **Debjani Chakraborty**, ArindamMukhopadhyay, DebashreeGuha and Jyotirmoy Chatterjee, (2011) Analyzing Important Ground Water Parameters in West Bengal with a Fuzzy Approach in the Context of Arsenic Pollution, *IEEE Xplore*, 273-277.
50. DebashreeGuha&**Debjani Chakraborty** (2010). A new approach to fuzzy distance measure and similarity measure between two generalized fuzzy numbers, *Applied Soft Computing* Volume 10, Issue 1, January 2010, Pages 90-99.
51. DebashreeGuha&**Debjani Chakraborty** (2010). A Theoretical Development of Distance Measure for Intuitionistic Fuzzy Numbers, *International Journal of Mathematics and Mathematical Sciences*, Volume 2010 (2010), Article ID 949143, 25 pages doi:10.1155/2010/949143.
52. Oshmita De &**Debjani Chakraborty** (2008). Single period inventory model with continuous fuzzy random variable, *International Journal of fuzzy Mathematics*, Vol. 18, No. 1, 2010.
53. DebashreeGuha&**Debjani Chakraborty**(2010). A Linear Regression Model in Fuzzy Environment Based on S-Curve, *International Journal of Applied Mathematics & Statistics* 16 (M10) (2010), 49-58.
54. Pankaj Dutta &**Debjani Chakraborty** (2009). Incorporating one-way substitution policy into the newsboy problem with imprecise customer demand, *European journal of Operational Research* 200 (1) (99-110).
55. DebashreeGuha&**Debjani Chakraborty** (2009). Theoretical development of similarity measure between intuitionistic fuzzy sets and its applications in multiple attribute decision making, *International Journal of fuzzy Mathematics* To appear.
56. Oshmita De &**Debjani Chakraborty** (2008). Fuzzy periodic review system with fuzzy random variable demand, *European journal of Operational Research* 198 (1) (113-120).
57. Oshmita De &**Debjani Chakraborty** (2008). The newsboy problem under budget constraint: A fuzzy stochastic approach, *Tamsui oxford journal of management science*, 24, No. 1, 39-48 (2008).
58. Soumen Bag, **Debjani Chakraborty** & A.R. Roy (2008) A production inventory model with fuzzy random demand and with flexibility and reliability considerations, *Computers & Industrial Engineering* 56 (411-416).
59. Chandan Chakraborty &**Debjani Chakraborty** (2008). Fuzzy linear and polynomial regression modelling of 'IF-THEN' fuzzy rule base, *International Journal of Uncertainty Fuzziness, Knowledge-Based Systems*, 16 (2) (219-232).
60. Pankaj Dutta &**Debjani Chakraborty** (2008). Single-period inventory models in fuzzy environment: A decision-maker's attitudinal approach, *International Journal of Applied Mathematics and Statistics* 13 (D08).
61. DebashreeGuha&**Debjani Chakraborty** (2007). Compromise Ratio Method for Decision Making under Fuzzy Environment using Fuzzy Distance Measure, *International journal of mathematical, physical and engineering sciences* 1 (1-8).
62. Pankaj Dutta &**Debjani Chakraborty** (2007). A Study on Linking Upward Substitution and Fuzzy Demands in the Newsboy-Type Problem, *International Journal Of Mathematics Sciences* 1 (4) (263-268).
63. Oshmita De &**Debjani Chakraborty** (2007). A Single-Period Inventory Problem with Resalable Returns: A Fuzzy Stochastic Approach, *International journal of mathematical, physical and engineering sciences* 1 (8-15).
64. Chandan Chakraborty &**Debjani Chakraborty** (2007). A fuzzy clustering methodology for linguistic opinions in group decision making, *International Journal of Applied Soft Computing*, 7 (3) 858-869.
65. Chandan Chakraborty &**Debjani Chakraborty** (2007). Fuzzy rule base for consumer trustworthiness in Internet marketing: an interactive fuzzy rule classification approach, *International Journal of Intelligent Data Analysis*, 11 (4) (339 – 353).
66. Pankaj Dutta, **Debjani Chakraborty** & A.R. Roy (2007). An Inventory Model for Single-Period Products with Reordering Opportunities Under Fuzzy Demand, *Computers and Mathematics with Applications*, 53 (1502 –1511).
67. Pankaj Dutta, **Debjani Chakraborty** & A.R. Roy(2007). Continuous review inventory model in mixed fuzzy and stochastic environment, *Applied Mathematics and Computation*, 188, (1) (970-980).
68. Chandan Chakraborty &**Debjani Chakraborty** (2006). A theoretical development on fuzzy distance measure for fuzzy numbers, *Computers & Mathematical Modeling*, 43(254-261).
69. Chandan Chakraborty &**Debjani Chakraborty** (2005). A comparative study of fuzzy and neural network approaches to discriminant analysis with linguistic variable, *Journal of Indian Institute of Science*, 85(5) 265-277.

70. **Debjani Chakraborty**, Chandan Chakraborty, Joytirmoychatterjee, Shyamal K. Basu, Arabinda K. Das, SinghdhaPalchowdhury, Santanu Chakraborty, Keya Chaudhury (2006). Trend analysis of tissue zinc content for medical radiation workers using fuzzy logic, *International journal of Pure and Applied Mathematics*, 28 (4) 463-476.
71. Pankaj Dutta, **Debjani Chakraborty** & A.R. Roy (2005), A Single Period Inventory Model with Fuzzy Random Variable Demand, *International Journal of Mathematical and Computer Modeling*, 41 915-922.
72. Chandan Chakraborty & **Debjani Chakraborty** (2005), Product classification using Fuzzy Discriminant Analysis, *International Journal of Lateral Computing*, 1(2) 40-46.
73. Chandan Chakraborty & **Debjani Chakraborty** (2004), A Decision Scheme based on Ordered Weighted Average (OWA) Operator for an Evaluation Programme: An Approximate Reasoning Approach, *International Journal of Applied Soft Computing*, 5, pp45 – 53.
74. **Debjani Chakraborty** (2002), Redefining Chance-Constrained Programming in Fuzzy Environment, *Fuzzy Sets and Systems* 125 (3) 327-333.
75. AtanuSengupta, Tapan K. Pal & **Debjani Chakraborty** (2001), Interpretation of Inequality Constraints involving Interval Coefficients and a solution to Interval Linear Programming, *Fuzzy Sets and Systems* 119 (1) 129-138.
76. **Debjani Chakraborty** (2001), Structural Quantization of Vagueness in Linguistic Expert Opinions in an Evaluation Programme, *Fuzzy Sets and Systems* 119 (1) 171-186.
77. **Debjani Chakraborty**, J.R. Rao & R.N. Tiwari (1994), Multiobjective Programming with Normal Fuzzy and Normal Random Variables, *The Journal of Fuzzy Mathematics*, 2 (4) 819-828.
78. **Debjani Chakraborty**, J.R. Rao & R.N. Tiwari (1994), Interactive Decision Making in Mixed (Fuzzy and Stochastic) Environment, *Opsearch*, 31 (2) 89-107.
79. J.R. Rao, R.N. Tiwari & **Debjani Chakraborty** (1993), Chance-Constrained Fuzzy Goal Programming, *The Journal of Fuzzy Mathematics*, 1 (4) 823-834.
80. **DebjaniChakaraborty**, J.R. Rao & R.N. Tiwari (1993), Multiobjective Imprecise-chance-Constrained Programming Problem, *The Journal of Fuzzy Mathematics* 1 (2) 377-387. *Corrigendum to* (1994): Multiobjective Imprecise-chance Constrained Programming Problem, *The Journal of Fuzzy Mathematics* 2 (1) 231-232.

Conference

81. **Debjani Chakraborty** (2017) Invited talk: Introduction to Fuzzy Geometry, 9th European Symposium on Computational Intelligence and Mathematics. Faro (Portugal), October 4th – 7th, 2017.
82. **Debjani Chakraborty** (2017) Invited talk: Handling Uncertainty in Medical Diagnostic Systems, International Conference on Internet of Things and Machine Learning (IML 2017), Liverpool John Moores University, Liverpool city, United Kingdom, October 17 – 18, 2017.
83. SPK Karri, **Debjani Chakraborty**, Ajoy K Ray and Jyotirmoy Chatterjee (2017) Learning Representations through Ensemble of Fuzzy C-Means for Identification of Retinal Pathologies, International Conference on Internet of Things and Machine Learning (IML 2017), Liverpool John Moores University, Liverpool city, United Kingdom, October 17 – 18, 2017.
84. **Debjani Chakraborty**, Abhijit Chatterjee and Aishwaryaprajna (2017) Spatial Interpolation Technique for the Optimisation of Geometric Programming Problems, ICCSM 2017: 19th International Conference on Computer Science and Mathematics, London, October 19-20 2017 (**Best presentation award**).
85. **Debjani Chakraborty**, Abhijit Chatterjee and Aishwaryaprajna (2017) Multi-objective Fuzzy Geometric Programming Problem Using Fuzzy Geometry, in 9th European Symposium on Computational Intelligence and Mathematics. Faro (Portugal), October 4th – 7th, 2017.
86. Krishna Dalal, Devjyoti Dalal, Abhijit Chatterjee, Jyotirmoy Chatterjee and **Debjani Chakraborty** (2016), Adjudging the Mathematical Dimension of Reflexology Diagnostics: Expounding Cutaneous SS-OCT Attributes, presented in: 24th West Bengal State Science and Technology Congress, 13 - 14 November, 2016, Presidency Division, Kolkata. (**Selected as Outstanding paper**).
87. SPK Karri, Niladri Garai, Debaleena Nawn, Sambuddha Ghosh, **Debjani Chakraborty**, Jyotirmoy Chatterjee (2016), Simultaneous reconstruction and restoration of sparsely sampled optical coherence tomography image

- through learning separable filters for deep architectures, **IEEE Technology Symposium (TechSym), *IEEE Explore***, 52-55.
88. SPK Karri, NiladriGarai, DebaleenaNawn, Sambuddha Ghosh, **Debjani Chakraborty**, Jyotirmoy Chatterjee (2016), Retinal layer delineation through learning of tissue photon interaction in optical coherence tomography, **IEEE Technology Symposium (TechSym), *IEEE Explore***, 46-51.
 89. **Debjani Chakraborty** and V. P. Singh (2016) A Dynamic programming approach to solve multi-objective optimization problem under the fuzzy rule. Annual Conference of Italian Operations Research Society, Trieste, Italy.
 90. V. P. Singh and **Debjani Chakraborty** (2015) A Dynamic Programming Algorithm for Solving Bi-objective Fuzzy Knapsack Problem. International Conference on Mathematics and Computing, Haldia.
 91. V. P. Singh and **Debjani Chakraborty** (2015) Solving Bi-level Programming Problem with Fuzzy Random Variable Coefficients. Informs Annual Meeting, Philadelphia, Pennsylvania, USA.
 92. Sushil Kumar Bhuiya and **Debjani Chakraborty** (2015), A fuzzy random periodic review inventory model involving controllable back-order rate and variable lead-time, in: ***Springer Proceedings in Mathematics & Statistics*** (2015), Volume 139, Pages 307-320, the proceedings of international conference on mathematics and computing, 8-11 January, 2015, Haldia, india.
 93. Sri Phani Krishna Karri, Hrushikesh Garud, Debdoot Sheet, Jyotirmoy Chatterjee, **Debjani Chakraborty**, Ajoy Kumar Ray, Manjunatha Mahadevappa (2014), Learning scale-space representation of nucleus for accurate localization and segmentation of epithelial squamous nuclei in cervical smears, IEEE-EMBS International Conference on Biomedical and Health Informatics, ***IEEE Explore*** 10.1109/BHI.2014.6864478.
 94. Debdas Ghosh and **Debjani Chakraborty** (2013), Ideal cone: a new method to generate complete Pareto set of multi-criteria optimization problems, in: ***Springer Proceedings in Mathematics & Statistics*** (2013), the proceedings of international conference on mathematics and computing, 22 December 2013, Haldia, india.
 95. Debdas Ghosh and **Debjani Chakraborty** (2013) D. Ghosh and D. Chakraborty, On Fuzzy Ideal Cone Method to Capture Entire Fuzzy Non-dominated Set of Fuzzy Multi-criteria Optimization Problems with Fuzzy Parameters, in: *International Conference on Facets of Uncertainties and Applications*, ICFUA 2013, 5-7 December 2013, Kolkata, India.
 96. Debdas Ghosh and **Debjani Chakraborty** (2012), Modified normal boundary intersection method for multi-objective optimization problem to obtain knee of the Pareto frontier, in: *44th Annual Convention of ORSI*, 6 - 8 January 2012, Kolkata.
 97. Debdas Ghosh and **Debjani Chakraborty** (2012), A new classical method to obtain complete Pareto set of multi-criteria optimization problems, in: *International conference on optimization modelling and applications*, OPTIMA-2012, 29th November to 1st December 2012, University of Delhi, Delhi.
 98. Debdas Ghosh and **Debjani Chakraborty** (2012), On solving fuzzy multi-criteria quadratic, Programming Problems, in: *6th International Conference MSAST 2012*, 21 - 23 December 2012, Kolkata.
 99. Debdas Ghosh and **Debjani Chakraborty** (2012), Some properties of fuzzy trigonometric functions, in: *100th Indian Science Congress*, 3 - 7 January 2013, Calcutta University.
 100. Debashree Guha and **Debjani Chakraborty** (2011), A note on distance measures between intuitionistic fuzzy numbers, National conference on Mathematical Sciences and Applications, Jadavpur University, January 2011.
 101. Debdas Ghosh and **Debjani Chakraborty** (2010), Solving fuzzy multi-objective optimization problems by modified normal boundary intersection method, Conference on Recent Developments in Mathematical Sciences and their Applications (ICRDMSA2010), Calcutta Mathematical Society, December 09-11, 2010.
 102. Oshmita De & **Debjani Chakraborty** (2009) A Variable Lead-time Periodic Review Inventory System in the presence of fuzziness and randomness, Presented and published in the *Proceedings of the International Conference on Rough Sets, Fuzzy Sets and Soft Computing* (ICRFSC09), Tripura University, Nov 5-7, 2009.
 103. Debashree Guha & **Debjani Chakraborty** (2009) An Approach to Estimate the Criteria Weights from Intuitionistic Preference Relations, Presented and published in the *Proceedings of the International Conference on Rough Sets, Fuzzy Sets and Soft Computing* (ICRFSC09), Tripura University, Nov 5-7, 2009.
 104. Oshmita De & **Debjani Chakraborty** (2009) Imprecise of Chance Budget Constraint in a Mixed Fuzzy Random Continuous Review Inventory Model, *National Seminar on Recent trends in Operations Research*

and its computational aspects, 17th-18th Nov 2009 in the Department of Applied Mathematics, University of Calcutta. (Invited talk)

105. DebashreeGuha&**Debjani Chakraborty** (2009) Multiobjective Optimization under Fuzzy rule constraints, *National Seminar on Recent trends in Operations Research and its computational aspects*, 17th-18th Nov 2009 in the Department of Applied Mathematics, University of Calcutta.
106. DebashreeGuha&**Debjani Chakraborty** (2009) Multiple Attribute Group Decision Making: Intuitionistic Fuzzy Approach, *2nd ISDSI International Conference on Decision Sciences in Global Enterprise Management (ISDSI 2009)*, SJMSOM, IIT Bombay, Mumbai, India, January 3-5, 2009. (Macmillan Publishers, 2009, ISBN: 10: 0230-63725-6; ISBN: 13: 978-0230-63725-2; pp. 497-505).
107. Oshmita De &**Debjani Chakraborty** (2009) Fuzzy Stochastic Periodic Review System, *2nd ISDSI International Conference on Decision Sciences in Global Enterprise Management (ISDSI 2009)*, SJMSOM, IIT Bombay, Mumbai, India, January 3-5, 2009. (Macmillan Publishers, 2009, ISBN: 10: 0230-63725-6; ISBN: 13: 978-0230-63725-2; pp. 506-515)
108. Ravi Thanvi, **Debjani Chakraborty** & S. V. Barai (2008). Foreign Exchange Rate Prediction Using Artificial Neural Networks, Presented in National Conference on Forecasting Financial Markets in India (FFMI- 08) December 29-31.
109. Oshmita De &**Debjani Chakraborty** (2007). Periodic Review Inventory System approaching Zero Inventory in a mixed Fuzzy Stochastic environment, Presented in presentation *Operational Research in Information Technology & Supply Chain Management (ORITSCM2007)*, Madurai.
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