



Name of faculty: Dr. Debjani Chakraborti

Designation: Assistant Professor

Contact Details: 9432137013

Qualification: M.Sc, M.Phil, MBA, Ph.D

Research Experience: 11 Years

Seminar/Conference Attended:

- National Conference on Science, Technology and Communication Skills (NCSTCS 2K18), 21st April, 2018, Narula Institute of Technology.
- International Conference of Facets of Basic Science & Applications (ICFBSA 2018), 5-7, February, 2018, Bijay Krishna Girls College.
- One day Seminar on Women Empowerment through Technical Education, 15th March, 2017, Narula Institute of Technology.
- 82nd Annual Conference of Indian Mathematical Society (IMS), 27-30, December, 2016, University of Kalyani.
- International Conference on Computational Advancement in Applied Science & Engineering (IC2A2SE 2016), 4-6, October, 2016, Narula Institute of Technology.
- The 9th International Conference on Mathematical Sciences for Advancement of Science and Technology (MSAST 2015), 21-23, December, 2015.
- UGC Sponsored National Seminar on Mathematics, 15 December, 2016, Kalyani Mahavidyalaya.
- International Conference on Nonlinear Dynamics, Analysis and Optimization (ICNDAO 2015), 9-11 December, 2015, Jadavpur University.

- One Day Seminar on Recent Research on Wireless Communication, 25th July, 2015, Narula Institute of Technology.
- National Seminar on Role of Mathematics in Socio-Economic Research (RMSER 2015), 28-29 March, 2015, Heritage Institute of Technology.
- Second International Conference on Information Systems design and Intelligent Applications-2015 (INDIA-2015) 8-9, January, 2015, University of Kalyani.
- International Conference on Computing, Communication & Manufacturing (ICCCM 2014), 22-23, December, 2014, MCKV Institute of Engineering.
- International Conference on Computational Advancement in Communication Circuits and Systems (ICCACCS 2014), 30th October-1st November, 2014, Narula Institute of Technology.
- International Conference on Facets of Uncertainties and Applications, ICFUA-2013, 5-7, December, 2013, Department of Mathematics, University of Calcutta, Kolkata.
- 1st International Conference on Computational Intelligence: Modeling, Techniques and Applications (CIMTA-2013), 27-28 September, 2013, Department of Computer Science & Engineering, University of Kalyani.
- National Conference on Advancement of Computing in Engineering Research (ACER-13), 22-23 March, 2013, Global Institute of Management and Technology.
- International Conference on India Biodiversity Meet (IBM-13), 14-16 March, 2013, Indian Statistical Institute, Kolkata.
- National Conference on Energy System Planning, Implementation and Operation (ESPIO) 2011, 19th August, 2011, Department of Electrical Engineering, JIS College, Kalyani.
- 2nd International Conference on Computing, Communication and Networking Technologies (ICCCNT 2010), 29-31 July, 2010, Chettinad College of Engineering & Technology, Karur, Tamil Nadu.
- National Conference on Recent Trends in Mathematical Modeling and Simulation (RTMMS 2010), 18-20 March, 2010, Department of Applied Mathematics, Banaras Hindu University.
- International Conference on Operations and Management Science (ICOMS 2010), 12-13 February, 2010, Institute of Management Technology, Nagpur.

- 4th IEEE International Conference on Industrial and Information Systems (ICIIS 2009), 28-31 December 2009, Department of Electrical and Electronic Engineering, University of Peradenia, Sri Lanka.
- 3rd Annual International Conference on Decisions in Management and Social Sciences for Sustainable Development, 14-15 December, 2009, IISWBM, Kolkata.
- International Conference on Rough sets, Fuzzy Sets and Soft Computing (ICRFSC) 2009, 5-7 November, 2009, Department of Mathematics, Tripura University.
- International Conference on Operations Research Applications in Engineering and Management (ICOREM 2009), 27-29 May, 2009, Anna University, Tiruchirappalli, Tamil Nadu.

Workshop/Refresher Course/Orientation Program/Faculty Development Program attended:

- TEQIP Sponsored One week Faculty Development Programme on Modern Trends in Teaching & Research Methodology, 18-23, July, 2016, Narula Institute of Technology.
- Workshop on Microelectronics & VLSI Design using Advanced Simulation Tool, 29th June- 10th July, 2015, Narula Institute of Technology.
- Workshop on Knowledge Dissemination Programme, 11 July-22 August, 2015, Indian Institute of Technology (IIT) Kharagpur.
- Workshop on Hands Session on Advance VLSI Design using Cadence EDA Tools, 6-8 July, 2015, Narula Institute of Technology.
- Workshop on Teaching Business Ethics, 29th May, 2015, Indian Institute of Management (IIM), Calcutta.
- Orientation Program, 2-28 February, 2015, Jadavpur University, UGC - Academic Staff College.
- Faculty Development Program on Advanced Communication & Signal Processing, 7-17, January, 2015, Narula Institute of Technology.
- Faculty development Program for effective Teaching, 17-19, November, 2014, Indian Institute of Technology (IIT) Kharagpur.
- Workshop on Soft Computing and its Application in Computation, 11-16, November, 2013, Narula Institute of Technology.

- Two-days Workshop on Computational Methodologies and Applications (CMA-2013), 22-23, April, 2013, department of Computer Science & Engineering, University of Kalyani.
- One-week Continuing Education Programme on "Soft Computing and Its Applications", 11-16, November, 2013, Department of Computer Science, Narula Institute of Technology.
- Faculty development Program on Communication & Management Essentials, 9-11 July, 2013, Narula Institute of Technology.
- One-day workshop on Computational Intelligence in Brain-Computer Interface and Context aware Service Management, 14th March, 2011, Indian Statistical Institute (ISI), Kolkata.
- Workshop on Curriculum Development in Mathematics (for all course structures of B.Tech, under WBUT), 19th May, 2010, Meghnad Saha Institute of Technology.
- Workshop on Modern HVDC for future of Power Systems, 28th December 2009, Department of Electrical and Electronic Engineering, University of Peradenia, Sri Lanka.
- UGC – Sponsored Refresher Course on “COMPUTER APPLICATION”, 8th January - 28th January, 2008 , University of Kalyani.

Journal Publications (National/ International):

- **Debjani Chakraborti (2018)**, "Mathematical Modelling of Land Allocation Problem for Optimal Cropping Plan in Agricultural System Using Hybrid Goal Programming", International Journal of Engineering, Science and Research, Volume 13, Number 4, pp. 1-15, ISSN: 2320-0294.
- **Debjani Chakraborti** and Sumit Nandi (2018), “Mathematical Modelling of affected diseases due to HIV Infection using Fuzzy Cognitive Maps”, Advances in Fuzzy Mathematics (AFM), Volume 13, Number 1, pp. 1-7, ISSN No: 0973-533X.
- **Debjani Chakraborti (2015)**, “Evolutionary technique based goal programming approach to chance constrained interval valued bilevel programming problems”, OPSEARCH, pp. 390-408, ISSN No: 0030-3887, Doi: 10.1007/s12597-015-0238-1.
- **Debjani Chakraborti (2015)**, “A Genetic Algorithm Based Fuzzy Goal Programming Approach to Multiobjective Optimal Planning of Electric Power Generation Dispatch in Inexact Environment”, Int. J. on Information Technology, Vol-5, pp. 9-22, ISSN No.: 2281-2911.

- **Debjani Chakraborti (2015)**, “A Problem on Interval Valued Bilevel Programming in Inexact Environment”, Global Journal of Dynamical System and Applications, Volume 4, No. 1, pp. 1- 11, ISSN No.: 2249-4294.
- **Debjani Chakraborti (2014)**, “Bio-inspired Computation Technique to Chance Constrained Fuzzy Goal Programming Model for Resource Allocation in Farm Planning”, International Journal of Computer Applications, Vol. 90, No. 2, ISSN No.: 0975-8887.
- **Debjani Chakraborti (2014)**, “A Fuzzy Goal Programming Based Stochastic Simulation Approach to Chance Constrained Bilevel Programming Problems via Genetic Algorithm”, Survey, Vol. 54, Nos. 1&2, ISSN No.: 0586-0008.
- Papun Biswas, Bijay Baran Pal, Anirban Mukhopadhyay, **Debjani Chakraborti (2013)**, “Genetic Algorithm Based Goal Programming Procedure for Solving Interval-Valued Multilevel Programming Problems”, International Journal of Advanced Computer Research, Vol. 3, Number. 1(8), pp. 125-135, ISSN Number.: 2249-7277.
- Bijay Baran Pal, **Debjani Chakraborti (2013)**, “Using genetic algorithm for solving quadratic bilevel programming problems via fuzzy goal programming”, International Journal of Applied Management Science , Vol. 5, No. 2, pp. 172-195, ISSN Number.: 1755-8913
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, Anirban Mukhopadhyay (**2012**), “An application of genetic algorithm method for solving patrol manpower deployment problems through fuzzy goal programming in traffic management system: a case study”, International Journal of Bio-Inspired Computation, Vol. 4, No. 1, pp. 47-60, ISSN Number: 1758-0366.
- **Debjani Chakraborti**, Papun Biswas (**2012**), “An Application of Genetic Algorithm for Solving Academic Personnel Planning Problems in University Management System via Fuzzy Goal Programming with Penalty Functions”, International Journal of Computer Applications, Vol. 38, No. 12, 2012. ISSN No.: 0975-8887.
- Bijay Baran Pal, Papun Biswas, **Debjani Chakraborti**, Anirban Mukhopadhyay (**2011**), “A Genetic Algorithm Based Mixed 0-1 Goal Programming Approach to Interval-Valued Multiobjective Bilevel Programming”, International Journal of Fuzzy Systems and Rough Systems, Vol. 4, No. 1, pp. 25-32, ISSN No.: 0974-858X

- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas (2011), “Using Genetic Algorithm to Fuzzy Goal Programming Formulation of Optimal Electric Power Generation and Dispatch”, International Journal of Electrical Energy Systems, Vol. 3, No. 2, pp. 113-119, ISSN No.: 0975-7147.
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas (2010), “A Genetic Algorithm Based Fuzzy Goal Programming to Multiobjective Optimal Planning of Electric Power Generation Dispatch”, International Journal of Computational Intelligence Research, Vol.6, No. 4, pp. 929-937, ISSN No.: 0973-1873.

Book/Book Chapter Publication

- **Debjani Chakraborti**, Papun Biswas, Bijay Baran Pal, " Modelling Multiobjective Bilevel Programming for Environmental-Economic Power Generation and Dispatch Using Genetic Algorithm", Computational Intelligence, Communications, and Business Analytics Springer Nature Singapore Pte Ltd. 2017 J.K. Mandal et al. (Eds.): CICBA 2017, Part II, CCIS 776, pp. 1–17, 2017. DOI: 10.1007/978-981-10-6430-2_33
- **Debjani Chakraborti**, Valentina E. Balas, Bijay Baran Pal, “Genetic Algorithm Based Fuzzy Goal Programming Approach to Multiobjective Bilevel Programming in Uncertain Environment”, Handbook of Research on Natural Computing for Optimization Problems, Editors: J.K.Mandal, Somnath Mukhopadhyay, Tandra Pal, Publisher: IGI Global (formerly Idea Group Inc.), pp. 23–45, 2016, ISBN No.: 2327-0411
- **Debjani Chakraborti**, Editor of Proceedings of National Seminar on Application of Mathematics in Science, Technology and Management (NSAMTM, 2016), ISBN No.: 978-93-84659-98-1

Conference Proceeding Publications with ISBN

- **Debjani Chakraborti**, “A Problem on Soft Computing Approach Based Multiobjective Bilevel Programming in Uncertain Environment”, Conference of Indian Mathematical Society, 2016.
- **Debjani Chakraborti**, “A Stochastic Simulation based GA Approach to Chance Constrained Bilevel Programming Problems in Inexact Environment”, Advances in intelligent systems and computing 339, Springer INDIA 2015, pp. 637-648, DOI 10.1007/978-81-322-2250-7_64

- **Debjani Chakraborti**, “A Bio-Inspired Computation Technique Based Fuzzy Goal Programming Approach to Multiobjective Optimal Planning of Electric Power Generation Dispatch”, in proceedings of ACEEE, 2015, ISSN No.: 21680787.
- **Debjani Chakraborti**, Bijay Baran Pal, Papun Biswas, “FGP Approach for solving fractional multiobjective decision making problems using GA with tournament selection and arithmetic crossover”, 1st International Conference on Computational Intelligence: Modeling, Techniques and Applications (CIMTA-2013), procedia Technology, Elsevier, vol-10, pp. 505-514, 2013, ISSN No. 2212-0173
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “Using Genetic Algorithm for Solving Linear Multilevel Programming Problems via Fuzzy Goal Programming”, Computer Communication and Information Systems (ICCIS), Vol. 140, No. 1, pp. 79-88, Springer, Heidelberg, 2011.
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “Bio-inspired Computational Technique to Multi objective Optimal Planning of Electric Power Generation and Dispatch”, International Conference on Communication and Industrial Application (ICCIA), 2011, Published in IEEE Xplore Digital Library.
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “A Genetic Algorithm Based Goal Programming Approach to Interval-Valued Multilevel Programming Problems”, International Conference on Computing, Communication and Networking Technologies (ICCCNT), pp. 1-7, 2010, Published in IEEE Xplore Digital Library. ISBN No.: 978-1-4244-6591-0
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “A Genetic Algorithm Approach to Fuzzy Quadratic Bilevel Programming”, International Conference on Computing, Communication and Networking Technologies (ICCCNT), pp. 1-7, 2010, Published in IEEE Xplore Digital Library. ISBN No.: 978-1-4244-6591-0
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “A Genetic Algorithm Based Stochastic Simulation Approach to Chance Constrained Interval Valued Multiobjective Making Problems”, International Conference on Computing, Communication and Networking Technologies (ICCCNT), pp. 1-7, 2010, Published in IEEE Xplore Digital Library. ISBN No.: 978-1-4244-6591-0
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “A Genetic Algorithm Method to Fuzzy Goal Programming Formulation Based on Penalty Function for Academic Personnel Management in University System”, International Conference on Computing, Communication and Networking Technologies (ICCCNT), pp. 1-10, 2010, Published in IEEE Xplore Digital Library, ISBN No.: 978-1-4244-6591-0

- **Debjani Chakraborti**, Papun Biswas, “A Fuzzy Goal Programming Procedure for Solving Multiobjective Load Flow Problems via Genetic Algorithm”, International Conference on Modeling, Optimization, and Computing (ICMOC), pp. 415-420, 2010, published by American Institute of Physics (AIP).
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “A Genetic Algorithm Based Mixed 0-1 Goal Programming for Solving Interval- valued Fractional Bilevel Programming Problems”, Proceedings of International Conference on Operations and Management Science (ICOMS), pp. 406-414, 2010, Book chapter published by Excel Publications. ISBN No.: 93-1-80043-79-1
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “A Genetic Algorithm Based Goal Programming Approach for Interval valued Bilevel Programming Problems”, Proceedings of International Conference on Rough sets, Fuzzy Sets and Soft Computing (ICRFSC), pp. 447-461, 2009, Book chapter published by Serials Publications. ISBN No.: 978-81-8387-417-5
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “A Genetic Algorithm Based Hybrid Goal Programming Approach to land Allocation Problem for Optimal Cropping Plan in Agricultural Systems”, 4th International Conference on Industrial and Information Systems (ICIIS), EICS 1-4, pp.1-6, 2009, Published in IEEE Xplore Digital Library, ISBN No.: 978-1-4244-4836-4
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “A Genetic Algorithm based Fuzzy Goal Programming Solution Approach to Chance Constrained Bilevel Programming Problems”, International Conference on Industrial and Information Systems (ICIIS), EICS 1-4, pp.1-6, 2009, Published in IEEE Xplore Digital Library, ISBN No.: 978-1-4244-4836-4
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “A Genetic Algorithm Based Goal Programming Method for solving Patrol Manpower Deployment Planning Problems with Interval – valued Resource Goals in Traffic Management System: A case Study”, International Conference on Advanced Computing (ICAC), pp. 61-69, 2009, IEEE CS Press. Published in IEEE Xplore Digital Library. ISBN No.: 978-1-4244-4786-2
- Bijay Baran Pal, **Debjani Chakraborti**, Papun Biswas, “A Fuzzy Goal Programming for Solving Linear Multilevel Programming Problems via Genetic Algorithms”, International Conference on Operations Research Applications in Engineering and Management (ICOREM) 2009, pp. 355-373, 2009.

- **Debjani Chakraborti**, Papun Biswas, “Mixed 0-1 Goal Programming Approach to interval-valued Bilevel Programming Problems via Bio-Inspired Computational Algorithm”, National Conference on Advancement of Computing in Engineering Research (ARCE-13) ,Vol-3, No. 2. Published by AIRCC. ISBN: 978-1-921987.
- **Debjani Chakraborti**, Papun Biswas, “A Fuzzy Goal Programming Based Solution Method for Multiobjective Optimal Reactive Power Dispatch Problem via Natural Inspired Computational Technique”, National Conference on Energy System Planning, Implementation and Operation (ESPIO), pp. 63-69, 2011.