Department of Mathematics
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Biography

Well come to my personal web page

Dr. A. R. M. Jalal Uddin Jamali
Professor
Research Area Tranportation Problem
Distance Problem Optimization Optimization
Optimization Optimization Packing Problem
LHD DistanceProblem Evolutionary Algorithm
Experimantal design, Numerical analysis,
Operation Research, Evolutionary Algorithm

Education

Doctor of Philosophy
   University of Torino, Italy.,Bangladesh(2005-2009)
   Thesis Title: Heuristic Approaches for Maximin Distance and Packing Problems
Master of Philosophy
   KUET, Khulna, Bangladesh,Bangladesh(2002-2004)
   Thesis Title: Study of Solving Linear Equations by Hybrid Evolutionary Computation Techniques
Master of Science (App. Math)
   Rajshahi University,Bangladesh(1991)
BSc Honors in Mathematics
   Rajshahi University ,Bangladesh(1990)Group: MaTHEMATICS,

Service Records

- **Professor**
  Department/Section: Mathematics
  Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
  Working Area:Dept. of Mathematics
- **Professor**
  Department/Section: Mathematics
  Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
  Working Area:Dept. of Mathematics
- **Professor**
  Department/Section: Mathematics
  Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
  Working Area:Dept. of Mathematics
- **Assistant Provost**
  Department/Section: Mathematics
  Bangladesh Institute of Technology (BIT) *From 01-01-1970 to 01-01-1970*
  Working Area:M A Rashid Hall, KUET
- **Assistant Provost**
  Department/Section: Mathematics
  Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
  Working Area:Khanjahan Ali Hall,KUET
- **Lecturer**
  Department/Section: Mathematics
  Khulna University of Engineering & Technolog *From 01-01-1970 to 01-01-1970*
  Working Area:Dept. of Mathematics, KUET
- **Assistant Professor**
  Department/Section: Mathematics
  Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
  Working Area:Dept. of Mathematics
- **Professor**
  Department/Section: Mathematics
  Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
  Working Area:KUET
- **Provost**
  Department/Section: Mathematics
  Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
  Working Area:Rokeya Hall, KUET
- **Head**
  Department/Section: Mathematics
  Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
  Working Area:Dept. of Mathematics, KUET
- **Provost**
  Department/Section: Mathematics
  Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
  Working Area:Khanjahan Ali Hall,KUET
- **Provost**

Department/Section: Mathematics
Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
Working Area:Lalan Shah Hall, KUET
- **Associate Professor**
Department/Section: Mathematics
Khulna University of Engineering & Technolog *From 01-01-1970 to 01-01-1970*
Working Area:Dept. of Mathematics, KUET

Research Interest

Tranportation Problem

A weighted opportunity cost based algorithm for cost minimization â€" a new approach in unbalanced transportation problems, UGC Research grand,, Bangladesh, December 2019- November 2020.

Distance Problem

Approximate Relations between Manhattan and Euclidean Distance in Perspective of Latin Hypercube Design, Research grand, KUET, July 2019-June 2020.

Optimization
Distance Problem
Optimization of Latin Hyper Cube Design with stack of distance matrix â€" a new technique to reduced significant computational cost

Special grant, Ministry of Science and Information & Communication Technology . No-39.00.0000.09.06.90.2018-09/SI-306(EAS-03), Date 014/01/2019; duration 2018-2019

Optimization
Distance Problem

Reducing computation time in optimal Latin Hypercube experimental design â€" A new way of distance allocation for distances problems. Special grant, Ministry of Science and Information & Communication Technology . No-39.00.0000.09.06.79.2017/EAS-356, Date 06/11/2017; duration 2017-2018

Optimization
Transportation Problem,

Dynamic weighted opportunity cost based algorithmic approach on transportation problem, Research grand, July 2017- June 2018, UGC Research Grand, CASR, KUET, and Bangladesh.

Optimization
Transportation Problem,

A Linear Programming Approach in Transportation Problem for Optimizing Cost and Time, Research grand, July 2014- June 2015, UGC Research Grand, CASR, KUET, Bangladesh.

Packing Problem
Heuristic Approaches for Packing Problems: Circles in a Minimized Circular Container, Research grand, July 2010- June 2011,

(R&D Project) Ministry of Science and Information & Communication Technology, Bangladesh

LHD
Iterated Local Search Approaches for Optimal Latin Hypercube Designs, Research grand, July 2010- June 2011, KUET, Bangladesh.

(Research Project:)

DistanceProblem
â€œHeuristic Approaches for Maximin Distance and Packing Problemsâ€, Dipartimento di Informatica (Computer Science), UniversitÃ Degli Studi di Torino, Italy, February 18, 2009.

(PhD Thesis)

Evolutionary Algorithm
i) â€œStudy of Solving Linear Equations by Hybrid Evolutionary Computation Techniquesâ€, Department of Mathematics, KUET, 2004

(M. Phil Thesis Work)

Experimantal design, Numerical analysis, Operation Research, Evolutionary Algorithm
Latin Hyper Cube design
Transportation Problem

Publication

Books

1. Jamali,A. R. M. J. U. ,Alam,M. A. and Aziz,a. A. (2021) , **Data Science and SDGs** , ISBN: https://doi.org/10.1007/978-981-16-1919-9_13, Springer Nature Singapore Pte Ltd. 2021

2. A,G. ,Jamali,A. R. M. J. U. and Locatelli,M. (2008) , **Innovations and Advanced Techniques in Systems, Computing Sciences and Software Engineering, (Ed. K. Elleithy)** , ISBN:: 978-1-4020-8734-9, e-ISSN: 978-1-4020-8735-6,Springer Science +Business Media B.V

Journals

22. (2021) , " Modified Dynamically-updated Weighted Opportunity Cost Based Algorithm for Unbalanced Transportation Problem," **Journal of Engineering Science**, Faculty of Civil Engineering, vol12, no.2, pp.119-131

21. (2019) , " Approximate relations between Manhattan and Euclidean distance regarding Latin hypercube experimental design," **Journal of Physics: Conference Series,**, IOP Publishing, vol1366, 012030

20. Reza,A. K. M. S. and Biswas,A. R. M. J. U. J. a. B. (2019) , " A modified algorithm for solving unbalanced transportation Problems," **Journal of Engineering Science** , Faculty of Civil Eng., KUET, vol10, no.1, pp.93-101

18. (2018) , " Find the IBFS of transportation problem by using sequentially updated weighted opportunity cost based algorithm," **GANIT J. Bangladesh Math. Soc. (ISSN 1606-3694)** , Bangladesh Mathematical Society , vol38 , pp.47-55

17. Jamali,A. .. M. J. U. and Alam,M. A. (2018) , " A study on maximin LHDs calculated in Euclidean distance measure and optimized by ILS approach in perspective of Manhattan distance measure," **Journal of Engineering Science, ISSN: 2075-4914** , Faculty of Civil Eng., KUET , vol09, no.2, pp.1-8

17. Jamali,A. R. M. J. U. and Alam,M. H. H. a. M. S. (2017) , " Study on eigen values and eigen vectors of matrices: an iterative approach," **GANIT J. Bangladesh Math. Soc, (ISSN Print. 1606-3694 ; online 2224-5111)**, Bangladesh Mathematical Society, pp.39-50

16. Jamali,A. R. M. J. U. and Alam,M. S. (2017) , " Some lemma on spectrum of eigen value regarding power method," **AIP Conference Series 1830, 020005 (2017); doi: http://dx.doi.org/10.1063/1.4980868** , American Institute of Physics (AIP) Publishing., pp.020005,1-7

13. Jamali,A. R. M. J. U. and Alam,M. H. H. a. M. S. (Dec. 2017) , " Study on eigen values and eigen vectors of matrices: An iterative approach," **GANIT J. Bangladesh Math. Soc. 37(2017) 39-50. (ISSN Print. 1606-3694 ; online 2224-5111)**

12. Islam,M. R. ,Biswas,M. H. A. and Jamali,A. R. M. J. U. (Dec. 2017) , " Mathematical analysis of epidemiological model of influenza a (H1N1) virus transmission dynamics in perspective of Bangladesh.," **GANIT J. Bangladesh Math. Soc. 37(2017) 51-61. (ISSN Print. 1606-3694 ; online 2224-5111)**

11. Haque,M. H. ,Jamali,A. R. M. J. U. and Hasan,M. B. (Nov. 2017) , " Proposed Modification of Holtâ€™s Method for Short Term Forecasting ," **International Journal of Engineering Research & Technology (IJERT), Vol. 6 Issue 11, November â€" 2017, ISSN: 2278-0181, http://www.ijert.org**

10. (June 2017) , " Some postulates on spectrum of eigen values regarding modified power method," **Journal of Engineering Science 08(1), 2017, 103-108, ISSN 2075-4914, KUET, Bangladesh**

9. Jamali,A. R. M. J. U. ,Jannat,F. and Akhtar,P. (June 2017) , " Weighted cost opportunity based algorithm for initial basic feasible solution: a new approach in transportation problem ," **Journal of Engineering Science 08(1), 2017, 63-70, ISSN 2075-4914, KUET, Bangladesh**

1. Jamali,A. R. M. J. U. and Rahman,M. M. A. H. a. M. B. (2004) , " Solving Linear Equations By Classical Jacobi-SR Based Hybrid Evolutionary Algorithm with Time-Variant Adaptation Technique ," **Ganit**, Bangladesh Mathematical Society, Bangladesh, vol24, pp.67-79

Conference

32. Jamali,A. R. M. J. U. ,Alam,M. A. and Aziz,A. (18-19 December, 2019) , "Statistical Analysis of Various Optimal Latin Hypercube Designs," **7th International Conference On Data Science and SDGs: Challenges, Opportunities and Realities (ICDSSDG 2019**

31. Jamali,A. R. M. J. U. ,Mondal,R. R. and Reza,A. K. M. S. (, 6-8 December, 2019) , "Dynamically-updated Weighted Opportunity Cost Algorithm for Unbalanced Transportation Problem," **21st International Mathematics Conference (IMC-2019)**

30. Jamali,A. R. M. J. U. ,Alam,M. A. and Aziz,A. (6-8 December, 2019.) , "Mathematical Analysis: Optimal Versus Randomly Generated Latin Hypercube Designs," **21st International Mathematics Conference (IMC-2019)**

29. Jamali,A. .. M. J. U. and Alam,M. A. (23 â€" 25 July 2019) , "Approximate relations between Manhattan and Euclidean distance regarding Latin hypercube experimental design," **the 2nd International Conference on Applied & Industrial Mathematics and Statistics (ICoAIMS 2019)**

28. Jamali*,A. R. M. J. U. ,Mondal,R. R. and Reza,A. K. M. S. (2019) , "Weighted Cost Opportunity Based Algorithm for Unbalanced Transportation Problem," **Proceedings of the 5th International Conference on Engineering Research, Innovation and Education ICERIE 2019** , pp.525-530

27. Jamali*,A. R. M. J. U. and Reza,A. K. M. S. (2019) , "Modified Least Cost Matrix Algorithm for Unbalanced Transportation Problems," **Proceedings of the 5th International Conference on Engineering Research, Innovation and Education ICERIE 2019** , pp.519-524

26. (2018) , "Solving Unbalanced Transportation Problems without Introducing Dummy Node â€" A New Modified Least Cost Approach ," **the A F Mujibur Rahman-Bangladesh Mathematical Society National Mathematics Conference**

25. Jamali,A. R. M. J. U. and Alam,M. A. (2018) , "Approximate Relation between Manhattan and Euclidean Distance in Perspective of Maximin Latin Hypercube Design ," **the A F Mujibur Rahman-Bangladesh Mathematical Society National Mathematics Conference**

24. Jamali,A. R. M. J. U. and Jannat,P. a. a. F. , "Weighted cost based distribution opportunity table in transportation problem ," **Proceedings of the International Conference on Mechanical Engineering and Renewable Energy 2017 (ICMERE2017) 18 â€" 20 December, 2017, Chittagong, Bangladesh ICMERE2017-PI-352** , 2017

23. (2017) , "Sequentially renew weighted opportunity cost based algorithm in transportation problem," **20th International Mathematics Conference (IMC-2017), DU8-10 December, 2017**

22. Jamali,A. .. M. J. U. and Alam,M. A. (2017) , "Comparison between Maximin LHDs Calculated Through ILS Approach Using Euclidean Distance Measure and SA Approach Using Manhattan Distance Measure," **20th International Mathematics Conference (IMC-2017), DU8-10 December, 2017**

21. Jamali,A. R. M. J. U. and Alam,M. S. (2017) , "Some lemma on spectrum of eigen value regarding power method," **The 4th International Conference on Mathematical Sciences AIP Conf. Proc. 1830, 020005-1â€"020005-7; doi: 10.1063/1.4980868,Published by AIP Publishing. 978-0-7354-1498-3/$30.00. AIP Conference Proceedings 1830, 020005 (2017); doi: 10.1063/1.4980868,**

20. Ferdaus,K. T. and Hossain,A. R. M. J. U. J. a. M. R. (December 23, 2015) , "A New Approach to Solve Linear Fractional Programming Problems," **Proceedings of 1st International Conference on Mathematics and Its Applications (ICMA - 2015) Khulna University**

(KU), Khulna, Bangladesh, pp. 83- 86

19. Jamali,A. R. M. J. U. and Alam,M. S. (December 23, 2015) , "Modified Iterative Algorithms for Eigen-pairs.," ***Proceedings of the 1st International Conference on Mathematics and Its Applications (ICMA - 2015), Khulna University (KU), Khulna, Bangladesh, pp 87-91***

18. Ferdaus,K. T. and Hossain,A. R. M. J. U. J. a. M. R. (December, 18-20, 2015) , "A Proposed Modified Algorithm on Linear Fractional Programming Problems," **19th International Conference on Mathematics, Brac University, Dhaka, Bangladesh**

17. (December, 18-20, 2015) , "Largest as well as Smallest Eigen Pairs by Modified Power Method," ***19th International Conference on Mathematics, Brac University, Dhaka, Bangladesh***

16. Jamali,A. .. M. J. U. , Ali,M. I. , Islam,R. and Grosso,A. , "Optimality Analysis of LHDs Obtained by ILS on the Basis of Manhattan Distance Measure," **National Conference on Mathematics and Its Applications (NCMA - 2015)**