

# CURRICULUM VITAE

## Asoke Kumar Bhunia

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- **Name** : Dr. Asoke Kumar Bhunia
- **Designation** : Professor, Department of Mathematics  
The University of Burdwan  
& Associate Editor, OPSEARCH (Springer Journal)
- **Mailing address** : Department of Mathematics,  
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Tel - 091 0342 2657741 (O), 091 0342 2659881 (R), 091 9933059881(M)
- **E-mail address** : *akbhunia@math.buruniv.ac.in, bhuniaak@rediffmail.com*
  
- **Academic qualifications** : M.Sc. in Applied Mathematics, Ph. D.
- **NET Qualified** in June 1991
- **Fellowship received** : Awarded INSA Visiting Fellowship (2012)
  
- **Publications** (Details are given in *Annexure-I*)
  - (i) **Research Papers** : Published + Accepted - 100
  - (ii) **Proceedings Publications** : 10
  - (iii) **Research Monograph** : 03
  - (iv) **Book Chapters** : 03 (Research level)
  - (v) **Books** : Published – 01
  - (vi) **DDE study materials** : B. U. – 06, V.U. - 05
  
- **Research Project** : (Details are given in *Annexure-II*)  
**Completed + Ongoing** – 06
  
- **Research Guidance** : (Details are given in *Annexure-III*)
  - M.Phil. : 02
  - Ph. D. : 10
  - Thesis submission : Nil
  - Working : 04
  
- **Field of Specialisation** : Optimization & Operations Research
- **Topic of Doctoral Dissertation** : Inventory Control
  
- **Field of Research interest** : Computational Optimization, Evolutionary Algorithms, Interval ranking & their applications in Operations Research
- **Research Experiences** : 25 years (Since 1992)
  
- **M. Phil/Ph. D. Thesis Evaluation as External Examiner**
  - Delhi University : M. Phil.-02 (2010, 2015 ), Ph. D.-03 (2010, 2015, 2016)
  - Berhampur University, Orissa : Ph. D. – 01 (2011)

Assam University : Ph. D. – 01(2013)  
 Banasthali University, Rajasthan : Ph. D. – 01 (2015)  
 Jadavpur University, Kolkata : Ph. D.- 02 (2014, 2015)  
 Tripura University : Ph. D. – 01 (2016)  
 Vidyasagar University : Ph. D. – 01 (2016)  
 Banara Hindu University : Ph. D. – 01 (2016)

- **Reviewing of research paper :**

Reviewed a large number of research papers of different journals including

- (i) European Journal of Operations Research
- (ii) Computers & Operations Research
- (iii) Journal of Operational Research Society
- (iv) Computers & Industrial Engineering
- (v) International Journal of Production Economics
- (vi) Applied Soft Computing
- (vii) International Journal of Systems Science
- (viii) International Journal of Production Research
- (ix) European Journal of Industrial Engineering
- (x) AMSE (France)
- (xi) Asia Pacific Journal of Operational Research
- (xii) Asia Pacific Management Review
- (xiii) Control and Cybernetics
- (xiv) Ranchi University Journal
- (xv) OPSEARCH
- (xvi) Bulletin of Calcutta Mathematical Society

- **Reviewing of Research Project Proposal :**

Reviewed **Four** research project proposals (CSIR-02, DST-02).

- **Teaching Experience :**

Institution/Organisation	Designation	Duration
Kharagpur College, Midnapore(W)	Guest Lecturer	Sept. 16, 1988 to June 30, 1989
Deoly Adarsha Vidyapith, Midnapore(E)	Asst. Teacher	May 13, 1989 to March 3, 1992
Govt. Polytechnic, W.B., Birbhum	Lecturer	March 4, 1992 to Oct. 7, 1996

Haldia Institute of Technology, Midnapore (E)	Lecturer	Oct. 8, 1996 to Oct. 23, 2000
Haldia Institute of Technology, Midnapore (E)	Sr. Lecturer	Oct. 24, 2000 to May 29, 2002
The University of Burdwan	Reader	May 30, 2002 to Dec. 31, 2005
The University of Burdwan	Associate Professor	Jan. 01, 2006 to May 29, 2010
The University of Burdwan	Professor	May 30, 2010 to Till date

### **Collaborative Works with the following researchers :**

#### **International :**

- (i) Prof. S. K. Goyal, Department of Decision Sciences and MIS, John Molson School of Business, Concordia University, Motreal, Quebec, Canada H3G IM8.
- (ii) Prof. Leopoldo Eduardo Cárdenas-Barrón, School of Engineering and Sciences, Tecnológico de Monterrey, E. Garza Sada 2501 Sur, C.P. 64849, Monterrey, Nuevo León, México

#### **National :**

- (i) Prof. P. K. Kapur, University of Delhi, Delhi
- (ii) Prof. Sarala Pareek, Banasthali University, Rajasthan
- (iii) Prof. C. K. Jaggi, University of Delhi, Delhi
- (iv) Prof. Samiran Chhatopadhyay, Jadavpur University, Kolkata
- (v) Prof. B. N. Mondal, Indian Statistical Institute, Kolkata
- (vi) Dr. Shyamal Kumar Mondal, Vidyasagar University, West Midnapore
- (vii) Dr. Nabendu Sen, Assam University, Assam

#### **With-in University :**

- (i) Late Prof. Dilip Roy, Director, Centre for Management Studies, The University of Burdwan
- (ii) Prof. Sripati Mukhopadhyay, Department of Computer Science, The University of Burdwan

### **The details of the following are given in *Annexure-IV*.**

- **Invited lectures or presentations for conferences/ symposia/Workshops**

- (i) **International Level : 07**
- (ii) **National Level : 11**

- **Participation and Presentation of research papers in Conferences**

- (i) **International Conference : 08**
- (ii) **National Conference : 02**

- ❖ **Training Courses : 02**

- ❖ **Workshop Participation : 10**

❖ **Symposium/Conference Participation & Organisation : 17**

- **Additional Information :** (Details are given in *Annexure-V*)

**Declaration**

*I hereby declare that the information given above is true to the best of my knowledge and belief.*

Date : October 13, 2016 :

  
(Asoke Kumar Bhunia)  
Signature

*Annexure – I*

- **Publications**

**Research Monograph**

- (i) Applications of Genetic Algorithm in Managerial Decision Making, (ISBN-978-3-8454-3714-9), (written jointly with R. K. Gupta), LAMBERT Academic Publishing, 2011.
- (ii) Assignment and related problems in interval environment, (ISBN-978-3-8454-0046-4), (written jointly with J. Majumdar), LAMBERT Academic Publishing, 2011.
- (iii) Reliability Optimization in Fuzzy and Interval Environments (ISBN-978-3-659-82552-1), (written jointly with Dr. Sanat Kumar Mahato), LAMBERT Academic Publishing, 2016.

**Books Publication**

- (i) Advanced Operations Research, (ISBN-978-81-8412-147-6), (written jointly with L. Sahoo), Asian Books Private Limited, 2011.

**List of Book Chapters**

- (i) “Genetic Algorithm based Mixed-integer Nonlinear Programming in Reliability Optimization Problems”, quality, Reliability and Infocom Technology: Trends and Future Directions, (written jointly with L. Sahoo & D. Roy), **Narosa Publishing House**, 25-42, 2012.
- (ii) “Genetic Algorithm Based Reliability Optimization in Interval Environment”, *Innovative Computing Methods*, (Eds.) N. Nedjah et al., (written jointly with L. Sahoo), **Springer-Verlag** Berlin Heidelberg, 13-36, 2011.
- (iii) Single period inventory of differential items selling at two shops with different types of demand, *Fuzzy Logic and Optimization* (written jointly with S. Kar, J. Dey, M. Maiti ), **Narosa Publishing House**, 30-41, 2006 (Eds.).

## List of Study materials

- (i) Written five modules (Study materials) of Optimizations & Operations Research, Directorate of Distance Education, Vidyasagar University, 2006.
- (ii) A. K. Bhunia, Operations Research, Block-I, Study material, Directorate of Distance Education, Burdwan University, 2007.
- (iii) A. K. Bhunia, Optimization and Operations Research-II, Study material, Directorate of Distance Education, Vidyasagar University, 2008.
- (iv) A. K. Bhunia, Integral Equations & Generalised Functions, Study Material, Directorate of Distance Education, Burdwan University, 2008.
- (v) A. K. Bhunia, Advanced Operations Research-I (Block-I & BlockII), Study Material, Directorate of Distance Education, Burdwan University, 2008.
- (vi) A. K. Bhunia, Advanced Operations Research-II, Study Material, Directorate of Distance Education, Burdwan University, 2009.
- (vii) A. K. Bhunia, Continuum Mechanics-III, Block-I, Study Material, Directorate of Distance Education, Burdwan University, 2009.

## List of Research papers

2016

1. **Asoke Kumar Bhunia**, Amiya Biswas and Subhra Sankha Samanta, A genetic algorithm-based approach for unbalanced assignment problem in interval environment, *Int. J. Logistics Systems and Management*, 2016 (Accepted).
2. **Asoke Kumar Bhunia** and Subhra Sankha Samanta, Multi-Objective Reliability Redundancy Allocation Problems in Interval Environment via Extended Non-dominated Sorting Genetic Algorithm-II, *International J. of Oper. and Quant. Management*, vol-22(1), 1-16, 2016.
3. Laxminarayan Sahoo, Sanat Kumar Mahato and **Asoke Kumar Bhunia**, Genetic Algorithm for reliability optimization of redundancy allocation problem in imprecise environment, *Fuzzy Information and Engineering*, 2016 (Accepted).
4. **A. K. Bhunia**, Ali Akbar Shaikh, L. Sahoo, A two-warehouse inventory model for deteriorating items under permissible delay in payment via particle swarm optimization, *International Journal of Logistic System Management (Inderscience)*, Vol.- 24(1), 45-69, 2016.
5. Bhunia, A.K., **Shaikh, A.A.**, Investigation of two-warehouse inventory problems in interval environment under inflation via particle swarm Optimization, *Mathematical and Computer Modelling of Dynamical Systems*, 22 (2), (2016), 160-179. (Taylor and Francis)(Impact Factor-0.625)
6. Laxminarayan Sahoo, Sanat Kumar Mahato and **Asoke Kumar Bhunia**, Multi-level Reliability Redundancy Allocation problem in interval environment via genetic algorithm, *Communications in Dependability and Quality Management*, 2015 (Accepted).
7. **Asoke Kumar Bhunia**, Amiya Biswas and Laxminarayan Sahoo, Comparison of different approaches for Redundancy Allocation problem with interval valued reliability via Genetic Algorithm, *Communications in Dependability and Quality Management*, 2015 (Accepted).

## 2015

8. Avishek Banerjee, Mihai Gavrilas, **Asoke Kumar Bhunia** and Samiran Chhatopadhyay, A novel hybrid GA-PSO optimization technique : Application to Load Profiling Problems, *Energetica*, vol.-63 (4), 134-138, 2015.
9. **A.K. Bhunia**, Ali Akbar Shaikh, Garima Sharma and Sarala Pareek, A two storage inventory model for deteriorating items with variable demand and partial backlogging (written jointly with), *Journal of Production and Industrial Engineering (Taylor and Francis)*, Vol-32(4), 263-272, 2015.
10. **A. K. Bhunia**, A.A.Shaikh and R.K.Gupta, A study on two warehouse partially backlogged deteriorating inventory models under inflation via particle swarm optimization, *International Journal of System Science*, vol-46(6), 1036-1050, 2015 (Impact factor-1.579)(Taylor & Francis Journal).
11. **A.K. Bhunia**, A.A. Shaikh, Sarala Pareek and Vinti Dhaka, A memo on stock model with partial backlogging under delay in payments, *Uncertain Supply Chain Management*, vol.-3(1), 11-20, 2015 (SNIP-0.994).
12. **A. K. Bhunia** and A.A.Shaikh, An application of PSO in a two-warehouse inventory model for deteriorating item under permissible delay in payment with different shortage policies, *Applied Mathematics and Computation*, vol.-256, 831-850, 2015 (Impact factor-1.6)(Elsevier journal).
13. **A. K. Bhunia**, P. Pal and S. Chattopadhyay, A Hybrid Algorithm based on Genetic Algorithm and Fletcher Reeves Method for Bound constrained optimization problems, *Decision Science Letters*, vol.-4(2), 125-136, 2015 (SNIP-0.994).

## 2014

14. Laxminarayan Sahoo, Avishek Banerjee, **Asoke Kumar Bhunia** and Samiran Chattopadhyay, An efficient GA-PSO approach for solving mixed-integer nonlinear programming problem in reliability optimization, *Swarm and Evolutionary Computation*, vol.-19, 43-51, 2014 (Dec) (SNIP- 9.218) (Elsevier journal).
15. S. Karmakar, and **A. K. Bhunia**, An efficient interval computing technique for bound constrained uncertain optimization problems, *Optimization (Taylor and Francis Journal)*, Vol. 63(11), 1615-1636, 2014 (November).(Impact factor-0.771)(Taylor & Francis Journal).
16. **A. K. Bhunia**, Ali Akbar Shaikh, S.K. Mahato and C. K. Jaggi, A deteriorating inventory model with displayed stock-level dependent demand and partially backlogged shortages with all unit discount facilities via Particle Swarm Optimization, *International Journal of System Science: Operation and Logistic*, vol.-1(3), 164-180, 2014 (September).
17. L. Sahoo, **A. K. Bhunia** and D. Roy, Reliability optimization in Stochastic Domain via Genetic Algorithm, *International Journal of Quality & Reliability Management*, Vol.- 31 (6), 698 – 717, 2014 (Aug.) (Emerald journals).
18. Samiran Karmakar and **Asoke Kumar Bhunia**, An alternative optimization technique for interval objective constrained optimization problems via multiobjective programming, *Journal of the Egyptian Mathematical Society*, vol.-22(2), 292-303, 2014 (July).
19. **Asoke Kumar Bhunia**, Amiya Biswasa and Nabendu Sen, An application of extended elitist non-dominated sorting Genetic Algorithm in multi-objective linear programming problem of tea industry with interval objectives, *Uncertain Supply Chain Management*, vol.-2(4), 245-256, 2014.

20. **Asoke Kumar Bhunia** and Ali Akbar Shaikh, A Deterministic Inventory Model for Deteriorating Items with Selling Price Dependent Demand and Three-parameter Weibull Distributed Deterioration, *International Journal of Industrial Engineering Computations*. 5, 497-510, 2014 (June). (SNIP-0.994).
21. **A. K. Bhunia**, Chandra K. Jaggi, Anuj Sharma and Ritu Sharma, A two-warehouse inventory model for deteriorating items under permissible delay in payment with partial backlogging, *Applied Mathematics and Computation*, vol.- 232, 1125-1137, 2014 (April) (Impact factor-1.6)(Elsevier journal)..
22. Samiran Karmakar and **Asoke Kumar Bhunia**, Uncertain constrained optimization by interval-oriented algorithm, *Journal of Operational Research Society*, vol.-65(1), 73-87, 2014 (January). (Impact factor-0.911).

## 2013

23. L. Sahoo, **A. K. Bhunia** and D. Roy, Reliability optimization with high and low level redundancies in interval environment via Genetic Algorithm, *International Journal of Systems Assurance Engineering and Management (IJSA)*, 5(4), 513-523, 2014 (Oct-Dec).
24. Samiran Karmakar and **Asoke Kumar Bhunia**, A new multi-section based technique for constrained optimization problems with interval-valued objective function, *Applied Mathematics and Computation*, vol.- 225, 487-502, 2013 (December).
25. S. K. Mahato, L. Sahoo, and **A. K. Bhunia**, Effects of defuzzification methods in redundancy allocation problem with fuzzy valued reliabilities via genetic algorithm, *International Journal of Information and Computer Science*, vol.-2(6), 106-115, 2013 (Nov).
26. L. Sahoo, and **A. K. Bhunia**, Optimization of constrained multi-objective reliability problems with interval valued reliability of components via Genetic Algorithm, *Indian Journal of Industrial & Applied Mathematics*, Vol.-3 (1), 25-44, 2013 (June).
27. **A.K. Bhunia**, Ali Akbar Shaikh, A.K. Maiti and M.Maiti, A two warehouse deterministic inventory model for deteriorating items with a linear trend in time dependent demand over finite time horizon by Elitist Real-Coded Genetic Algorithm, *International Journal of Industrial Engineering Computations*, Vol.-4(2), 241-258, 2013 (June).
28. Mahato, S. K., Sahoo, L. and **Bhunia, A. K.**, Optimization of system reliability for series system with fuzzy component reliabilities by genetic algorithm, *Journal of Uncertain Systems*, vol.-8(2), 136-148, 2014 (May).
29. U. K Bera,. **A. K. Bhunia**, and Manoranjan Maiti, Optimal partial backordering two storage inventory model for deteriorating items with variable demand, *International Journal of Operational Research*, vol.-16 (1) , 96-112, 2013 (Jan).

## 2012

30. Chandra K. Jaggi, **A.K. Bhunia**, Anuj Sharma and Nidhi, Fuzzy EOQ model for deteriorating items with price dependent demand and time-varying holding cost, *Advanced Modeling and Optimization*, Vol.-14(3), 557-576, 2012 (Aug-Dec).
31. Samiran Karmakar and **A. K. Bhunia**, A comparative study of different order relations of intervals, *Reliable Computing*, Vol.-16, 38-72, 2012 (Dec.).

32. Laxminarayan Sahoo, **Asoke Kumar Bhunia** and Dilip Roy, An application of genetic algorithm in solving reliability optimization problem under interval component weibull parameters, *Mexican Journal of Operations Research*, Vol.-1(1), 2-19, 2012 (Dec).
33. Sanat Kumar Mahato, Laxminarayan Sahoo and **Asoke Kumar Bhunia**, Reliability-redundancy optimization problem with interval valued reliabilities of components via genetic algorithm, *Journal of Information and Computing Science (World Academic Press)*, Vol. 7 (4), 284-295, 2012 (Dec.).
34. Samiran Karmakar and **A. K. Bhunia**, On constrained optimization by interval arithmetic and interval order relations, *OPSEARCH*, Vol.-49(1), 22-38, 2012 (March).
35. Laxminarayan Sahoo, **Asoke Kumar Bhunia** and Parmad Kumar Kapur, Genetic Algorithm based multi-objective reliability optimization in interval environment, *Computers and Industrial Engineering*, Vol.-62, 152-160, 2012 (Feb.).
36. Jayanta Majumdar and **Asoke Kumar Bhunia**, An alternative approach for unbalanced assignment problem via genetic algorithm, *Applied Mathematics and Computation*, Vol.-218, 6934-6941, 2012 (Feb.).

## 2011

37. J. Majumdar and **A.K. Bhunia**, Genetic algorithm for asymmetric travelling salesman problem with imprecise travel times, *Journal of Computational and Applied Mathematics*, (written jointly with J. Majumdar), Vol.-235, 3063-3078, 2011.
38. **A.K. Bhunia** and A. A. Shaikh, A two warehouse inventory model for deteriorating items with time dependent partial backlogging and variable demand dependent on marketing strategy and time, *International Journal of Inventory control & Management*, Vol.-1 No.-2, 95-110, 2011.
39. S. D. Jabeen, **A. K. Bhunia** and R. N. Mukherjee, Vibration control of a vehicle using region reduction division criteria, *International Journal of Materials and Structural Integrity*, Vol.-5, No. 4, 311-332, 2011.
40. **A. K. Bhunia**, P. Pal, S. Chattopadhyay and B. K. Medya, An inventory model of two-warehouse system with variable demand dependent on instantaneous displayed stock and marketing decisions via hybrid RCGA, *International Journal of Industrial Engineering Computations*, Vol.-2, 351-368, 2011.
41. **A. K. Bhunia** and Ali Akbar Shaikh, A deterministic model for deteriorating items with displayed inventory level dependent demand rate incorporating marketing decision with transportation cost, *International Journal of Industrial Engineering Computations*, Vol.-2, 547-562, 2011.
42. R. K. Gupta and **A. K. Bhunia**, A real-coded Genetic Algorithm for solving transportation problems with flexible transportation cost and interval valued demand and supply parameters, *Modelling, Measurement and Control, AMSE*, (written jointly with R. K. Gupta), Vol.-32(1), 2011.
43. Jayanta Majumdar and **Asoke Kumar Bhunia**, Solving a multi-objective interval crew-scheduling problem via Genetic Algorithms, *OPSEARCH*, Vol.-48(3), 197-216, 2011.
44. **A. K. Bhunia**, P. Pal, S. Chattopadhyay and B. K. Medya, An inventory model of two warehouse system with variable demand dependent on instantaneous displayed stock and marketing decisions via hybrid RCGA, *International Journal of Industrial Engineering Computations*, Vol. 2, No. 2, 351 -368, 2011.



## 2010

45. L. Sahoo, **A. K. Bhunia** and D. Roy, A Genetic Algorithm based Reliability Redundancy Optimization for Interval Valued Reliabilities of Components, *Journal of Applied Quantitative Methods*, Vol. 5(2), 270-287, 2010.
46. **A. K. Bhunia**, P. Pal, S. Chattopadhyay and B. K. Medya, On Genetic Operators for Unconstrained Optimization Problems, *International Journal Advanced Modeling and Optimization*, Vol. – 12(2), 291-304, 2010.
47. Jayanta Majumdar and **Asoke Kumar Bhunia**, Penalty approaches for Assignment Problem with single side constraint via Genetic Algorithms, *Journal of Mathematical Modeling and Application*, Vol. – 2(2), 60-86, 2010.
48. **A.K. Bhunia**, L. Sahoo and D. Roy, Reliability stochastic optimization for a series system with interval component reliability via Genetic Algorithm, *Applied Mathematics and Computation*, vol.-216(3), 929-939, 2010.
49. S. D. Jabeen and **A. K. Bhunia**, Population based steepest descent method, *International Journal of Advanced Modeling and Optimization*, (written jointly with S. D. Jabeen), vol.-12(2),. 177-192, 2010.
50. J. Majumdar and **A. K. Bhunia**, Solving Airline Crew-Scheduling Problem with imprecise service time using Genetic Algorithm, *Advanced Modeling and Optimization*, vol.-12(2),. 141-159, 2010.
51. A. K. Bhunia, P. Pal, S. Chattopadhyay and B. K. Medya , On Genetic Operators for Unconstrained Optimization Problems, **Journal of Advanced Modeling and Optimization**, Vol.12, No. 2, pp. 291 -304, 2010.

## 2009

52. R. K. Gupta, **A. K. Bhunia** and D. Roy, A GA based penalty function technique for solving constrained redundancy allocation problem of series system with interval valued reliability of components, *Journal of Computational and Applied Mathematics*, vol-232, 275-284, 2009.
53. R. K. Gupta, **A. K. Bhunia** and S. K. Goyal, An application of Genetic Algorithm in solving an inventory model with advance payment and interval valued inventory costs, *Mathematical and Computer Modelling*, vol-49, 893-905, 2009.
54. B. Mondal, **A. K. Bhunia** and M. Maiti, Inventory models for defective items incorporating marketing decisions with variable production cost, *Applied Mathematical Modelling*, vol-33 (6), 2845-2852, 2009.
55. S. Karmakar, S. K. Mahato and **A.K. Bhunia**, Interval oriented multi-section techniques for global optimization, *Journal of Computational and Applied Mathematics*, vol-224(2), 476-491, 2009.
56. **A. K. Bhunia**, S. Kundu, T. Sannigrahi and S.K. Goyal, An application of tournament genetic algorithm in a marketing oriented economic production lot-size model for deteriorating items, *International Journal of Production Economics*, Vol-119(1), 112-121, 2009.
57. S. Kundu, and **A. K. Bhunia**, Computational Optimization Via Tournament Genetic Algorithm, *AMSE*, France, vol.-46(1), 57-70, 2009.

## 2008

58. P. Pal and **A. K. Bhunia**, An alternative approach of optimization via real coded genetic algorithm, *MID Journal of Computer Application & Business Administration*, vol-1, 33-47, 2008.

## 2007

59. J. Majumdar and **A. K. Bhunia**, Elitist genetic algorithm for Assignment Problem with imprecise goal, *European Journal of Operations Research*, vol.-177,.684-692, 2007.

60. R.K. Gupta, **A.K. Bhunia** and S.K. Goyal, An application of Genetic Algorithm in a marketing oriented inventory model with interval valued inventory costs and three-component demand rate dependent on displayed stock level, *Applied Mathematics & Computation*, vol-192, 466-478, 2007.
61. P. Pal, **A.K. Bhunia** and S.K. Goyal, On Optimal Partially Integrated Production and Marketing Policy with Variable Demand under Flexibility and Reliability considerations via Genetic Algorithm, *Applied Mathematics and Computation*, vol – 188, 525-537, 2007.
62. Biswajit Mondal, **Asoke Kumar Bhunia** and Manoranjan Maiti, Optimal two-species harvesting policy with price and size (biomass) of the fish population dependent catch rate function, *Applied Mathematics and Computation*, vol – 187, 600-608, 2007.
63. B. Mondal, **A. K. Bhunia** and M. Maiti, A model on two storage inventory system under stock dependent selling rate incorporating marketing decisions and transportation cost with optimal release rule, *Tamsui Oxford Journal of Mathematical Sciences*, vol-23(3), 243-267, 2007.
64. Pal, P. And **Bhunias, A. K.**, A modified real coded hierarchical genetic algorithm for optimization of continuous function, *Modelling, Measurement & Control, AMSE*, France, vol – 44(2), 86, 2007.

## 2006

65. B. Mondal, **A. K. Bhunia** and M. Maiti, Optimal two species harvesting policy with variable amelioration rate and price and biomass of the fish population dependent catch rate function, *Tamsui Oxford Journal of Mathematical Sciences*, vol-22(4), 01-08, 2006.
66. S.D. Jabeen and **A. K. Bhunia**, Real coded Genetic Algorithm with variable rates of crossover and mutation – a basis of global optimization for multi-modal function via Interval technique, *International Journal of Computer Mathematics*, vol-83(12), 853-866, 2006.
67. A.K. Maiti, **A. K. Bhunia** and M. Maiti, An application of real-coded genetic algorithm (RCGA) for mixed integer non-linear programming in two-storage multi-item inventory model with discount policy, *Applied Mathematics and Computation*, vol – 183, 903-915, 2006.
68. S. K. Mahato and **A. K. Bhunia**, Interval-arithmetic-oriented interval computing technique for global optimization, *Applied Mathematics Research Express*, Vol.-2006, 01-18, 2006.
69. J. Majumdar and **A.K. Bhunia**, Elitist genetic algorithm approach for Assignment Problem, *International Journal of Advanced Modeling and Optimization*, Vol. -8(2), 135-149, 2006.
70. A. K. Pal, **A. K. Bhunia** and R. N. Mukherjee, Optimal lot size model for deteriorating items with demand rate dependent on displayed stock level (DSL) and variable backlogging, *European journal of Operations Research*, Vol. -175, 977-991, 2006.
71. Jayanta Kumar Dey, Samarjit Kar, **Asoke Kumar Bhunia** and Manoranjan Maiti, Inventory of differential items selling from two shops under a single management with periodically increasing demand over a finite time horizon, *International Journal of Production Economics*, Vol. -100, 335-347, 2006.
72. Ajoy Kumar Maiti, **Asoke Kumar Bhunia** and Manoranjan Maiti, An application of Genetic Algorithm in Bi-level Production strategy for multi-items under flexibility and reliability considerations, *Tamsui Oxford Journal of Management Sciences*, Vol. -22(1), 1-22, 2006.

73. R. K. Gupta and **A. K. Bhunia**, An Application of real-coded Genetic Algorithm (RCGA) for integer linear programming in Production-Transportation Problems with flexible transportation cost. *Advanced Modeling & Optimization*, Vol. -8(1), 73-98, 2006.

## 2005

74. Supriyo Roy, **Asoke Kumar Bhunia** and Sripati Mukhopadhyay, A Genetic Algorithmic approach on a deterministic inventory model for deteriorating items with shortages, *INFOR*, Canada, Vol. -43(3), 271-282, 2005.
75. Nirmal Kumar Mahapatra, **Asoke Kumar Bhunia** and Manoranjan Maiti, A multiobjective model of wholesaler-retailer's problem via Genetic Algorithm: *Journal of Applied Mathematics and Computing*, Korea, Vol. -19, 397 – 414, 2005.
76. AK Pal, **AK Bhunia** and RN Mukherjee, An marketing oriented inventory model with three component demand rate dependent on displayed stock level (DSL): *Journal of Operational Research Society*, UK, Vol. -56, 113 – 118, 2005.
77. Mandal, B., **Bhunia, A. K.** And Maiti, M., Inventory partial selling quantity model of ameliorating items with linear price dependent demand: *Advanced Modeling & Optimization* (written jointly with B. Mandal and M. Maiti), Vol. – 7(1), 145 – 154, 2005.
78. P. Pal, C. B. Das, A. Panda and **A. K. Bhunia**, An application of real-coded genetic algorithm (for mixed integer non-linear programming in an optimal two – warehouse inventory policy for deteriorating items with a linear trend in demand and a fixed planning horizon): *International Journal of Computer Mathematics*, U.K., Vol. – 82(2), 167 – 175, 2005.

## 2004

79. S. Roy and **A. K. Bhunia**, And Mukherjee, S., Inventory model for deteriorating items with displayed stock level dependent demand rate - an algorithm approach *Modelling, Measurement & Control, AMSE*, France, Vol. – 25(2), 41- 56, 2004.

## 2003

80. B. Mandal, **A. K. Bhunia** and M. Maiti, An inventory system of ameliorating items for price dependent selling rate, *Computers & Industrial Engineering*, USA, Vol. – 45, 443-456, 2003.
81. S. Kar, **A. K. Bhunia** and M. Maiti, Inventory of differential items selling at two shops under single management, *Journal of Applied Mathematics & Computing*, Korea, vol. – 11, 291 – 304, 2003.
82. B. Mandal, **A. K. Bhunia** and M. Maiti, Two storage fuzzy inventory model for the demand dependent on the displayed inventory level, *Journal of Physical Sciences*, India, Vol. 8, 110-117, 2003.

## 2002

83. S. Mondal, **A. K. Bhunia** and M. Maiti, Multi-item Multi-storage inventory system with uniform demand : A Genetic Algorithm Approach, *Proceedings of National Symposium*, Department of Mathematics, Tripura University, 2002.
84. N. K. Mahapatra, K. Das, **A. K. Bhunia** and M. Maiti, Multi-objective inventory model of deteriorating items with ramp-type demand dependent production, set-up and unit costs, *Proceedings of the Nation Symposium, Recent Advances of Mathematics and its Applications in Science and Society*, University of Kalyani, India, 89–110, 2002.

## 2001

85. S. Kar, **A. K. Bhunia** and M. Maiti, Inventory of multi deteriorating items sold from two shops under a single management with constraints on space and investment, *Computers and Operations Research*, USA, vol. – 28, 1203 – 1221, 2001.
86. S. Kar, **A. K. Bhunia** and M. Maiti, Deterministic inventory model with levels of storage, a linear trend in demand and a fixed time horizon, *Computers and Operations Research*, USA, vol. – 28, 1315-1331, 2001.
87. S. Kar, **A. K. Bhunia** and M. Maiti, Deterministic inventory model of deteriorating items sold from two shops under a single management, *OPSEARCH*, India, Vol. 33, No. – 38, 266- 282, 2001.

## 2000

88. S. N. Guria, D. Maiti and **A. K. Bhunia**, On the multi-item EOQ models with two storage facilities, *Modelling, Measurement & Control, AMSE*, France, vol. –21, 31 – 39, 2000.

## 1999

89. **A. K. Bhunia** and M. Maiti, An inventory model of deteriorating items with lot sizes dependent replenishment cost and a linear trend in demand: *Applied Mathematical Modelling* , USA, vol.-23, 301-308, 1999.
90. K. Das, **A. K. Bhunia** and M. Maiti, An inventory model for deteriorating items with shortages and selling price dependent demand, *IAPQR Transactions*, India, vol. – 24(1), 65 – 72, 1999.

## 1998

91. **A. K. Bhunia** and M. Maiti, An inventory model for deteriorating items with linearly time dependent demand and shortages: *Modelling, Measurement & Control, AMSE*, France, vol. – 17(2) 01 – 10, 1998.
92. **A. K. Bhunia** and M. Maiti, Deterministic inventory model for deteriorating items with finite rate of replenishment dependent on inventory level: *Computer & Operations Research*, USA, Vol. – 25, No. 11, 997-1006, 1998.
93. **A. K. Bhunia** and M. Maiti, A two warehouses inventory model for deteriorating items with a linear trend in demand and shortages: *Journal of Operational Research Society*: UK, Vol. – 49, 287-292, 1998.

## 1997

94. **A. K. Bhunia** and M. Maiti, Deterministic inventory models for variable production: *Journal of Operational Research society*, UK, Vol. - 48, 221-224, 1997.
95. **A. K. Bhunia** and M. Maiti, Two storage inventory model with quantity discount: *Modelling, Measurement & Control, AMSE*, France, Vol. - 14, 1-14, 1997.
96. **A. K. Bhunia** and M. Maiti, An inventory model for decaying items with selling price, frequency of advertisement and linearly time dependent demand with shortages: *IAPQR Transactions*, India, Vol. – 22, 41-49, 1997.
97. **A. K. Bhunia** and M. Maiti, A deterministic inventory model with inventory level dependent consumption rate for two warehouses: *Bulletin of Calcutta Math. Society*, India, Vol. – 89, 105-114, 1997.
98. **A. K. Bhunia** and M. Maiti, A deterministic inventory replenishment problem for deteriorating items with time dependent demand and shortages for the finite time horizon: *Opsearch*, India, Vol. – 34, No. 1, 51- 61, 1997.

## 1995

99. **A. K. Bhunia** and M. Maiti, A deterministic two storage inventory model for variable production and inventory level dependent demand rate: *Cahiers du CERO*, Belgium, Vol. - 37, 17-24, 1995.

1994

100. A. K. Bhunia and M. Maiti, A two warehouse inventory model for a linear trend in demand: *Opsearch*, India, Vol. – 31, No. 4, 318-329, 1994.

### Proceedings Publications

- (i) “Reliability optimization in imprecise environment via genetic algorithm”, **AMOC 2011** held during December 5-7, 2011 at IIT Roorke, 372-379. (Jointly written with L. Sahoo).
- (ii) “Optimization of high and low level redundancies via genetic algorithm with interval valued reliabilities”, **AMOC 2011**, held during December 5-7, 2011 at IIT Roorke, 380-387. (Jointly written with L. Sahoo).
- (iii) “Real Coded Genetic Algorithms and Optimization”, *Learning Manual of Workshop on Mathematical Modeling and Related Optimization Techniques*, held during December 14-17, 2009 at University of Delhi, 171-185.
- (iv) “An Application of RCGA in Marketing Oriented Inventory Model for Deteriorating Items with Variable Demand and Partial Backlogged Shortages”, *Learning Manual of Workshop on Mathematical Modeling and Related Optimization Techniques*, held during December 14-17, 2009 at University of Delhi, 209-224.
- (v) “Multi-section method for global solution of non-linear optimization problems by interval computing technique”, *Proceedings of National Seminar on Recent Advances in Operational Research and Related Computational Aspects*, held at the Department of Applied Mathematics, Calcutta University ( Jointly written with S. Karmakar), 29-39, 2007.
- (vi) “Tournament genetic algorithm for global numerical optimization”, *Proceedings of National Seminar on Recent Advances in Operational Research and Related Computational Aspects*, held at the Department of Applied Mathematics, Calcutta University ( Jointly written with S. Kundu), 14-22, 2007.
- (vii) “An Airline Crew-Scheduling Problem with imprecise service time”, *Proceedings of National Seminar on Recent Advances in Operational Research and Related Computational Aspects*, held at the Department of Applied Mathematics, Calcutta University (Jointly written with J. Majumdar), 24-28, 2007.
- (viii) “Multi-item Multi-storage inventory system with uniform demand : A Genetic Algorithm Approach”, *Proceedings of National Symposium*, Department of Mathematics, Tripura University, 2002.
- (ix) “Multi-objective inventory model of deteriorating items with ramp-type demand dependent production, set-up and unit costs”, *Proceedings of the Nation Symposium, Recent Advances of Mathematics and its Applications in Science and Society*, University of Kalyani, India, 89–110, 2002 (written jointly with N. K. Mahapatra, K. Das and M. Maiti).
- (x) “Inventory management of multi deteriorating items sold from two different shops/ counters under a single management with floor/shelf-space constraints”, *Proceedings of ICOMMONS*, I. I. T., Kharagpur, India, vol – II, 279 – 289, 1999 (written jointly with S. Kar, T. K. Roy and M. Maiti).

• **Research Projects :**

Agency	Title of Project	Total Cost	Period of Support	Remarks
UGC	Some studies on Genetic Algorithm and its applications	Rs. 4.26 lakh	01.01.05 – 31.12.07	Completed
CSIR	Some studies on Interval Analysis and its application in optimization problems.	Rs. 5.96 lakh	01.06.05 – 31.05.08	Completed
DRDO	Development/Improvement of Hybrid Evolutionary Algorithms for solving Single and Multi Objective Optimization Problems and Applications	Rs. 9.35 Lakh	(20.02.07 – 31.08.09)	Completed
CSIR	Some Studies on the Applications of Genetic Algorithm in solving decision making problems	Rs. 8.46 Lakh	01.04.09 – 31.03.13	Completed
DRDL	Optimization Algorithm Development (Consultancy Project)	Rs. 9.50 Lakh	June, 09- August, 12	Completed
DST	Multiobjective optimization problems in interval environment and applications [File No. SR/S4/MS: 703/10 dated 27 <sup>th</sup> December, 2011]	Rs. 14.60 Lakh (Approx.)	20.03.12- 19.03.15	Completed

**Research Guidance :**

**M. Phil. : Degree awarded : 02**

Sl. No.	Name of the Scholar	University	Year of award	Title of the Thesis/ Dissertation
01	Gopinath Majee	Annamalai University	2009	An Application of Nonlinear Programming in Solving Purchasing Inventory Models
02	Ali Akbar Shaikh	The University of Burdwan	2009	On Some Inventory Models for Deteriorating Items with Dynamic Demand

**Ph. D. : Degree awarded : 10**

Sl. No.	Name of the Scholar	University	Year of award	Title of the Thesis/ Dissertation
01	Biswajit Mondal	<b>Vidyasagar University</b>	2003	On some Inventory Models of Amiliorating and Non-amiliorating items in different Environments
02	Ajoy Kumar Maity	<b>Vidyasagar University</b>	2007	Some Inventory Problems via Genetic Algorithms
03	Ranjan Kumar Gupta	<b>The University of Burdwan</b>	2009	Some Aspects of the Applications of Genetic Algorithm in Managerial Decision Making
04	Jayanta Majumder	<b>The University of Burdwan</b>	2010	Application of Genetic Algorithm for Different Types of Assignment Problems and Related Topics
05	Syeda Darakshan Jabeen	<b>The University of Burdwan</b>	2010	Development of Some Hybrid Genetic Algorithms and Applications
06	Pintu Pal	<b>Jadavpur University</b>	2011	Development of Genetic Algorithms for Optimization

				of multi-Modal Functions and its Application in Inventory and Logistic Plan.
07	Laxminarayan Sahoo	The University of Burdwan	2012	Studies on Reliability Optimization Problems by Genetic Algorithm
08	Samiran Karmakar	The University of Burdwan	2012	A Study on Interval Ranking and its Applications in Optimization Problems
09	Sanat Kumar Mahato	The University of Burdwan	2014	Studies on Reliability–Redundancy Optimization in Fuzzy and Interval Environments
10	Ali Akbar Shaikh	The University of Burdwan	2015	Mathematical modeling of some inventory problems for deteriorating items under different environments

**Ph. D. : Working : 06**

Sl. No.	Name of the Scholar	University	Topic of Research	Remarks
01	Avijit Duary	The University of Burdwan	Computational Optimization	
02	Amiya Biswas	The University of Burdwan	Combinatorial Optimization	Thesis to be submitted very soon.
03	Subhra Shankha Samanta	The University of Burdwan	Multi-objective Optimization in Interval Environment	
04	Avishek Banerjee	Jadavpur University	Hybrid Algorithms for Non-linear Optimization and Applications	
05	Subhash Ch. Das	The University of Burdwan		Not Registered

*Annexure - IV*

• **Participation and Presentation of research papers in Conferences**

**(a) International Conference**

- (i) Presented a paper entitled “**Multi-objective Reliability Redundancy Allocation Problems in Interval Environment via Extended NSGA-II**” in the “**International Symposium in Honour of Dr. A. Ravi Ravindran**” held at Indian Institute of Science, Bangalore, during March 12-13, 2015.
- (ii) Presented a paper entitled “**Multi-objective unbalanced assignment problem with restriction of jobs to agents via NSGA-II**” in the “**International Conference on Operational Research (Theme: OR for Big Data & Analytics)**” held in the Department of Statistics, S.V. University, Tirupati, during December 01-03, 2014 .
- (iii) Presented a paper entitled “**System Reliability Optimization for Bridge Network System with Imprecise Reliabilities via Genetic Algorithm**” in the “**Theme meeting on Fuzzy and Interval**

**based Uncertainty Modeling**” organised by the Department of Mathematics, NIT Rourkela, held on July 18-20, 2013.

- (iv) Presented a paper entitled **“A Genetic Algorithm based Hybrid Approach for Reliability-Redundancy Optimization Problem of a Series System with Multiple-Choice”** in the **“International Conference on Optimization, Computing and Business Analytics”** held during December 20-22, 2012 at Techno India University, Salt Lake, Kolkata.
- (v) Presented a paper entitled **“Reliability Optimization in Imprecise Environment via Genetic Algorithm”** in the **“International Conference on Advances in Modeling, Optimization and Computing (AMOC-2011)”** organised by the Department of Mathematics, IIT Roorkee, held on December 5-7, 2011.
- (vi) Presented a paper entitled **“GA based reliability optimization in stochastic domain”** in **“International Congress of Mathematicians, 2010 (ICM 2010)”** held at Hyderabad during August 19-27, 2010.
- (vii) Presented a paper entitled **“Optimization of constrained multi-objective reliability problems with interval valued reliability of components via Genetic Algorithm”** in **“International Conference on Optimization and its applications”** held at Benaras Hindu University during Feb. 16-18, 2010.
- (viii) Presented a paper entitled **“On the inventory model of  $L_2$ -system with shortage and displayed inventory level dependent consumption rate incorporating marketing decisions and the frequency of advertisement”** in International Conference **“Mathematical Modelling in Non-linear Systems ”** during December 09 - 11, 1999 organised by Department of Mathematics, Indian Institute of Technology, Kharagpur, India.

#### **(b) National Conference**

- (i) Presented a paper **“Difficulties in Nonlinear Programming”** in the 10<sup>th</sup> Micro seminar on **“Nonlinear Phenomena”** held on July 27 in the Department of Mathematics, The University of Burdwan,
- (ii) Presented a paper in a national seminar **“Recent trends and developments in Applied Mathematics”** on March 03, 2001 organised by Department of Mathematics, B. E. College (A deemed University), India.

#### **• Invited lectures or presentations for conferences/ symposia/Workshops**

##### **(a) International Level**

- (i) Delivered an invited talk **“Multi-objective Reliability Redundancy Allocation Problems in Interval Environment via Extended NSGA-II”** in the **“2<sup>nd</sup> International Conference on Recent Trends in Mathematics and its Applications (ICRTMA 2015)”** held at Department of Applied



Mathematics with Oceanology and Computer Programming, Vidyasagar University, during March 18-19, 2015.

- (ii) Delivered an invited talk “**Chance Constraints based Reliability Optimization in Interval Environment**” in the “**2<sup>nd</sup> International Conference on Rough Sets and Soft Computing (ICRFSC 2012)**” held at Department of Mathematics, Tripura University, during January 17-19, 2013.
- (iii) Delivered an invited talk “**Reliability optimization in stochastic and interval domain**” in “**Frontiers of Mathematical Sciences with Applications (ICFMSA-2012)**” held at Calcutta Mathematical Society, during December 07-09, 2012.
- (iv) Delivered an invited talk “**Reliability optimization in stochastic and interval environments**” in the “**6<sup>th</sup> International Conference on Quality, Reliability and Infocom Technology and Industrial Technology Management (ICQRITIM 2012)**” held at University of Delhi, India, during November 26-28, 2012.
- (v) Delivered an invited talk “**A comparative study of different order relations of interval numbers**” in the “**International Conference on Frontiers in Applied Mathematics and its Computational Aspects**” organised by the Department of Applied Mathematics, University of Calcutta during March 15-17, 2011.
- (vi) Delivered an invited talk “**GA based mixed-integer nonlinear programming in reliability optimization problems**” in the “**Fourth International Conference on Quality, Reliability and Infocom Technology (Trends and Future directions)**” held at University of Delhi, India, during December 18-20, 2009.
- (vii) Delivered an invited talk “**Genetic Algorithms and Optimization**” in the “**Workshop on Mathematical Modeling and related Optimization Techniques**” held at University of Delhi during Dec. 14-17, 2009.

## (b) National Level

- (i) Delivered an invited talk “**Non-linear Optimization in Interval Environment**” in the Department of Mathematics, S.V. University, Tirupati, during December 02, 2014.
- (ii) Delivered an invited talk “**PSO : A Nontraditional Technique for Non-linear Non-convex Optimization**”, in the “**National Workshop on Optimization and Fuzzy Mathematics (NWOFM-2014)**” organised by Department of Mathematics, Vidyasagar University during September 9-13, 2014.
- (iii) Delivered an invited talk “**Non-Traditional Techniques for Non-linear Optimization**” in the “**National Conference on Trends in Mathematical Science Research (TMSR-2014)**” organised by Department of Mathematics, Assam University, Silchar during September 5-6, 2014.
- (iv) Delivered an invited talk “**On Interval Order Relations**” in the “**National workshop on Optimization and its Application (NWOA 2013)**” organised by ORSI Durgapur Chapter in

Association with CSIR-Central Mechanical Engineering Research Institute (CMERI) during September 13-14, 2013.

- (v) Delivered an invited lecture “**Difficulties in Nonlinear Programming**” in “**10<sup>th</sup> Micro Seminar on Nonlinear Phenomena**” organised by Department of Mathematics, The University of Burdwan, on July 27, 2012.
- (vi) Delivered two invited talks on “**Hybrid Genetic Algorithm for Non-Linear Optimization**” on **June 21, 2012** and on “**Reliability Optimization in Interval Environment**” on June 22, 2012 in the Department of Operational Research, University of Delhi.
- (vii) Delivered an invited talk “**Hybrid Genetic Algorithm for Non-linear Optimization**” in “National Seminar on Recent Trends in Advanced Computing” held on March 16-17, 2012 in the Department of Computer Science, Vidyasagar University.
- (viii) Delivered an invited talk “**Reliability Optimization in Interval Environment**” in “Seminar on Modern Trends in Operations Research-2011” held on Jan. 31, 2011 in the Department of Mathematics, NIT, Durgapur.
- (ix) Delivered an invited lecture “**Tournament Genetic Algorithm and its Application in Managerial Decision Decision-Making**” in the National Conference held at the Department of Applied Mathematics, Calcutta University, during August 22-23, 2007.
- (x) Delivered an invited talk “**Solving interval Asymmetric Travelling Salesman Problem using Modified Genetic Algorithm**” in a national seminar on “**Emerging Trends in Computational and Applied Mathematics**” during January, 31 to February 01, 2007 in the Department of Applied Mathematics with Oceanology and Computer Programming, Vidyasagar University, West Bengal, India.
- (xi) Delivered an invited talk “**Genetic Algorithms and its applications**” in the National Seminar “**Strategic Role of Decion Making Problems**” on November 21 , 2004 at Management Institute of Durgapur, Durgapur, India.

- **Training Courses :**

Completed **two** computer courses (three months duration each) at **Regional Computer Centre**, Calcutta, under **Faculty Development Programme** in the years 1994 and 1995.

- **Workshop Participation**

- (i) Participated in the “Workshop on Research Methodology (For Science Stream)” organized by the Academic Staff College, Burdwan University, during February 14-17, 2011.
- (ii) Participated in the two-day workshop on “**Development of Self-learning Materials (SLM)**” organized by the Directorate of Distance Education, Burdwan University, during March 6-7, 2010.

- (iii) Participated in the two-day workshop on “**Multimedia-Driven SLM**” organized by the Directorate of Distance Education, Burdwan University, during August 01-02, 2009.
- (iv) Participated in the two-day workshop on “**Learning Objects: Design, Development & Dissemination**” organized by the Directorate of Distance Education, Burdwan University, during June 24-25, 2008.
- (v) Participated in the Indo-US Workshop on “**Computational Optimization and Analysis of Systems (COSA)**” during February 06-09, 2007 organised by Kanpur Genetic Algorithm Laboratory (KANGAL), IIT, Kanpur.
- (vi) Participated in the International Workshop on “**Neural Network and Genetic Algorithm in Materials Science and Engineering**” during January 10 - 13, 2006 at Bengal Engineering and Science University, Shibpur, India.
- (vii) Participated in the International meet on “**Indo-UK Study Group Meeting on Industrial Problems**” during March 20-24, 2006 organised by Department of Applied Mathematics, M.S. University of Baroda, Vadodara, Gujarat.
- (viii) Participated in the “**Workshop on Genetic Algorithm in ICAPR - 2003**” on December 10, 2003 organised by Electronics and Communication Science Unit, I.S.I., Kolkata, India.
- (ix) Participated in the “**Workshop on excellence in Technical Education Through Industry – Institute Partnership in a rapidly changing scenario**” on February 19, 2000 organised by Haldia Institute of Technology, Haldia, India.
- (x) Participated in the “**Instructional Workshop in Applied Mathematics for University / College teachers and Research Scholars**” on Sept. 14 – 22, 1998 at Vidyasagar University organised by Centre of Advance Study in Applied Mathematics, University of Calcutta, India.
- (xi) Participated in the “**Workshop on excellence in Technical Education Through Industry – Institute Partnership in a rapidly changing scenario**” on February 19, 2000 organised by Haldia Institute of Technology, Haldia, India

- **Symposium/Conference Organisation**

- (i) Organized the “**International Conference on Recent Trends in Mathematical Sciences and Applications (ICRTMSA – 2016)**” held at the Department of Mathematics, Burdwan University, during February 09-11, 2016 as **Joint Convenor**.
- (ii) Organized the “**International Conference on Revisiting Ancient Mathematics and Mathematical Sciences (ICRAMMS-2015)**” held at the Department of Mathematics, Burdwan University, during February 18-20, 2015, as a member of the Organizing Committee.
- (iii) Organized the “**3rd International Conference on Frontiers of Mathematics & Applications (ICFMA 2014)**” held at the Department of Mathematics, Burdwan University, during January 29-31, 2014, as a member of the Organizing Committee.
- (iv) Organized the “**National Seminar on Advances in Mathematics & Applications (AMA 2013)**” held at the Department of Mathematics, Burdwan University, during March 6-7, 2013, as a member of the Organizing Committee.

- (v) Organized the “**National Seminar on Mathematics & Applications (NSMA-2012)**” held at the Department of Mathematics, Burdwan University, during March 28-29, 2012, as a member of the Organizing Committee.
- (vi) Organized the “**International Conference on Operations Research for Sustainable Development in Globalized Environment**” held during January 06-08, 2012 by Operational Research Society of India at Calcutta Business School, Kolkata, as a member of the Organizing Committee.
- (vii) Organized the “**National Seminar on Mathematics & Applications (NSMA-2011)**” held at the Department of Mathematics, Burdwan University, during February 24-25, 2011, as a member of the Organizing Committee.
- (viii) Organized the “**International Conference on Recent Advances in Mathematics & Applications (ICRAMA-2010)**” held at the Department of Mathematics, Burdwan University, during January 13-15, 2010, as a member of the Organizing Committee.
- (ix) Organized the National Seminar on “**Emerging Areas in Mathematics and Applications (NSEAMA-2009)**” during February 18-20, 2009, in the Department of Mathematics, Burdwan University as **Joint Convener.**
- (x) Organised a National Conference on “**Mathematics and Applications : Recent Trends (MART-2007)**” during January 10-12, 2007 in the Department of Mathematics, Burdwan University as **Joint Convener.**

### **Symposium/Conference Participation**

- (i) Attended Third National Conference on “**Uncertainty : A Mathematical Approach (UAMA-2009)**” organised by Department of Mathematics, M.U.C. Women’s College, Burdwan, on February 27, 2009.
- (ii) Attended a National Conference on “**Advances in Mathematics**” organised by Department of Mathematics, Gauhati University, Assam, during September 4-7, 2008.
- (iii) Attended third “**National Conference on Management Science and Practice (MSP 2008)**” held at I.I.M., Ahmedabad during March 22-24, 2008.
- (iv) Attended an **International Conference on Frontier of Mathematics & Applications (ICFMA-2008)** held at the Department of Mathematics, Burdwan University during January 16-18, 2008.
- (v) Attended the National Seminar on “**The Role of Public Funded Educational Institutions in New Scenario**” held at Indira Priyadarshini Auditorium, Hyderabad during October 5-7, 2007.
- (vi) Organised a National Conference on “**Mathematics and Applications : Recent Trends (MART-2007)**” during January 10-12, 2007 in the Department of Mathematics, Burdwan University as Joint Convener.
- (vii) Attended an International meet on “**Indo-UK Study Group Meeting on Industrial Problems**” during March 20-24, 2006 organised by Department of Applied Mathematics, M.S. University of Baroda, Vadodara, Gujrat
- (viii) Attended “**One day Symposium on Perspectives of Operations Research & Optimization**” on March 30, 2005 organised by Department of Applied Mathematics, Calcutta University, India

- (ix) Attended “**One day Symposium on Perspectives of Operations Research & Optimization**” on March 30, 2005 organised by Department of Applied Mathematics, Calcutta University, India
- (x) Attended “**Recent trends in Mathematics**” on December 26 – 28, 2002 organised Department of Mathematics, Burdwan University, India
- (xi) Attended a Seminar “**Recent advances in Operations Research** ” on March 15-16, 2001 organised by Department of Applied Mathematics with Oceanology and Computer Programming, Vidyasagar University, India

### *Annexure-V*

#### • **Additional Information :**

- ❖ Acting as a Member of Post Graduate Studies in Mathematics, Burdwan University (from 30.05.2002)
- ❖ Acting as a Member of Council for Under Graduate Council in Science, V.U. (from August, 2007)
- ❖ Acting as a Member of Faculty Council of Science, Burdwan University (from February, 2007)
- ❖ Acting as a Member of Board of Research Studies in Mathematics, Burdwan University ( from 20.06.2004)
- ❖ Acting as a Member of Departmental Committee of Mathematics.
- ❖ Acting as a member of PG studies in Mathematics, Tripura University (from 2014).
- ❖ Acted as an **Expert of the Selection Committee** for the selection of Assistant Professor, NIT Arunachal Pradesh, 2015.
- ❖ Acted as an **Expert of the Selection Committee** for the selection of Assistant Professor, NIT Arunachal Pradesh, 2014.
- ❖ Acted as an **Expert of the Selection Committee** for the selection of Assistant Professor, NIT Arunachal Pradesh, 2013.
- ❖ Acted as an **Expert of the Selection Committee** for the selection of Assistant Professor, B.C. Roy Engg. College, 2013.
- ❖ Acted as an **Expert of the Selection Committee** for the selection of Assistant Professor, NIT Arunachal Pradesh, 2012.
- ❖ Acted as an **Expert of the Selection Committee** for the promotion of Research Scholar from JRF to SRF in the Department of Mathematics, Kalyani University, 2009.
- ❖ Acted as the Chairman of Post Graduate Studies in Mathematics, Burdwan University (2004-2006).
- ❖ Acted as the Chairman of the Board of Under Graduate Studies in Mathematics, Burdwan University (2004-2006).
- ❖ Acted as the **Subject Expert** in Screening Committee for the **Career Advancement Scheme (CAS)** for College teachers of various affiliated colleges (**Burdwan Raj College, Vivekanda College Burdwan, Rampurhat College, Suri Vidyasagar College, Abhedananda Mahavidyalaya, Sainthia, B.C. College, Asansol Girls’ College, Katwa College, Netaji Mahavidyalaya, Arambag, AKPC Mahavidyalaya, Rabindra Mahavidyalaya, Chandernagore Government College, Shyamsundar College, Kabi Sukanta Mahavidyalaya, Sarat Centenary College, Sree Ramkrishna Sarada Vidyapith, S.G.B. College, Hoogly, B.N. Mahavidyalaya, Hoogly**) of Burdwan University.
- ❖ Acted as the **Subject Expert** of the Selection Committee for the selection of Lecturer of (i) Bankura Christian College, (ii) Bankura Zilla Saradamani Mahila Mahavidyapith, (iii) Kalna College, (iv) Burdwan M.U.C. Womens’ College, (v) T.D.B. College, (vi) Birbhum Institute of Technology & Management .

- ❖ Acted as the **Coordinator of the DST-FIST Programme** in the Department of Mathematics, Burdwan University (2004-2006).
- ❖ Acted as the **Coordinator of the National Board for Higher Mathematics** in the Department of Mathematics, Burdwan University, 2004-2006.
- ❖ Acted as the **Coordinator of the Regional Mathematical Olympiad Test** held at the Department of Mathematics, Burdwan University funded by the National Board for Higher Mathematics, Government of India, 2004, 2005.
- ❖ Acted as the **Member of Council for UG Board Studies in Engg. & Tech.**, Vidyasagar University (22.03.99 – 29.05.02)
- ❖ Acted as the **Member of UG Board of Studies of Computer Application**, Vidyasagar University (from 22.03.99 to March, 2003).
- ❖ Acted as the **Member of Syllabus Committee of B.Tech.(Hons.) in Computer Science & Technology**, V.U.
- ❖ Acted as the **Member of Syllabus Committee of B.Tech.(Hons.) in Electronics & Tele-Communications**, V.U.