Curriculum Vitae

Title	Dr.	First Name	Prakash C.	Last Name	Jha	Photograph
Designation	**Professor**					
Address	**Faculty of Mathematical Sciences** **Department of Operational Research** **University of Delhi** **Delhi-110007**					
Phone No Office	**011-27666672**					
Residence	**011-65169220**					
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Web-Page						

Educational Qualifications

Degree	Institution	Year
Ph.D.	University of Delhi, Delhi	2004
M.Phil. / M.Tech.	University of Delhi, Delhi	1988
PG	University of Delhi, Delhi	1986
UG	Patna University, Patna	1983
Any other qualification		

Career Profile

4-8-2016-10-4-2019	Chairman, Board of Research Studies (Mathematical Sciences), University of Delhi, Delhi
4-8-2016-10-4-2019	Dean, Faculty of Mathematical Sciences, University of Delhi, Delhi
11-4-2016-10-4-2019	Head, Department of Operational Research, University of Delhi, Delhi
1-1-2009-Present	Professor, Department of Operational Research, University of Delhi, Delhi
1-1-2006-31-12-2008	Associate Professor, Department of Operational Research, University of Delhi, Delhi
30-06-2004-31-12-2005	Reader, Department of Operational Research, University of Delhi, Delhi
14-06-2001-29-06-2004	Lecturer (Selection Grade), Department of Operational Research, University of Delhi, Delhi
27-07-1998-13-06-2001	Lecturer (Senior Grade), Department of Operational Research, University of Delhi, Delhi
21-01-1993-26-07-1998	Lecturer, Department of Operational Research, University of Delhi, Delhi
17-07-1992-18-01-1993	Lecturer (Adhoc), Department of Operational Research, University of Delhi, Delhi
16-09-1991-30-04-1992	Lecturer (Adhoc), Department of Operational Research, University of Delhi, Delhi

Administrative Assignments

As assigned by the department from time to time.

Areas of Interest / Specialization

Optimization, Supply Chain Management, Marketing Management, Quality Management and Software Reliability

Subjects Taught

Post Graduate: M.Sc. (Operational Research)
- (i) Mathematical Programming I(Linear Programming)
- (ii) Mathematical Programming II(Non-Linear and Dynamic Programming)
- (iii) Marketing Management
- (iv) Marketing Research
- (v) Logistics and Supply Chain Management
- (vi) Quality Management
- (vii) Software Reliability
- (viii) Control Theory

(ix)	Guided projects on Operational Research problems to M.Sc. Operational Research and M.A./M.Sc. AOR students

M.Phil. (Operational Research)

- (i) Logistics and Supply Chain Management
- (ii) Marketing Management

Research Guidance

List against each head (If applicable)
> *Supervision of awarded Doctoral Thesis   : 20*

(i) Vernika Agarwal (2019), "Multi-Criteria Decision Approaches for Sustainable Collaboration in Supply Chain System", under the supervision of **Prof. P.C. Jha** jointly with Prof. Govindan Kannan (University of Southern Denmark, Denmark)

(ii) Arshia Kaul (2019), "Optimal Advertisement Strategies for Product Promotion", under the supervision of **Prof. P.C. Jha** jointly with Prof. Mohan Krishnamoorthy (Monash University, Clayton, Australia)

(iii) Jyoti Dhingra Darbari *nee* Jyoti Dhingra (2018), "Multi-Criteria Optimization Approaches for Sustainable Reverse and Closed Loop Supply Chain Network Design", under the supervision of **Prof. P.C. Jha** jointly with Prof. Diego Galar (Lulea University of Technology, Lulea, Sweden)

(iv) Kiran Mittal (2018), "A Study of Optimized Integration of Product Recovery in Reverse and Closed Loop Supply Chain Network", under the supervision of **Prof. P.C. Jha**

(v) Sugandha Aggarwal (2016)," A Study of Modelling and Optimization Applications for Promotional Planning" under the supervision of **Dr. PC Jha**

(vi) Ramandeep Kaur (2016), "Optimal Reliability Allocation in Designing Fault Tolerant Modular Software System" under supervision of Prof. P.C. Jha jointly with Sushila Madan (Banasthali Vidyapeeth, Rajasthan)

(vii) Kanika Gandhi (2015), "A Study of Optimization Models in Supply Chain for Deteriorating Products under Fuzzy Environment" under the supervision of **Dr. PC Jha**

(viii) Prerna Manik Mahindroo (2015), "Soft Computing Approach for Optimization Models in Marketing", under the supervision of **Dr. PC Jha** and Prof. PK Kapur.

(ix) Sudesh K. Barak (2015), "Profit Analysis of System reliability Model with Preventive Maintenance" jointly with Prof. S.C. Malik (M.D. University, Rohtak)

(x) Sandhya Makkar (2013), "Procurement distribution coordination in supply chain under quantity discounts and varying truck load policies", under the supervision of **Dr. PC Jha** and Prof. Davinder Bhatia.

(xi) Yogender Singh (2013), "Contribution to some optimization problems for inventory system and marketing", under the supervision of **Dr. PC Jha**

(xii) Shivani Bali (2013), "Optimal Component Selection for Fault Tolerant Software Design under Consensus Recovery Block Scheme"

(xiii) Remica Aggarwal (2012), "Some optimization models for promotional planning in marketing", under the supervision of **Dr. PC Jha**.

(xiv) Ritu Arora (2012), "Optimal component selection for designing fault tolerant modular software system under recovery block scheme", under the supervision of **Dr. PC Jha** and Dr. Ompal Singh.

(xv) Kuldeep Chaudhary (2012), "Contributions to Stochastic Mathematical Modeling and Optimization Problems in Software Reliability and Marketing", under the supervision of **Dr. PC Jha** and Dr. Ompal Singh.

(xvi) Indumati (2012) "Contribution to Some Optimization Problems of Component Selection for Modular Software System and Release Time for System Testing" under the supervision of **Dr. PC Jha** and Dr. Ompal Singh.

(xvii) Vijay M Ghantasala (2011), "Optimization Models for Component Selection in Designing of Modular Software System" jointly with Prof. C. Umashankar (S. K. University, Anantapur)

(xviii) Deepak Kumar (2010), "Modelling and Optimization Problems in Software Reliability", under the supervision of **Dr. PC Jha**

(xix) Deepali Gupta (2009), "Some Optimization Problems in Software Reliability", under the supervision of Prof. P. K. Kapur and **Dr. P. C. Jha**.

(xx) Anshu Gupta (2009)," Some contributions to modeling and optimization in software reliability and marketing", under the supervision of Prof. P. K. Kapur and **Dr. P. C. Jha**.

Submitted Doctoral Thesis   *:1*

(xxi) Pallavi Sharma "An Analysis of Six Sigma DMAIC Approach for Continuous Process Improvement in Sound Industry" **Submitted (Viva to be conducted)**

Supervision of Doctoral Thesis, under progress   : 6

Supervision of awarded M.Phil dissertations   : 23

(xxii)   Rahul Solanki (2018) "Modelling and Optimization for Implementation of Carbon Practices in Supply Chain Management"

(xxiii) Aditi (2018) "Multi Criteria Decision Approaches for Performance Evaluation in Supply Chain Network Design"

(xxiv) Akansha Jain (2018) "Optimal Product Family Development in Supply Chain System"

(xxv) Garima Agrawal (2018) "A Study of Performance Evaluation Measures in Green Supply Chain Network"

(xxvi) Neha Aggarwal (2016) "A Study of Quality Improvement Practices in Manufacturing and Supply Chain Network"

(xxvii) Aditi Sharma (2016) "A Study of Impact on New Product Diffusion under Supply Chain Configuration"

(xxviii) Meenu Singh (2016) "A Study of Advertisements Scheduling Models in Television Media"

(xxix) Nomita Pachar (2015) "Multi-Criteria Optimization Models in Sustainable Supply Chain Network"

(xxx) Stuti Arora (2015) "A Study of Optimal Design for Software and Embedded System"

(xxxi) Simranjeet Kaur (2015) "A Study of Performance Measure in Supply Chain System"

(xxxii) Vernika Agarwal (2014) "A Study of Sustainable Optimization Models in Supply Chain using Reverse and Closed Loop Schemes"

(xxxiii) Arshia Kaul (2014) "Optimal Allocation of Advertisements in Different Media"

(xxxiv) Sonam Narula (2013) "Optimal Component Selection for Designing Modular Software System"

(xxxv) Rashi Sharma (2012) "Some Optimization Model for Managing Supply Chain of Perishable Products Incorporating Various Trade Strategies"

(xxxvi) Sugandha Aggarwal (2011) "Planning and Placement of Advertisements in various Media"

(xxxvii) Deepika (2010) "Coordination in Two Level Supply Chain Management"

(xxxviii) Pooja Chitkara (2010) "Six Sigma and its Applications in Selected Areas"

(xxxix) Binay Kumar (2010) "Optimal Inventory Policy for Various Levels in Supply chain Management"

(xl) Priyanka Jain (2009) "Support Vector Machine and its Application to Clustering"

(xli) Nidhi Bhayana (2009) "A Study of Data Envelopment Analysis (DEA) and its Applications to Market Services"

(xlii) Kiran Garg (2009) "Vendor Buyer Coordination in Supply Chain"

(xliii) Kavita (2009) "A Study of Allocation of Testing Resources Among Software Modules in Software Reliability"

(xliv) Kanika Gandhi (2008) "Optimization and Modeling for Fault Tolerant System in Software Reliability"

Submitted MPhil Dissertation   :0

Supervision of M.Phil dissertations, under progress   : 0

Publications Profile

List against each head (If applicable) (as Illustrated with examples)

1. **Books/Monographs (Authored/Edited)**

Year of Publication	Title	Publisher	Co-Author
2011	**Software Reliability assessment with OR Applications**	**Springer Verlag**	**Kapur PK, Hong Pham and Anshu Gupta**
2011	***Mathematical Modelling, Optimization and Their Applications***	**Narosa Publishing House**	**M. N. Hoda**

2. Research papers published in Refereed/Peer Reviewed Journals

1. Gupta, A., Sharma, P., Jain, A., Xue, H., Malik, S.C., **Jha P.C.** An Integrated DEMATEL Six Sigma Hybrid Framework for Manufacturing Process Improvement. Annals of Operations Research **(To Appear)**.
2. Sharma, P., Gupta, A., Malik, S.C., **Jha, P.C.** Quality Improvement in Manufacturing Process Through Six Sigma: A Case Study of Indian MSME Firm. Yugoslav Journal of Operations Research **(To Appear)**.
3. Bhayana, N., Gandhi, K., Aditi, B., **Jha, P. C. (2019)**. An Integrated Supplier Selection Approach in Supply Chain System under Fuzzy Environment. Yugoslav Journal of Operations Research.
4. Govindan, K., **Jha, P. C.**, Agarwal, V., & Darbari, J. D. **(2019)**. Environmental management partner selection for reverse supply chain collaboration: A sustainable approach. Journal of environmental management, 236, 784-797.
5. Darbari, J. D., Kannan, D., Agarwal, V., & **Jha, P. C. (2019)**. Fuzzy criteria programming approach for optimising the TBL performance of closed loop supply chain network design problem. Annals of Operations Research, 273(1-2), 693-738.
6. Govindan, K., Agarwal, V., Darbari, J. D., & **Jha, P. C. (2019)**. An integrated decision-making model for the selection of sustainable forward and reverse logistic providers. Annals of Operations Research, 273(1-2), 607-650.
7. Yadavalli, V. S., Darbari, J. D., Bhayana, N., **Jha, P. C.**, & Agarwal, V. **(2019)**. An integrated optimization model for selection of sustainable suppliers based on customers' expectations. Operations Research Perspectives, 6, 100113.
8. Kaul, A., Aggarwal, S., Krishnamoorthy, M., & **Jha, P. C. (2018)**. Multi-period media planning for multi-products incorporating segment specific and mass media. Annals of Operations Research, 269(1-2), 317-359.
9. Kaul, A., Aggarwal, S., Gupta, A., Dayama, N., Krishnamoorthy, M., & **Jha, P. C. (2018)**. Optimal advertising on a two-dimensional web banner. International Journal of System Assurance Engineering and Management, 9(1), 306-311.
10. Li, Y., Kannan, D., **Jha, P. C.**, Garg, K., Darbari, J., & Agarwal, N. **(2018)**. Design of a multi echelon product recovery embeded reverse logistics network for multi products and multi periods. Annals of Operations Research, 1-22.
11. Sharma, P., Malik, S. C., Gupta, A., & **Jha, P. C. (2018)**. A DMAIC Six Sigma approach to quality improvement in the anodising stage of the amplifier production process. International Journal of Quality & Reliability Management, 35(9), 1868-1880.
12. Govindan, K., Darbari, J. D., Agarwal, V., & *Jha, P. C.* **(2017)**. Fuzzy multi-objective approach for optimal selection of suppliers and transportation decisions in an eco-efficient closed loop supply chain network. *Journal of Cleaner Production*, *165,* 1598-1619.
13. Darbari, J. D., Agarwal, V., Yadavalli, V. S., Galar, D., & **Jha, P. C. (2017)**. A multi-objective fuzzy mathematical approach for sustainable reverse supply chain configuration. *Journal of Transport and Supply Chain Management*, *11*(1), 1-12.
14. *Jha, P.C.*, Aggarwal, S., Gupta, A., Kaul, A. & Krishnamoorthy, M. **(2017)**. Multi-Product Dynamic Advertisement Planning in a Segmented Market. Yugoslav Journal of Operations Research, 27(2), 169-204.
15. Kannan, D., Garg, K., **Jha, P. C.**, & Diabat, A. **(2017)**. Integrating disassembly line balancing in the planning of a reverse logistics network from the perspective of a third-party provider. Annals of Operations Research, 253(1), 353-376.
16. Agarwal, V., Govindan, K., Darbari, J. D., & **Jha, P. C. (2016)**. An optimization model for sustainable solutions towards implementation of reverse logistics under collaborative framework. *International Journal of System Assurance Engineering and Management*, *7*(4), 480-487.
17. Gupta, A., Sharma, P., Malik, S. C., Agarwal, N., & *Jha, P. C.* **(2016)**. Productivity Improvement in the Chassis Preparation Stage of the Amplifier Production Process: A DMAIC Six Sigma Methodology. International Journal of Reliability, Quality and Safety Engineering, 23(06), 1640012.
18. Gupta, A., Aggarwal, S., Kaul, A., & *Jha, P. C.* **(2016)**. Optimal placement of advertisements on a pixelated web banner. Journal of Information and Optimization Sciences, 37(5), 693-716.
19. *Jha, P. C.*, Aggarwal, S., & Gupta, A. **(2016)**. Optimal duration of promotion for durable technology product in a segmented market. Journal of Promotion Management, 22(5), 751-771.
20. *Jha, P. C.*, Aggarwal, S., Gupta, A., & Sarker, R. **(2016)**. Multi-criteria media mix decision model for advertising a single product with segment specific and mass media. Journal of Industrial and Management Optimisation, 12(4), 1367-1389.
21. Manik, P., Gupta, A., *Jha, P. C.*, & Govindan, K. **(2016)**. A Goal Programming Model for Selection and Scheduling of Advertisements on Online News Media. Asia-Pacific Journal of Operational Research, 33(02), 1650012.
22. Govindan, K., Garg, K., Gupta, S., & *Jha, P. C.* **(2016).** Effect of product recovery and sustainability enhancing indicators on the location selection of manufacturing facility. **Ecological Indicators**, Vol. 67, 517-532.
23. Govindan, K., *Jha, P.C.*, Garg,K.(**2015**). Product Recovery optimisation in closed loop supply chain to improve sustainability in manufacturing. To appear in *International Journal of Production Research*, Vol. 54, No. 5,1463-1486.
24. Garg, K., Kannan, D., Diabat, A., and *Jha, P. C.* (**2015**). A multi-criteria optimization approach to manage environmental issues in closed loop supply chain network design. *Journal of Cleaner Production*, Vol. 100, 297-314. **Elsevier**
25. Manik, P., Gupta, A., & *Jha, P. C.* **(2015)**. Multi Stage Promotional Resource Allocation for Segment Specific and

Spectrum Effect of Promotion for a Product Incorporating Repeat Purchase Behavior. International Game Theory Review, 17(02), 1540021.

26. Bali, S., *Jha, P.C.*, Kumar, U.D., Pham, H. "Fuzzy multi-objective build-or-buy approach for component selection of fault tolerant software system under consensus recovery block scheme with mandatory redundancy in critical modules." *International Journal of Artificial Intelligence and Soft Computing* Vol. 4, No. 2 (**2014**): 98-119. **Inderscience**

27. *Jha P.C.*, Bali S., Kumar U.D., Pham Hoang "Fuzzy optimization approach to component selection of fault-tolerant software system", *Memetic Computing*, Vol. 6, No. 1, 49-59, **2014**. **Springer.**

28. Aggarwal, S., Gupta A., Govindan, K., *Jha P.C.*, Meidute I. "Effect of Repeat Purchase and Dynamic Market Size on Diffusion of An Innovative Technological Consumer Product In A Segmented Market", *Technological and Economic Development of Economy*, Vol. 20, No. 1, 97-115, **2014. Taylor and Francis.**

29. *Jha P.C.*, Aggarwal S., Gupta, A., Kumar, U. D., Govindan, K. "Innovation Diffusion Model for a Product Incorporating Segment-specific Strategy and the Spectrum Effect of Promotion", *Journal of Statistics and Management Systems*, Vol. 17, No. 2, 165-182, **2014. Taylor and Francis.**

30. *Jha P.C.*, Bali, V., Narula, S., Kalra, M., "Optimal component selection based on cohesion & coupling for component-based software system under build-or-buy scheme", *Journal of Computational Science*, Vol. 5, No. 2, 233-242, **2014. Elsevier**

31. *Jha P.C.*, Kaur, R., Bali, S., Madan, S., "Optimal Component Selection Approach for Fault-Tolerant Software System Under Crb Incorporating Build-Or-Buy Decision.", *International Journal of Reliability, Quality And Safety Engineering,* Vol. 20, No. (6), **2013**. **World Scientific**

32. *Jha, P. C.*, Manik, P., Chaudhary, K., and Cambini, R., "Optimal pricing and promotional effort control policies for a new product growth in segmented market." *Yugoslav Journal of Operations Research ISSN: 0354-0243 EISSN: 2334-6043* 24, no. 2 (**2013**).

33. Gandhi, K., *Jha, P. C.,* and Mathirajan, M. "A Two Stage Supply Chain Model for Multi Sources and Destinations, Incorporating Quantity and Freight Discounts with Case Study." In *Driving the Economy through Innovation and Entrepreneurship*, pp. 683-694. Springer India, **2013**.

34. Chaudhary, K., Singh, Y., *Jha P.C.* "Optimal Control Policy of a Production and   Inventory System for multi-product in Segmented Market", **Ratio Mathematica**, Vol. 25, 29-46, **2013. Pescara: Libreria dell'Universita.**

35. Bajaj, S., *Jha P.C.*, Aggarwal, K.K., "Single-source, single-destination, multi-product EOQ Model with quantity discounts incorporating partial/full truckload policy" *International Journal of Business Performance and Supply Chain Modelling*, Vol.5, No. (2), 198 – 220, **2013**. **Inderscience**

36. Bajaj S., *Jha P.C.* "Procurement-Distribution Model for Perishable Items with Quantity Discounts Incorporating Freight Policies under Fuzzy Environment" *Yugoslav Journal Of Operations Research*, Vol. 23, No. (2), 183-196, **2013**.

37. *Jha P.C.*, Manik, P., Gupta, A. "Dynamic Promotional Allocation for Multi-Products in Segmented Market under First and Repeat Purchase Behavior", *International Journal of Advanced Intelligence Paradigms*, Vol. 5, No. (1-2), 83–102, **2013**. **Inderscience**

38. Singh, Y., Chaudhary, K., *Jha P. C.* "Optimal Advertising and Pricing Policies of Successive Generations of Product in Segmented Market" *International Journal of Computational Intelligence Studies*, Vol. 2, No. (2), 113-132, **2013**. **Inderscience**

39. Gandhi, K., *Jha P.C.*, Mathirajan, M., "Development of an EOQ Model for Single Source to Multi Destination, Multi Deteriorating Products under Fuzzy Environment" *International Journal of Applied Evolutionary Computation,* Vol. 3, No. (4), 51-70, **2012**. **IGI Global**

40. *Jha P.C.*, Aggarwal, R., "Optimal advertising Media allocation under fuzzy environment for a Multi Products Segmented Market", *Turkish journal of fuzzy systems*, Vol. 3, No. (1), 45-64, **2012.**

41. Kapur P.K., Chaudhary, K., Aggarwal, A. G., *Jha P.C.* "On the Development of Innovation Diffusion Model Using Stochastic Differential Equation Incorporating Change in the Adoption Rate" *International Journal of Operational Research*, Vol. 14(4), 472-484, **2012. Inderscience**

42. Chaudhary, K., *Jha P.C.*, "Optimal Testing Effort Control for Modular Software System incorporating the concept of independent and dependent faults Optimal Testing Effort" *International Journal of Optimization and Control: Theories & Applications*, Vol. 2, No. (2), 129-137, **2012.**

43. Makkar, S., *Jha P.C.*, "Single-source, multiple-destination coordination of multi items EOQ Model for Perishable products with quantity discounts incorporating partial/full truckload policy under fuzzy environment" ,**Journal of Information and Optimization Sciences**, Vol. 33, No. (2 & 3), 385-399, **2012. Taylor and Francis.**

44. *Jha, P.C* Aggarwal, R., Gupta, A., Aggarwal, S. "Optimal advertising Media selection model for promotion of Multi Products Segmented Market" *Journal of Statistics & Management Systems*, Vol. 15, No. (1), 61-80, **2012. Taylor and Francis**

45. *Jha P.C.*, Arora, R., Kumar, U.D., "A Fuzzy Approach for an Optimal Decision of Build-or-Buy Components for Modular Software System under Recovery Block Scheme", **Journal of Indian Society for Probability and Statistics,** Vol. 13, 74-

91, **2012. Springer**

46. Kumar, D., *Jha, P. C.*, Kapur, P. K., & Kumar, U. D. (**2012**). Optimal component selection problem for COTS based software system under consensus recovery block scheme: a goal programming approach. *International Journal of Computer Applications*, *47*(4).

47. *Jha P.C.*, Arora Ritu, Kumar U.D., "An Optimization Framework for Build-or-Buy Strategy for Component Selection in a Fault Tolerant Modular Software System under Recovery Block Scheme", *Ratio Mathematica,* Vol.21, 91-105, **2011**.

48. Kapur, P. K., Pham, H., Gupta, A., & *Jha, P. C.* (**2011**). Optimal release policy under fuzzy environment. International Journal of System Assurance Engineering and Management, *2*(1), 48-58. **Springer**

49. *Jha P. C.,* Indumati, Singh O., Gupta D., "Bi-criterion Release Time Problem for a Discrete SRGM under Fuzzy Environment*",* **International Journal of Mathematics in Operational Research**, Vol. 3(6), 680-696, **2011. Inderscience.**

50. *Jha P.C.*, Aggarwal, R., Gupta, A., Kapur P.K., "Optimal allocation of promotional resource for multi – product in segmented market for dynamic potential adopter & repeat purchasing diffusion models", **International Journal of Advanced Operations Management**, Vol. 3, No. (3/4), 257 – 270, **2011. Inderscience**

51. *Jha P.C.*, Aggarwal**,** R., and Gupta**,** A., "Optimal media planning for multi-products in segmented market", **Applied Mathematics and Computation** ,Vol. 217, No. (16), 6802-6818, **2011**. **Elsevier.**

52. *Jha P.C.,* Bali, S., Kumar U.D., "A fuzzy approach for optimal selection of COTS components for modular software system under consensus recovery block scheme incorporating execution time", *Turkish Journal of Fuzzy Systems*, Vol. 2, No. (1), 45-63, **2011.**

53. *Jha, P. C.*, Kumar, D., Kapur, P. K., and Saraj, M. "Allocation policy for testing effort of modular software system under budgetary constraint." **Journal of Information and Optimization Sciences** 32, no. 2 (**2011**): 315-337. **Taylor and Francis.**

54. *Jha P.C.*, Kapur P.K., Bali, S., Kumar U.D. "Optimal Component Selection of COTS based Software System under Consensus Recovery Block Scheme Incorporating Execution time" **International Journal of Reliability, Quality and Safety Engineering**, Vol. 17, No. (3), 209-222, **2010**. **World Scientific**.

55. Kapur P.K., Gupta, A., Goyal, S.K., *Jha P.C.*, "Software quality assurance using software reliability growth modeling (state of the art)", **International Journal of Business Information Systems**, 6(4):463-496, **2010. Inderscience**

56. *Jha P.C.,* Indumati, Kapur P.K., "Interactive Approach to Release Time Problem of Software under Fuzzy Environment", Communications in Dependability and Quality Management, an **International Journal**, Vol. 3, No. (3), 61-75, **2010**. **Kubon & Sagner**

57. *Jha P.C.*, Gupta D. Yang Bo, Kapur PK, "Optimal Testing Resource Allocation During Module Testing Considering Cost, Testing Effort and Reliability", **Computers and Industrial Engineering**, Vol. 57, No. (3), 1122-1130, **2009. Elsevier.**

58. *Jha P.C.*, Chaudhary, K., Kapur P.K., "Optimal Advertising Control Policy for a New Product in Segmented Market" *OPSEARCH,* **Journal of Operational research Society of India**, Vol. 46, No. (1), 115-127, **2009**. **Palgrave.**

59. Kapur P.K., *Jha P.C.*, Kumar, D. "Software Reliability Growth Model with Different Learning Functions for Fault Detection and Correction Process" Communications in Dependability and Quality Management: An *International Journal*, Vol.12, No. 1, 11-23, **2009**. **Kubon & Sagner**

60. Kapur P.K., Gupta, D., Gupta, A., *Jha P.C.,* "Effect of Introduction of Fault and Imperfect Debugging on Release Time" *Ratio Mathematica, Journal of Applied Mathematics,* Vol. 18, 62-90, **2008**.

61. *Jha P.C.*, Gupta, A.**,** Kapur P.K., "Bass Model Revisited", *Journal of Statistics and Management Systems*, Vol. 11, No. (3), 413-437, **2008**. **Taylor and Francis**

62. Gupta, A., Kapur R., *Jha P.C.*, "Considering Testing Efficiency in Estimating Software Reliability based on Testing Variation Dependent SRGM", **International Journal of Reliability, Quality and Safety Engineering**, Vol. 15, No. (2), 77-81, **2008**. **World Scientific.**

63. Kapur P.K., Gupta, D., Gupta, A.**,** *Jha P.C.,* "Effect of introduction of fault and imperfect debugging on release time" *Ratio Mathematica*, Vol. 18, 62-90, **2008.**

64. *Jha P.C.*, Gupta, D., Gupta, A., Kapur P.K., "Release Time Decision Policy of Software Employed for the Safety of Critical System Under Uncertainty", *OPSEARCH, Journal of Operational research Society of India*, Vol. 45, No. (3), 209-224, **2008**. Springer

65. Kumar, S., Kapur P.K. and *Jha, P.C.* Effectiveness of OR in Real-Life Applications for Better Returns, Asia pacific business review vol 4 no. 2, 14-19, **2008**. **Taylor and Francis**

66. Gupta, D., Kapur, R., and *Jha, P. C.* (**2007**). Bicriterion release policy for a discrete software reliability growth model with imperfect fault debugging and fault generation. **Communications in Dependability and Quality Management**,*10*(3), 5-31. **Kubon & Sagner**

67. Kapur PK, Gupta, A, *Jha P.C.,* "Reliability Growth Modeling and Optimal Release Policy of a N-Version Programming System Incorporating the Effect of Fault Removal Efficiency", **International Journal of Automation and Computing**, Vol. 4, No. (4), 369-379, October **2007**. **Springer.**

68. *Jha P.C.*, Gupta, A., Kapur, P.K. "On Maximizing the Adoption of Multi-Products in Multiple Market Segments" **Journal**

of Information and Optimization Sciences, 28, (2): 219-245, **2007**. **Taylor and Francis.**

69. Kapur, P.K., Gupta, A., *Jha P.C.,* "Reliability Analysis of Project and Product Type Software in Operational Phase Incorporating the Effect of Fault Removal Efficiency", **International Journal of Reliability, Quality and Safety Engineering,** Vol. 14, No. (3), 219-240, **2007. World Scientific**

70. *Jha, P.C.,* Gupta, D., Anand, S., Kapur P.K. "An Imperfect Debugging Software Reliability Growth Model using lag function with testing coverage and related allocation of testing effort problem" **Communications in Dependability and Quality Management: An International Journal**, Vol. 9, No. (4),148-165, **2006**.

71. Kapur P.K., *Jha P.C,* Bardhan A.K. "Optimal allocation of testing resource for a modular software", **Asia Pacific Journal of Operational Research,** Vol. 21, No. (3), 333-354, **2004**. **World Scientific.**

72. Kapur P.K., Bardhan A.K., *Jha P.C.* "Optimal Reliability allocation problem for a modular software system" *OPSEARCH,* Vol. 40, No. (2), 138-148, **2003**. **Springer**

73. Kapur P.K., *Jha P.C.,* Bardhan A.K. "Dynamic Programming approach to Testing Resource Allocation Problem for Modular Software", *Ratio Mathematica*, Vol. 14, 27-40, **2003**.

74. Sinha S.M., *Jha P. C.* "Interactive Goal Programming" **International Journal of Management and Systems**, Vol. 6, 129-138, **1990**.

3. Other publications (Edited works, Book reviews, Festschrift volumes, etc.)

1. Darbari, J.D., Sharma, R., Yadavalli, V.S.S., **Jha, P.C.** "Performance Evaluation of Sustainable Innovation Practices in Food Supply Chain Using Best Worst Method." In Proceedings of the International Conference on Industrial Engineering and Operations Management held at Bangkok, Thailand, March 5-7, **2019**.

2. Solanki, R., **Jha, P.C.,** Darbari, J.D., Agarwal, V. "An Interpretive Structural Model for Analyzing the Impact of Sustainability Driven Supply Chain Strategies." In Proceedings of the International Conference on Industrial Engineering and Operations Management held at Bangkok, Thailand, March 5-7, **2019**.

3. Gandhi, K., & **Jha, P. C.** "Bi-Objective Supply Chain Optimization With Supplier Selection." In Exploring Critical Approaches of Evolutionary Computation, pp. 238-255, IGI Global, **2019.**

4. Chaudhary, K., & **Jha, P. C.** "Optimal control promotional policy for a new product incorporating repeat purchase in Segmented Market: A control theoretic approach." In Industrial Engineering. IntechOpen, **2018**.

5. Darbari, J. D., Agarwal, V., Sharma, R., & **Jha, P. C.** "Analysis of impediments to sustainability in the food supply chain: an interpretive structural modeling approach." In Quality, IT and Business Operations. Springer, Singapore, pp. 57-68, **2018**.

6. Singh, M., Pant, M., Kaul, A., & **Jha, P. C.** "Advertisement Scheduling Models in Television Media: A Review. In Soft Computing: Theories and Applications." Springer, Singapore, pp. 505-514, **2018**.

7. Darbari, Jyoti Dhingra, Vernika Agarwal, and P. C. Jha. "Fuzzy Optimisation Approach to Supply Chain Distribution Network for Product Value Recovery *Advances in Intelligent Systems and Computing Volume*, **Springerlink**, Vol. 336 pp. 487-500. **2015**.

8. Kaur, Ramandeep, Stuti Arora, P. C. Jha, and Sushila Madan. "Fuzzy Multi-criteria Approach for Component Selection of Fault Tolerant Software System under Consensus Recovery Block Scheme." *Procedia Computer Science* 45, 842-851, **2015**. **Elsevier**

9. Darbari Jyoti Dhingra, Agarwal Vernika, *Jha P. C.*, "A Carbon Sensitive Multi Echelon Reverse Logistics Network Design for Product Value Recovery.", *Advances in Intelligent Systems and Computing Volume*, **Springerlink**, Vol. 259, 883-903, **2014**.

10. Aggarwal, Sugandha, Arshia Kaul, Anshu Gupta, and P. C. Jha. "Multi Period Advertising Media Selection in a Segmented Market." *Advances in Intelligent Systems and Computing Volume*, **Springerlink**, Vol. 259, 905-928., **2014**.

11. Gandhi Kanika, *Jha P. C.*, Govindan Kannan, Galar Diego, "Three Echelon Supply Chain Design with Supplier Evaluation." *Advances in Intelligent Systems and Computing Volume*, **Springerlink** Vol. 259, 867-881, **2014**.

12. Aggarwal Sugandha, Singh Yogender, Gupta Anshu, *Jha P.C.*, "Promotional Resource Allocation for a Product Incorporating Segment Specific and Spectrum Effect of Promotion", **Advances in Intelligent system and Computing**, **Springerlink**, Vol. 202, 429-442, **2013**.

13. Garg Kiran, *Jha P.C.*, "Single product multi period network design for reverse logistics and remanufacturing using new and old components", *Advances in Intelligent Systems and Computing*, **Springer Link**, Vol 202, 393-405, **2013.**

14. Gupta Deepali, Gandhi Kanika, Makkar Sandhya, *Jha P. C.*, "Multi-Item Two-Stage EOQ Model Incorporating Quantity and Freight Discounts" *Some Recent Advances in Mathematics and Statistics*, **World Scientific Publishing Co. Pte. Ltd**, Singapore, 125-137, **2013**.

15. *Jha, P. C.*, and Shivani Bali. "Optimal COTS selection for fault tolerant software system with mandatory redundancy in critical modules using consensus recovery block scheme under fuzzy environment." In *Recent Advances in Computing and Software Systems (RACSS), 2012 International Conference on*, pp. 273-280. **IEEE, 2012**.

16. Makkar, Sandhya, *P. C. Jha*, and Nisha Arora. "Single-source, single-destination coordination of EOQ Model for

perishable products with quantity discounts incorporating partial/full truckload policy under fuzzy environment." *Advances in Intelligent Systems and Computing Volume*, **Springerlink** *vol 130,* 971-982. **2012**.

17. Aggarwal Sugandha, Gupta Anshu, Singh Yogender, *Jha P.C.*, "Optimal Duration and Control of Promotional Campaign for Durable Technology Product", *Proceedings of the 2012 IEEE IEEM*, Hong Kong, 2287-2291, **2012**.

18. Gandhi Kanika, *Jha P.C.,* Singh Yogender, "Development of an EOQ Model for Single Source & Destination, Deterioration Products Incorporating Price & Freight Discount under Fuzzy Environment", *Proceedings of the 2012 IEEE IEEM*, Hong Kong, 2282-2286, **2012.**

19. Gandhi Kanika, *Jha P. C.*, "Multi Source – Multi Destination EOQ Model for Constant Deteriorating Items Incorporating Quantity and Freight Discount Policies" published in *Proceeding of the 2012 International Conference on Industrial Engineering and Operations Management*, Istanbul, Turkey, 1787-1796, July 3-6, **2012**.

20. Indumati, *Jha P. C.*, Kumar U.D., "Joint Optimization of ICD and Reliability for Component Selection in Designing Modules of the Software System Incorporating "Build-or-Buy" Scheme under Fuzzy Environment", *Advances in Intelligent and Soft Computing,* **SpringerLink**, Volume 130/2012, 943-955, **2012**.

21. *Jha P. C.*, Gupta Anshu, Singh Yogender, "Promotional Allocation Problem for a Multi-Generational Product in Segmented Market", *Advances in Intelligent and soft Computing*, **SpringerLink**. Vol. 130, pp. 957-970, **2012**.

22. *Jha P.C.*, Makkar Sansdhya "Multi-item two-stage EOQ model from Single Source to Multiple Destinations under Varying Freight Policies" *Proceedings of 2012 International Conference on Industrial Engineering and Operations Management*, 1359-1369, **2012.**

23. Singh Yogender, Chaudhary Kuldeep, *Jha P. C.*, "Optimal Control Policy for Advertising and Pricing of Two Generation Durable Product in Segmented Market" published in *Proceeding of the 2012 International Conference on Industrial Engineering and Operations Management*, Istanbul, Turkey, pp.1752-1759, July 3-6, **2012**.

24. Manik, P., Gupta, A., & *Jha, P. C.* Differential evolution approach to promotional effort allocation in segmented market for multi-period promotion strategies in a planning horizon incorporating repeat purchase. *Advances in Intelligent Systems and Computing Volume*, **Springerlink** *vol 130,* 979-991,**2012**.

25. Singh, Yogender, Kuldeep Chaudhary, and *P. C. Jha*. "Optimal production policy of production system with inventory-level-dependent demand in segmented market." In *Industrial Engineering and Engineering Management (IEEM), 2011 IEEE International Conference on*, pp. 357-361. **IEEE**, **2011**.

26. *P. C. Jha*, Kuldeep Chaudhary, Anshu Gupta, "On the Development of Adoption of Newer Successive Technologies Using Stochastic Differential Equation" published in Proceeding of the 2011 **IEEE IEEM**, Singapore, pp.1853-1858, Dec 6-9, **2011**.

27. Kuldeep Chaudhary, Yogender Singh, *P.C. Jha*, "Optimal control policy of a production and inventory system for deteriorating items in segmented market" Proceedings of the **IEOM** 2011, pp. 1009-1015, **2011**.

28. Gupta Anshu, Manik Prerna, Aggarwal Sugandha, *Jha P.C.* "Optimal Advertisement Planning on Online News Media", In proceedings of International Congress on Productivity, Quality, Reliability, Optimization and Modeling, Vol. 2, pp. 963-978, **2011**.

29. Makkar, S., *Jha, P.C.* "Multi-Source Multi-Destination Supply Chain Coordination for Multi Item EOQ Model with Quantity Discounts" Proceedings of International Congress on Productivity, Quality, Reliability, Optimization and Modelling, vol.1, pp.717-732, **2011**.

30. *ha P. C.,* Singh O., Indumati, Kapur P. K. (2010), "Bi-Criteria Release Time Problem Incorporating Effect of Two types of Imperfect Debugging under Fuzzy Environment", Om Parkash (Ed.), Advances in Information Theory and Operations Research: Interdisciplinary Trends, **VDM Verlag**, Germany, pp. 142-153, **2010**.

31. *P.C Jha*. Remica Aggarwal,Anshu Gupta "Optimal media selection of advertisement planning in segmented market" Advances in Information Theory & Operations Research: interdisciplinary trends, **VDM Verlag**, Germany, 2010, pp 248-268, **2010**.

32. Kapur P.K, *Jha P.C*, Gupta Deepali, and Yadav. Kalpana "Identification of Different Stages in the Testing Phase of a Software Reliability Growth Model", in the proceedings of Advances in Performance and safety of complex systems (Eds. A.K.Verma, P.K.Kapur and S.G. Ghadge) **MacMillan India Ltd,2008**, pp. 850-861

33. Kapur P.K., Gupta Anshu, *Jha P.C*. and Kumar U.Dinesh "Adoption of Newer Successive Technologies" Quality Reliability and Infocom Technology(Eds. P.K.Kapur and A.K.Verma), **MacMillan India** Ltd.,**2007**,pp.10-25

34. Kapur P. K, Gupta Anshu , and . *Jha   P. C* "On Modeling Failure Phenomenon of Multiple Releases of a Software in Operational Phase for Product and Project Type Software-A Theoretical Framework Quality Reliability and Infocom Technology (Eds. P.K.Kapur and A.K.Verma), **MacMillan India Ltd**.,**2007**,pp.155-165

35. *P.C.Jha*, Anshu Gupta and P.K. Kapur "A Software Reliability Growth Model with Two Types of Imperfect Debugging for Project and Product Software during operational Phase". Published in Proceedings of the National Conference on Computer for National Development, Ed. M.N.Hoda, BVICAM, New Delhi, Feb 23-24,**2007**, pp- 261.

36. *P.C.Jha*, P.K. Kapur and Deepali Gupta "On Fuzzy Approximation to release time problem". Published in Proceedings of the National Conference on Computer for National Development, Ed. M.N.Hoda, BVICAM, New Delhi, Feb 23-24,**2007**, pp- 291.

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37. **P.C. Jha**, Deepak Kumar and P.K. Kapur "Fuzzy Release Time Problem" Quality Reliability and Infocom Technology (Eds. P.K. Kapur and A. K. Verma), **MacMillan Indian Ltd**., **2007**, pp.304-310.
38. Kapur,P.K., **Jha P.C.** Gupta Amit "Optimal Release Policy of a Software Fuzzy Environment" Published in the Proceeding Mathematical Modeling,Application Issue and Analysis, held BITS Pilani,8-9 th oct.-2004,125-134, **2004**.
39. Kapur P.K., **Jha P.C.**, Gupta A., Bardhan A.K. "Allocation of testing effort using software reliability growth model with testing coverage" Published in the referred proceeding of 37th Annual ORSI Convention, IIM Ahmedabad, January 8-11.Vision 2020 The Strategic Role of Operational Research. Ed. N.Ravichandran, 524-538, **2005.**
40. **Jha, P. C.**, Mittal, R., Singh, O., & Kapur, P. K. (**2005**). *Allocation of promotional resource for multi-products in a segmented market*. ICORAID-2005-ORSI and Published in Proceedings.
41. Kapur, P. K., Bardhan, K. A., & **Jha, P. C.** (**2004**). An alternative formulation of innovation diffusion model and its extension. *Mathematics and Information Theory: Recent Topics and Applications, **Anamaya Publishers**, New Delhi*.

Conference Organization/ Presentations (in the last three years)

List against each head (If applicable)

1. *Organization of a Conference*

    1. Convener: "International Conference on Optimization Modelling and Applications" held during November 29-december 02,2012
    2. Conference Secretary: Fourth "International Conference on Quality, Reliability and Infocom Technology" held during December 18-december 20, 2009
    3. Convener: 40th Annual Convention of Operational Research Society of India" (A Golden Jubilee Celebration of ORSI) held during December 04 – December 06, 2007.
    4. Organizing Secretary: "Conference on Mathematical Modeling, Optimization and Their Application" held during April 28-29, 2007.
    5. (Organizing Co-Chair) Third "International Conference on Quality, Reliability and Information Technology" 2006
    6. (Organizing Secretary) Second "International Conference on Quality, Reliability and Information Technology" 2003.
    7. (organizing Joint-Secretary) First "International Conference on Quality, Reliability and Information Technology" 2000.

2. *Organization of a workshop*

    1. Organizer: Department of Science and Technology, Govt. of India sponsored "Training Programme on Optimization and Its Applications" held during November 26-December 01, 2012
    2. Co-Coordinator: Department of Science and technology, Govt of India sponsored "Optimization and its applications" held during December 14-December 17,2009
    3. Coordinator: Department of Science and technology, Govt of India sponsored "Optimization and its applications" held during November 29-December 3,2007
    4. Coordinator: Department of Science and technology, Govt. of India sponsored "workshop on mathematical modeling, Optimization and Their Application" held during April 23-27, 2007. 4

3. *Participation and Presentation in Conference*

    1. **Delivered Invited talk** on "Omni-Channel Supply Chain Management" at Workshop on Short-Term Course on Algebra and Optimization at National Institute of Technology, Dimapur, Nagaland, from December 10-14, **2018**.
    2. **Delivered Invited talk** on "Modelling and Optimization for Product Promotion Under Mass and Segment Media" at Workshop on Short-Term Course on Algebra and Optimization at National Institute of Technology, Dimapur, Nagaland, from December 10-14, **2018**.
    3. **Presented a paper** titled "Implementation of DMAIC Six Sigma with Defect Prioritization using Fuzzy-AHP" at Twenty-Seventh International Conference of Forum for Interdisciplinary Mathematics (FIM) in Conjunction with Third Convention of IARS on Interdisciplinary Mathematics, Statistics and Computational Techniques held at University of Jammu, Jammu, India from November 02-04, **2018.**
    4. **Delivered Invited talk** on "Triple bottom line Approach to Supply Chain Management" in International Conference on Recent Advances in Mathematics, Statistics and Computer Science organized by the Central University of South Bihar, Patna-800 014 during 29-31 May **2015**.
    5. **Delivered a talk in Invited session** "Process Capability and Six Sigma Methodology in Automotive Parts

Production" in International Symposium in Honour of Dr. A. Ravi Ravindran, at IISc Bangalore, March 12-13, **2015**.

6. **Chaired a session and delivered a Talk** on "Optimal Design of Modular Software System" in National Conference on Recent Trends and Developments in Statistics (NCRTDS-2015), at MD University Rohtak, Feb. 21-23, **2015**.

7. **Delivered a Talk** on "Sustainable Supply Chain Management" in Workshop on Applied Optimization Models and Computation, ISI Delhi Centre, Jan 28-30, **2015**.

8. **Chaired a session and participated** in International Conference on Business Analytics and Intelligence, IISc Bangalore, India, December 18-20, **2014**.

9. **Chaired a session and participated** in International Conference on Soft Computing for Problem Solving (SocPros-2013), organized by Saharanpur Campus of Indian Institute of Technology, Roorkee and co-organized by SIG (SAEM) and SIG (EMS), BISC, University of California, Berkeley, USA, at Greater Noida Extension Centre of IIT Roorkee, India, December 26-28, **2013**.

10. **Delivered Invited talk** on "Optimal Build-or-Buy Decision for Component Selection of Application Package Software" at SEMCCO, SRM University, Chennai, December 19-21, **2013**.

11. **Delivered Invited talk** on "Design of Closed Loop Manufacturing System - A sustainable supply chain approach"
    at International Conference on Business Analytics and Intelligence, IIM Bangalore, India, December 11-13, **2013**.

12. **Delivered Invited talk** on "Convex Iteration" at National Workshop on Statistical Signal processing, Andhra University, Visakhapatnam, India, August 24-27, **2012**.

13. **Presented a paper in invited session** and participated in International Conference on Technology Management, Indian Institute of Science, Bangalore, India, July 18-20, **2012**.

14. **Presented a paper in Invited session** and participated in International Conference on Recent Advances in Computing and Software Systems (RACSS 2012), Chennai, India, April 25-27, **2012.**

15. **Delivered invited talk** on "Two stage Procurement Distribution in Supply Chain" and participated in International Conference in Soft Computing for Problem Solving SocProS 2011, The Institution of Engineers India, Roorkee Local Centre, Roorkee, India, December 20-22, **2011**.

16. **Delivered Invited talk** on "Procurement Distribution Coordination in Supply Chain" at XXXI Annual Convention of Indian Society for Probability and Statistics (ISPS) & International Conference on Statistics, Probability and Related Areas, Department of Statistics, Cochin University of Science and Technology, Cochin, December 19-22, **2011.**

17. **Delivered Invited talk** on "Production Distribution Coordination in Supply Chain" National Conference on "Mathematical and Statistical Modeling in Innovative Areas", organized by Department of Mathematics, Birla Institute of Technology, Mesra, Ranchi, Jharkhand, Oct 19-20, **2011**.

18. **Chaired a session** and participated in International Congress on Productivity, Quality, Reliability, Optimization and Modeling, organized jointly by ISI, QCI and DRDO, Indian Habitat Centre, Delhi, February 7-8, **2011**.

19. **Delivered Invited talk** on "Multi-vendor and Multi-Supplier Coordination in Supply Chain" International Conference on Statistics, Probability, Operations Research, Computer Science and Allied Areas in conjunction with the VIII International Indian Statistical Association Joint Statistical Meeting held during December 4-8, **2010** at the Andhra University, Visakhapatnam.

20. **Delivered a talk** on "Fault Tolerance Software Systems" International Conference on Quality Reliability and Infocom Technology (ICQRIT-2009), Indian National Science Academy, New Delhi, Dec.18-20,**2009**.

21. **Delivered Invited talk** on "Vendor-Buyer coordination in Supply Chain Management" International Conference on Operations Research Applications in Engineering and Management, Anna University, Tiruchirappalli, 27-29 May **2009.**

22. **Delivered Invited talk** on "Successive generation technology substitution products" 96th Indian Science Congress, Nehu, Shillong, 3-7 Jan **2009**.

23. Participated in Pre-ICM International Convention on Mathematical Sciences, Department of Mathematics, University of Delhi, 18-20 December **2008**.

24. **Chaired a session** and presented a paper in International conference on Operations Research for a Growing Nation, in conjunction with 41st Annual convention of Operational Research Society of India, SV University, Tirupati, 15 – 17 Dec **2008**.

25. **Delivered Invited talk** on "Fault Tolerant Modular Software System under Recovery Block Scheme" International Conference on New Trends in Statistics and Optimization, University of Kashmir, Srinagar, 20-23 Oct **2008.**

26. **Delivered two invited talks** on "Software Quality Assessment: A state of Art" National workshop on "Innovative quality practices six sigma and robust design e-business excellence", Department of industrial engineering and management, M.S. Ramaiah institute of technology, Bangalore, held during 10-14 march, **2008.**

27. **Chaired a session** and presented a paper National Conference on Emerging Trends in Statistical Methods and Optimization Techniques, University of Jammu, Jammu, 22-23 Feb **2008.**

28. **Presented a paper** and participated in International Conference on Present Practices and Future Trends in Quality and

Reliability, ICONQR08, ISI, Kolkata, 22-25 Jan **2008.**

29. **Presented a paper** and participated in International Conference on Statistics & Its Application in OR, Computer Science & Management / Life & XXVII Annual Convention of Indian Society for Probability and Statistics, Nagpur University, Nagpur, India, January, 10-12, **2008.**

30. **Presented a paper** and participated in International Conference on Reliability Safety and Quality Engineering, Nuclear Power Corporation Limited, Mumbai, 5-7 Jan **2008.**

31. **Presented a paper** and participated in International Conference on Reliability and Safety Engineering (INCRESE 2007), Udaipur, held during 17-19, Dec. **2007**.

32. **Delivered a talk** on "Software Reliability Growth Models" in Workshop of Optimisation Modelling and their Applications, 40th Annual Convention of Operational Research Society of India (A Golden Jubilee Celebration of ORSI), Indian National Science Academy during, Nov. 29 – Dec. 03, **2007**.

33. **Presented a paper** and participated in 40th Annual Convention of Operational Research Society of India" (A Golden Jubilee Celebration of ORSI), Indian National Science Academy during, Nov. 04 – Dec. 06, **2007**.

34. **Delivered a talk** on "Technology Substitution in Marketing" in Workshop on Mathematical Modeling, Optimization and their Applications, Bharti Vidyapeeth's Institute of Computer Applications and Management in Delhi during April, 23-27, **2007**.

35. **Presented a paper** and participated in National Conference on Mathematical Modeling, Optimization and their Applications, Bharti Vidyapeeth's Institute of Computer Applications and Management in Delhi during April, 28-29, **2007**.

36. **Presented a paper** and participated in National Conference on Computing for Nation Development, INDIACom-2007, Bharti Vidyapeeth's Institute of Computer Applications and Management, Delhi, Feb. 23 & 24, **2007**.

37. **Presented a paper** and participated in AICTE sponsored National Seminar on Information Technology: Software Reliability, N.C. College of Engineering, ISRANA, Panipat, Feb, 9-10, **2007**.

38. **Presented a paper** and participated in International Conference on Statistical Science, Or & IT in Conjunction with The XXVI Annual Convention of Indian Society For Probability And Statistics, S. V. University, Tirupati, 7-9 Jan, **2007**.

39. **Presented a paper** and participated in 2nd International Conference on Reliability and Safety Engineering, Center Reliability, Chennai, December 18-20, **2006**.

40. **Presented a paper** and participated in International Conference on Mathematical Modeling and Computer Simulation, LNM-IIT, Jaipur, December 12-15, **2006**.

41. **Presented a paper** and participated in International Conference on Quality Reliability and Infocom Technology (ICQRIT-2006), Indian National Science Academy, New Delhi, Dec.2-4,**2006**.

42. **Presented a paper** and participated in National Symposium on Recent Advances in Optimization Theory and Application, Academic Research Center, Delhi, Oct 27-28, **2006**.

43. **Presented a paper** and participated in Course on "Software Reliability Engineering", Centre for Reliability, Department of Technology, Chennai, 8th and 9th June, **2006**.

44. **Presented a paper** and participated in International Conference on Operations Research Applications in Infrastructure Development in Conjunction with 2005 Annual Convention of Operational Research Society of India (ICORAID-2005-ORSI), IISc Bangalore, December 27-29, **2005**.

45. **Presented a paper** and participated in 37th Annual Convention; Vision 2020: The Strategic Role of Operational Research, IIM-A Campus, Ahmedabad, January 8-11, **2005**.

46. **Presented a paper** and participated in National Conference on Mathematical Modeling and Analysis, Birla Institute of Technology and Science, Pilani, October 8-9, **2004**.

47. **Presented a paper** and participated in 2nd International Conference on Quality, Reliability and Information Technology (Trends and Future directions), Indian National Science Academy, New Delhi, December 18-20, **2003**.

48. **Presented a paper** and participated in 6th International Conference of the Association of Asia-Pacific Operational Research Societies and XXXVI Annual Convention of the Operational Research Society of India, Hotel Inter Continental, New Delhi, December 8-11, **2003**.

49. **Presented a paper** and participated in International Conference on Operations Research for Development in conjunction with XXXV Annual Convention of Operational Research Society of India, Anna University, Chennai, December 27-30, **2002**.

50. **Presented a paper** and participated in International Conference on Multimedia and Design, Hotel Le Royal Meridien, Mumbai, September 22-24 **2002**.

51. **Presented a paper** and participated in 9th National conference of the Vigyan parishad on India on Applied and Industrial Mathematics, Netaji Subhas Institute of Technology, New Delhi, February 22-24, **2002**.

52. **Presented a paper** and participated in International Conference on Operational Research and Nation Development, ORSI, Calcutta Chapter, 27-29 Dec **2001.**

53.	**Presented a paper** and participated in International Conference on Quality, Reliability and Information Technology (Trends and Future directions), Indian National Science Academy, New Delhi December 21-23, **2000**.	
54.	**Presented a paper** and participated in International Conference on Operational Research for a Better Tomorrow, India International Center, New Delhi, December 24-26, **1998**.	

Research Projects (Major Grants/Research Collaboration)

Grant	Year	Broad Topic
Research and Development Grant, University of Delhi	2015-2016	Sustainable Supply Chain (Supply Chain Management)
DU-DST Purse Research Grant	2014-2018	Software Computing Approach to Mullti-Criteria Optimisation Models for Component Selection in Designing Fault Tolerant Software Systems
Research and Development Grant, University of Delhi	2014-2015	Sustainable Supply Chain (Supply Chain Management)
Research and Development Grant, University of Delhi	2010-2014	Fault Tolerant Software System (Software Engineering)

Awards and Distinctions

Bihar state meritorious fellowship in M.A. for securing fourth position in B.A. (Hons.) Statistics

Association with Professional Bodies

1. *Reviewing (Selected Only)*
   (i)   *Journal of industrial and Management Optimisation*

   (ii)   *International Journal of Production Research*

   (iii)   *Applied Mathematics and Computation*

   (iv)   *Computers and Industrial Engineering*

   (v)   *International Journal of Operational Research*

   (vi)   *OPSEARCH*

   (vii)   *Memetic Computing*

   (viii) *Journal of Computational Science*

   (viii) *Applied Mathematical Modelling*

   (ix)   *International Journal of Advanced Operations Management*

2. *Committees and Boards*

   Member of Board of Research Studies (Mathematical Sciences), University of Delhi (2011-2013)
   Member of Board of Research Studies for the Humanities, University of Delhi (2007-2009)
   Member of Faculty of Mathematical Sciences, University of Delhi, Delhi (2010-2012)
   Member DRC, (Mathematical Sciences), University of Delhi (2005-2013)
   Member MPhil Committee (Mathematical Sciences), University of Delhi (2004-till date)

3. *Memberships*
   Operational Research Society of India (Life Member)
   Indian Science Congress Association (Life Member)
   The Society of Mathematical Sciences, University of Delhi, India (Life Member)

Society for Reliability Engineering, Quality and Operations Management (Life Member)
Indian Society of Probability and Statistics (Life Member)

   4.   *Office Bearer*

   2008-2012   Secretary, Operational Research Society of India
   2005-2012   Treasurer, Society for Reliability Engineering, Quality and Operations Management
   2004-2008   Member of the Executive Committee, Operational Research Society of India
   2008-2012   Member of the Executive Committee, Indian Society of Probability and Statistics

Other Activities

RESEARCH COLLABORATION

1.Govindan Kannan
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7.Riccardo Cambini
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8.M. Mathirajan
Professor
Department of Management Studies
Indian Institute of Science
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Signature of Faculty Member