Curriculum Vitae
Dr.Raghu Nandan Sengupta
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The information provided is complete and correct as on 01-September-2019

# RAGHU NANDAN SENGUPTA

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SCOPUS : https://www.scopus.com/authid/detail.url?authorId=7006487052
THOMSON REUTERS http://www.researcherid.com/rid/A-2773-2012

## Personal Profile

Date of Birth: 20th September 1969 Marital Status: Married Citizen: India

## Objectives

With my background in probability, statistics and optimization (with a focus for application in finance and other areas) I am certain to contribute substantially in areas related to stochastic, big data analysis, stochastic and robust optimization, statistical inference, sequential analysis, quantitative finance, etc. With my fourteen years of research and teaching experience in one of the best technical institutes in Asia, plus frequent research visits and teaching assignments at University of Warszawa, POLAND, IST, Lisboa, PORTUGAL, TU Dresden, GERMANY, Bilkent University, TURKEY, MUST, IRAN, etc., has helped me tremendously to built expertise in both theoretical as well as applied areas of sequential analysis, robust and reliability based optimization, statistical reliability, quantitative finance. I am confident of my capability and am certain that my contribution in this respect would be a worthwhile effort from my side which will accrue tangible benefit to both my parent institute as well to my host organization along with a great academic research exposure for me.

| Academic Qualification and Experience | |
|---|---|
| 07/2017-Present | Head of the Department, Industrial and Management Engineering, Indian Institute of Technology Kanpur, INDIA |
| 06/2014-Present | Professor, Industrial and Management Engineering, Indian Institute of Technology Kanpur, INDIA |
| 05/2017-06/2017 | DAAD Fellowship for Research Stays for University Academics and Scientists, |

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|---|---|
| | Technische Universität Dresden, GERMANY [DAAD Fellowship/Scholarship] |
| 06/2016–07/2016 | ERUSMUS Scholar and Visiting Faculty, Operations and Logistics at the Centre of Engineering and Management Studies (CEG-IST) of Instituto Superior Técnico (IST), University of Lisbon (UTL), PORTUGAL [EU-NAMASTE Fellowship/Scholarship - NAMASTE 2nd Cohort] |
| 10/2015–09/2016 | Assistant Professor, Department of Statistics and Econometrics, Economic Sciences University of Warsaw, POLAND |
| 12/2015-12/2015 | DAAD Fellowship for Research Stays for University Academics and Scientists, Technische Universität Dresden, GERMANY [DAAD Fellowship/Scholarship] |
| 08/2013–05/2014 | Visiting Scholar and Professor in the Department of Economics, Ball State University, USA. |
| 3305/2012–05/2012 | Visiting Academic Staff, Faculty of Mathematics, Informatics and Mechanics, University of Warsaw, POLAND [Under Erasmus Mundus Europe Asia Scholarship Program Fellowship 2011] |
| 05/2009–06/2014 | Associate Professor, Industrial and Management Engineering, Indian Institute of Technology Kanpur, INDIA |
| 07/2008–12/2008 | Visiting Research Scholar, Operations Research & Financial Engineering, Princeton University, USA [Under IUSSTF Fellowship 2008] |
| 11/2003–07/2009 | Assistant Professor, Industrial and Management Engineering, Indian Institute of Technology Kanpur, INDIA |
| 02/2003–11/2003 | Visiting Assistant Professor, Industrial and Management Engineering, Indian Institute of Technology Kanpur, INDIA |
| 07/1996–03/2003 | FPM (Ph.D) in Operations Management, Indian Institute of Management, Calcutta, INDIA [Major: Operations Management; Minor: Finance]<br>*Dissertation:* Application of LINEX loss function and Multistage Sampling in Management Science.<br>*Advisor*: Prof. Saibal Chattopadhyay |
| 06/1992-06/1996 | a) Engineer Quality Control (Alcatel Alsthom, INDIA)<br>b) Senior Engineer Projects (Alcatel Alsthom, INDIA)<br>c) Junior Manager, Production Planning and Control (Alcatel Alsthom, INDIA) |
| 07/1988-05/1992 | Bachelor of Engineering, Birla Institute of Technology, Mesra, INDIA [Mechanical Engineering Major] |

## Academic Awards and Honours

1) Awarded **DAAD Research Stays for University Academics and Scientists**, 2017, [Personal ref. no./ID: 91563924, Funding programme number: 57314018] to ***Technische Universität Dresden, GERMANY***.
2) Awarded **DAAD Research Stays for University Academics and Scientists**, 2015, [Personal ref. no./ID: 91563924, Funding programme number: 50015559] to ***Technische Universität Dresden, GERMANY***.
3) Awarded the **EU-NAMASTE Fellowship/Scholarship - NAMASTE 2nd Cohort**, 2014 (ERASMUS MUNDUS Fellowship, Mobility Group: Academic Staff: Application 20140037) to visit ***Operations and Logistics at the Centre of Engineering and Management Studies (CEG-IST) of Instituto Superior Técnico (IST) from the University of Lisbon (UTL), PORTUGAL***.
4) Awarded the **Erasmus Mundus Europe Asia Fellowship/Scholarship Program Fellowship 2011** (ERASMUS MUNDUS Fellowship, Mobility Group: Academic Staff: Application L111003509) to visit ***Faculty of Mathematics, Informatics and Mechanics University of Warsaw, POLAND***, May 2012.

5) Awarded under **MHRD, GoI, INDIA** scheme and selected as the visiting faculty to teach at ***Asian Institute of Technology (AIT), Bangkok, THAILAND***, August 2011 – November 2011.
6) Awarded the Indo US Science and Technology Forum (IUSSTF) Fellowship 2008 [**IUSSTF RESEARCH FELLOW 2008**] to visit ***Operations Research & Financial Engineering (ORFE) Department at Princeton University, USA***, July 2008 – December 2008.
7) Commendation letters from the Director, IIT Kanpur and Senate Citation for teaching excellence in (i) Probability and Statistics (IME602: M.Tech 1st year), IIT Kanpur, INDIA, 2004-2005, Sem-I, 2010-2011, Sem-I; (ii) Management of Risk in Financial Systems (MBA678: MBA 2nd year), IIT Kanpur, INDIA, 2006 – 2007.
8) Secured 4.00/4.00 in VII semester during Bachelor of Engineering at BIT, Mesra, INDIA.

## Editorial and Academic Activities

1) ***Editorial Board Member*** of *Open Journal of Statistics*, ISSN Print: 2161-718X, ISSN Online: 2161-7198.
2) ***Associate Editor*** of *Foundations of Computing and Decision Sciences*, ISSN 0867-6356, e-ISSN 2300-3405.
3) Reviewer in *IEEE Transactions on Evolutionary Computation*, (ISSN: 1089-778X).
4) Reviewer in *International Journal of Industrial Engineering*, (ISSN: 1072-4761).
5) Reviewer in *Sequential Analysis*, (ISSN: 0747-4946).
6) Reviewer in *Communications in Statistics-Simulation and Computation*, (ISSN: 0361-0918).
7) Program committee member: 8th International conference on Simulated Evaluation and Learning (SEAL-2010), IIT Kanpur, INDIA, 1st - 4th December 2010.
8) Session chair (*Hybrid Algorithms*): 8th International conference on Simulated Evaluation and Learning (SEAL-2010), IIT Kanpur, INDIA, 1st - 4th December 2010.
9) Reviewer in *Physica A: Statistical Mechanics and its Applications*, (ISSN: 0378-4371).
10) Reviewer in *International Journal of Business and Systems Research*, [ISSN (Online): 1751-2018, ISSN (Print): 1751-200X].
11) Reviewer in *Journal of Industrial and Management Optimization*, [ISSN (Print): 1547–5816, ISSN (Electronic): 1553-166X].
12) Reviewer in *European Journal of Operational Research*, [ISSN (Print): 1547–5816, ISSN (Electronic): 1553-166X].

## Research Interests

1) Sequential Estimation.
2) Statistical Estimation.
3) Statistical and Mathematical Reliability.
4) Optimization Techniques and their Applications Finance.
5) Financial Risk Analysis.

## Teaching

1) Probability and Statistics (IME602): M.Tech (1st year students) at IIT Kanpur, INDIA.
2) Security Analysis, Derivatives and Portfolio Management (MBA676): MBA (2nd year students) at IIT Kanpur, INDIA.
3) Introduction to Manufacturing Process (TA201) (Laboratory Instructor): B.Tech (2nd year students) at IIT Kanpur, INDIA.
4) Management of Risk in Financial Systems (MBA678)/(2400-ZEWW731): MBA (2nd year students) at IIT Kanpur, INDIA. [**New course**]/University of Warszawa, POLAND.
5) Introduction to Stochastic Processes and their Applications (IME625)/(2400-ZEWW712): M.Tech (1st year students) at IIT Kanpur, INDIA. [**New course**]/University of Warszawa, POLAND.

6) Management Decision Analysis (IME634): M.Tech (2nd year students) at IIT Kanpur, INDIA.
7) Introduction to Stochastic Processes and its Applications: National Programme on Technology Enhanced Learning (NPTEL- II): Web based course.
8) Management Decision Analysis: National Programme on Technology Enhanced Learning (NPTEL- II): Web based course.
9) Quantitative Methods for Decision Making (MBA 651): MBA (1st year students) at IIT Kanpur, INDIA.
10) Total Quality Management (MBA663): MBA (2nd year students) at IIT Kanpur, INDIA.
11) Econometrics (2400-FIM3EC and 2400-PP3EKOa) at University of Warszawa, POLAND.
12) Advanced Econometrics (2400-M1PPZEKOa) at University of Warszawa, POLAND.
13) Operations Research (2400-ZEWW732) at University of Warszawa, POLAND.
14) Time Series Econometrics (2400-ZEWW730) at University of Warszawa, POLAND.
15) Applied Design of Experiments (2400-ZEWW711) at University of Warszawa, POLAND.
16) Project Financing and Management (2400-ZEWW713) at University of Warszawa, POLAND.

## Book and Book Chapter Publications

1) Information sharing in a serial supply chain of low demand item: Sunil Agrawal, **Raghu Nandan Sengupta** and Kripa Shanker, *Vision 2020: The Strategic Role of Operational Research*, (Edited N. Ravichandran), Chapter 20, 332-347, 2006, Allied Publishing Company Pvt. Ltd, ISBN: 81-8424-108-9.
2) Bankruptcy Prediction Using Artificial Immune Systems: Rohit Singh and **Raghu Nandan Sengupta**, *Lecture Notes in Computer Science* (Book: *Artificial Immune Systems*), (Edited L.N. de Castro, F.J.Zuben and H.Knidel), **4628**, 131-141, 2007, Springer-Verlag, ISBN: 978-3-540-73921-0.
3) *Decision Sciences: Theory and Practice**: **Raghu Nandan Sengupta**, Aparna Gupta and Joydeep Dutta (Edited), 2016, CRC Taylor & Francis, ISBN (10): 146656430X; ISBN (13): 9781466564305.
4) Other Decision Making Methods: **Raghu Nandan Sengupta** in *Decision Sciences: Theory and Practice**; (Edited: **Raghu Nandan Sengupta**, Aparna Gupta and Joydeep Dutta), 2016, CRC Taylor & Francis, ISBN (10): 146656430X; ISBN (13): 9781466564305.
5) Statistical Methods: **Raghu Nandan Sengupta** and Debasis Kundu in *Decision Sciences: Theory and Practice**; (Edited: **Raghu Nandan Sengupta**, Aparna Gupta and Joydeep Dutta), 2016, CRC Taylor & Francis, ISBN (10): 146656430X; ISBN (13): 9781466564305.
   *: Link/URL for 3, 4 and 5 is: https://www.crcpress.com/Decision-Sciences-Theory-and-Practice/Sengupta-Gupta-Dutta/p/book/9781466564305 and http://www.crcnetbase.com/doi/pdfplus/10.1201/9781315183176-1.

## Journal Publications

1) LINEX Loss Function and its Statistical Application – A Review: Saibal Chattopadhyay, Ajit. Chaturvedi and **Raghu Nandan Sengupta**, *Decision*, Jan – Dec 1999, **26**, 1-4, 51-76.
2) Sequential Estimation of a Linear Function of Normal Means Under Asymmetric Loss Function: Saibal Chattopadhyay, Ajit Chaturvedi and **Raghu Nandan Sengupta**, *Metrika*, 2000, **52**, 3, 225-235.
3) Asymmetric Penalized Prediction Using Adaptive Sampling Procedures: Saibal Chattopadhyay, Sujay Datta and **Raghu Nandan Sengupta**, *Sequential Analysis*, 2005, **24**, 1, 23-43.
4) Three-Stage and Accelerated Sequential Point Estimation of the Normal Mean Using LINEX Loss Function: Saibal Chattopadhyay and **Raghu Nandan Sengupta**, *Statistics*, 2006, **40**, 1, 39-49.
5) Use of Asymmetric Loss Functions in Sequential Estimation Problem for the Multiple Linear Regression: **Raghu Nandan Sengupta**, *Journal of Applied Statistics*, 2008, **35**, 3, 245-261.

6) Impact of information sharing and lead time on bullwhip effect and on-hand inventory: Sunil Agrawal, **Raghu Nandan Sengupta** and Kripa Shanker, *European Journal of Operational Research*, 2009, **192**, 576-593.
7) Some variants of adaptive sampling procedures and their applications: **Raghu Nandan Sengupta** and Angana Sengupta, *Computational Statistics and Data Analysis*, 2011, **55**, 3183-3196.
8) Estimation for the multiple regression set up using balanced loss function: **Raghu Nandan Sengupta** and Sachin Srivastava, *Communications in Statistics: Simulation & Computation*, 2012, **41**, 653-670.
9) Minimum Risk Estimation of Scalar Means under Convex Combination of Loss Functions: **Raghu Nandan Sengupta** and Sachin Srivastava, *Communications in Statistics: Simulation & Computation*, 2012, **41**, 1346-1371.
10) Reliability Based Portfolio Optimization with Conditional Value at Risk (CVaR): **Raghu Nandan Sengupta** and Siddharth Sahoo, *Quantitative Finance*, 2013, **13**, 1637-1651.
11) Robust and Reliable Portfolio Optimization Formulation of a Chance Constrained Problem: **Raghu Nandan Sengupta** and Rakesh Kumar, *Foundations of Computing and Decision Sciences*, 2017, **42**, 83-117.
12) Facets of Business-to-Business Brand Equity: Mixed Methods Approach: Priyanka Sharma, **Raghu Nandan SENGUPTA**, J. David Lichtenthal, *Marketing Intelligence and Planning*, 2019, Accepted and Forthcoming.
13) Why are industrial firms high or low brand sensitive? An empirical investigation: Priyanka Sharma and **Raghu Nandan SENGUPTA**, *Journal of Marketing Theory and Practice - Decision on Manuscript ID MMTP-19-05-1457*, 2019, Accepted and Forthcoming.

## Conference Proceedings

1) "Want to measure service quality?"; **Raghu Nandan Sengupta** and Prithwiraj Nath, *QUAL TECH 2000*, Mumbai, India, February, 2000.
2) "Efficiency Measurement and Classification of Indian Nationalised Banks"; **Raghu Nandan Sengupta**, *INFORMS* Conference on Integrating Theory and Application at San Antonio, Texas, USA, November, 2000.
3) "Asymmetric Penalized Sales Forecasting Using Adaptive Sampling Procedures" Saibal Chattopadhyay and **Raghu Nandan Sengupta**, *(Applied Sequential Analysis-I) International Conference on Ranking and Selection, Multiple Comparisons, Reliability, and Their Applications (Sponsored by International Indian Statistical Association)* at Chennai, India, 28th – 30th December, 2002.
4) "Sequential Estimation Under LINEX Loss in Regression Model"; Saibal Chattopadhyay and **Raghu Nandan Sengupta**, under *(Statistical Inference, (Estimation and Tests IV)) International Statistical Institute (ISI), 54th Session*, Berlin, Germany, 13th – 20th August, 2003.
5) "Information sharing in a serial supply chain of low demand item"; Sunil Agrawal, **Raghu Nandan Sengupta** and Kripa Shanker, *Thirty Seventh National Conference of Operational Research Society of India, ORSI-XXXVII*, IIM Ahmedabad, India, 8th – 11th January 2005.
6) "Ranking of Software Companies using Fuzzy Analytical Hierarchy Process (FAHP) and Data Envelopment Analysis (FDEA) Methods"; **Raghu Nandan Sengupta** and Ashish Chandra), *International Conference on Operational Research for Development (ICORD-V), Operational Research Society of India, International Federation of Operational Research Societies (IFOR)*, Jamshedpur, India, 19th - 21st December, 2005.
7) "Time Series Analysis of Seasonal Demand in a Supply Chain"; Sunil Agrawal, **Raghu Nandan Sengupta** and Kripa Shanker), *International Conference on Operational Research for Development (ICORD-V), Operational Research Society of India, International Federation of Operational Research Societies (IFOR)*, Jamshedpur, India, 19th - 21st December, 2005.

8) ″A Simulation Study of Bullwhip Effect In A Supply Chain with Stochastic Lead Time″; **Raghu Nandan Sengupta**, Sunil Agrawal and Kripa Shanker, *INFORMS* 2006, Hong Kong, 25$^{th}$ - 28$^{th}$ June 2006.
9) ″A study of two different variants of adaptive sampling procedures and some interesting applications in management science″; **Raghu Nandan Sengupta**, *International Conference on Operations and Quantitative Management (ICOQM-VII)*, Jaipur, India, 3$^{rd}$ – 5$^{th}$ August 2006.
10) ″Supply chain dynamics in stochastic lead time scenario″; Sunil Agrawal., **Raghu Nandan Sengupta** and Kripa Shanker, *39$^{th}$ Annual Convention of Operational Research Society of India (ORSI–2006 CONVENTION & OR Workshop)*, Kolkata, India, 5$^{th}$ – 7$^{th}$ January, 2007.
11) ″Use of Artificial Immune System (AIS) in financial valuation and measurement of financial risk for credit rating″; Rohit Singh and **Raghu Nandan Sengupta**, *39$^{th}$ Annual Convention of Operational Research Society of India (ORSI–2006 CONVENTION & OR Workshop)*, Kolkata, India, 5$^{th}$ – 7$^{th}$ January, 2007, [**Included under item # 2, which is book chapter publication by Springer-Verlag**].
12) ″Measurement of Bullwhip Effect in a Supply Chain″; Kripa Shanker, Sunil Agrawal and **Raghu Nandan Sengupta**, *Joint Work in Mechanical Aerospace and Industrial Engineering, IIT Kanpur and NTU*, Singapore, 10th July, 2007.
13) ″Reliability based Portfolio Optimization″; Kapil Agrawal and **Raghu Nandan Sengupta**, *22$^{nd}$ European Conference on Operational Research*, Prague, Czech Republic, 8$^{th}$ – 11$^{th}$ July, 2007.
14) ″Reliability based Dynamic Portfolio Optimization″; **Raghu Nandan Sengupta**, *22$^{nd}$ European Conference on Operational Research*, Prague, Czech Republic, 8$^{th}$ – 11$^{th}$ July, 2007.
15) ″Bankruptcy Prediction using Artificial Immune Systems″; Rohit Singh and **Raghu Nandan Sengupta**, 6$^{th}$ International Conference on Artificial Immune Systems, Santos, Brazil, 26$^{th}$ – 29$^{th}$ July, 2007, [**Included under item # 2, which is book chapter publication by Springer-Verlag**].
16) ″Comparison of three Forecasting Models for the Seasonal Type Demand″; **Raghu Nandan Sengupta**, Sunil Agrawal and Kripa Shanker, *INFORMS* annual Meeting, Seattle, USA, 4$^{th}$ – 7$^{th}$ November, 2007. [**I was paid a scholarship/fellowship from CSIR of India for this paper in conference selection**].
17) ″Reliability in Portfolio Optimization using Uncertain Estimates″; **Raghu Nandan Sengupta**, Rachit Seth and Peter Winker, 6$^{th}$ International Conference on Computational Management Science, University of Geneva, Geneva, 1$^{st}$ – 3$^{rd}$ May, 2009.
18) ″Characterization of Upstream Demand Processes in a Supply Chain: A Simulation Approach″; Sunil Agrawal, **Raghu Nandan Sengupta**, Kripa Shanker and Narayan Kumar, World Academy of Science, Engineering and Technology 60, 2011.
19) "Reliability Based Portfolio Optimization for Extreme Value Asset Returns under Asymmetric Loss Functions", **Raghu Nandan Sengupta** and Siddharth Sahoo, 9$^{th}$ International Conference on Computational Management Science, Imperial College London, UK, 18$^{th}$ – 20$^{th}$ April 2012.
20) Antecedents of Brand Sensitivity in B2B Market: Conceptual Framework with Research Propositions, Priyanka Sharma, **Raghu Nandan Sengupta**, and K SivakumarI, ISBM Academic Conference, Sloan School of Management at MIT, Cambridge, Massachusetts, 8$^{th}$ – 9$^{th}$ August 2018.
21) Brand Orientation as Antecedent to Brand Value: Construct Redefinition and Conceptual Model, Priyanka Sharma, S. S. Mishra and **Raghu Nandan Sengupta**, Academy of Marketing Science Annual Conference, New Orleans, LA, USA, 23$^{rd}$ – 25$^{th}$ May 2018.

## Work in Progress and Publications Under Review

1) A Methodological Triangulation Using Generalised Methods of Moments (GMM) to derive the Many Faces of Industrial Brands; Priyanka Sharma, **Raghu Nandan Sengupta** and David Lichtenthal, *communicated*.

2) Brand sensitivity in industrial markets: A conceptual framework and research propositions; Priyanka Sharma, **Raghu Nandan Sengupta** and K. Sivakumar, *communicated*.
3) Computational Sequential Estimation using Convex Combination of Loss Functions: **Raghu Nandan Sengupta** and Shilpi Jain; *under preparation*.
4) Sequential Parametric Estimation and Forecasting for the Multiple Linear Regression under Balanced Loss Functions: **Raghu Nandan Sengupta**, Rene Schilling and Nitish Jalan; *under preparation*.
5) Single and Bi-Objective Portfolio Optimization Problems for Extreme Value Asset Returns under Symmetric and Asymmetric Loss Functions: **Raghu Nandan Sengupta**, Anirban Banerjee; Tânia Pinto-Varela, Augusto Eusebio, José Rui Figueira and Kalyanmoy Deb; *under preparation*.
6) Robust portfolio optimization considering VaR and CVaR concepts: **Raghu Nandan Sengupta** and Anirban Banerjee; *under preparation*.
7) Robust formulation of MAD, MLSAD, MINI-MAX and MV problems: **Raghu Nandan Sengupta** and Anirban Banerjee; *under preparation*.

## Conference/Workshop Participation/Invited Talks

1) International Conference on Recent Advances in Statistics, Chair for "Statistics in Finance" (Session 5) Session, IIT Kanpur, India, $4^{th}$ – $6^{th}$ January, 2005.
2) Mathematical Finance Workshop at Indira Gandhi Institute of Development Research (IGIDR), Bombay, India, $4^{th}$ – $9^{th}$ April, 2005.
3) National Symposium on Scientific Computing with Application to Partial Differential Equations, IIT Kanpur, India, $19^{th}$ - $21^{st}$ November, 2005.
4) Visionary Leadership for Manufacturing (VLFM) program by Prof.S.Shiba, NMCC and CII, IIT Kanpur, India, $12^{th}$ – $13^{th}$ August, 2006.
5) IIT Kanpur, INDIA, Statistics Day (Session I), *Use of some sequential sampling methodologies for forecasting and prediction problems for the multiple linear regression set up considering asymmetric loss functions*, $14^{th}$ November, 2006.
6) NTU, SINGAPORE, Joint Work in Mechanical Aerospace and Industrial Engineering, IIT Kanpur and NTU, Singapore, *Measurement of Bullwhip Effect in a Supply Chain*, (co-authors Kripa Shanker and Sunil Agrawal), $10^{th}$ July, 2007.
7) Department of Statistics, Shiraz University, Shiraz, IRAN, *Three-Stage and Accelerated Sequential Point Estimation of the Normal Mean Using LINEX Loss Function*, $17^{th}$ June 2008.
8) Department of Industrial Engineering, Bilkent University, TURKEY, *Impact of information sharing and lead time on bullwhip effect and on-hand inventory*, $30^{th}$ June 2008.
9) Department of Industrial and Operations Engineering, University of Michigan, Ann Arbor, USA, *Use of Asymmetric Loss Functions in Sequential Estimation Problem for the Multiple Linear Regression*, $23^{rd}$ September, 2008.
10) Department of Computer Science, The University of Memphis, USA, *Use of Asymmetric Loss Functions in Sequential Estimation Problem for the Multiple Linear Regression*, $17^{th}$ October, 2008.
11) Lally School of Management & Technology, Rensselaer Polytechnic Institute, USA, *Bankruptcy Prediction Using Artificial Immune Systems*, $29^{th}$ October, 2008.
12) Department of Information, Operations & Management Sciences, STERN School of Business, New York University, USA, *Impact of information sharing and lead time on bullwhip effect and on-hand inventory*, $7^{th}$ November, 2008.
13) Fordham University, USA, *A Study of two different variants of Adaptive Sampling Procedures and Some Interesting Applications in Management Science*, $14^{th}$ November, 2008.

14) GERAD, HEC Montreal, CANADA, *Use of Asymmetric Loss Functions in Sequential Estimation Problem for the Multiple Linear Regression*, 18th November, 2008.
15) Department of ORFE, Princeton University, USA, *Use of Asymmetric Loss Function and the Concept of Sequential Sampling in a Multiple Linear Regression Setup*, 25th November, 2008.
16) Indian Institute of Management Calcutta, INDIA, *Reliability in Portfolio Optimization using uncertain estimates*, 17th June, 2009.
17) Army 515 Base Workshop, Bangalore, INDIA: *Some Concepts and Use of EVT and Copula Theory in Optimization Application*, 15th January 2010.
18) Indian Institute of Management Calcutta, INDIA, *Parametric Estimation for Generalized Exponential Distribution under competing Risk*, 21st June, 2010.
19) Indian School of Business (ISB), Hyderabad, INDIA, *Estimation for the multiple regression set up using balanced loss function*, 12th July, 2011.
20) Institut für Statistik und Operations Research, Universität Wien, AUSTRIA, *Estimation for the multiple regression set up using balanced loss function*, 14th May, 2012.
21) Laboratory of Intelligent Decision Support Systems, Institute of Computing Science, Poznan University of Technology, POLAND, *Bankruptcy Prediction Using Artificial Immune Systems*, 22nd May, 2012.
22) Mathematical Methods in Economy, Finances and Insurance under Faculty of Mathematics, Informatics and Mechanics, University of Warsaw, POLAND, *Financial Portfolio Optimization considering Reliability and Robust framework: A Practical Approach*, 30th May, 2012.
23) Indian Institute of Management Calcutta, INDIA, *Robust and Reliable Portfolio Optimization Formulation of Chance Constrained Problem*, 18th June, 2012.
24) Faculty of Economic Sciences, University of Warszawa, POLAND, *Robust Portfolio Formulations for Var and CVaR Problems*, 28th October 2015.
25) Institute of Mathematics, Polish Academy of Sciences, POLAND, *Sequential Estimation Using Convex Combination of Loss Functions*, 31st March, 2016.
26) Institut für Mathematische Stochastik, Technische Universität Dresden, GERMANY, *Sequential Sampling Estimation using different Loss Functions*, 14th April, 2016.
27) Operations and Logistics at the Centre of Engineering and Management Studies (CEG-IST) of Instituto Superior Técnico (IST), University of Lisbon (UTL), PORTUGAL, *Multi-Stage Sampling Estimation using different Loss Functions*, 08th July, 2016.
28) Institut für Mathematische Stochastik, Technische Universität Dresden, GERMANY, *Reliability and Robust Portfolio Optimization: An Introduction*, 01st June, 2017.
29) Fakultät für Mathematik, Technische Universität München, GERMANY, *Robust and Reliable Portfolio Optimization Formulation of a Chance Constrained Problem*, 29th May 2017.
30) GIAN Workshop: Multiobjective Optimization Using Metaheuristics (invited speaker: Prof. Carlos C., COELLO, Computación Computación, Cinvestav Av Instituto Politécnico Nacional, MEXICO), IIT Kanpur, INDIA, 03th-March-2018 to 07th-March-2018.
31) GIAN Workshop: Data Analytics for Operations Research (invited speaker: Prof. Garud IYENGAR, Columbia University, USA), IIT Kanpur, INDIA, 14th-Nov-2018 to 18th-Nov-2018.
32) IEOR Department, IIT Bombay, INDIA. (Diamond Jubilee Celebration Invited talk), *Reliability and Robust Portfolio Optimization: An Introduction*, 30-Mar-2019 to 31-Mar-2019.
33) Indian Institute of Management Lucknow, INDIA., *Reliability and Robust Portfolio Optimization: An Introduction*, 23-Aug-2019.

## Administrative Activities

1) Evaluator for Olymbiz, Techkriti, IIT Kanpur (2003).

2) Evaluator for Megabucks, IIT Kanpur (2003).
3) Placement Coordinator for IME department, IIT Kanpur (2004-05, 2006-07, 2007-08).
4) Seminar Coordinator for IME department, IIT Kanpur, (2005-06).
5) MBA Admissions in charge for IME department, IIT Kanpur (2008-09, 2009-10, 2010-11).
6) Coordinator IME Department day (held under aegis of GJ celebration of IIT Kanpur), 2010.
7) DPGC Convener for IME department, IIT Kanpur, (2011-12, 2014-2015).
8) Member of PG-ARC, IIT Kanpur, INDIA.
9) Member of PG (MBA)-ARC, IIT Kanpur, INDIA.
10) Vice Chairman, JEE (Advanced)-2013.
11) Chairman of Institute Gas Agency January – April 2013.
12) Vice Chairman (Organizing GATE), GATE/JAM-2015.
13) Chairperson Senate Elections Committee (2016-17).
14) National Coordinator: NPTEL (Channel 17) Mechanical Engineering and related topics.
15) Core member in the Institute of Eminence (IoE) committee.
16) IME Department Head (2017-2020).

## Programming Skills

1) Programming Languages: FORTRAN 77, FORTRAN 90, C, C++.
2) Mathematical Packages: MATLAB, SPSS, SPLUS, GAMS (Optimization), SLAM (Simulation), EVIEWS.

## Doctoral Students

| S No. | Name | Project/Thesis |
|---|---|---|
| 01 | Sunil AGRAWAL (Y111463) (co guide) | Information Sharing in a Supply Chain for the Deterministic and the Stochastic Lead Time Cases; (2003 – 2008) |
| 02 | Sambhu MUKHERJEE (Y221461) (co-guide) | Exploring the Duality in e-Governance Service Quality Assessment - A Study of National e-Governance Plan (e-NeGP) in India; (2004 – 2012) |
| 03 | Arnab SUR (Y8108066) (co-guide) | Study of stationarity concepts for a class of SMPCC problems; (2008 – 2013) |
| 04 | Priyanka SHARMA (14214261) | Three Essays in Business-to-Business Marketing: Brand Equity, Brand Sensitivity and New Product Exit Models |
| 05 | Anirban BANERJEE (15214261) | Work in Progress |

## Masters in Technology (M.Tech) Students [IME699]

1) Manish ROKDE (Y211408): "Simulation Study for the Forecasting and the Estimation Problems for the Multiple Linear Regression Model Using Asymmetric Loss Functions and Adaptive Multistage Sampling Methodologies": Area of work: "Forecasting Problem of a Dependent Variable"; June 2004.
2) Vijay Kumar AGRAWAL (Y211417): "Simulation Study for the Forecasting and the Estimation Problems for the Multiple Linear Regression Model Using Asymmetric Loss Functions and Adaptive Multistage Sampling Methodologies": Area of work: "Estimation Problem of a Linear Parametric Function"; June 2004.
3) Ashish CHANDRA (Y3114005): "Ranking of Software Companies for Campus Recruitment Using Fuzzy Analytical Hierarchy Process and Fuzzy Data Envelopment Analysis Methodologies"; May 2005.
4) Mayank SHARMA (Y4114007): "Use of Artificial Neural Network and Change Point Detection for Foreign Exchange Prediction"; May 2006.
5) Shashi KUMAR: "Prediction of Stock Index Returns with Neural Networks and Genetic Algorithm"; May 2006.

6) Deepak MISHRA (Y5114003): "Heuristic Approach for Optimization of CVaR for Non Normal Asset Returns with Probabilistic Constraints", May 2007.
7) Rohit SINGH (Y5114011): "Artificial Immune System in Corporate Bankruptcy Prediction: A Novel Data Analysis Technique Inspired by Vertebrae Immune System", June 2007.
8) Vipul AGARWAL (Y5114015): "Parametric Estimation for Generalized Exponential and Lognormal Distribution under Competing Risk Set up", May 2007.
9) Dinesh AGARWALLA (Y6114003) (co-guide): "Reliability Based Portfolio Optimization Considering Uncertainty in Parameter Estimates and Insight to the Use of Copulas", May 2008.
10) Rachit SETH (Y6114008): "Reliability in Portfolio Optimization Using Uncertain Estimates", May 2008.
11) Kapil Agrawal (co-guide): "Reliability Based Optimization Using Copula Theory", May 2008.
12) Ekta GUPTA (Y7114002) (co-guide): "Applying Change Point Detection to Exchange Rate Forecasting with Genetically Optimized and Simulated Annealed Second Order Neural Networks", June 2009.
13) Vineeta BHANDARI (Y7114008) (co-guide): "Portfolio Optimization considering Uncertainty of Parameter Estimates and Non-Normality of Asset Return using RBDO, EVT and Copula Theory", June 2009.
14) Siddharth SAHOO (Y5827447) (co-guide): "RBDO Problems for MVSK, CVaR and Asymmetric Loss Function", May 2010.
15) Sachin SRIVASTAVA (Y8114015): "Estimation of Means and Regression Coefficients for Convex combination of SEL and LINEX Loss Functions", June 2010.
16) Anuj AGARWAL (Y9114004): "Reliability of a System for the step stress model considering Type–II censored data using Lindley and Maxwell Distribution", July 2011.
17) Rakesh KUMAR (Y9114013): "Robust Portfolio Optimization of Chance Constrained Problems considering Extreme Value Distribution", June 2011.
18) Harshit KASHIV (Y7027168) (co-guide): "Robust Portfolio Optimization of Quadratic Constrained Quadratic Optimization (QCQP) Problems considering Extreme Value Distributions", November 2012.
19) Deborshi MALLICK (11114007): "Bayesian Estimation under LINEX loss functions", July 2013.
20) Babloo KUMAR (13114006) (co-guide): Effect of Degree of Financial Opening on Time Varying Betas, August 2013.
21) Govind KUMAWAT (13114009): Accelerated Life Testing under Combined Effects of External Stress and Usage Rate, (continuing).
22) Pradeepti NANDA (13114018): Robust Portfolio Optimization considering MLSAD and Multi-Objective Problem Formulations, June 2015.
23) Vikash Kumar JHA (16114024): Portfolio Optimization under Prospect Theory framework, July 2018.
24) Vishnu Kumar SHARMA (16114025): Parameter Estimation of Log Normal and Maxwell Accelerated Lifetimes with Censored and Complete Data, July 2018.
25) Kunal KOTAK (17114014) (co-guide): Short run and long run stock performance of share buybacks in India, May 2019.
26) Manish SHUKLA (17114015) (co-guide): Multi-objective Optimization Models on Reverse Logistics Network Design Problem, June 2019.

| **MSc. Projects Students (Economics) [ECO598 and ECO599]** | | |
|---|---|---|
| **S No.** | **Name** | **Project/Thesis** |
| 01 | Ankita PANWAR (Y8098) | Reliability Based Portfolio Optimization, 5th year project |
| 02 | Nitesh KUMAR (Y8323) | Credit Risk Modeling: Value at Risk (VaR), 5th year project |
| 03 | Shashank JAIN (Y9541) | Work in Progress and tentative completion July 2015 |

| **MSc. Project Students (Mathematics and Scientific Computing) [MTH598 and MTH599]** |
|---|

| S No. | Name | Project/Thesis |
|---|---|---|
| 01 | Utsav BOOBNA (Y0365) | Value at Risk: Implementation and relative study of the existing models, 5th year project, 2006 |
| 02 | Abhishek JAIN (Y3011) | Estimation using Balanced Loss Functions, 5th year project, 2009 |
| 03 | Abhishek KUMAR (Y3014) | Estimators for Convex Combination of Squared Error and LINEX Loss, 5th year project, 2009 |
| 04 | Nitish JALAN (Y8327) | Sequential Estimation Problems for the Multiple Linear Regression using Balanced Loss Function, 5th year project, 2013 |
| 05 | Shilpi JAIN (Y8477) | Sequential Estimation of Parameters for Normal, Exponential and Gamma Distribution using Convex Combination of SEL and LINEX loss Functions, 5th year project, 2013 |
| 06 | Ravi Nagarjun AKELLA (Y8053) | Analysis of ATM withdrawal Data", 5th year project, 2013 |
| 07 | Utkarsh DEEP (Y8541) | Statistical Arbitrage for Indian Stock market, 5th year project, 2013 |
| 08 | Akshit GOTHWAL (10061) | Study of Accelerated Life Testing Models, 5th year project , 2015 |

| **MBA Special Studies Students [MBA699]/MBA Capstone work** | | |
|---|---|---|
| **S No.** | **Name** | **Project/Thesis** |
| 01 | Anveeksha VARMA (11125008) | Decision Making Models, Sem-III |
| 02 | Awshesh SRIVASTAV (11125012) | Analysis of Stock Market using ARCH/GARCH Model, Sem-III<br>Time Series Modelling of Economic Variables", Sem-IV |
| 03 | Saurabh AWASTHI (11125053) | Extreme Value Theorem and Extreme Value Distribution", Sem-III.<br>Risk Measures in Extreme Value Distribution", Sem-IV |
| 04 | Sanjeet KUMAR (11125051) | Study of Copula Function, Sem-III.<br>Monte Carlo Simulation and its Application, Sem-IV |
| 05 | Anirban BANERJEE (13125008) | Basic Robust Portfolio Optimization Models, Sem-III.<br>Basic Robust Portfolio Optimization Models, Sem-IV |
| 06 | Supreet AGRAWAL (16125043) | |
| 07 | Vijay KUMAR (16125049) | |

| **Bachelors in Technology Project** | | |
|---|---|---|
| S No. | Name | **Project/Thesis** |
| 01 | Akshit GUPTA (10062) | Deterministic and Reliability Based Optimization Techniques Using Uncertain Estimates, Sem-VII and VIII |
| 02 | Apoorva KHANDELWAL (14122) | Estimation of Factor Models and Covariance Matrices in Portfolio Optimization |

## Visiting/Invited/Research/Teaching Positions

1) Visiting Faculty in the department of Industrial Engineering and Management at Mazandaran University of Science and Technology (MUST), Babol, IRAN, 5th Dec 2005 – 6th Jan 2006.
2) Visiting Scholar in the department of Statistik und Ökonometrie at Justus-Liebig-Universität Gießen, Gießen, GERMANY, 1st July – 15th July, 2007.
3) Visiting Faculty at S.P.Jain Centre of Management, Dubai, 21st July – 26th July, 2007.
4) Quantitative Finance training imparted at BA Continuum Solutions Pvt. Ltd., A Non-Banking subsidiary of Bank of American, 19th April – 20th April, 2008.

5) Visiting Faculty in the department of Industrial Engineering and Management at Mazandaran University of Science and Technology (MUST), Babol, IRAN, 1st June – 30th June 2008.
6) Visiting Scholar in the department of Statistik und Ökonometrie at Justus-Liebig-Universität Gießen, Gießen, GERMANY, 13th December – 17th December, 2008.
7) Visiting Scholar in the department of Statistik und Ökonometrie at Justus-Liebig-Universität Gießen, Gießen, GERMANY, 4th May – 12th May 2009.
8) Visionary Leadership for Manufacturing (VLFM): "Module: Leadership and Decision Making (Module Coordinator for LDM); Topic: Data Interpretation and Decision Making, 2008 till date.
9) 1st Quantitative Finance Workshop jointly conducted by (i) Indira Gandhi Institute of Development Research (IGIDR), Mumbai, INDIA, (ii) Indian Institute of Technology Kanpur, INDIA and (iii) Rensselaer Polytechnic Institute, USA, at IGIDR, Mumbai, INDIA, 17th – 20th December, 2009.
10) Institute for Technology and Management, Mumbai, INDIA: (i) "Basic Concepts in Quantitative Finance", 7th – 8th February, 2009; (ii) "Risk Management", May 2009 – July 2009; (iii) "Quantitative Methods - I ", August 2009 - October 2009; (iv) "Quantitative Methods - II", November 2009– January 2010.
11) Indira Gandhi Institute of Development Research (IGIDR), Mumbai, INDIA: "EVT and Copula Theory ", 26th – 27th February, 2010.
12) 2nd Quantitative Finance Workshop jointly conducted by (i) Indira Gandhi Institute of Development Research (IGIDR), Mumbai, INDIA, (ii) Indian Institute of Technology Kanpur, INDIA, (iii) Rensselaer Polytechnic Institute, USA and (iv) ITM Institute of Financial Markets, Mumbai, INDIA at ITM, Mumbai, INDIA, 19th – 22nd December, 2010.
13) Indian Institute of Science Education and Research (IISER) Pune, INDIA, Quantitative Finance, 9th August – 11th August 2011.
14) 3rd Quantitative Finance Workshop jointly conducted by (i) Institute for Development and Research in Banking Technology (IDRBT), Hyderabad, INDIA, (ii) Indira Gandhi Institute of Development Research (IGIDR), Mumbai, INDIA, (iii) Indian Institute of Technology Kanpur, INDIA and (iv) Rensselaer Polytechnic Institute, USA, at IDRBT, Hyderabad, INDIA, 14th – 17th December, 2011.
15) 4th Quantitative Finance Workshop jointly conducted by (i) Institute for Development and Research in Banking Technology (IDRBT), Hyderabad, INDIA, (ii) Indira Gandhi Institute of Development Research (IGIDR), Mumbai, INDIA, (iii) Indian Institute of Technology Kanpur, INDIA and (iv) Rensselaer Polytechnic Institute, USA, at IIT Kanpur, INDIA, 22nd – 25th December, 2012.
16) Portfolio Management and Derivatives (course), IIIT Jabalpur, 2012-2013, Sem-II.
17) Project Financing and Management (course), Defence Engineering College, ETHIOPIA, 22nd March – 3rd April 2013.

## Consultancy Activities

1) IRSS: "Business Statistics and Forecasting Methods"; October – November, 2004.
2) NADP: Six Sigma and its implication for Production Planning – July 2012.
3) IDRBT: "Decision Support Systems"; August 2011 – July 2014.

## References

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