Abhyuday Mandal
amandal@stat.uga.edu

EMPLOYMENT	Professor Department of Statistics University of Georgia, Athens	August 2018 – present
	Undergraduate Coordinator Department of Statistics University of Georgia, Athens	August 2016 – present
	Associate Professor Department of Statistics University of Georgia, Athens	August 2011 – August 2018
	Assistant Professor Department of Statistics University of Georgia, Athens	August 2005 – August 2011
EDUCATION	Ph.D. in Statistics Georgia Institute of Technology, Atlanta	September 2003 – August 2005
	Master of Arts in Statistics University of Michigan, Ann Arbor, MI	September 2001 – August 2003
	M.Stat in Mathematical Statistics and Probability Indian Statistical Institute, Calcutta, India	August 1999 – July 2001
	Bachelor of Statistics Indian Statistical Institute, Calcutta, India	August 1996 – July 1999

EDITORIAL BOARD

Associate Editor, Journal of Statistical Theory and Practice (ISSN: 1559-8608), September 2017 − present.

Associate Editor, Sankhya − Series B (ISSN: 0976-8386), March 2014 − present.

Associate Editor, Statistics and Probability Letters (ISSN: 0167-7152), August 2013 − present.

Associate Editor, International Journal of BioSciences and Technology (ISSN: 0974-3987), December 2012 − October 2016.

Associate Editor, Pioneer Journal of Theoretical and Applied Statistics (ISSN: 2230-9837), November 2010 − October 2016.

Guest co-Editor, Special issue on Discrete Choice Experiments: Theory and Applications, Journal of Statistical Theory and Practice, Taylor & Francis.

co-Editor, Handbook of Research on Applied Cybernetics and Systems Science, IGI Global, Hershey, PA.

BOOK CO-EDITED

1. Saha, S.; Mandal, A.; Narasimhamurthy, A.; Sarasvathi, V. & Sangam, S. (Eds., 2017). Handbook of Research on Applied Cybernetics and Systems Science (Advances in Computational Intelligence and Robotics), IGI Global, Hershey, PA.

BOOK CHAPTERS

2. Meng, C.; Wang, Y.; Zhang, X.; Mandal, A.; Zhong, W.; & Ma, P. (2017) "Effective Statistical Methods for Big Data Analytics", in *Handbook of Research on Applied Cybernetics and Systems Science*, Eds. Saha, S.; Mandal, A.; Narasimhamurthy, A.; Sarasvathi, V. and Sangam, S. , IGI Global.

3. Wang, K.; Mandal, A., Ayton, E., Hunt, R., Zeller, A. & Sharma, S. (2016) "Modification of protein rich algal-biomass to form bio-plastics and odor removal", In: *Protein Byproducts: Transformation from Environmental Burden Into Value-Added Products*, Ed. Dhillon, G.S., Elsevier publishers.

4. Mandal, A.; Yu, Y. & Wong, W.-K. (2015), "Algorithmic Searches for Optimal Designs", in *Handbook of Design and Analysis of Experiments*, Eds Dean, A., Morris, M., Stufken, J. and Bingham, D., Chapman and Hall/CRC, Series: Chapman & Hall/CRC Handbooks of Modern Statistical Methods, $755-783$.

JOURNAL ARTICLES

5. Kane, A. & Mandal, A. (2019), "A new analysis strategy for designs with complex aliasing", *The American Statistician*, accepted.

6. Bhattacharjeea, N.; Ranjan, P.; Mandal, A. & Tollner, E. W. (2019) "A statistical approach for calibrating the rainfall-runoff simulator", *Environmental and Ecological Statistics*, 26, $87-105$.

7. Chakraborty, A.; Datta, G. & Mandal, A. (2019), "Robust hierarchical Bayes small area estimation for nested error regression model", *International Statistical Review*, accepted. DOI: 10.1111/insr.12283

8. Lukemire, J.; Mandal, A. & Wong, W. K. (2019), "d-QPSO: A quantum particle swarm technique for finding D-Optimal designs with mixed factors and a binary response", *Technometrics*, 26, $87-105$.

9. Jones, A.; Pant, J.; Lee, A.; Goudie, M.; Gruzd, A.; Mansfield, J.; Mandal, A.; Sharma, S. & Handa, H. (2018), "Nitric oxide releasing antibacterial albumin plastic for biomedical applications", *Journal of Biomedical Materials Research: Part A*, 106, $1535-1542$.

10. Jones, A.; Mandal, A. & Sharma, S. (2018), "Antibacterial and drug elution performance of thermoplastic blends", *Journal of Polymers and the Environment*, 26(1), $132-144$.

11. Yang, J.; Tong, L. & Mandal, A. (2017), "D-optimal designs with ordered categorical data", *Statistica Sinica*, 27, $1879-1902$.

12. Zhang, W.; Mandal, A. & Stufken, J. (2017), "Approximations of the information matrix for a panel mixed logit model", *Journal of Statistical Theory and Practice*, 11, $269-295$.

13. Chakraborty, A.; Datta, G. & Mandal, A. (2016), "A two-component normal mixture alternative to the Fay-Herriot model", Joint issue of *Statistics in Transition new series and Survey Methodology* Part II, 17, $67-90$.

14. Yang, J.; Mandal, A. & Majumdar, D. (2016), "Optimal Designs for 2^k factorial experiments with binary response", *Statistica Sinica*, 26, $385-411$.

15. Jones, A.; Mandal, A. & Sharma, S. (2015), "Protein based bioplastics and their antibacterial potential", *Journal of Applied Polymer Science*, 132, 41931.

16. Datta, G. & Mandal, A., (2015) "Small Area Estimation with Uncertain Random Effects", *Journal of the American Statistical Association - Theory and Methods*, 110, 1735−1744.

17. Yang, J. & Mandal, A. (2015), "D-optimal Designs under Generalized Linear Models", *Communications in Statistics − Simulation and Computation*, 44, 2264−2277.

18. Kao, M. H.; Majumdar, D.; Mandal, A. & Stufken, J. (2013), "Maximin and Maximin-Efficient Event-Related FMRI Designs Under A Nonlinear Model", *Annals of Applied Statistics*, 7, 1940−1959.

19. Yang, J.; Mandal, A. & Majumdar, D. (2012), "Optimal Designs for Two-level Factorial Experiments with Binary Response", *Statistica Sinica*, 22, 885−907.

20. Kao, M. H.; Mandal, A & Stufken, J. (2012), "Constrained Multiobjective Designs for Functional Magnetic Resonance Imaging Experiments via a Modified Non-Dominated Sorting Genetic Algorithm", *Journal of the Royal Statistical Society: Series C (Applied Statistics)*, 61, 1-20.

21. Datta, G.; Hall, P. & Mandal, A. (2011), "Model Selection by Testing for the Presence of Small-area Effects in Area-level Data", *Journal of the American Statistical Association - Theory and Methods*, 106, 362-374.

22. Mandal, A.; Ranjan, P; & Wu, C. F. J. (2009), "*G*-SELC: Optimization by Sequential Elimination of Level Combinations using Genetic Algorithms and Gaussian Processes", *Annals of Applied Statistics*, 3, 398-421.

23. Kao, M. H.; Mandal, A. & Stufken, J. (2009), "Efficient Designs for Event-Related Functional Magnetic Resonance Imaging with Multiple Scanning Sessions", *Communications in Statistics − Theory and Methods: Celebrating 50 Years in Statistics Honoring Professor Shelley Zacks*, 38, 3170-3182.

24. Kao, M. H.; Mandal, A.; Lazar, N.; & Stufken, J. (2009), "Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies", *NeuroImage*, 44, 849-856.

25. Kao, M. H.; Mandal, A. & Stufken, J. (2008), "Optimal Design for Event-related Functional Magnetic Resonance Imaging Considering Both Individual Stimulus Effects and Pairwise Contrasts", *Special Volume of Statistics and Applications in Honour of Professor Aloke Dey*, 6, 225-241.

26. Dasgupta, T. & Mandal, A. (2008), "Estimation of process parameters to determine the optimum diagnosis interval for control of defective items", *Technometrics*, 50, 167-181.

27. Johnson, K.; Mandal, A. & Ding, T. (2008) "Software for Implementing the Sequential Elimination of Level Combinations Algorithm", *Journal of Statistical Software,* 25, 1-13.

28. Mandal, A.; Johnson, K.; Wu, C. F. J. & Bornemeier, D. (2007), "Identifying Promising Compounds in Drug Discovery: Genetic Algorithms and Some New Statistical Techniques", *Journal of Chemical Information and Modeling*, 47, 981-988.

29. Mandal, A.; Wu, C. F. J. & Johnson, K. (2006), "SELC: Sequential Elimination of Level Combinations by means of modified Genetic Algorithms", *Technometrics*, 48, 273-283.

30. Mandal, A. & Mukerjee, R. (2005), "Design Efficiency under Model Uncertainty for Nonregular Fractions of General Factorials", *Statistica Sinica,* 15, 697-707.

31. Mandal, A. (2005), "An Approach for Studying Aliasing Relations of Mixed Fractional Factorials Based on Product Arrays", *Stat. & Prob. Letters*, 75, 203-210.

32. Banik, P.; Mandal, A. & Rahaman, S. (2002), "Markov Chain Analysis of Weekly Rainfall Data in Determining Drought-proneness", *Discrete Dynamics in Nature and Society*, 7, 231-239.

33. Mandal, A. & Sengupta, D. (2000), "Fatal accidents in Indian Coal Mines", *Calcutta Statistical Association Bulletin*, 50, 95-120.

Book Review

34. Mandal, A. (2008), Matrix Algebra: Theory, Computations, and Applications in Statistics by James E. Gentle, *Journal of the American Statistical Association*, 103, 1716-1717.

Patents - filed

Sharma, S., Jones, A. & Mandal, A., (Filing date: 2016, March 30; Application number US 15/085,377). *US20160289449 A1, Protein-based bioplastics and methods of use.*

Works Submitted but not yet accepted - Under Revision

35. Xiao, Q.; Mandal, A.; Lin, C. D. & Deng, X. (2019) "EzGP: Easy-to-interpret Gaussian Process models for computer experiments with both quantitative and qualitative factors", under revision for *Technometrics.*

36. Lee, B. J.; Daubenmire, S.; Lee, E.; Saremi, R.; Rai, S.; Sriram, T. N.; Mandal, A. and Sharma, S. (2019) "The optimization of novel nanocellulose gel-reactive dye coating for textile applications", under revision for *Colourage.*

Works Submitted but not yet accepted

37. Goyal, S.; Datta, G. & Mandal, A. (2019), "Hierarchical Bayes unit-level small area estimation model for normal mixture populations".

38. Chakraborty, J.; Mandal, A. & Finkelman, R. B. (2019), "Association between geogenic organic contaminants in groundwater from Carrizo-Wilcox aquifer and the incidence of renal diseases: a preliminary study in east Texas".

39. Chowdhury, S.; Lukemire, J. & Mandal, A. (2019), "A-ComVar: A Flexible Extension of Common Variance Designs".

Any other − Under preparation

40. Jankar, J.; Mandal, A. & Yang, J. (2019), "Optimal cross-over designs for binary response".

41. Chakraborty, A.; Datta, G. & Mandal, A. (2019), "Robust small area estimation for area-level data".

42. Stokes, Z.; Mandal, A. & Wong, W. K. (2018), "Using differential evolution optimization to find optimal designs".

43. Zhang, W.; Mandal, A. & Stufken, J. (2019), "Optimal designs for a panel mixed logit model".

Any other − Unpublished

44. Bargo, A. M.; Mandal, A.; Seymour, L.; McDowell, J. & Lazar, N. A., "Social Network Models for Identifying Active Brain Regions from fMRI Data".

45. Chakraborty, A.; Mandal, A. & Johnson, K., "In Search of Desirable Compounds".

46. Meng, C., Xie, R., Mandal, A., Zhang, X., Zhong, W. and Ma, P., "LowCon: A design-based subsampling approach for robust least squares estimator".

GRANTS	"Comparison of Oconee and Ocmulgee river basins for sustainable ecosystem and economic development of Middle Georgia" − Georgia Institute of Technology, G16AP00047 (March 1, 2016 − Feb 28, 2017, Co-PI, $18000)

GRANTS

"Comparison of Oconee and Ocmulgee river basins for sustainable ecosystem and economic development of Middle Georgia" − Georgia Institute of Technology, G16AP00047 (March 1, 2016 − Feb 28, 2017, Co-PI, $18000)

"Water supply and its potential impact on economic development along the Macon-Hawkinsville reach of the Ocmulgee River" − Georgia Institute of Technology, G11AP20073 (March 1, 2015 − Feb 29, 2016, Co-PI, $17250)

"Optimal Design of Experiments for Binary Response" − National Security Agency H98230-13-1-0251. (single PI, May 08, 2013 − May 7, 2015, $40000)

Conference Grant: Co-PI: "Design and Analysis of Experiments 2012" − National Security Agency, $14670

Conference Grant: Co-PI: "Design and Analysis of Experiments 2012" − National Science Foundation, $20000

"Optimal Design of Experiments for Binary Response" − summer research grant provided by the University of Georgia Provost's Office. (July 01, 2012 − July 31, 2012, $5000)

"G-SELC: A New Global Optimization Technique Using Genetic Algorithms, Tabu Search and Gaussian Processes" − National Science Foundation DMS-0905731. (single PI, July 1, 2009 − June 30, 2012, $100,000).

"SELC: An Optimization Technique Motivated by Modified Genetic Algorithms" − faculty research grant provided by the University of Georgia Research Foundation. (Jan 03, 2006 − Dec 31, 2006, $8000)

AWARDS AND HONORS

Sandy Beaver Excellence in Teaching Award (2019), Franklin College of Arts and Sciences, University of Georgia.

Recognized by the UGA Provost's Office (2018), as one of the five finalists from the Franklin College for Outstanding Undergraduate Teaching Award.

Undergraduate Teacher of the Year Award (2017), Department of Statistics, University of Georgia.

Recognized by the UGA Provost's Office (2017), as one of the five finalists from the Franklin College for Outstanding Undergraduate Teaching Award.

Franklin College Outstanding Academic Advising Award (2015), University of Georgia.

Sarah H. Moss Fellowship (2013), University of Georgia.

Sarah H. Moss Fellowship (2011), University of Georgia.

IMS Laha Travel Award (2005), Joint Statistical Meetings/IMS Annual Meeting.

Mary G. Natrella Scholarship (2005), Quality and Productivity Research Conference, Minneapolis, MN.

SRC Student Scholarship (2005), Spring Research Conference, at Park City, Utah.

The QSR Best Student Paper Award (2004), INFORMS National Meeting in Denver.

Invited to attend the 2004 Future Academician Colloquium in Denver, CO, preceding the INFORMS National Meeting.

Team Champion in the ASA Stat Bowl at the 2004 Joint Statistical Meetings (JSM) in Toronto.

Best Student Research Paper Award in Theoretical Statistics (2004), Fifth Biennial International Conference on Statistics, Probability and Related Areas organized by International Indian Statistical Association, (Athens, Georgia).

John Morris Fellowship, Georgia Institute of Technology (2003).

Outstanding first year PhD Student Award, Department of Statistics, University of Michigan (2002). Only two students got the award for that year.

Scholarship and Certificate of Merit in National Talent Search Examination, 1994 conducted by National Council of Educational Research and Training (NCERT), India.

3rd in West Bengal(1993) and 2nd in West Bengal(1994) in Science Talent Search Exam conducted by National Science Society affiliated to Indian Science Congress.

Rank 13 (out of 450,000 students) in West Bengal in Secondary Examination (1994) and Rank 23 (out of 350,000 students) in West Bengal in Higher Secondary Examination (1996).

INSTRUCTION

Courses Taught: (): credit hours, []: Enrollment

1. STAT 6320 (3), Statistical Analysis II , Fall 2005, [23]
2. STAT 6210 (3), Introduction to Statistical Methods I , Spring 2006, [28]
3. STAT 6320 (3), Statistical Analysis II , Fall 2006, [26]
4. STAT 6210 (3), Introduction to Statistical Methods I , Spring 2007, [27]
5. STAT 8910 (3), Statistical Seminar , Spring 2007, [8]
6. STAT 6420 (3), Applied Linear Models , Fall 2007, [22]
7. STAT 6800 (3), Tools for Statistical Theory , Fall 2007, [13]
8. STAT 6210 (3), Introduction to Statistical Methods I , Spring 2008, [21]
9. STAT 6420 (3), Applied Linear Models , Fall 2008, [18]
10. STAT 6800 (3), Tools for Statistical Theory , Fall 2008, [19]
11. STAT 8910 (3), Statistical Seminar , Spring 2009, [16]
12. STAT 6420 (3), Applied Linear Models , Fall 2009, [25]
13. STAT 6800 (3), Tools for Statistical Theory , Fall 2009, [12]
14. STAT 4220 (3), Applied Experimental Designs , Spring 2010, [12]
15. STAT 4220 (3), Applied Experimental Designs , Fall 2010, [26]
16. STAT 6420 (3), Applied Linear Models , Fall 2010, [19]
17. STAT 6430 (3), Design and Analysis of Experiments , Spring 2011, [9]
18. STAT 4220 (3), Applied Experimental Designs , Fall 2011, [27]
19. STAT 6210 (3), Introduction to Statistical Methods I , Spring 2012, [24]
20. STAT 6430 (3), Design and Analysis of Experiments , Spring 2012, [9]
21. STAT 6360 (3), Statistical Software Programming , Summer 2012, [25]
22. STAT 4220 (3), Applied Experimental Designs , Fall 2012, [30]
23. STAT 6210 (3), Introduction to Statistical Methods I , Spring 2013, [28]
24. STAT 6430 (3), Design and Analysis of Experiments , Spring 2013, [9]
25. STAT 6360 (3), Statistical Software Programming , Summer 2013, [16]
26. STAT 4220 (3), Applied Experimental Designs , Fall 2013, [28]
27. STAT 4220 (3), Applied Experimental Designs , Spring 2014, [29]
28. STAT 6430 (3), Design and Analysis of Experiments , Spring 2014, [7]
29. STAT 8910 (1), Statistical Seminar , Spring 2014, [11]
30. STAT 6360 (3), Statistical Software Programming , Summer 2014, [16]
31. STAT 4220 (3), Applied Experimental Designs , Fall 2014, [30]
32. STAT 4950 (1), Undergrad Directed Study in Statistics , Fall 2014, [2]
33. STAT 8910 (1), Statistical Seminar , Fall 2014, [24]
34. STAT 4220 (3), Applied Experimental Designs , Spring 2015, [28]

35. STAT 4950 (3), Undergrad Directed Study in Statistics , Spring 2015, [2]

36. STAT 6430 (3), Design and Analysis of Experiments , Spring 2015, [6]

37. STAT 4950 (3), Undergrad Directed Study in Statistics , Fall 2015, [2]

38. STAT 4950 (1), Undergrad Directed Study in Statistics , Fall 2015, [1]

39. STAT 6420 (3), Applied Linear Models , Fall 2015, [29]

40. STAT 8910 (1), Statistical Seminar , Fall 2015, [33]

41. STAT 4220 (3), Applied Experimental Designs , Spring 2016, [39]

42. STAT 4950 (2), Undergrad Directed Study in Statistics , Spring 2016, [1]

43. HONS 4960H (3), Honors Undergraduate Research , Spring 2016, [1]

44. STAT 6430 (3), Design and Analysis of Experiments , Spring 2016, [12]

45. STAT 8910 (1), Statistical Seminar , Spring 2016, [16]

46. STAT 4220 (3), Applied Experimental Designs , Summer 2016, [10]

47. STAT 4950 (3), Undergrad Directed Study in Statistics , Fall 2016, [1]

48. STAT 8910 (3), Statistical Seminar , Fall 2016, [23]

49. STAT 4220 (3), Applied Experimental Designs , Spring 2017, [40]

50. STAT 4950 (3), Undergrad Directed Study in Statistics , Spring 2017, [1]

51. STAT 6430 (3), Design and Analysis of Experiments , Spring 2017, [13]

52. STAT 8910 (3), Statistical Seminar , Spring 2017, [24]

53. STAT 4220 (3), Applied Experimental Designs , Summer 2017, [13]

54. STAT 4950 (3), Undergrad Directed Study in Statistics , Summer 2017, [2]

55. STAT 4950 (1), Undergrad Directed Study in Statistics , Summer 2017, [1]

56. STAT 4220 (3), Applied Experimental Designs , Fall 2017, [26]

57. STAT 8910 (3), Statistical Seminar , Fall 2017, [21]

58. STAT 6430 (3), Design and Analysis of Experiments , Spring 2018, [12]

59. STAT 8910 (3), Statistical Seminar , Spring 2018, [17]

60. STAT 4950 (1), Undergrad Directed Study in Statistics , Spring 2018, [1]

61. STAT 4220 (3), Applied Experimental Designs , Summer 2018, [9]

62. STAT 4950 (1), Undergrad Directed Study in Statistics , Fall 2018, [1]

(Some of the numbers above are approximate)

Course Development:

STAT 6420 (Applied Linear Models): taught the first four offerings

STAT 6430 (Design and Analysis of Experiments): taught all the offerings until 2018

STAT 4220 (Applied Experimental Designs): restructured this course in Spring 2010

Supervision of Graduate Student Research:

- Ph.D. Students (Dissertation supervision):
  1. Ming-Hung (Jason) Kao, Statistics (2009, Arizona State University, co-direct with John Stufken)
  2. Adrijo Chakraborty, Statistics (2014, NORC at the University of Chicago, co-direct with Gauri Datta)
  3. Wei Zhang, Statistics (2018, Sprint Corporation, co-direct with John Stufken)
  4. Hongzhi Wang, Statistics (current student)
  5. Subham Das, Statistics (current student, co-direct with Gauri Datta)

- Master's Students (Thesis supervision):
  1. Tan Ding, Statistics (2006, Industry)
  2. Padmanand Madhavan Nambiar, Statistics (2015, Industry)
  3. Tae-young Pak, Statistics (2018, University of Alabama)
  4. Natalia Bhattacharjee, Statistics (2018, Institute for Health Metrics and Evaluation, University of Washington at Seattle)

Graduate Student Advisory Committee Membership:

- Service on Ph.D. Committees: Jianping Zhu (Forest Resources/Statistics, 2007), Lingling Han (Statistics, 2007), Mi Yeon Shim (Poultry Science, 2010), Hsin-Ping Wu (Statistics, 2013), Linwei Hu (Statistics, 2014), Xijue Tan (Statistics, 2015), Matthew Madison (Statistics, 2016), Natalia Bhattacharjee (College of Engineering, 2017), Xiaoxiao Sun (Statistics, 2018), Rui Xie (Statistics, 2019), Xinlian Zhang (Statistics, 2019), Hee Cheol Chung (Statistics, current), Juhyung Lee (Statistics, current), Wanxue Zou (Statistics, current), Sonny Ye Wang (Statistics, current).

- Service on Master's Committees: Tang Li (Statistics, 2008), Zhuofel Hou (Statistics, 2010), Mi Yeon Shim (Statistics, 2010), Jongmin Ra (Statistics, 2011), Siyan Hu (Statistics, 2011), Eugine Song (Statistics, 2012), Andrew Scott (Statistics, 2014).

Supervision of Undergraduate Research and Directed Study:

- Undergraduate Resrarch
  1. Brian J. Lee (Summer 2014, a student of Carnegie Mellon University)
  2. Andrew Kane (Fall 2014− Spring 2016, Federal Reserve Board)
  3. Samantha Cao (Fall 2014− Spring 2015, Industry)
  4. Joshua Lukemire (Fall 2014− Spring 2015, PhD Emory University)
  5. Zachary Stokes (Spring 2015− Spring 2016, PhD UCLA)
  6. Theresa Devasia (Fall 2015− Spring 2016, PhD University of Michigan)
  7. Rachel Zilinskas (Fall 2016 − Spring 2018, PhD University of Minnesota)
  8. Shuchi Goyal (Summer 2017 − Spring 2018, PhD UCLA)
  9. Xuanting Huang (Spring 2018 − Summer 2018)
- Directed Study
  1. Joseph Resch (Fall 2018, current student)
  2. Brittani Haag (Fall 2015, MS UNC Chapel Hill)
  3. Megan Elcheikhali (Spring 2017, Graduate study)
  4. Derek Dyal (Summer 2017, Graduate study)

Supervision of K 12 Students:

  1. Siri Jois (Summer 2017, an 11th grade student of Glenda Dawson High School)

PRESENTATIONS

INVITED

1. EzGP: Easy-to-Interpret Gaussian Process Models for Computer Experiments with Both Quantitative and Qualitative Factors, Ninth Triennial International Symposium on Probability and Statistics organized by Calcutta Statistical Association jointly with the Department of Statistics, University of Calcutta, December 2018.

2. EzGP: Easy-to-Interpret Gaussian Process Models for Computer Experiments with Both Quantitative and Qualitative Factors, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, October 2018.

3. Robust Methods in Small Area Estimation, 2018 IISA Conference on Statistics, Gainesville, FL, May 2018.

4. Robust Methods in Small Area Estimation, Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago, March 2018.

5. Data Science: All Hands Together − Statistics, Computer Science and Mathematics, Department of Mathematics and Statistics, Indian Institutes of Science Education and Research, Kolkata, India, December 2017.

6. d-QPSO: Finding Optimal Designs for Models with Many Continuous and Discrete Factors and a Binary Response, Design and Analysis of Experiments 2017, Los Angeles, CA, October 2017.

7. Small Area Estimation with Mixture of Random Effects, Operations Management and Quantitative Techniques, Indian Institute of Management Indore, India, June 2017.

8. Small Area Estimation with Mixture of Random Effects, Department Of Biostatistics And Bioinformatics, Emory University, March 2017.

9. Small Area Estimation with Mixture of Random Effects, Platinum Jubilee International Conference on Applications of Statistics, University of Calcutta, December 2016.

10. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Department of Mathematics and Statistics, Indian Institutes of Science Education and Research, Kolkata, India, December 2016.

11. Small Area Estimation with Uncertain Random Effects, School of Mathematics and Statistical Sciences, Arizona State University, October 2016.

12. Optimal Design of Experiments for Generalized Linear Models, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, October 2016.

13. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Department of Computer Science and Engineering, P.E.S. Institute of Technology - South Campus, Bangalore, India, September 2016.

14. Optimal Design of Experiments for Generalized Linear Models, Spring Research Conference, Chicago, IL, May 2016.

15. Optimal Design of Experiments for Generalized Linear Models, International Conference on Design of Experiments, Memphis, TN, May 2016.

16. Optimal Design of Experiments for Generalized Linear Models, R.C. Bose Memorial Session, Eighth Triennial International Symposium on Probability and Statistics organized by Calcutta Statistical Association jointly with the Department of Statistics, University of Calcutta, December 2015.

17. Optimal Design of Experiments for Generalized Linear Models, INFORMS Annual Meeting, Philadelphia, November 2015.

18. Optimal Design of Experiments for Generalized Linear Models, Department of Statistics, University of California at Davis, May 2015.

19. D-optimal designs with ordered categorical data, Design and Analysis of Experiments 2015, Cary, NC, March 2015.

20. Optimal Designs for Two Level Factorial Experiments With Binary Response, Statistics and Mathematics Unit, Indian Statistical Institute, Kolkata, India, December 2014.

21. Small Area Estimation with Uncertain Random Effects, Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago, August 2014.

22. Small Area Estimation with Uncertain Random Effects, Frontiers of Hierarchical Modeling in Observational Studies, Complex Surveys and Big Data: A Conference Honoring Professor Malay Ghosh, College Park, MD, May 2014.

23. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Department of Biostatistics, University of Minnesota, May 2014.

24. Optimal Designs for Two Level Factorial Experiments With Binary Response, Fourth International Workshop in Sequential Methodologies, University of Georgia, July 2013.

25. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, The 2nd Workshop on Biostatistics and Bioinformatics: Celebrating the International Year of Statistics, Georgia State University, Atlanta, GA, May 2013.

26. Optimal Designs for Two Level Factorial Experiments With Binary Response, Eighth Triennial International Symposium on Probability and Statistics organized by Calcutta Statistical Association jointly with the Department of Statistics, University of Calcutta, December 2012.

27. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Department of Statistics, University of California at Davis, November 2012.

28. Optimal Designs for Two Level Factorial Experiments With Binary Response, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, October 2012.

29. Optimal Designs for Two Level Factorial Experiments With Binary Response, H. Milton Stewart School of Industrial and Systems Engineering, Georgia Institute of Technology, Atlanta, GA, September 2012.

30. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, IMS/ASA Spring Research Conference 2012, Harvard University, June 2012.

31. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago, March 2012.

32. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Contemporary Issues and Applications of Statistics, Indian Statistical Institute, Kolkata, India, January 2012.

33. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Department of Mathematics and Statistics, University of Maryland, Baltimore County, September 2011.

34. Optimal Designs for Two Level Factorial Experiments With Binary Response, Statistical Society of Canada Annual Meeting, Wolfville, Canada, June, 2011.

35. Constrained Multi-objective Designs for Functional MRI Experiments via A Modified NSGA-II, International Conference on Design of Experiments, Memphis, TN, May 2011.

36. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Design and Analysis of Experiments in Modern-day Science and Technology, The Radcliffe Institute for Advanced Study at Harvard University, Cambridge, MA, March 2011.

37. Optimal Designs for Two Level Factorial Experiments With Binary Response, Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago, February, 2011.

38. Multi-objective Optimal Designs and Social Network Models for Identifying Active Brain Regions in Event-Related fMRI Studies, Applied Statistics Unit, Indian Statistical Institute, Calcutta, India, December 2010.

39. Estimation of Process Parameters to Determine the Optimum Diagnosis Interval for Control of Defective Items, Department of Mathematics and System Analysis, Aalto University, Finland, November 2010.

40. Optimal Designs for Two Level Factorial Experiments With Binary Response, INFORMS Annual Meeting, Austin, November 2010.

41. Multi-objective Optimal Designs and Social Network Models for Identifying Active Brain Regions in Event-Related fMRI Studies, Division of Biostatistics and Epidemiology. Medical University of South Carolina, Charleston, SC, September, 2010.

42. Social Network Models for Identifying Active Brain Regions from fMRI Data, Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago, April, 2010.

43. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Advances in Statistical Science - International Conference in Celebration of 90th Birth Anniversary of Professor C.R. Rao, Calcutta, January 2010.

44. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Seventh Triennial International Symposium on Probability and Statistics organized by Calcutta Statistical Association jointly with the Department of Statistics, University of Calcutta, December 2009.

45. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, INFORMS Annual Meeting, San Diego, October 2009.

46. G-SELC: Optimization by Sequential Elimination of Level Combinations Using Genetic Algorithm and Gaussian Processes, Joint Statistical Meeting, Washington DC, August, 2009.

47. G-SELC: Optimization by Sequential Elimination of Level Combinations Using Genetic Algorithm and Gaussian Processes, Spring Research Conference On Statistics in Industry and Technology, Vancouver, Canada, June 2009.

48. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Department of Statistics and Biostatistics, Rutgers University, March, 2009.

49. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago, February, 2009.

50. G-SELC: Optimization by Sequential Elimination of Level Combinations Using Genetic Algorithm and Gaussian Processes, Department of Biomedical Engineering and Computational Sciences, Helsinki University of Technology, November 2008.

51. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Department of Mathematics and Statistics, University of Helsinki, November, 2008.

52. G-SELC: Optimization by Sequential Elimination of Level Combinations Using Genetic Algorithm and Gaussian Processes, School of Industrial and Systems Engineering, Georgia Institute of Technology, Atlanta, GA, October 2008.

53. G-SELC: Optimization by Sequential Elimination of Level Combinations Using Genetic Algorithm and Gaussian Processes,, International Conference on Interdisciplinary Mathematical and Statistical Techniques, University of Memphis, May, 2008.

54. Estimation of process parameters to determine the optimum diagnosis interval for control of defective items, Indian Statistical Institute, Kolkata, December, 2007.

55. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, University of Clemson, November 2007.

56. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, Octoberber 2007.

57. Design Efficiency under Model Uncertainty for Nonregular Fractions of General Factorials, Sixth Triennial International Symposium on Probability and Statistics organized by Calcutta Statistical Association jointly with the Department of Statistics, University of Calcutta, December 2006.

58. Estimation of Process Parameters to Determine the Optimum Diagnosis Interval for Control of Defective Items, NISS Affiliates & NISS/SAMSI University Affiliates 2006 Annual Meeting

59. SELC: Sequential Elimination of Level Combinations by means of modified Genetic Algorithms, University of Clemson, December 2005.

60. SELC: Sequential Elimination of Level Combinations by means of modified Genetic Algorithms, Spring Research Conference, Park City, Utah, June 2005.

61. SELC: Sequential Elimination of Level Combinations by means of modified Genetic Algorithms, Fifth Biennial International Conference on Statistics, Probability and Related Areas organized by IISA, May 2004.

Contributed

62. Using Particle Swarm Optimization to Search for Optimal Designs for Mixed Factor Experiments with Binary Response, Spring Research Conference, Rutgers, New Brunswick, NJ, May 2017.

63. G-SELC: Optimization by Sequential Elimination of Level Combinations Using Genetic Algorithm and Gaussian Processes, Spring Research Conference, Georgia Institute of Technology, Atlanta, GA, May 2008.

64. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, International Conference on Statistical Paradigms: Recent Advances and Reconciliations, Indian Statistical Institute, Kolkata, January, 2008.

65. Multi-objective Optimal Experimental Designs for Event-Related fMRI Studies, Design and Analysis of Experiments (DAE), University of Memphis, Octoberber 2007.

66. Estimation of process parameters to determine the optimum diagnosis interval for control of defective items, Joint Research Conference, June, 2006.

67. Estimation of process parameters to determine the optimum diagnosis interval for control of defective items, Joint Statistical Meeting, August, 2006.

68. Sequential Elimination of Level Combinations by means of modified Genetic Algorithms, 28Th Annual Midwest Biopharmaceutical Statistics Workshop, Muncie, IN, May 2005.

69. Sequential Elimination of Level Combinations by means of modified Genetic Algorithms, 2005 Quality and Productivity Research Conference , Minneapolis, MN, May 2005.

70. Design Efficiency under Model Uncertainty for Nonregular Fractions of General Factorials, Joint Statistical Meeting, August, 2005.

71. SELC : Sequential Elimination of Level Combinations by Means of Modified Genetic Algorithms, INFORMS Denver, October 2004.

72. SELC: Sequential Elimination of Level Combinations by means of modified Genetic Algorithms, Joint Statistical Meeting, August, 2004.

73. Design Efficiency under Model Uncertainty for Nonregular Fractions of General Factorials, Fifth Biennial International Conference on Statistics, Probability and Related Areas organized by IISA, May 2004.

74. Multivariate Liquid Association with Application to Drug Optimization, INFORMS Atlanta, October, 2003.

75. Sequential Elimination of Levels in Design of Experiments Using Genetic Algorithms, INFORMS Atlanta, October, 2003.

76. Bayesian Designs for Factor Screening and Response Surface Exploration, Joint Statistical Meeting, August, 2003.

77. Optimal Designs for Model Selection, Pfizer Global Research and Development, December, 2002.

Service to Professional Societies:

- Served as a member of the IT/Multimedia Scientific Area Committee within the Organization of Scientific Area Committees (OSAC) of National Institute of Standards and Technology. (September 2014 − present).

- Served as the treasurer of the Georgia chapter of the American Statistical Association. (March 2018 − present).

- Conference Organizer:
    1. Co-Organizer, Georgia Statistics Day Conference 2018, Athens, GA, October, 2018.
    2. Co-Organizer, Georgia Statistics Day Conference 2015, Athens, GA, October, 2015.
    3. Local Organizing Committee member, Fourth International Workshop in Sequential Methodologies (IWSM2013), Athens, GA, July, 2013.
    4. Co-Organizer, Design and Analysis of Experiments Conference 2012, Athens, GA, October, 2012.
    5. Local organizer, NISS/SAMSI University Affiliates Annual Meeting, April, 2006.

- Conference Scientific Committee Member:
    1. Scientific Program Committee, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, October 2018.
    2. Steering Committee member, Georgia Statistics Day Conference 2016, Emory University, GA, October, 2017.
    3. Steering Committee member, Georgia Statistics Day Conference 2016, Georgia Institute of Technology, GA, October, 2016.
    4. Scientific Program Committee, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, September 2016.
    5. Scientific Program Committee, International Conference on Design of Experiments, Memphis, TN, May 2016.

- Conference Session Organizer and Chair:
    1. Session Organizer and Chair, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, October 2018.
    2. Session Organizer, International Indian Statistical Association (IISA) International Conference on Statistics, Hyderabad, India, December 2017.
    3. Session Organizer and Chair, Design and Analysis of Experiments, Los Angeles, CA, October 2017.
    4. Session Organizer and Chair, Spring Research Conference, Rutgers, New Brunswick, NJ, May 2017.
    5. Session Organizer and Chair, International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, September 2016.
    6. Session Organizer, International Chinese Statistical Association (ICSA) Applied Statistical Symposium, Atlanta, GA, June 2016.
    7. Session Organizer and Chair, Spring Research Conference, Chicago, IL, May 2016.
    8. Session Organizer, International Conference on Design of Experiments, Memphis, TN, May 2016.
    9. Session Organizer, International Statistics Conference: Statistics and Society in the New Information Age, Colombo, Sri Lanka, December 2014.
    10. Session Organizer, International Symposium on Business and Industrial Statistics, Durham, NC, June 2014.

11. Session Organizer, Statistical Society of Canada Annual Meeting, Wolfville, Canada, June, 2011.

12. Session Organizer, International Conference on Design of Experiments, Memphis, TN, May, 2011.

13. Session Chair, IMS/ASA Spring Research Conference 2012, Harvard University, June 2012.

14. Session Chair, International Conference on Design of Experiments, Memphis, TN, May, 2011.

15. Session Chair, Joint Statistical Meeting, Washington DC, August, 2009.

16. Session Organizer and Chair, Spring Research Conference On Statistics in Industry and Technology, Vancouver, Canada, June 2009.

17. Session Chair, Symposium on New Directions in Asymptotic Statistics, Athens, May, 2009.

18. Session Chair, Spring Research Conference, Atlanta, May, 2008.

19. Session Chair, INFORMS Atlanta, October, 2003.

Refereeing Journal and Proceedings Articles:

1. Reviewer of Journal of American Statistical Association (2),

2. Annals of Applied Statistics (2),

3. Journal of the Royal Statistical Society - Series C (5),

4. Technometrics (9),

5. Statistica Sinica (5),

6. Biometrics,

7. Canadian Journal of Statistics (4),

8. Journal of Multivariate Analysis,

9. Scandinavian Journal of Statistics,

10. Statistics and Probability Letters (8),

11. Journal of Statistical Planning and Inference (8),

12. Journal of Quality Technology (2),

13. The American Statistician,

14. Operations Research,

15. Journal of Statistical Theory and Practice (4),

16. Journal of the Korean Statistical Society,

17. Computational Statistics and Data Analysis (6),

18. Journal of Statistical Software,

19. Communications in Statistics − Theory and Methods,

20. Journal of Applied Statistics,

21. Statistics and Computing,

22. Journal of Indian Society of Agricultural Statistics,

23. Journal of Agricultural, Biological, and Environmental Statistics,

24. Statistics in Medicine (5),

25. IIE Transactions (2),

26. IISE Transactions (1),

27. PLoS ONE,

28. IEEE Transactions on Automation,

29. IIE Transactions on Quality and Reliability Engineering,

30. Naval Research Logistics,

31. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery,

32. Computers and Industrial Engineering (3),

33. Punjab University Journal of Mathematics,

34. Pakistan Journal of Science,

35. Chemometrics and Intelligent Laboratory Systems (2),

36. Journal of Chemical Information and Modeling,

37. Journal of Testing and Evaluation,

38. Journal of Statistical Distributions and Applications,

39. Journal of CO_2 Utilization.

Grant Review Panel Member:

1. Served on the GRFP Panel of National Science Foundation, Arlington, VA, January 2018.

2. Served on the DMS Panel of National Science Foundation, Arlington, VA, January 2018.

3. Served on the DMREF Math Panel of National Science Foundation, Arlington, VA, June 2015.

Ad hoc Grant Reviewer:

1. National Science Foundation − MMS Program (2016)

2. National Science Foundation − MMS Program (2013)

3. National Security Agency (2006)

External Evaluator of Promotion Dossier:

1. Evaluated promotion dossier to Clinical Associate Professor, 2014

Service on University Committees:

1. University Council (Fall 2015 − Spring 18)

Service on Departmental Committees:

1. Mentoring Committee of Muduranga Dassanayake − Chair: (2018−19)

2. Mentoring Committee of Yuan Ke − member: (2018−19)

3. Academic Professional Search Committee − member: (2018−19)

4. Ad Hoc Committee: Restructuring QEP and Comprehensive Examinations − Chair: (2018−19)

5. Ad Hoc Committee: Head Search Committee of Statistics − member: (2017−18)

6. Undergraduate Coordinator: (2016−17), (2017−18), (2018−19)

7. Academic Professional Search Committee − member: (2017−18)

8. Mentoring Committee of Shuyang Ray Bai − member: (2016−17), (2017−18), (2018−19)

9. Mentoring Committee of Qian Xiao − Chair: (2017−18), (2018−19)

10. Ad Hoc Committee: Annual Evaluation of Statistics Faculty − member: (2016−17)

11. Assistant Professor Search Committee − member: (2015−16), (2016−17)

12. BS in Data Science Committee − member: (2016−17), (2017−18), (2018−19)

13. Ad hoc committee: Re-evaluate STAT8910-20-30 Course sequence − member: (2015−16)

14. Colloquium Committee − Co-chair: (2013−14), (2014−15), (2015−16), (2016−17), (2017−18)

15. Colloquium Committee − Chair: (2006−07), (2008−09)

16. Computing Committee − member: (2016−17), (2017−18)

17. Computing Committee − Chair: (2007−08), (2008−09), (2009−10), (2010−11), (2014−15), (2015−16)

18. Research and Development Committee − member: (2013−14)

19. Research and Development Committee − Chair: (2012−13)

20. Search Committee for the Lecturer/Instructor Position − member: (2012)

21. Ad Hoc Committee: Graduate Program Policy and Procedures − member: (2007−08), (2008−09), (2009−10)

22. Graduate Committee − member: (2007−08), (2008−09)

23. Examination Committee − member: (2005−06), (2006−07), (2007−08), (2010−11), (2011−12), (2012−13)

Other Services to the Department:

1. Statistics Club Advisor (Fall 2007 − Summer 2018)

2. Organizer of Annual Bradley Lecture Event

3. Organizer of Industry Day Events

Professional Memberships:

1. American Statistical Association

2. Elected Member of International Statistical Institute