

KUMER PIAL DAS

Office of Research and Sponsored Programs
Lamar University, Beaumont, TX 77710

Phone: (409) 880-7947
Email:kumer.das@lamar.edu

MAJOR AREAS OF RESEARCH AND APPLICATIONS

Statistics; Stochastic Processes; Actuarial Mathematics; Undergraduate Research; International Education; University Retention.

RESEARCH AND WORK EXPERIENCE

- 2017- Present Interim Associate Provost, Office of Research and Sponsored Programs, LU, TX
- 2017- Present Professor, Department of Mathematics, Lamar University (LU), TX
- 2013 - Present Founding Director, The Office of Undergraduate Research, LU, TX
- 2013 - Present Councilor, Council on Undergraduate Research, Washington, DC
- 2011 - 2017 Associate Professor, LU, Beaumont, TX
- 2012 - 2013 Research Faculty Fellow for the Program on Data Driven Decisions on Healthcare, Statistical and Applied Mathematical Sciences Institute, Research Triangle Park, NC
- 2012 - 2013 Visiting Associate Professor of Statistics, University of North Carolina at Greensboro, Greensboro, NC
- 2005 - 2011 Assistant Professor, LU, TX.
- 2003 - 2005 Instructor, Auburn University, Auburn, AL
- 1999 - 2003 Graduate Teaching Assistant, Auburn University, Auburn, AL
- 1998 - 1999 Statistical Analyst, World Bank Project, Dhaka, Bangladesh

EDUCATION

- May 2005 Ph.D., Mathematics, Auburn University, Auburn, Alabama
Research area: Probability Theory, Statistics, Actuarial Mathematics.
Dissertation Title: The joint distribution of surplus immediately before
the ruin and deficit at ruin.
Advisor: Professor Jerry A. Veeh
- October 1998 M.S., Statistics, University of Dhaka, Dhaka, Bangladesh
Thesis: Reproductive Health: A Life Table Approach.
- June 1996 B.S., Statistics, University of Dhaka, Dhaka, Bangladesh
Minor: Mathematics and Economics

A. TEACHING PROFICIENCY

- Years teaching at college level-18 years 2000-Present
(Auburn University, UNC Greensboro, Lamar University)
- Years teaching at Lamar University-12 years 2005-Present

COURSES TAUGHT

- MATH 1342 Elementary Statistics
MATH 2413 Calculus I
MATH 3312 Probability, Statistics and Statistical Modeling
HNRS 3161 Theory of Interest
HNRS 3161 Undergraduate Research
MATH 3321 Discrete Structure
MATH 3325 Statistical Analysis with SPSS
MATH 3370 Introduction to the Theory of Statistical Inference
MATH 4331 Special Problems
MATH 4380 Theory of Statistical Inference
MATH 4317 Introduction to Probability Theory and Stochastic Processes
MATH 5317 Probability Theory and Stochastic Processes
MATH 5380 Statistical Inference

COURSES TAUGHT

(while Visiting Associate Professor at UNC Greensboro)

- STA 551 Introduction to Probability
STA 552 Introduction to Mathematical Statistics

COURSE AND CURRICULUM DEVELOPMENT

1. I have personally developed the following four entirely new courses (Math-3312-48: Probability, Statistics and Statistical Modeling, Math-3325: Statistical Analysis with SPSS, Math-4317: Introduction to Probability Theory and Stochastic Processes and Math-5317: Probability Theory and Stochastic Processes. Math-3312-48 course is offered almost in

- each semester. This course has had a high enrollment since 2007, with about 800 students having enrolled in it.
2. I am serving as a liaison between the university and the Society of Actuary (SOA) for credit through Validation by Education Experience (VEE) requirements since 2007. Five LU courses (two ECON, two FINC and one MATH courses) have been approved for VEE credit by SOA. LU students receive SOA credits towards their associateship or fellowship for these courses.
 3. I have served as a liaison between the department and a textbook company that provides statistics textbook and software for an online course for the last eight years.
 4. I have also provided support in establishing the minor in statistics program in the department.
 5. With the support of my colleagues, we have designed and implemented a new degree plan in statistics. This program has attracted a good number of new students to the department in the past seven years.
 6. Served as an external advisor in the improvement of population science curriculum for the Department of Population Science and Human Resource Development, Rajshahi University, Rajshahi, Bangladesh (2014-2015)
 7. Served as a member of the quantitative reasoning course committee, Lamar University (2007-2009)
 8. Served as the chair of the Algebra, Trigonometry and Pre-Calculus course committee and taken steps to propose alternatives to College Algebra (Math 1314) course. (2007-2009).

STUDENT ACCOMPLISHMENTS

- My graduate students won two first place awards at the 5th Annual Texas STEM Conference in 2017. Tyler Evans won the best graduate oral presentation award for his presentation “Competitive intergenerational population dynamics with stochastic Lotka-Volterra: preliminary results”. Mithun Acharjee also won the best graduate oral presentation award for his presentation “Air quality and lung cancer: analysis via local control”.
- Chelsea Boling won the best undergraduate poster award (3rd best among all undergraduate and MS students) at the Conference of Texas Statisticians (COTS) 2014. Anthony Daspit won the similar award in 2012 COTS. Asim Dey, a graduate student won the award in 2015 COTS.
- Five graduate students received NSF funded travel grant in last four years.
- McNair mentor for Chelsea Boling (2014).
- Addressing the Gulf Coast Region’s Graduation Rate Crisis in Mathematics and Computer Science (ASCENT) mentor for Kendall Kirk (2013), Chelsea Boling (2014), Cameron Henry (2015-Present).
- Audrene Edwards has won a national award in a statistics competition. Her project “Shakin’ Things Up: Using the Statistical Approach to Model Natural Disasters” came

in *3rd Place* in the Undergraduate Research Project Competition-2014 sponsored by the American Statistical Association.

- Audrene Edward's application to the Poster on the Hill competition in 2014 has received *Honorable Mention* by the Council on Undergraduate Research. She has also been selected as a National Alliance Scholar.
- Jaylen Lee, a 2016 REU participant from James Madison University has been selected by the Council on Undergraduate Research (CUR) for the 2016 CUR REU Symposium. Poster presentation will take place on October 23-24, 2016 at the National Science Foundation's atrium.
- Have 12 peer-reviewed and conference publications with graduate students (three under review).
- Have 7 peer-reviewed and conference publications with eleven undergraduate students (one under review).
- Thirty one undergraduate students presented 60 talks/poster in national and regional conferences.
- Sixteen graduate students presented 22 talks/poster in national and regional conferences.

TEACHING AWARDS

1. Robert V. Hogg Award for Excellence in Teaching Introductory Statistics (2016), by the Special Interest Group of the Mathematical Association of America (SIGMAA) on Statistics Education.
2. Faculty Mentoring Award (2015), Mathematics and Computer Science Division, Council on Undergraduate Research.
3. Henry L. Alder Award (2013) for distinguished teaching, Mathematical Association of America (MAA).
4. Nominated for the Piper Professor Award (2013), The Piper Foundation, TX.
5. Nominated for the University Merit Award (2011), Lamar University, TX.

MAJOR ADVISOR TO THE FOLLOWING MS STUDENTS

1. Tyler Evans, proposed thesis title "Competitive intergenerational population dynamics with stochastic Lotka-Volterra". Expected Graduation in Spring 2018.
2. Success Itheagwam, proposed thesis title "A persual of the ethics of data mining and consolidation in a network-prevalent society". Expected Graduation in Spring 2018.
3. Mithun Acherjee, proposed thesis title "Dimension reduction of gene expression data". Expected Graduation in Spring 2018.
4. Tariquel Islam, proposed thesis title "A compromise between the block maxima and peak over threshold approach in extreme value theory". Expected Graduation in Spring 2018.
5. Audrene Edwards, proposed thesis title "Using statistical approach to model crude oil data". Graduated in Fall 2016.

6. Chris Sams, Thesis title “Estimating the parameters of generalized Pareto distribution”. Graduated in Spring 2015.
7. Asim Dey, Thesis title “Modeling Extreme Hurricane Damage in the United States”. Graduated in Summer 2015.
8. Mujib Chowdhury, Thesis title “Data dimension reduction approaches”. Graduated in Summer 2015.
9. Shaymal Halder, Thesis title “Use of generalized extreme value theorem in stock market data analysis”. Graduated in Summer 2014.
10. J. Hapuwitharana, Thesis title “Comparing singular value decomposition and non-negative matrix factorization”. Graduated in Spring 2014.
11. Gui Li Liu. Thesis title “Fitting extreme values in Generalized Pareto Distribution”. Graduated in Spring, 2013.
12. Shan Lu. Thesis title “From binomial option pricing model to Black-Scholes option pricing model”. Graduated in Summer, 2011.
13. Md. Sarker. Thesis title “A review of Panjer’s recursion for evaluation of compound negative binomial distribution using R”. Graduated in Summer 2011.
14. Saiful Islam. Thesis title “A skew normal approach to the aggregate claim”. Graduated in Summer 2011.
15. Reena Patel, Thesis title “The probability and severity of ruin”. Graduated in Spring 2010.

MAJOR CO-ADVISOR TO THE FOLLOWING PHD STUDENT AT AUBURN UNIVERSITY

1. Shaymal Halder, tentative dissertation topic “Non-parametric approach of extreme value theory”, expected graduation Spring 2019.

GRADUATE COMMITTEE ADVISING AT LU

1. Served as a MS committee member for K. Abrokwah, Graduated in Fall 2015.
2. Served as a MS committee member for Saiful Islam Graduated in Summer 2014.
3. Served as a MS committee member for Wesley Hoffer. Graduated in Fall 2014.
4. Served as a MS committee member for Gopal Nath. Graduated in Summer 2014.
5. Served as a MS committee member for Kim Wesberry. Graduated in Summer 2013.
6. Served as a Doctoral committee member for Ahmed Khago, Department of Industrial Engineering. Graduated in Spring 2011.
7. Served as a MS committee member for Curtis White. Graduated in Summer 2009.

B. SCHOLARLY RESEARCH ACTIVITIES

PEER REVIEWED JOURNAL PUBLICATIONS

(*indicates student collaborator)

1. Rezvan, K. and Das, K., (2017) “Analyzing International Students Study Anxiety in Higher Education”, *Journal of International Students*, Vol. 7, No. 2, pp. 311-328.
2. Das, K., Sams, C.*, and Singh, V. (2016) “Characterization of the tail of river flow data by generalized Pareto distribution”, *Journal of Statistical Research*, Vol 48-50, No. 2, pp. 55-70.
3. Dey, A*, and Das, K., (2016) “Quantifying the risk of extreme aviation accidents”, *Physica A: Statistical Mechanics and Applications*, 463, 345-355.
4. Halder, S*. and Das, K. (2016), “Understanding extreme stock trading volume by generalized Pareto distribution”, *The North Carolina Journal of Mathematics and Statistics*, 2, 45-60.
5. Curl, E., Smith, S., Chisholm, L., McGee, L. and Das, K. , (2016), “Effectiveness of Integrated Simulation and Clinical Experiences Compared to Traditional Clinical Experiences for Nursing Students”, *Nursing Education Perspectives*, 37(2), 72-77.
6. Dey, A*, and Das, K., (2016), “Modeling Extreme Hurricane Damage using the Generalized Pareto Distribution”, *American Journal of Mathematical and Management Sciences*, 35(1), 55-66.
7. Edwards*, A and Das, K. (2016), “Using the statistical approach to model natural disasters”, *American Journal of Undergraduate Research*, 13(2), 87-104.
8. Boling*, C. and Das, K. (2015), “Reducing dimensionality of text documents using latent semantic analysis”, *International Journal of Computer Applications*, 112(5), 9-12.
9. Dey, A*, Hossain, Md. and Das, K., (2015), “Regression Analysis for Data Containing Outliers and High Leverage Points”, *Alabama Journal of Mathematics*, 39, 1-6.
10. Das, K., (2013), “From inquiry-based learning to student research in an undergraduate mathematics program”, *PRIMUS: Problems, Resources, and Issues in Mathematics Undergraduate Studies*, 23(9), 829-837.
11. Das, K., Mahavier, W. (2012), “Further results of the joint distribution of the surplus immediately before and after the ruin”, *Journal of Statistical Theory and Practice*, 6 (2), 344-353.
12. Das, K., Islam*, AKM, Chiou, P. (2011), “A Skew-Normal approximation to the distribution of aggregate claims”, *Journal of Probability and Statistical Science*, 9(1), 93-104.
13. Das, K., and Wilkinson, M. (2011), “The effects of gender, class level and ethnicity on attitude and learning environment in college algebra course”, *Journal of Mathematical Sciences and Mathematics Education*. 6(2), 44-55.
14. Das, K, Sarker*, S. and Diawara, N. (2011), “A Review of Panjer’s Recursion for Evaluation of Compound Negative Binomial Distribution using R”, *Missouri Journal of Mathematical Sciences*, 23(2), 182-191.
15. Duplan*, N., Hall*, C., Nguyen*, J., Willis*, C. and Das, K. (2011), “The Mathematical Approach to Evaluating the Elasticity of a Bonus-Malus System”, *The Pi Mu Epsilon Journal*, 13(5), 269-276.

16. Das, K. (2010), "Bounding the ruin probability under interest force", *The Journal of Applied Probability and Statistics*, 5(1), 119-127.
17. Diawara, N and Das, K. (2010), "The Joint Distribution of Bivariate Exponential under Linearly Related Model", *Pakistan Journal of Statistics and Operation Research*, 6(1), 1-19.
18. Das, K. (2010), "A Stochastic Approach to the Bonus-Malus System", *Neural, Parallel and Scientific Computation*, 18(3), 283-290.
19. Das, K., (2009), "Ruin Probability under Interest Force: A Martingale and a non-Martingale Approach", *The Journal of Stochastic Analysis and Applications*, 27(6), 1223-1230.
20. Das, K. (2008), "Reading and Mathematics connection: English Language Learner Students Perspective", *Journal of Mathematical Sciences and Mathematics Education*. 3(2), 48-55.
21. Jennings, M* and Das, K. (2007), "A Statistical Approach to the Battle of Sexes", *Lamar University Electronic Journal of Student Research*. Vol 7.

BOOK

Chapter Author, Handbook of Applied Hydrology, McGraw Hill

SUBMITTED FOR PEER REVIEWED JOURNAL PUBLICATIONS

(*indicates student collaborator)

1. Lee, J*, Ciccarello, S*, and Das, K. "Dimension reduction of gene expression data", *Journal of Statistical Theory and Practice*, Under Review (Submitted: 9/8/2016).
2. Das, K., Hapuwitharana, J*, Daniel, J., Young, S.S. , "Comparing principal component analysis, singular value decomposition and non-negative matrix factorization using US mortality data", *Journal of Probability and Statistics*, Under Review (Submitted: 7/29/2016).
3. Gomes, A., Atambo, D., Das, K*, Cocke, D., and Das, K. "Electrochemical Remediation of Chicken Processing Plant Wastewater", *Industrial and Engineering Chemistry Research*, Under Review (Submitted: 9/6/2016).
4. Acharjee, M*, Forhad, M. and Das, K. "Impact of Birth Spacing on Nutritional Status of Children under Age Five: Empirical Evidence Based on Bangladesh Demographic and Health Survey, 2014 data", *BioMed Central Public Health*, Under Review.

WORK IN PROGRESS

(*indicates student collaborator)

1. Das, K., Dadhli-Theis*, A., Heller, A, and Young, S.S., "Reliability of a Meta-analysis of observational studies".

2. Henry*, C., Morgan*, A., Trent*, M. and Das, K., “Analyzing retention rate using statistical methods”.
3. Das, K., Pannu, J. and Couch, P.J., “Investigating Students’ Misconceptions about Confidence Intervals”.

PEER REVIEWED CONFERENCE PROCEEDINGS PUBLICATIONS

(*indicates student collaborator)

1. Dey*, A and Das, K., (2016), “Modeling extreme aviation accidents by generalized Pareto distribution”, In JSM Proceedings, Statistical Computing Section. Alexandria, VA: American Statistical Association, 3417-3434.
2. Das, K. P., Daniel, B. D., Andrei, S., Osborne, L. J. (2016), *ASCENT - A Program Designed to Support STEM Students through Undergraduate Research and Mentoring*, Paper presented at 2016 ASEE Annual Conference Exposition, New Orleans, Louisiana. 10.18260/p.26282
3. Das, K, Jackson, M., Keller, S., LaLonde, D, Shipp, S., Utts, J. and Ward, M., (2016, April), “ASA receives grant to establish series of REUS”, The AMSTAT News, pp. 20-21.
4. Boling*, C. and Das, K. (2014), “Semantic similarity of documents using Latent semantic analysis”, Proceedings of the National Conference on Undergraduate Research (NCUR), University of Kentucky, KY. 1083-1092.
5. Chirontoni*,P., Gomes, A., Das,K., and Sarker, T*. (2014) “Electrochemical Measurement of Toxic Metal Contaminants in the Waters of the Golden Triangle Area”, accepted, Proceedings of National Conference, On Undergraduate Research (NCUR) 2013 University of Kentucky, KY, April 3 5, 2014.
6. Dey*, A and Das, K., (2014), “Quantifying extreme Hurricane risk in the US Gulf Coast”, In JSM Proceedings, Statistical Computing Section. Alexandria, VA: American Statistical Association, 4356-4365.
7. Das, K., Powell, J., Katzoff, M. and Young, S. (2013), “A non-negative matrix factorization analysis of a multiple choice education test”, In JSM Proceedings, Statistical Computing Section. Alexandria, VA: American Statistical Association, 1839-1849.
8. Daspit*, A. and Das, K. (2012), “The generalized Pareto distribution and threshold analysis of normalized Hurricane damage in the United States Gulf Coast”, In JSM Proceedings, Statistical Computing Section. Alexandria, VA: American Statistical Association, 2395-2403.
9. Das, K. and Patel*, R. (2010), “Numerical Approximation to the Probability of Ruin”, Proceedings of Neural, Parallel and Scientific Computations, 4, 114-118.
10. Tomlinson, C., Craig, B., and Das, K. (2010), “Guidance Notes on Safety Culture”, American Bureau of Shipping.
11. Das, K. (2010), “Hurricanes and Typhoons”, Encyclopedia of Mathematics and Society, Salem Publication.

12. Craig, B. Congleton, J. and Das, K. (2010), "Potential Psychological Risk Factors and Occupational Injury/Illness", Proceedings of the 2010 Industrial Engineering Research Conference.
13. Craig, B., Das, K. and Khago*, A. (2010), "Shipboard and Shore Side Perception of Safety Culture". Proceedings of the Institute of Industrial Engineers Annual Conference.
14. Das, K. and Sarker*, S. (2009), "A Review of Panjers Recursion for Evaluation of Compound Negative Binomial Distribution using R", In JSM Proceedings, Statistical Computing Section. Alexandria, VA: American Statistical Association. 1121-1131.
15. Das, K. (2007), "An Analysis of Mathematics TAKS Data: English Language Learners Perspective", The Hispanic Outlook in Higher Education.

INVITED COLLOQUIUM/ CONFERENCE PRESENTATIONS

1. "Reliability of a Meta-analysis of Observational Studies", with Adam Dadhli-Theis, Allen Heller and Stan Young, The 25th International Chinese Statistical Association Applied Statistics Symposium, Atlanta, GA, June, 2016.
2. "ASCENT - A Program Designed to Support STEM Students through Undergraduate Research and Mentoring", with Adam Dane Daniel, Stefan Andrei and Lawrence Osborne, American Society for Engineering Education Annual Conference & Exposition, New Orleans, LA, June, 2016.
3. "Perspective on Big Data from the view of a statistician", Big Data Seminar for the Social and Policy Sciences, Center for Advanced Academic Studies, University of Zagreb, Dubrovnik, Croatia, July, 2015.
4. "Modeling Extreme Aviation Accidents Using Generalized Pareto Distribution", 2015 Roeling Conference, University of Louisiana at Lafayette, Lafayette, LA, November, 2015.
5. "Generalized Pareto Distribution and it's Use in Extreme Value Theory", The International Conference on Applied Statistics, Dhaka, Bangladesh, December, 2014.
6. "Comparing Singular Value Decomposition and Non-negative Matrix Factorization Using US Mortality Data", Australian Statistical Conference in conjunction with the Institute of Mathematical Statistics Annual Meeting, Australian Technology Park, Sydney, Australia, July, 2014.
7. "Using text mining methods to analyze biomedical data". International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, October, 2014.
8. "Student views on the value of undergraduate research", International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, October, 2014.
9. "The study of extreme events", Mathematics Colloquium, November, 2014, Auburn University, AL.
10. "A non-negative matrix factorization analysis of a multiple choice education test", Rice University Colloquial, September, 2013.

11. "Discover Facts, Enrich Artistic Ability, and Increase the Sum of Knowledge: Get Involved in Undergraduate Research", University of Mary Washington Colloquial Talk, November, 2013.
12. "A non-negative matrix factorization analysis of a multiple choice test", Joint Statistical Meetings, Montreal, Canada, August, 2013.
13. "Contingency table analysis via matrix factorization", Data Driven Decision in Healthcare Transition Workshop, Research Triangle Park, NC, May, 2013.
14. "Recursive partitioning applied to complex sample survey data", Data Driven Decision in Healthcare Transition Workshop, Research Triangle Park, NC, May, 2013.
15. "Discover facts, enrich artistic ability, and increase the sum of knowledge: participate in undergraduate research", Alder Award talk, Mathfest-2013, Hartford, CT, August, 2013.
16. "Contingency table analysis via matrix factorization", Data Driven Decision in Healthcare Transition Workshop, Research Triangle Park, NC, May, 2013.
17. "Parameter Estimation for the Generalized Pareto Distribution", Wright State University Colloquial Talk, March, 2013.
18. "Stochastic Models in Organ Transplantation", SAMSI-undergraduate workshop, Research Triangle Park, NC, April, 2013.
19. "Use of stochastic processes in healthcare", AMS Special Session on Fractional, Hybrid, and Stochastic Dynamical Systems with Applications, Joint Mathematics Meetings, San Diego, CA, January, 2013.
20. "Estimating parameters of the Generalized Pareto Distribution", Old Dominion University Colloquial Talk, February, 2013.
21. "Stochastic approaches to health care decision", Colloquium, Department of Statistics, Rajshahi University, Bangladesh, July, 2012.
22. "Comparing methods of estimation in Generalized Pareto distribution". International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, October, 2012
23. "Use of Markov Decision Process in Organ Transplantation", Department of Statistics, Dhaka University, Bangladesh, July, 2012.
24. "Modeling Healthcare data using Markov Decision Process", American Mathematical Society Special Session on Stochastic Analysis, Joint Mathematics Meetings, Boston, January, 2012.
25. "Investigating Generalized Extreme Value Distribution", Colloquium Series of Clemson University, Clemson, SC, November, 2012.
26. "Method of moments in parameter estimation." Bi-State Math Colloquium, University of Wisconsin at Platteville, WI, November, 2012.
27. "Ruin probability under interest force", University of North Carolina Greensboro Colloquium Series, Greensboro, NC, November, 2011.
28. "Bounding the ruin probability", Statistical and Applied Mathematics Science Institute, Research Triangle Park, NC, November, 2011.

29. "Investigating the skew-normal distribution", Colloquium Series of University of Louisiana, Lafayette, LA, April, 2010.
30. "Use of skew-normal distribution in actuarial mathematics", Gulf Coast Conference on Probability and Statistics, University of South Florida, Tampa, FL, February, 2010.
31. "Introducing actuarial career to middle school and high school students", Lamar Achievement in Mathematics Program, Lamar University Beaumont, TX, June, 2010.
32. "Potential Psychosocial Risk Factors and Occupational Injury/Illness", with Dr. Brian Craig, Institute of Industrial Engineers Annual Conference, Cancun , June, 2010.
33. "A skew-normal approximation to the distribution of aggregate claims", First International Conference on Theory and Applications of Statistics, Dhaka, Bangladesh, December, 2010.
34. "Shipboard and shore side perception of safety culture", with Dr. Brian Craig, Institute of Industrial Engineers Annual Conference, Cancun , June, 2010.
35. "The Joint Distribution of the Surplus Immediately before and after the ruin", 12th International Conference on Statistics, Mathematics and Applications; Auburn, AL, December, 2005.

CONTRIBUTED ADDRESS AND POSTER PRESENTATIONS

1. "Quantifying extreme aviation accidents", with Asim Dey, Joint Statistical Meetings, Chicago, IL, August,2016.
2. "Investigating students misconceptions about confidence interval", with PJ Couch and Jasdeep Pannu, Joint Mathematics Meetings, Seattle, WA 2016.
3. "Analyzing International Students Study Anxiety in Higher Education", with Rezvan Khoshlessan, Education Research Conference, Beaumont, TX, March,2016.
4. "Studying Students misconceptions about confidence intervals", with PJ Couch and Jasdeep Pannu, Education Research Conference, Beaumont, TX, March,2016.
5. "Reading Interest of Middle School Students and Educational Achievement", with David Willard, Education Research Conference, Beaumont, TX, March,2016.
6. "Shakin Things Up: Using Statistics to Model Natural Disasters", with Audrene Edwards, Education Research Conference, Beaumont, TX, March,2015.
7. "Quantifying Extreme Hurricane Risk in the United States Gulf Coast", with Asim Dey, Joint Statistical Meetings, Boston, MA, August,2014.
8. "Modeling extreme values", Lamar University Mathematics Colloquium, Beaumont, TX, October,2014.
9. "Reading interest of middle school student and educational achievement", with David Willard, Education Research Conference, Beaumont, TX, March,2014.
10. "Using extreme value theory to model extreme data", Academic Enhancement Workshop, Lamar University, Beaumont, TX, March,2014.
10. "Big data is a big deal", Academic Enhancement Workshop, Lamar University, Beaumont, TX, October,2014.

11. "Value and relevance of an undergraduate engineering statistics course", Education Research Conference, Beaumont, TX, March, 2012.
12. "Investigating factors affecting the attitudes and learning environments of college algebra students", Education Research Conference, Beaumont, TX, March, 2012.
13. "Value and Relevance of an Engineering Statistics Course", Joint Mathematics Meetings, Boston, January, 2012.
14. "The Joint Distribution of the Surplus Immediately before and after ruin under interest force", The Conference of Texas Statistician, Texas A & M University, March, 2011.
15. "Investigating factors affecting the attitudes and learning environments of college algebra students", with MaryE Wilkinson, Education Research Conference, Lamar University, March, 2011.
16. "Quality of a good advisor", Lamar University Student Organization President and Advisor Reception and Training Session, Wednesday, November, 2011.
17. "A numerical method of solving ruin probability", Joint Mathematics Meetings, New Orleans, LA, January, 2011
18. "Comparing online and on-campus statistics class", Joint Mathematics Meetings, New Orleans, LA, January, 2011.
19. "Investigating factors affecting the learning of college algebra", with MaryE Wilkinson, Education Research Conference, Lamar University, March, 2010.
20. "A Stochastic Approach to the Bonus Malus System", Joint Mathematical Meetings, San Francisco, CA, January, 2010.
21. "Investigating the Compound Distribution", The Conference of Texas Statistician, Sam Houston State University, March, 2009.
22. "Bounding the ruin probability under interest force", Lamar Conference on Probability and Statistics, Lamar University, February, 2009.
23. "A Review of Panjers Recursion for Evaluation of Compound Negative Binomial Distribution using R", with Shamim Sarker, Joint Statistical Meetings, Washington, DC, August, 2009.
24. "Infinite divisibility under collective risk model", Texas Section MAA Meetings, Edinburg, TX, April, 2007.
25. "Reading and Mathematics Connection of an ELL students.", Texas Section MAA Meetings, Edinburg, TX, April, 2007.
26. "TAKS-MATH: Are we moving forward?.", Mathematics for English Language Learner (MELL) conference, San Marcos, TX, July, 2007.
27. "ELL students and their counterparts: An analysis of TAKS data", Mathfest, San Jose, CA, August, 2007.
28. "Misconceptions in Probability and Statistics", Mathfest, San Jose, CA, August, 2007.
29. "Martingales and stopping times", Lamar Math Colloquial, Beaumont, TX, November, 2007.
30. "Mental Mathematics: Fascinating and Fun.", Mathfest, Beaumont, TX, November, 2007.

31. "Actuarial science curriculum in a regional institution", Joint Mathematics Meetings, San Antonio, TX, January, 2006.
32. "A closer look at English Language Learner's performance on the Mathematics TAKS: what the data tells us?", Southwest Educational Research Association 28th Annual Conference, Austin, TX, February, 2006.
33. "The joint distribution of the surplus immediately before and after the ruin", Texas Section MAA Meetings, Wichita Falls, TX, April, 2006.
34. "Graphical representation of the Mathematics TAKS data: A reality check", Texas Section MAA Meetings, Wichita Falls, TX, April, 2006.
35. "TAKS data analysis", Mathematics for English Language Learner's Meetings, San Marcos, TX, July, 2006.
36. "A closer look at TAKS data", Mathematics for English Language Learner's Conference, Beaumont, TX, July, 2006.
37. "Analyzing the Mathematics TAKS data", Mathfest, Knoxville, TN, August, 2006.
38. "Introducing martingale in actuarial mathematics", Colloquium, Department of Mathematics, Lamar University, September, 2006.
39. "Auto rating game", Mathfest, Department of Mathematics, Lamar University, October, 2006.
40. "Ruin estimates under interest force", Colloquium, Department of Mathematics, Lamar University, November, 2005.

MEMBERSHIP IN LEARNED SOCIETIES

- Member, American Statistical Association (ASA)
- Member, Mathematical Association of America (MAA)
- Councilor, Council on Undergraduate Research (CUR)
- Member, American Society for Engineering Education (ASEE)
- Member, Beta Xi Chapter for Phi Beta Delta, Honor Society for International Scholars
- Steering Committee Member, Conference of Texas Statisticians
- Member, CUR Zotero Committee

SERVICE AS COMMENTATOR, PANELIST ETC. AT PROFESSIONAL MEETINGS

- Chair of 2 hours MAA session on "Probability and Statistics" at Joint Mathematics Meeting, Seattle, WA, January, 2016.
- Moderator/Representative Center for Undergraduate Research in Mathematics and Council on Undergraduate Research Booth, Joint Mathematics Meetings, Seattle, WA, January, 2016.
- Chair/moderator of 2 hours session on "Extreme Value Theory" at the International Conference on Applied Statistics, Dhaka, Bangladesh, December, 2014.

- Chair/organizer of 2 hours session on “Data Dimension Reduction Approaches” at the International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, October, 2014.
- Chair/moderator of 2 hours session on “Undergraduate Modeling Workshop” at the Statistical and Applied Mathematical Sciences Institute, Research Triangle Park, NC, May, 2013.
- Chair/organizer of 2 hours session on “Teaching and Research Innovations for Undergraduates” at the International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, October, 2014.
- Chair of 2 hours MAA session on “Probability and Statistics” at Joint Mathematics Meeting, San Diego, CA, January, 2012.
- Chair/moderator of 3 hours session on “Undergraduate Research in Probability and Statistics” at Center for Undergraduate Research in Mathematics Meetings, Provo, UT, March, 2010.
- Chair of 2 hours AMS contributed session on “Probability and Statistics” at Joint Mathematics Meeting, San Francisco, CA, January, 2010.
- Chair of 2 hours AMS research session on “Stochastic Processes” at Joint Mathematics Meeting, San Francisco, CA, January, 2010.
- Organizer/moderator of “How to Write an effective letter of recommendation”, Mathfest, San Jose, CA, August, 2007.
- Judge/moderator of “Mathematical Association of America Undergraduate Research Talk”, Mathfest, San Jose, CA, August, 2007.

REVIEWER AND REFEREE FOR

- The Journal of Stochastic Processes and Applications (JSAA)
- Missouri Journal of Mathematical Sciences.
- Involve: A Journal of Mathematics
- The Journal of Statistical Theory and Practice.
- PRIMUS, Problems, Resources, and Issues in Mathematics Undergraduate Studies.
- Stochastic Environmental Research and Risk Assessment
- Journal of International Students
- SpringerPlus
- Journal of Modern Applied Statistical Methods

RECEIPT OF RESEARCH AWARDS, SCHOLARSHIPS, FELLOWSHIPS

1. University Scholar Award (2015), Lamar University.
2. National Science Foundation Research Fellow (2012 - 2013); Statistical and Applied Mathematical Sciences Institute, Duke University, University of North Carolina and North Carolina State University.

3. Travel Support Grant Award (2010), American Statistical Association.
4. Project NExT Fellow (2006 - 2007); Mathematical Association of America.
5. Texas NExT Fellow (2006 - 2007); Texas Section Mathematical Association of America.

ATTRACTION OF FUNDED RESEARCH

(Funded at more than \$2 million)

1. S-STEM Scholarship grant. Funded by National Science Foundation (NSF) and Lamar University, \$590,000, PI with Dr. Dale Daniel, Dr. Stefan Andrei and Dr. Larry Osborne as co-PI. 2012-2017.
2. National Research Experience for Undergraduates Program (NREUP). Funded by National Science Foundation and Mathematical Association of America, \$28,000, PI with Dr. Jennifer Daniel as co-PI. 2016.
3. Research Experience for Undergraduates (REU), funded by National Science Foundation and American Statistical Association, \$40,000, PI.2016.
4. Local control for causal evaluation of PM2.5-mortality association. Funded by American Petroleum Institute, \$20,000, PI.2015-2016.
5. NSF Fellowship, Duke University and University of North Carolina at Chapel Hill, \$40,000; PI.2012-13.
6. Research Enhancement Grant; Research and Sponsored Program, Lamar University,\$10,000; PI.2013-2014.
7. Moore Method Apprenticeship Program at Lamar University. Funded by Education Advancement Foundation and Lamar University, \$360,000, Co-PI with Dr. Judy Kennedy as PI.2011-2015.
8. Mathematics for English Language Learners (MELL); Texas Education Agency (TEA), \$863,000; Co-PI with Drs. Ted Mahavier, MaryE Wilkinson and Joanne Baker as PI.2005-2010.
9. Leading Safety Indicator and Safety Culture Audit in Marine Industry; American Bureau of Shipping (ABS); \$165,000 ; Co-PI with Dr. Brian Craig as PI.2007-2010.
10. Center for Undergraduate Research in Mathematics mini-grant; National Science Foundation (NSF) and Brigham Young University; \$20,000; PI. 2009-2010.
11. Injury Analysis for the International Maritime Industry ; American Bureau of Shipping (ABS); \$60,000; Co-PI with Dr. Brian Craig as PI.2009-2010.
12. Research Enhancement Grant; Research office, Lamar University, \$10,000; PI.2008-2009.
13. Exxon-Mobil Student Research Grant; College of Arts and Sciences, Lamar University; \$2,000; PI.2008.
14. Statfest Grant; American Statistical Association; \$5,000; PI. 2008
15. Conference Grant, Department of Mathematics, Lamar university;\$3,500; PI.2008.

16. Education Policy Implementation Grant; Texas State University; \$2,500; Statistical Analyst.2008.
17. Online Course Development Grant; Distance Education, LU; \$1,000; PI.2007.
18. Southeast Texas Regional Innovation Project on Effective Simulations (Nursing: STRIPES); Nursing Department, Lamar University; \$287,625; Statistical Consultant with Dr. Eileen Curl as PI.2005-2007.

SUBMITTED RESEARCH PROPOSAL

1. REU Site at Lamar University. Submitted to National Science Foundation (NSF), \$266,000, PI with Drs. Jennifer Daniel, Jasdeep Pannu and Jose Vega-Guzman as co-PIs.2017-2019.
2. STEM Success in South East Texas. Submitted to Howard Hughes Medical Institute, \$1,000,000, co-PI with Dr. Jennifer Daniel as PI. 2017-2022.
3. Exploring the use of blended digital learning and mobile maker tools in an interdisciplinary freshman entrepreneurial experience. Submitted to National Science Foundation, \$226,712, Independent Evaluator with Dr. Nicholas Brake as PI. 2017-2019.

C. PROFESSIONAL ACHIEVEMENTS

RECOGNITION VIA HONORS, AWARDS, COMMENDATIONS INTO SOCIETIES

- Julie and Ben Rogers Community Service Award, Lamar University, 2015.
- Community Champion Award for hosting LU Free Math Clinic, Beaumont Independent School District, Beaumont, TX, 2014.

RECOGNIZED EXCELLENCE IN PROFESSIONAL SERVICE

- Panelist, Science, Mathematics and Research for Transformation (SMART) program, Department of Defense (2016-Present)
- Reviewer, Graduate Research Fellowship Program, National Science Foundation (2015-Present)
- Reviewer, Research Experience for Undergraduates, National Science Foundation (2012-Present)
- Reviewer, S-STEM Program, National Science Foundation (2010-Present)
- Reviewer, TUES Program, National Science Foundation (2011-2012)
- AP- Statistics Reader (2007-Present)
- Passed Society of Actuary (SOA) Exam-1, Exam-FM VEE-Statistics, VEE- Economics and VEE-Finance.

D. DEPARTMENT, COLLEGE AND UNIVERSITY AFFAIRS

SERVICE TO THE DEPARTMENT OF MATHEMATICS

- Member, Statistics/Probability Course Committee, Department of Mathematics (2005-Present)
- Member, Graduate Committee, Department of Mathematics (2007-Present)
- Member, Scholarship Committee, Department of Mathematics (2012)
- Member, STAIRSTEP Internal Advisory Committee (2011-2012)
- Liaison and Administrator, Validation by Educational Experience, Society of Actuary (2008-Present).
- Departmental Representative to the Southern Regional Conference on Statistics (2010-Present)
- Departmental Representative to the Conference of Texas Statistician (2008-Present)
- Have represented the department in the orientation program on multiple occasions (2011-Present)
- Have escorted more than 20 students to different conferences in the past five years (2011-Present)
- Have represented the department in the LU Commencement on multiple occasions (2011-Present)
- Have arranged and hosted more than 15 colloquium talks/guest talks in the past 5 years (2011-Present)
- Texas Mathematical Association Representative, Department of Mathematics (2012)
- Faculty Mentor to two junior faculty in the department (2014-Present)
- Was actively involved in the recruitment of 8 mathematics graduate students (2010-Present)
- Represented the department at the Cardinal Preview Day many times (2011-Present)
- Represented the department at the Grad Fair in many national and international conferences (2011-Present)
- Have represented the Department of Mathematics to the College of A & S Award Ceremony (2010-2012).
- Search Committee Member for three tenure-track faculty member search committees, Department of Mathematics (2014-2016)
- Search Committee Member for the chair search committee, Department of Mathematics
- Founder, LU Free Math Clinic for K-12 students (2014-2016)
- Director, ASCENT-A S-STEM Funded Program by the NSF (2012-Present)

SERVICE TO THE COLLEGE OF ARTS AND SCIENCES AND LAMAR UNIVERSITY

- Faculty Senator (2010-2012)
- Supported the American College Education (ACE) initiatives taken by Lamar University by developing courses for Higher Education Holdings (2009-2010)
- Committee Member for the Faculty-Students Relation Committee, College of Arts and Sciences (2011-2012 and 2013-2014)
- Attended the Candlelight Vigil for Nepal, May 4, 2015
- Member, Faculty Senate Budget Committee (2010-2012).
- Speaker and Organizer, International Student Welcome Ceremony at the reception hosted by the International Student Org. (2013-Present).
- Convener, International Mother Language Day celebration, Lamar University (2013-Present)
- Was actively involved in the recruitment of more than 40 graduate students (2010-Present)
- Honors Council Members (2014-Present)
- Internal Reviewer, Major Research Instrumentation by National Science Foundation, College of Arts and Sciences (2015)
- Reviewer, Presidential Faculty Fellowships in Support of Undergraduate Research/Creative Activity (2014-Present)

E. STUDENT RELATIONSHIPS

EVIDENCE OF ACADEMIC INVOLVEMENT WITH STUDENTS OUTSIDE THE CLASSROOM SETTING

- Mentor to both pre-doctoral and doctoral students in the National Alliance for Doctoral Studies in the Mathematical Sciences (2013 - Present)
- Dr. Melvin Brust Advisor of the Year Award, Lamar University (2012)
- Dr. Melvin Brust Advisor of the Year Award, Lamar University (2011)
- Under my advisement Bangladesh Student Association received the most improved student organization award at Lamar University (2010).
- Under my advisement Bangladesh Student Association received the best student organization award at Lamar University (2012).
- Nominated for the Advisor of the Year award by STARS students (2012).
- Nominated for Faculty of the Year (2012).

SPONSORSHIP OF STUDENTS ORGANIZATIONS

- Advisor, Math Club, Lamar University (2008-2012)
- Advisor, Bangladesh Student Association, Lamar University (2007-2012, 2013-2015)
- Advisor, Promoting Undergraduate Research and Creative Activities, Lamar University (2015-Present)

F. DEMONSTRATED PERFORMANCE AS A LEADER

SERVICE IN LEADERSHIP ROLES ON UNIVERSITY

- Search Committee Member for the Vice President of Academic Affairs and Provost (2014-2015)
- Search Committee Member for the Dean of Honors College (2013-2014)
- Steering Committee Member, Quality Enhancement Plan (2014-Present)
- Interview Committee for the Vice President for Diversity and Inclusion (2016)
- Campus Liaison at the Texas Undergraduate Research Day at the Capitol (2014)
- Search Committee Chair for three administrative associates (2014-15)
- Committee Member for the Student Organization Awards Selection Committee (2015-2016)
- Team Leader for the CUR Advanced Workshop “Connecting Undergraduate Research to Other High Impact Practices” University of San Diego, CA, University of San Diego, Nov 21-23, 2014. Other members of the team were: Dr. Cristian Bahrim, Professor of Physics, Dr. Jennifer Daniel, Associate Professor of Mathematics, and Dr. Matthew Hoch, Associate Professor of Biology.
- Team Leader for the Undergraduate Research Day at the Capitol, Austin, April, 2015. Other members of the team were: Dr. Cristian Bahrim of Physics, and Keeley Townley-Smith, an undergraduate student.
- Support and Mentoring to Advance Research and Teaching (SMART) Mentor (2014-Present)
- Committee Member for the Presidential Faculty Fellowship Program (2014-Present)
- Former Chair of the Membership Committee, Beta Xi Chapter for Phi Beta Delta, Honor Society for International Scholars (2014)
- Founding Director, the Office of Undergraduate Research (2013-Present)

SERVICE IN LEADERSHIP ROLES ON PROFESSIONAL BODIES

- Steering Committee Member, Council on Undergraduate Research (2014-Present)
- Associate Editor, Journal of Statistical Theory and Practice (2014-Present)
- Scientific Committee Member and International Liaison, International Conference on Statistical Data Mining for Bioinformatics, Health, Agriculture and Environment, University of Rajshahi, Bangladesh (2012)

- Editor, Special Issue of Journal of Statistical Theory and Practice dedicated to Advances in Interdisciplinary Statistics and Combinatorics (2014)
- Scientific Committee Member, 10th and 11th Annual UNCG Regional Mathematics and Statistics Conference (2014-2015)
- President, Conference of Texas Statisticians (2012)
- External Reviewer, Tenure and Promotion Committee, Penn State Harrisburg-Capital College (2016)
- External Reviewer, BS Program in Mathematics, Middle Tennessee State University (2016)

FORMAL RECOGNITION FROM BEYOND THE UNIVERSITY FOR ACCOMPLISHMENTS AS A LEADER

- Fulbright International Education Administrator Seminar Award to France by the J. William Fulbright Foreign Scholarship Board, 2016.
- Global Daily Point of Light Award for advancing education in the community by Points of Light, the world's largest organization dedicated to volunteer service, 2016.