

# CURRICULUM VITAE

October 2018

Nedret Billor

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**Research Interests**      Outlier detection, robust multivariate data analysis, robust functional data analysis, biased estimation, robust statistics.

**Education**      1992, Ph.D., Statistics, Sheffield University, Sheffield, UK.  
1985, M.Sc., Statistics, Cukurova University, Adana, TURKEY.  
1983, B.Sc., Mathematics, Ankara University, Ankara, TURKEY.

**Academic Appointments**      Full Professor, Auburn University, Auburn, AL (2014 – present)  
Associate Professor, Auburn University, Auburn, AL (2003 – 2014, Tenured in 2006).  
Full Professor, Cukurova University, Adana, TURKEY (July 2003).  
Visiting Associate Professor, University of Iowa, Iowa, (2001 – 2003).  
Associate Professor, Cukurova University, Adana, TURKEY (1997 – 2001).  
Assistant Professor, Cukurova University, Adana, TURKEY (1993 – 1997).  
Research Assistant, Cukurova University, Adana, TURKEY (1984 – 1993).

**Short Term Academic Appointments**      Visiting scholar, Cornell University, Department of Statistics, USA (summer 1999).  
Visiting scholar, Sheffield University, Department of Statistics, UK (summer 1996).  
Visiting scholar, Sheffield University, Department of Statistics, UK (summer 1994).  
Visiting scholar, Sheffield University, Department of Statistics, UK (summer 1993).

**Honors and Awards**      Fullbright Specialist Scholar, 2016.  
Outstanding Teacher of Graduate Students, 2014.  
Dr. Marie Kraska Award for Excellence in Teaching (Statistics), 2014.  
Elected member of the International Statistical Institute (ISI), 2012.  
Travel award for a workshop in Spain by Scientific and Technical Research Council of Turkey (TUBITAK), 2000.  
PhD scholarship award in UK by Turkish Higher Education Council (1989 – 1992).  
Travel award for a workshop in Montreal, Sheffield University and McGill, 1990.  
Visiting graduate student award at Imperial College in London for one year by Turkish Higher Education Council (1987 – 1988).

## Awarded Grants

1. "Promoting Success in Undergraduate Mathematics through Graduate Teacher Training", PI: C. A. Rodger, Co PIs: N. Billor, O. Jenda, J. Stone, P. Nylen, NSF, Amount: \$365,396, 2018–2022.
2. Travel grant by the Office of International Programs at Auburn University, Amount: \$5000.00, 2017.
3. Travel grant by Universidad EAFIT, Medellin, Amount:\$3000.00, 2017.
4. Fullbright Senior Specialist (Pontifica Catholic University of Valparaiso, Chile), \$5000.00, 2017.
5. Travel grant by Universidad National de Colombia, \$2500.00, 2016.
6. "US-Europe-Africa Joint Research Initiative in Mathematics of Finance and Applied Statistics", PI:O. Jenda , Co-PI: A. Abebe/P. Johnson, Senior personel: N. Billor, NSF (US-Africa Collaborative Research Network (CRN)), Amount: \$418,000.00, 2013 – 2018.
7. "Robust Multivariate Functional Data Analysis Techniques for fMRI Data", PI: N. Billor, AU IGP, Amount: \$4,000.00, 2012–2013.
8. Travel grant for Workshop in Istanbul, Turkey, National Science Foundation, Amount: \$1,000.00, 2012.
9. "GK-12 Alliance for Research Experiences for Students (RES) in East-Central Alabama High Schools", Senior Personnel, NSF Graduate Teaching Fellows in K-12 Education Program, Amount: \$3,000,000.00 (2010 – 2015).
10. "Classification Based on Data Depth Ordering" PI: Abebe, A., Co-PI: **Billor**, N., NSF/EPSCOR, Amount: \$120,000.00, 2006 – 2009.
11. "Outlier Identification by Robust Principal Component Analysis", PI: **Billor**, N., DRI (Dean's Research Initiative) (COSAM), Amount: \$10,000.00, 2005 – 2007.
12. Travel grants by COSAM (Auburn University), Amount: \$500.00 each, 2018, 2014, 2012, 2011, 2010, 2009, 2007, 2005, 2004.
13. "Model Building and Diagnostic Measures in Measurement Error Models", PI: **Billor**, N. Co-PI: Loynes, R. M., NATO, Amount: \$6,000.00, 1993 – 1994.
14. "Investigations of Outlier Detection Method in Multivariate", Data PI: **Billor**, N., Cukurova University, Amount: \$1,500.00, 1998 – 1999.

## Publications

### Refereed Journal Articles

1. **Billor**, N. and Turkmen, A.S. (2019) "Emerging Statistical Methodologies in Twenty-First Century," Invited paper to Women in Industrial and Systems Engineering: Key Advances and Perspectives on Emerging Topics, Springer.
2. Acquah, G., Via, B., Fasina, O., Adhikari, S., **Billor**, N. and Eckhardt, L. (2018) "High throughput Screening of Elite Loblolly Pine Families for Chemical and Bioenergy traits with Near Infrared Spectroscopy," *Forests*,
3. Lima, I. R., Cao, G. and **Billor**, N. (2018) "Robust Simultaneous Inference for the Functional Mean in Functional Data," *TEST*, DOI 10.1007/s11749-018-0598-y.
4. Lima, I. R., Cao, G. and **Billor**, N. (2018) "M-Based Simultaneous Inference for the Mean Function of Functional Data," *Annals of the Institute of Statistical Mathematics*, DOI 10.1007/s10463-018-0656-y.
5. Acquah, G., Via, B., Fasina, O., Adhikari, S., **Billor**, N. and Eckhardt, L. (2018) "Estimating the Basic Density and Mechanical Properties of Elite Loblolly Pine Families with Near Infrared Spectroscopy," *Forest Science*, doi.org/10.1093/forsci/fxx009.

6. Acquah, G., Via, B., Fasina, O., Adhikari, S., **Billor**, N. and Eckhardt, L. (2017) "Chemometric Modeling of Thermogravimetric Data for the Compositional Analysis of Forest Biomass," *PLOS ONE*, doi.org/10.1371/journal.pone.0172999.
7. Wittayanukorn, S., Qian, J., Westrick, S. C., **Billor**, N., Johnson, B. and Hansen, R. A. (2017) "Prevention of Trastuzumab and Anthracycline-Induced Cardiotoxicity Using Angiotensin-Converting Enzyme Inhibitors or Beta-Blockers in Breast Cancer Patients," *Journal of Clinical Oncology*, doi: 10.1097/COC.0000000000000389.
8. Acquah, G., Via, B., **Billor**, N., Fasina, O. and Eckhardt, L. (2016) "Identifying plant part composition of forest logging residue using infrared spectral data and linear discriminant analysis," *Sensors*, 16, 1375, doi:10.3390/s160913.
9. Pannu, J. and **Billor**, N. (2015) "Robust Group-Lasso for Functional Regression Model," *Communications in Statistics: Simulations and Computation*, DOI:10.1080/03610918.2015.1096375.
10. **Billor**, N. and Godwin, J. (2015), "Variable Selection for Functional Logistic Regression in fMRI Data Analysis," *Turkish Clinics: Biostatistics*, DOI: 10.5336/biostatic.2015-43642.
11. Wittayanukorn, S., Qian, J., Westrick, S. C., **Billor**, N., Johnson, B. and Hansen, R. A. (2015), "Treatment Patterns among Breast Cancer Patients in the United States Using Two National Surveys on Visits to Physicians' Offices and Hospital Outpatient Departments," *Research in Social & Administrative Pharmacy*. DOI: 10.1016/j.sapharm.2014.12.002.
12. Magnotti, J. and **Billor**, N. (2014), "Finding multivariate outliers in fMRI time-series data," *Computers and Biology in Medicine*, 53, 115–124. (Honorable Mention Paper, Top 10% ).
13. Meloche, K. J., B. Kerr, J., **Billor**, N. and Dozier, W. A. (2014), "Validation of prediction equations for apparent metabolizable energy of corn distillers dried grains with solubles in broiler chicks," *Poultry Science* , 93 (6): 1428–39.
14. Denhere, M. and **Billor**, N. (2013), "Robust Principal Component Functional Logistic Regression," *Communications in Statistics: Simulations and Computation*, DOI: 10.1080/03610918.2013.861628.
15. Hogland, J. S., **Billor**, N. and Anderson, N. (2013), "A comparison between standard maximum likelihood classification techniques used in remote sensing and polytomous logistic regression using Landsat Enhanced Thematic Mapper Plus imagery, generalized land cover categories, and temporal features," *European Journal of Remote Sensing*, 46: 623 – 640.
16. Bell, R. C., Jones-Farmer, L. A. and **Billor**, N. (2013), "A Distribution-Free Control Chart for Retrospective Location Analysis of Subgrouped Multivariate Data," *Technometrics*, DOI:10.1080/00401706.2013.879264.
17. Hu, D., Mao, S., **Billor**, N., and Agrawal, P. (2013), "On the Trade-off between Energy Efficiency and Estimation Error in Compressed Sensing," *Ad Hoc Networks Journal*, 11, 1848 – 1857.
18. Wittayanukorn, S., Westrick, S. C., Hansen, R. A., **Billor**, N., Braxton-Lloyd, K., Fox, B., and Garza, K. B. (2013), "Evaluation of Medication Therapy Management (MTM) services for Patients with Cardiovascular Disease," *Journal of Managed Care Pharmacy*, 19, 383 – 395.
19. Lee, S., Shin, H., and **Billor**, N. (2013), "M-type Smoothing Spline Estimation for Principal Functions," *Computational Statistics and Data Analysis*, 66, 89 – 100.
20. Kang, Y. and **Billor**, N. (2013), "Variable Selection in the Chlamydia Pneumoniae Lung Infection Study," *Journal of Data Science*, 11, 371 – 387.
21. Perez, J., Grimes, E., Goldstein, J., McComas, D., Valek, P., Angelopoulos, V., and **Billor**, N. (2012), "Evolution of CIR Storm on 22 July 2009," *Journal of Geophysical Research-Space Physics*, 117, Article Number: A09221 DOI: 10.1029/2012JA017572.

22. Turkmen, A. and **Billor**, N. (2012), "Partial Least Squares Classification for High Dimensional Data Using the PCOUT Algorithm," *Computational Statistics*, 28, 2, Page 771–788.
23. Sawant, P., **Billor**, N., and Shin, H. (2012), "Robust Functional Principal Component Analysis," *Computational Statistics*, 27, 1, 83 – 102.
24. Turkmen, A. and **Billor**, N. (2011), "Influence Function Analysis for the Robust Partial Least Squares (RoPLS) Estimator," *Communications in Statistics: Theory and Methods*, DOI: 10.1080/03610926.2011.620213.
25. Yuksel, G., **Billor**, N., and Unal, D. (2010), "Shrinkage Pre-test Estimator of the Univariate Normal Mean," *Pakistan Journal of Statistics*, 26, 3, 461 – 477.
26. Liles, M. R., Turkmen, O., Manske, B. F., Zhang, M., Rouillard, J. M., Balsler, T., **Billor**, N. and Goodman, R. M. (2010), "A phylogenetic microarray targeting 16S rRNA genes from the bacterial division Acidobacteria reveals a lineage-specific distribution in soil fractions," *Soil Biology and Biochemistry*, 42, 5, 739 – 747.
27. Mohamed, M. and **Billor**, N. (2009), "Recognition of Western style musical genres using machine learning techniques," *Expert Systems with Applications*, 36, 11378 – 11389.
28. **Billor**, N., Abebe, A., Turkmen, A. and Nudurapati, S. (2008), "Classification based on Data Depth," *Journal of Classification*, 25, 249 – 260.
29. **Billor**, N. and Kiral, G. (2008), "Comparison of Multiple Outlier Detection Methods for Regression Data," *Communications in Statistics- Simulation and Computation*, 37, 3, 521 – 545.
30. Pandey, S., **Billor**, N., and Turkmen, A. (2008), "The Effect of Outliers in Independent Component Analysis," *American Journal for Mathematical and Management*, 28, Nos. 3 and 4, 399 – 418.
31. Polyakova, O. and **Billor**, N. (2007), "Impact of Deciduous Tree Species on Litter-fall Quality, Decomposition Rates and Nutrient Circulation in Pine Stands," *Forest Ecology and Management*, 253, 1 – 3, 11 – 18.
32. Caroni, C. and **Billor**, N., (2007), "Robust Detection of Multiple Outliers in Grouped Multivariate Data," *Journal of Applied Statistics*, 34, 19, 1241 – 1250.
33. **Billor**, N., Chatterjee, S., and Hadi, A. S. (2006), "Iteratively Re-weighted Least Squares Method for Outlier Detection in Linear Regression," *American Journal for Mathematical and Management Science*, 26, Nos. 3 and 4, 229 – 252.
34. Kiral, G. and **Billor**, N. (2005), "Bacon Principal Components Analysis," *Journal of Faculty Economics and Administrative Sciences*, Vol 9, 1 – 24.
35. Kiral, G. and **Billor**, N. (2004), "A Comparison of Outlier Identification Methods for Multivariate Data by Simulation," *Istatistik Arastirma Dergisi (Journal of Statistical Research)*, 3, 55 – 66.
36. **Billor**, N., Hadi, A. S., and Velleman, P. F. (2000), "BACON: Blocked Adaptive Computationally-Efficient Outlier Nominators," *Computational Statistics and Data Analysis*, 34, 279 – 298.
37. Arslan, O. and **Billor**, N. (2000), "Robust Liu Estimator for Regression Based on M-estimator," *Journal of Applied Statistics*, 27, 39 – 47.
38. Topcubasi, A. S. and **Billor**, N. (2000), "Diagnostic Methods for Identification of Outliers in Biased Estimation Techniques," *The Journal of Science and Engineering (Cukurova University)*, Vol 5, 164 – 172.
39. **Billor**, N. and Loynes, R.M. (1999), "An Application of the Local Influence Approach to Ridge Regression," *Journal of Applied Statistics*, 26, No 2, 177 – 183.
40. Kiral, G. and **Billor**, N. (1997), "A Review of Influence Measures in Multivariate Linear Regression," *The Journal of Science and Engineering (Cukurova University)*, Vol 8, 103 – 119.

41. Arslan, O. and **Billor**, N. (1996), "Robust Ridge Estimation based on the GM-Estimator," *Journal of Institute of Mathematics and Computer Sciences*, Vol. 9, No 1, 35 – 46.
42. **Billor**, N. and Loynes, R. M. (1993), "Local Influence: A New Approach," *Communications in Statistics Theory and Methods*, Vol 22, No.6, 1595 – 1611.
43. Ataman (**Billor**), N., and Akdeniz, F. (1988), "Tests of the Regression Coefficients in the Two Linear Regression Lines," Cukurova University, *The Journal of Science and Engineering* (Cukurova University), Vol 2, 1 – 20 .

### Proceedings

1. Yuan, Y. , **Billor**, N. and Turkmen, A.S. (2018) "Benford's Law Based Outliers Detection for Population Stratification in Genotype Data", Proceedings, JSM 2018 - Section on Statistics in Genomics and Genetics, -??- ??.
2. Lilly, K. and **Billor**, N. (2018)"Robust Group LASSO Methods", Proceedings, JSM 2018- Section on Statistical Computing, ??-??.
3. Pannu, J. and **Billor**, N. (2014) "Robust Variable Selection in Functional Linear Models", Proceedings, JSM 2014 - Section on Statistical Computing, 2523 – 2534.
4. Lilly, K. and **Billor**, N. (2013) "A robust variable selection method for grouped data," JSM 2013 - Section on Statistical Learning and Data Mining, 3334 – 3341.
5. Hu, D., Mao, S. and **Billor**, N. (2012), "On Balancing Energy Efficiency and Estimation Error in Compressed Sensing," *Proc. IEEE GLOBECOM 2012*, Anaheim, CA, Dec. 2012, 4494 – 4499.
6. Turkmen, A. and **Billor**, N. (2009), "Robust PLS based Classification Method in Microarray Studies," 5th International Symposium on Bioinformatics Research and Applications, *Poster proceedings*, 17 – 21.
7. Polyakova, O., **Billor**, N., and Governo, R. (2007), "The Role of Tree Species Selection in Rehabilitation of Terrestrial Ecosystems Polluted by Heavy metals: Protective Amelioration Issue," *Proceedings of Conference*, Emerging issues along Urban/Rural Interface II. Atlanta, GA, April 9-12, 221 – 224.
8. **Billor**, N. and Hadi, A.S. (2000), "Iteratively re-weighted least squares based on BACON algorithm for robust regression estimation," *Proceedings of Statistics Symposium*, 55 – 66 (Gazi University, Ankara).
9. **Billor**, N., Kiral, G. and Suarez Rancel, M. M. (1998), "Local Influence in Multivariate Linear Regression and Hadi's Measure," *Proceedings of Statistics Conference*, 199 – 208 (Gazi University, Ankara).
10. **Billor**, N. (1998), "On the Importance of the Existence of Measurement Error and Caused Problems," *Proceedings of Statistics Days*, 89 – 97 (Cukurova University, Adana, Turkey).
11. **Billor**, N. and Kiral, G. (1997), "An Application of the Local Influence Approach to the Multivariate Regression," *Bulletin of the International Statistical Institute*, Vol 2, 165 – 166, Istanbul, Turkey.
12. **Billor**, N. (1993), "A Note on the Effect of Deleting Observations on the Shrinkage Parameter k," *Bulletin of the International Statistical Institute*, Vol 1, 125–126.

### Books

- Turkmen, A. and **Billor**, N. (2010), Robust partial Least Squares: Regression and Classification, *VDM Verlag Dr. Muller*.

### Technical Reports/Working papers

1. Guo, C. and **Billor**, N. (2010), "An MRI-derived Index of Geometry and Mechanical Function for Patients with Diabetes and Myocardial Infarction," Technical report, Department of Mathematics and Statistics, Auburn University.
2. Wang, C. and **Billor**, N. (2010), "A Comparison of Covariance-Based and Partial Least Square Approach to Structural Equation Modeling," Technical report, Department of Mathematics and Statistics, Auburn University.
3. Shen, W. and **Billor**, N. (2010), "Ground Penetrating Radar Clutter Removal Based on ICA Method," Technical report, Department of Mathematics and Statistics, Auburn University.
4. Kang, Y. and **Billor**, N. (2010), "Multivariate analysis of Chlamydia pneumoniae Lung Infection in Two Inbred Mouse Strains," Technical report, Department of Mathematics and Statistics, Auburn University.
5. Kabakci, F. and **Billor**, N. (2010), "Review on Variable Selection Methods," Technical report, Department of Mathematics and Statistics, Auburn University.
6. Turkmen, A. S. and **Billor**, N. (2005), "Fast and Robust Classification,".
7. **Billor**, N., Kiral, G. and Turkmen, A. S. (2005), "Outlier Detection Using Principal Components,".
8. Hogland, J.S., **Billor**, N. and MacKenzie, M.D. (2005), "Comparing Polytomous Logistic Regression and Discriminant Analysis: A Remote Sensing Perspective," Technical report, Forestry and Wildlife Sciences, Auburn University.
9. Hogland J.S., MacKenzie, M.D. , **Billor**, N., Meldahl, R.S., Grand, J.B. (2005), "Delineating Longleaf Ecosystems Using Landsat ETM+ Imagery and Ancillary Data Sets," Technical report, Forestry and Wildlife Sciences, Auburn University.

### Conference/Workshop presentations

1. **Billor**, N., Yuan, Y. and Turkmen, A.S. (2018), "Discrete Principal Component Analysis for Population Stratification", Joint Statistical Meeting in Vancouver, July 27 – August 2, Contributed talk and Poster.
2. Yuan, Y., **Billor**, N. and Turkmen, A.S. (2018), "Benford's Law Based Outliers Detection for Population Stratification in Genotype Data", Joint Statistical Meeting in Vancouver, July 28- Aug 2, Contributed talk and Poster.
3. Park, J., Abebe, A. and **Billor**, N. (2018), "Rank Based Group Variable Selection for Functional Regression Model," , SRCOS, May 2018.
4. Denhere, M. and **Billor**, N. (2017), "Model Adequacy Methods for Functional Regression Models," The 2017 Women in Statistics and Data Science Conference, 19–21 October 2017.
5. "Statistical Learning and Data Mining", Workshop, Pontificia Universidad Catolica de Valparaiso, Valparaiso, Chile, May 10–June 1, 2017.
6. "Statistical Learning and Data Mining", Workshop, EAFIT, Pereira, Colombia, February 4–6, 2017.
7. "Statistical Learning and Data Mining", Workshop, EAFIT, Medellin, Colombia, January 30–February 4, 2017.
8. Lima, I. , Cao, G. and **Billor**, N. (2016), "Robust simultaneous inference for the mean function of functional data", ERCIM WG on Computational and Methodological Statistics, University of Seville, Spain, 9-11 December 2016. (invited talk)
9. Turkmen, A., **Billor**, N. Yuan, Y. (2016), "Robust Categorical Principal Component Analysis", Nonparametric Statistics Workshop: Integration of Theory, Methods and Applications, University of Michigan, October 6 -7, 2016, contributed poster.

10. Acquah, G., Via, B., Eckhardt, L., Fasina, O. and **Billor**, N. (2015), "Application of NIRS in the Screening of Disease Tolerant Pinus taeda Families for Chemistry, Strength and Bioenergy," 2015 SAF National Convention, Baton Rouge, LA.
11. Wittayanukorn, S., Qian, J., Westrick, S. C., **Billor**, N., Johnson, B. and Hansen, R. A. (2015), "Risk of Cardiotoxicity And All-Cause Mortality In Breast Cancer Patients After Adjuvant Chemotherapy or Hormonal Therapy," *Value in Health*, 18(3): A190, DOI:10.1016/j.jval.2015.03.1102, poster at ISPOR 20th Annual International Meeting.
12. **Billor**, N. and Lilly, K. (2015), "Robust Adaptive Group WLAD-LASSO," Joint Statistical Meeting, Seattle, contributed talk and poster.
13. Pannu, J. and **Billor**, N. (2014), "Robust Variable Selection For Functional Regression Models," Joint Statistical Meeting, Boston, contributed poster.
14. **Billor**, N. (2014), "Recent Advances in Robust Functional Data Analysis," Joint Statistical Meeting, Boston, Topic-contributed talk.
15. Lilly, K. and **Billor**, N. (2014), "A robust variable selection method for grouped data," Joint Statistical Meeting, Boston, contributed talk.
16. Lima-Costa Raony, Italo and **Billor**, N. (2014) "Data Depth Classification in Computer Vision, Joint Statistical Meeting, Boston, contributed poster.
17. Denhere, M. and **Billor**, N. (2014) "Robust Penalized Functional Logistic Regression," Joint Mathematical Meetings, Baltimore, contributed talk.
18. Pannu, J. and **Billor**, N. (2013), "Robust Variable Selection For Functional Regression Models," The 9th Annual UNCG Regional Mathematics and Statistics Conference, Greensboro, NC (November 2, 2013), contributed talk.
19. Godwin, J. and **Billor**, N. (2013), "Group Lasso for Functional Logistic Regression," Joint Statistical Meeting, Montreal, Canada, contributed poster.
20. Lilly, K. and **Billor**, N. (2013), "A robust variable selection method for grouped data," Joint Statistical Meeting, Montreal, Canada, contributed poster.
21. **Billor**, N., Magnotti, J. and Sawant, P. (2013), "Outlier Detection Methods for fMRI Data and Robust Multivariate Functional Principal Component Analysis," Research Week 2013, Auburn University, Auburn (April 1 – 4).
22. Denhere, M. and **Billor**, N. (2013), "Robust Functional Logistic Regression," 2013 Joint Mathematics Meetings, San Diego, CA (January 9 – 12).
23. **Billor**, N., Lee, S., and Shin, H. (2012), "Robust Estimation of Principal Functions Using M-Estimation," ERCIM 2012, Oviedo, Spain (Dec 1 – 3, 2012), Invited.
24. Magnotti, J. and **Billor**, N. (2012), "A Modified BACON Method for Multivariate Outlier Nomination in fMRI Time-Series Data," Neuroscience 2012, New Orleans, LA, poster.
25. Jones-Farmer, L.A., Bell, R., and **Billor**, N. (2012), "A Distribution-Free Multivariate Phase I Location Control Chart," INFORMS Annual Meeting, Phoenix, AZ, Invited.
26. Hogland, J. and **Billor**, N. (2012), "A Comparison between Standard Maximum Likelihood Classification Techniques and Polytomous Logistic Regression," ForestSAT 2012, Oregon (September 11 – 14), contributed talk.
27. **Billor**, N., Kiral, G. and Turkmen, A. (2012), "Clustering Based Robust Multivariate Outlier Detection," Joint Statistical Meeting, San Diego, CA, contributed talk.
28. Magnotti, J. and **Billor**, N. (2012), "Multivariate Outlier Nominators for fMRI Data," Joint Statistical Meeting, San Diego, CA, contributed talk.
29. Bell, R., **Billor**, N., and Jones-Farmer, L.A. (2012), "A Robust Hotelling's  $T^2$  Control Chart for Retrospective Location Analysis of Individuals," WIEA 2012, Istanbul, Turkey (May 30 – June 1), contributed poster.

30. Bell, R., Jones-Farmer L.A., **Billor**, N., and Maghsoodloo, S. (2012), "A Distribution-Free Multivariate Phase I Location Control Chart for Subgrouped Data from Elliptical Distributions," WIEA 2012, Istanbul, Turkey ( May 30 – June 1), contributed poster.
31. Denhere, M. and **Billor**, N. (2012), "Robust Principal Component Estimation of Functional Logistic Regression," Infinite Possibilities Conference 2012, University of Maryland, Baltimore, Maryland (March 30 – 31), contributed poster.
32. Denhere, M. and **Billor**, N. (2011), "Robust Principal Component Estimation of Functional Logistic Regression," Joint Statistical Meeting, Miami, contributed poster.
33. Turkmen, A. and **Billor**, N. (2010), "Empirical Influence Functions for Robust Partial Least Squares Regression," Joint Statistical Meeting, Vancouver, Canada, contributed paper.
34. **Billor**, N. and Sawant, P. (2010), "Robust Diagnostic Measures for the Functional Linear Model with Scalar Response," Joint Statistical Meeting, Vancouver, Canada, contributed paper.
35. Turkmen, A. S. and **Billor**, N. (2009), "Robust PLS based Classification Method in Microarray Studies," 5th International Symposium on Bioinformatics Research and Applications, Nova Southeastern University, Ft. Lauderdale, Florida, (May 13 – 16), contributed poster.
36. Turkmen, A. S. and **Billor**, N. (2009), "Dimension Reduction for High Dimensional and Heterogeneous Datasets," The Southern Regional Council on Statistics Summer Research Conference, SRCOS, contributed poster.
37. Turkmen, A. S. and **Billor**, N. (2009), "Robust Dimension Reduction PLS Method for Classification," Joint Statistical Meeting, Washington DC, contributed paper.
38. Sawant, P. and **Billor**, N. (2009), "Outlier Detection in Functional Data Analysis," Joint Statistical Meeting, Washington DC, contributed poster.
39. Yuksel, G. , **Billor**, N., and Unal, D. (2008), "Shrinkage Pre-test Estimator of the Univariate Normal Mean," International Conference on Multivariate Statistical Modelling and High Dimensional Data Mining, Kayseri, Turkey (19 – 23 June), contributed poster.
40. **Billor**, N. and Turkmen, A. S. (2008), "RoPLS: Robust Partial Least Squares Regression Based on Recent Outlier Detection Methods," International Conference on Multivariate Statistical Modelling and High Dimensional Data Mining, Kayseri, Turkey (19 – 23 June), contributed paper.
41. Polyakova, O., **Billor**, N. and Governo, R. (2007), "The Role of Tree Species Selection in Rehabilitation of Terrestrial Ecosystems Polluted by Heavy Metals: Protective Amelioration Issue," Proceedings of conference, Emerging issues along Urban/Rural Interface II. Atlanta, GA, April 9 – 12, contributed paper.
42. Turkmen, A. S. and **Billor**, N. (2007), "Robust Partial Least Squares Regression," ENAR/IMS Spring Meeting, Atlanta (March 11 – 14), contributed paper.
43. **Billor**, N., Abebe, A., Nudurapati, S., and Turkmen, A. S. (2007), "On Robustness of Classification based on Depth Transvariation," ENAR/IMS Spring Meeting , Atlanta, (March 11 – 14), contributed paper.
44. Turkmen, A. S. and **Billor**, N. (2007), " Influence Function of Robust Partial Least Squares," Joint Statistical Meeting, J Salt Lake City, contributed paper.
45. Turkmen, A. S. and **Billor**, N. (2007), "Robust Partial Logistic Regression," CSNA 2007 (The 2007 Meeting of the Classification Society of North America), contributed paper.
46. **Billor**, N., Abebe, A., Nudurapati, S., and Turkmen, A. S. (2007), "Influence analysis in Depth Transvariation based Classification," CSNA 2007 (The 2007 Meeting of the Classification Society of North America), contributed paper.



47. Abebe, A., **Billor**, N., Nudurapati, S., and Turkmen, A. S. (2006), "Discriminant Analysis based on Statistical Depth Functions," Blackwell-Tapia Conference (November 3-4), contributed poster.
48. Jain, J., **Billor**, N. , Hendrix, D. and Cross J.H (2006), "Design and Analysis of Survey to Investigate Data Structure Understanding," Twelfth International Conference on Statistics, Combinatorics, Mathematics and Applications, Auburn, contributed paper.
49. Turkmen, A. S. and **Billor**, N. (2005), "Fast and Robust Classification," Twelfth International Conference on Statistics, Combinatorics, Mathematics and Applications, Auburn, contributed paper.
50. **Billor**, N., Kiral, G. and Turkmen, A. S. (2005), "Outlier Detection Using Principal Components," Twelfth International Conference on Statistics, Combinatorics, Mathematics and Applications, Auburn, contributed paper.
51. **Billor**, N. and Kiral, G. (2005), "Robust BACON Principal Component Analysis for High Dimensional Data", Joint Statistical Meeting, Minneapolis, contributed paper.
52. Turkmen, A. S., Nudurapati, S., Abebe, A. and **Billor**, N. (2005), "Classification based on Data Depth," Joint Statistical Meeting , Minneapolis, contributed poster.
53. Caroni, C. and **Billor**, N. (2004), "Robust Detection of Multiple Outliers in Grouped Multivariate Data," Joint Statistical Meeting in Toronto, Canada, contributed paper.
54. **Billor**, N. Hadi, A.S., and Kiral, G. (2003), "Comparison of Multiple Outlier Detection Methods for Regression Data," Joint Statistical Meeting, San Francisco, contributed paper.
55. Caroni, C. and **Billor**, N. (2002), "Robust Detection of Multiple Outliers in Grouped Multivariate Data," International Conference On Current Advances and Trends In Nonparametric Statistics, Crete, Greece, contributed paper.
56. Kiral, G. and **Billor**, N. (2001), "Bacon Principal Components Analysis," Fifth National Econometry and Statistics Symposium, Cukurova University, Turkey, contributed paper.
57. Topcubasi, A. S. and **Billor**, N. (2001), "Diagnostic Methods for a General Class of Biased Regression Estimators," Fifth of National Econometry and Statistics Symposium, Cukurova University, Turkey, contributed paper.
58. **Billor**, N., Chatterjee, S., and Hadi, A. S. (2001), "Iteratively Re-weighted Least Squares Method for Outlier Detection in Linear Regression," ISI Meeting, Seoul, Republic of Korea, contributed paper.
59. Erol, R., Ulku, M.A. and **Billor**, N. (2000), "A Simulation Metamodeling Approach: Diagnostic Analysis of a Transient Manufacturing System," XXI National Operational Research/Industrial Engineering, Cyprus, contributed paper.
60. **Billor**, N. , Gocken, M., Erol, R. (2001), "Data Mining Techniques in Production Control Systems," XXII National Operational Research/Industrial Engineering, Gazi University, Ankara, Turkey, contributed paper.
61. Rancel, M.S., **Billor**, N., and Kiral, G., (1999), "Una Media Sobre Influencia Local Basada En La Medida de Hadi Para Multiples Observaciones" VII. Conferencia Espanya de Biometria, Spain, contributed paper.
62. **Billor**, N. and Kiral, G. (1997), "An Application of the Local Influence Approach to the Multivariate Regression," ISI Meeting, Istanbul, Turkey, contributed paper.
63. **Billor**, N. and Arslan, O. (1998), "Unified Approach to Robust Biased Regression Estimation," Research Symposium 98, Ankara, Turkey, contributed paper.
64. Arslan, O. and **Billor**, N. (1994), "Robust Ridge Regression based on the Robust Choice of the Shrinkage Parameter," Royal Statistical Society International Conference, University of Newcastle, UK, contributed paper.
65. **Billor**, N. (1993), "Examination of Residuals in Errors-in-Variables Model," Research Symposium'93, Ankara, Turkey, contributed paper.

66. **Billor**, N. (1993), "A Note on the Effect of Deleting Observations on the Shrinkage Parameter  $k$ ," ISI Meeting, contributed paper.

**Invited talks,  
Colloquia and  
Seminars**

1. "Robust Simultaneous Inference for the Mean Function of Functional Data", University of Iowa, Department of Statistics and Actuarial Sciences, March 8, 2018.
2. "Applications of Functional Data Analysis in Agricultural Research", Congreso Internacional de Las Ciencias Agropecuarias, Havana, Cuba November 20-24, 2017.
3. "Robust Simultaneous Inference for the Mean Function of Functional Data", Northwestern University, Department of Statistics, Oct 25, 2017.
4. "Applied Functional Data Analysis", University of Costa Rica, San Jose, Costa Rica, Oct 12, 2017.
5. "Robust Inference in Functional Data Analysis", Pontificia Universidad Catolica de Chile (PUCC) in Santiago, May 2017.
6. "Robust Inference in Functional Data Analysis", National Autonomous University of Mexico (UNAM), April 2017.
7. "Robust Principal Functions," The 26th Colombian Symposium on Statistics, Sincelejo, Colombia, Aug 8-12, 2016, Keynote speaker.
8. "Outlier Detection Methods in Multivariate and Functional Data and Introduction to Robust Methods", Short Course, The 26th Colombian Symposium on Statistics, Sincelejo, Colombia, Aug 8-12, 2016.
9. "Functional Data Analysis and Variable Selection," Universidad Nacional de Colombia Bogota and Medellin, Colombia, March 14 and March 16, 2016, respectively.
10. "Variable Selection Methods for Functional Regression Models", Invited Speaker, Joint ICSA-Graybill Conference, Fort Collins, CO, 2015, June 15.
11. "Recent Developments in Functional Data Analysis", Keynote Speaker, SAMSA conference, Victoria Falls, Zimbabwe, 2014, Nov 26.
12. "Functional Data Analysis and Its Robustness", Cukurova University, Turkey, 2014, June 10.
13. "Robust Functional Data Analysis," Marmara University, Turkey, 2013, May 29.
14. "Functional Data Analysis," Auburn University, Graduate Students Seminar, 2013, March 20.
15. "Robust Estimation of Principal Functions Using M-Estimation," Auburn University, Statistics Group Seminar, 2013, February 11.
16. "Robust Estimation of Principal Functions Using M-Estimation," CFE-ERCIM 2012, Oviedo, Spain, 2012, December 2.
17. "Outlier Detection in Multivariate Data Analysis," Adiyaman University, College of Arts and Sciences, Turkey, 2010, June 14.
18. "Outlier Detection in Multivariate Data Analysis," Marmara University, Department of Statistics, Turkey, 2010, June 9.
19. "Data Analysis," Auburn University, Graduate Students Seminar, 2010, March 10.
20. "RoPLS: Robust Partial Least Squares Regression Based on Recent Outlier Detection Methods," International Conference on Multivariate Statistical Modeling and High Dimensional Data Mining, Kayseri, Turkey, 2008, June 20.
21. "Outliers and Their Effects on Statistical Methods," Auburn University, Graduate Students Seminar, 2007, April 25.
22. "Sample Survey Analysis," Word Usability Day, Auburn University, 2005, November 3.
23. "Data Mining Tools," Department of Industrial and System Engineering, Auburn University, 2005, September 13.

24. "Iteratively Re-weighted Least Squares Method for Outlier Detection in Linear Regression," University of Wisconsin, La Crosse, 2003.
25. "Can one person's noise be another person's signal?: Outliers," Williams College, NY, 2003.
26. "Iteratively Re-weighted Least Squares Method for Outlier Detection in Linear Regression," Northern Iowa University, 2003.
27. "A Unified Presentation for Some Case Deletion Influence Measures in Biased Regression Analysis," Department of Statistics and Computation, La Laguna University, Canary Islands, Spain, 2001, April 24 – 29.
28. "Data Mining and Statistics: Is Data Mining "Statistical Déjà Vu?," Department of Statistics and Computation, La Laguna University, Canary Islands, Spain, 2001, April 24 – 29.
29. "A Reweighted Least Squares Method for Robust Regression Estimation," Department of Statistics and Computation, La Laguna University, Canary Islands, Spain, 2001, April 24 – 29.

### Book Reviews

- "Regression Analysis by Example" by Samprit Chatterjee, Ali S. Hadi, Bertram Price, Wiley, series 1999, 384 p., The International Environmetrics Society-TIES, Newsletter, Vol. 8, No. 1, 2002.
- "Forecasting with Exponential Smoothing" Hyndman et al., Springer Verlag, 2007.
- "Statistical Data Analysis Using SAS" by Marvyn G. Marasinghe and William J. Kennedy, Jr. (2007), Springer-Verlag.

### Graduate Students Supervision

#### Doctoral and Master Students Supervised and Current Affiliations

1. Gulsen Kiral (**PhD** in Statistics, 2003 and **MSc** in Statistics, 1996), PhD dissertation: "A Comparison of the Recent Algorithms for Identification of Outliers in Data," (Associate Professor, Cukurova University, Turkey).
2. Asuman Turkmen (**PhD** in Mathematics and Statistics, 2008 and **MSc** in Statistics, 2000), PhD dissertation: "Robust Partial Least Squares For Regression and Classification," (Associate Professor, the Ohio State).
3. Melody Denhere (**PhD** in Mathematics and Statistics, 2013), PhD dissertation: "Robust Statistical Methods for the Functional Logistic Model," (Tenure track Assistant Professor, University of Mary Washington).
4. Pallavi Sawant (**PhD** in Mathematics and Statistics, 2013), PhD dissertation: "Robust Methods for Multivariate Functional Data Analysis," (Instructor, Department of Statistics, Kansas State University).
5. Kristin Lilly (**PhD** in Mathematics and Statistics, 2015), PhD dissertation: "Robust Variable Selection Methods," (Tenure-track Assistant professor, Columbus State University, GA).
6. Jasdeep Pannu (**PhD** in Mathematics and Statistics, 2015), PhD dissertation: "Robust Variable Selection Methods for Functional Regression Models," (Tenure-track Assistant Professor, Lamar University, TX).
7. Italo Raony Costa Lima (**PhD** in Mathematics and Statistics, 2017, PhD dissertation: "Robust Simultaneous Inference for Functional Data," (Data Scientist, Facebook).
8. Wei Sun (**PhD** in Mathematics and Statistics, 2017), PhD dissertation: "Rank-Based Methods for Single-Index Varying Coefficient Models," (Data Scientist, Monsento).
9. Guzin Yuksel (**MSc** in Statistics, 1998), Thesis: "Estimation of Variance Components," (Associate Professor, Cukurova University, Turkey).

10. Ozgur Turkmen (**MPS** in Statistics, 2007), Project: "Statistical Analysis for Phylochip Data: Acidobacteria Division From A Soil At The West Madison Agricultural Research Station (Wmars)," (Lecturer, the Ohio State).
11. Shamerick Jones (**MPS** in Statistics, 2007), Project: "Determining Decomposition Rates of Hardwoods and Nutrient Circulation in Pine Forest of South US".
12. Pallavi Sawant (**MS** in Statistics, 2009), Thesis: "Robust Methods for Functional Data Analysis," (Instructor, Department of Statistics, Kansas State University).
13. Juan Yang (**MPS** in Statistics, 2009), Project: "Effects of Extreme and Unequal Censoring on the Two-Sample Survival Tests," (Research Associate, Cancer Prevention Institute of California (CPIC)).
14. Wen Shen (**MPS** in Statistics, 2010), Project: "A Study of Clutter Removal for Ground Penetrating Radar," (Post-doc, Georgia Institute of Technology).
15. Chun Guo (**MPS** in Statistics, 2010), Project: "Classification on Myocardial Infarction Patients with and without Diabetes Based on MRI-Derived Geometry And Mechanical Functional Variables," (Research Associate, UAB School of Medicine).
16. Yuan Kang (**MPS** in Statistics, 2010), Project: "Prediction Model Building for The Chlamydia Pneumoniae Lung Infection".
17. Chih-hsuan Wang (**MPS** in Statistics, 2010), Project: "A Comparison of Covariance-Based and Partial Least Squares Approach Structural Equation Modeling," (Tenure Track Assistant Professor, Department of Educational Foundations, Leadership and Technology, Auburn University).
18. Fikriye Kabakci (**MPS** in Statistics, 2010), Project: "Review on Variable Selection Methods," (PhD student, R.T.E. University, Turkey).
19. Richard Bell (**MS** in Statistics, 2011), Thesis: "A Robust Version of Hotelling's T2 Control Chart for Retrospective Location Analysis of Individuals Using BACON Estimators," (Operations Research/Systems Analyst at US Army, Alexandria, Virginia).
20. Hao Li (**MPS** in Statistics, 2011), Project: "Functional Data Analysis on Earnings Per Share of Firms in Grocery Market," (Alfa Insurance, Montgomery, AL).
21. Donglin Hu (**MPS** in Statistics, 2011), Project: "Compressed Sensing in Wireless Sensor Networks: Isotonic Regression," (AT & T, California).
22. Bin Zheng (**MPS** in Statistics, 2011) Project: "Spatial Effect of Transportation Network in Land Use Change - An Application of Survival Analysis," (Post-doc, University of Toronto).
23. Minerva Brauss (**MPS** in Statistics, 2011), Project: "Application of Mixed Model Techniques to the Use of Phage Treatment in Fingerling Channel Catfish," (PhD student in Education, AU).
24. John Magnotti (**MPS** in Statistics, 2011), Project: "Multivariate Outlier Nomination in fMRI Data," (Post-doc, University of Texas, Houston).
25. Qian Zhang (**MPS** in Statistics, 2013), Project: "Comparison of Outlier Detection Methods," (PhD student, AU).
26. Xiaoli Hu (**MPS** in Statistics, 2013), Project: "Different Data Mining Methods for Index Price Movement Forecasting," (Business Intelligence Consultant, Virginia).
27. Jessica Godwin (**MS** in Statistics, 2013). Thesis: "Group Lasso for Functional Logistic Regression," (PhD student, University of Washington, Seattle).
28. Boyao Zhao (**MPS** in Statistics, 2013), Project: "Cluster Analysis Applications on the Mixed Type of Data," (Data Analyst, AirSage, Atlanta, GA).
29. Wei Sun (**MPS** in Statistics, 2013), Project: "Variable Selection in Survival Data Analysis," (PhD student, AU).
30. Yi Xu (**MPS** in Statistics, 2014), Project: "User Grouping and Scheduling for Massive MIMO Systems with Two-Stage Precoding," (PhD student in EE, AU).

31. Bin Wu (**MPS** in Statistics, 2014), Project: "Model Selection Methods in the Linear Mixed Effects Model for Longitudinal Data," (Implementation Consultant, Callidus-Cloud, Birmingham, Alabama).
32. Aaron McAtee (**MS** in Statistics, 2016), Project: "Classification Using a Functional Partial Least Squares Logistic Regression Method," (Statistician: Visual Protection and Performance Division at the Army Aeromedical Research Lab, Oak Ridge).
33. Yuan Yuan (**MPS** in Statistics, 2017), Project: "Comparison of PCA based population stratification methods in GWAS data," (PhD student in Mathematics and Statistics, AU).
34. Ningxin Yang (**MPS** in Statistics, 2017), Project: "Statistical models for network graphs," (Intern in Louisiana Department of Education).
35. Tzu-Ying Lai (**MPS** in Statistics, 2017), Project: "Functional Data Clustering" .
36. Ian Cero (**MPS** in Statistics, 2017), Project: "Suicidal ideation as a complex network of symptoms: Two-week prospective accuracy of multiple models" (PhD student in Psychology, AU).
37. Yongli Zhao (**MPS** in Statistics, 2017), Project: "Genetic associations for flower traits of miscanthus from Alabama," (PhD student in Biology, Tuskegee University) .

#### **Currently Supervising-Coadvicing Doctoral and Master Students**

1. Jieun Park (**PhD** in Mathematics and Statistics, anticipated graduation: 2018, CoAd with Ash Abebe).
2. Yuan Yuan (**PhD** in Mathematics and Statistics, anticipated graduation: fall 2019).

#### **Graduate Student Committee Memberships: Completed**

1. Rui Guo (**PhD** in Electrical Engineering, outside reader, 2017).
2. Jian Chen (**MS** in Geosciences, Member and Statistics advisor, 2017).
3. Xiaozhu Wang (**MPS** in Statistics, Member, 2017).
4. Charles Essen (**MPS** in Statistics, Member, 2017).
5. Ping Wang (**MS** in Agricultural Economics and Rural Sociology, Member and Statistics advisor, 2017).
6. Gifty Acquah (**PhD** in School of Forestry and Wildlife Sciences, Member and Statistics Advisor, 2016).
7. Eren Sakinc (**PhD** in Industrial Systems Engineering, Member and Statistics Advisor, 2016).
8. Darcey Richburgh (**MS** in Agricultural Economics, Member and Statistics Advisor, 2016).
9. Tian Liu (**MPS** Statistics, Member, 2016).
10. Jessica Busler (**MPS** Statistics, Member, 2016).
11. Wei Huang (**MPS** in Statistics, Member, 2015).
12. Ping Ping Han (**MPS** in Statistics, Member, 2015).
13. Yao-Te Tsai (**PhD** in Industrial Systems Engineering, Reader, 2015).
14. Xin Geng (**MPS** in Statistics, Member, 2015)
15. Ming Li (**PhD** in Electrical Engineering, Reader, 2015).
16. Saranrat Wittayanukorn (**PhD** in Pharmacy Care Systems, Member and Statistics Advisor, 2015).
17. Zhenkui Qin (**MPS** in Statistics, Member, 2015).

18. Yu Wang (**MPS** in Statistics, Member, 2015).
19. Kamoltip Thungrat (**PhD** in College of Veterinary Medicine, Member and Statistics Advisor, 2014).
20. Brad Schneid (**MPS** in Statistics, Member, 2014).
21. Ling Zhang (**MPS** in Statistics, Member, 2014).
22. Peng Wang (**MS** in Electrical Engineering, Member and Statistics Advisor, 2013).
23. Chao Ran (**MPS** in Statistics, Member, 2013).
24. Liping Gao (**MPS** in Statistics, Member, 2013).
25. Chun Guo Schiros (**PhD** in Electrical Engineering, Outside Reader, 2012).
26. Ting-ting Wu (**MPS** in Statistics, Member, 2012).
27. David Pritchard (**MPS** in Statistics, Member, 2012).
28. Saranrat Wittayanukorn (**MS** in Pharmacy School, Member and Statistics Advisor, 2012).
29. Roberto Morales (**PhD** in Veterinary Medicine, Member and Statistics Advisor, 2012).
30. Nhuong V. Tran (**PhD** in Applied economics, Member and Statistics Advisor, 2011).
31. Charles Solvason (**PhD** in Chemical engineering, Member and Statistics Advisor, 2011).
32. Eddy Kwessi (**PhD** in Mathematics and Statistics, Member, 2011).
33. Richard Bell (**PhD** in Industrial Systems Engineering, Member and Statistics Advisor, 2011).
34. Mollie Newman (**PhD** in Biological Sciences, Member and Statistics Advisor, 2011).
35. Zijie Cai (**MPS** in Statistics, Member, 2010).
36. Fengju Chen (**MPS** in Statistics, Member, 2010).
37. Ching-Ying Huang (**PhD** in Industrial Systems Engineering, outside reader, 2009).
38. Kevin P. Tolliver (**PhD** in Statistics, Member, 2009).
39. Uma Karki (**PhD** in Soils and Argonomy, Member and Statistics Advisor, 2008).
40. Sai Nudurapati (**PhD** in Mathematics and Statistics, Member, 2008).
41. Yi Wang (**MPS** in Statistics, Member, 2007).
42. Sangeetha Srinivasan (**MS** in Discrete Mathematics, Member, 2007).
43. Emilia Moore (**PhD** in Discrete Mathematics, Member, 2007).
44. Zhen Chen (**MPS** in Statistics, Member, 2007).
45. Yali Li (**MPS** in Statistics, Member, 2007).
46. Xiomei Yang (**MPS** in Statistics, Member, 2007).
47. S. Suresh Immanuel (**Ph.D** in Civil Engineering, outside reader, 2006).
48. Vincent Catellana (**PhD** in Discrete Mathematics, Member, 2006).
49. Norou Diawara (**PhD** in Mathematics and Statistics, Member, 2006).
50. Selda Taskin (**PhD** in Industrial Systems Engineering, Member and Statistics Advisor, 2006).
51. Jhilmil Jain (**PhD** in Comp. Science and Software Engineering, Member and Statistics Advisor, 2006).
52. Xiohong Meng (**MPS** in Statistics, Member, 2006).
53. Yurun Cang (**MPS** in Statistics, Member, 2006).
54. Shuang Feng (**MPS** in Statistics, Member, 2006).
55. Yi Cao (**MPS** in Statistics, Member, 2006).

56. Ram Pandit (**MPS** in Statistics, Member, 2005).
57. Yi Han (**MS** in Statistics, Member, 2005).
58. John Hogland (**MS** in Forestry, Member and Statistics Advisor, 2005).
59. Fang Li (**MPS** in Statistics, Member, 2005).
60. Mehmet Kirkici (**MS** in Industrial Systems Engineering, Member and Statistics Advisor, 2005).
61. Yu Zhang (**MPS** in Statistics, Member, 2004).
62. Ana Capuano (**MPS** in Statistics, Member, 2004).
63. Hua Kang (**MPS** in Statistics, Member, 2004).
64. Orawan Silapajarn (**MPS** in Statistics, Member, 2004).
65. Kom Silapajarn (**MPS** in Statistics, Member, 2004).
66. Mustafa Gocken (**MSc** in Industrial Systems Engineering, Member, 2001).
67. M.Ali Ulku (**MSc** in Industrial Systems Engineering, Member and Statistics Advisor, 2000).

**Graduate Student  
Committee  
Memberships:  
Current  
Courses Taught**

- Rick Reynolds (**PhD** in Industrial Systems Engineering, Member and Statistics Advisor) (2014 – current).

**Cukurova University**

**Undergraduate:**

Calculus.  
 Advanced Calculus for Engineering.  
 Complex Calculus for Engineering.  
 Operational Mathematics.  
 Mathematical Statistics.  
 FORTRAN Programming.  
 Linear Programming and Optimization.  
 Geostatistics.

**Graduate:**

Data Analysis and Introduction to Linear Regression.  
 Advanced Regression Analysis.  
 Estimation Theory.

**University of Iowa**

**Undergraduate:**

Probability and Statistics for Engineering and Physical Sciences (22S:039).  
 Probability and Statistics (22S:120).  
 Statistics for Business (22S:008).

**Auburn University (Fall 2003 - present)**

**Undergraduate:**

Applied Regression Analysis (STAT4610).  
Probability and Statistics I (STAT3600).  
Statistics for Engineers and Scientists (STAT3010).  
Advanced Regression Topics (STAT4970).  
Statistics for Biological and Health Sciences (STAT2510).

**Graduate:**

Experimental Statistics I (STAT 7000).  
Categorical Data analysis (STAT 7030).  
Applied Multivariate Statistical Data Analysis (STAT 7840).  
Applied Regression Analysis (STAT 7020).  
SAS programming (STAT 5110/6110).  
STAT 7600 Statistical Theory and Methods I (STAT 7600).  
STAT 7610 Statistical Theory and Methods II (STAT 7610).  
Special Topics: Data Analysis and Statistics for Elementary Teachers (MATH 6970):  
Curriculum development.  
Special Topics: Data depth based Quality Control (STAT 7970).  
Special Topics: Functional Data Analysis (STAT 7970).  
Special Topics: Variable Selection Methods (STAT 7970).



## Professional Affiliations

- Elected member of the International Statistical Institute (ISI).
- The Royal Statistical Society (Fellow).
- The International Environmetrics Society (Member).
- American Statistical Association (Member).
- CSNA, the Classification Society of North America (Member).
- Elected member of Sigma Xi Scientific Research Society.

## Professional Service Activities

### Refereeing

- Test.
- Metron.
- The Journal of Statistical Planning and Inference.
- Communication in Statistics -Simulation and Computation.
- Journal of Computational and Graphical Statistics.
- American Journal of Mathematical and Management Sciences.
- Journal of Applied Statistics.
- Pakistan Journal of Statistics.
- Communication in Statistics – Theory and Methods.
- Chilean Journal of Statistics.
- Statistical Papers.
- Geodezi.
- Computational Statistics and Data Analysis.
- Journal of Classification.

### Editorship

- Associate Editor for Communications in Statistics, Theory and Methods.
- Associate Editor for Communications in Statistics, Simulation and Computation.
- Member of Advisory Board for Türkiye Klinikleri Journal of Medical Sciences.
- Member of Advisory Board for Türkiye Klinikleri Journal of Biostatistics.
- Member of ERCIM CM Statistics committees (Statistics for Functional Data).

### Panels

- Panelist for STATFEST, Spelman College, Atlanta, GA, September 25, 2010 "Graduate Statistics Program at Auburn University".
- Panelist for JSM Cavell Brownie Mentoring Program, Vancouver, August 2010.
- Served on the **Statistics Panel of the National Science Foundation**, Division of Mathematical Sciences, February 2012.
- Panelist for Diversity Day panel–Best Practices for Recruiting and Retaining Students and Faculty, San Diego, August 2012.

### Conference organizing

- Secretary of the "Statistics Days", National Conference (25-26 May, 1998, Cukurova University, Adana, Turkey). This was the *first national statistics conference* organized by a university in Turkey and since then it became a tradition to have this conference every two years.
- Member of the Scientific Programme Committee in TIES conference, 2002, Italy.
- Member of Dead Day Symposium, 2004, Auburn University.
- Member of Local Organizing Committee of SCMA 2005 (International Conference on Statistics, Applied Mathematics and Combinatorics ), Auburn University.
- Co-Chair of Organizing Committee of SIAM 2005, Auburn University.
- Member of Scientific Committee of International Conference of Mathematical Sciences, 2009, Turkey.
- Participant for AU-AUST (Auburn University collaborating with African University of Science and Technology Collaborative Program) (2008 – present)

### Consulting

Since 2004 I have been providing consulting help to the faculty and the graduate students outside the department of Mathematics and Statistics: mainly, Forestry, Computer Science and Software engineering, Biology, Agronomy, Entomology, Civil Engineering, Vet School, Pharmacy School, and Business. The problems I have been providing help are in the areas of power analysis, design of experiment, partial least squares, multivariate data analysis, regression analysis.

### Services

- Member of Search Committee for STAT position, Auburn University (2004, 2005, 2006, 2012).
- Member of Mission/Vision committee, Auburn University (2004 – present).
- Member of Admissions Appeals Committee, Auburn University (2004 – 2007).
- Member of Undergraduate Committee, Auburn University (2005 – 2008, 2011 – 2015).
- Member of COSAM Research Advisory Committee, Auburn University (2006 – 2009).
- Chair of COSAM Faculty Travel Committee, Auburn University (2007 – 2009).
- Director of Statistics, Auburn University (2008 – 2010).
- Member of the COSAM Dean Search Committee, Auburn University (2009 –2010).
- Member of Senate Steering Committee, Auburn University (2010 – 2012).
- Member of Vision Committee, Auburn University (2011, September).
- Member of Cavell Brownie Scholars Program in ASA (2010, 2011, 2012).
- Judge, 2011 Graduate Scholars Symposium, Science Oral Presentations, Auburn University.
- Judge, 2011 South's BEST Regional Robotics Championship, Auburn University.
- Judge, 2012 Research Week, Science Oral and Poster Presentations, Auburn University.
- Member of Search Committee for the Director of Statistical Consulting Center (2012, 2013).
- Chair of Undergraduate Studies Committee (2012 – 2013).
- Member of Undergraduate Studies Committee (2012 – 2014).
- Member of Graduate Studies Committee (2013 – 2016).

- Member of Ad-hoc T & P Committee (2014).
- Member of University Curriculum Committee (2014 – 2016).
- Chair of the Ad-Hoc Committee for Third Year Review (2015 – current).
- Chair of Statistics Preliminary Exam Committee (2014 – 2016).
- Chair of the Ad-Hoc Committee for Tenure and Promotion Committee (2016).
- Member of the Ad-Hoc Committee for Promotion Committee (2016).
- Member of Faculty Award Committee (2016 – current).
- Member of Teaching Mentoring Committee (2015 – current).
- Member of the Joint Curriculum Committee for Master in Science in Data Science and Engineering (2017 – current).
- Member of Competitive Research Grant Committee (2017 – current).
- Country Representative for Committee on Women in Statistics (CWIS), International Statistical Institute (2017 – current).