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## **I. EDUCATION AND PROFESSIONAL EXPERIENCE**

### **I-1: Education:**

- 1979-1984 Ph.D. in Statistics, Department of Statistics, Iowa State University.
- 1978-1979 MA in Mathematics, Department of Mathematics, University of West Florida.
- 1972-1976 B.S. in Agronomy, Department of Agronomy, National Taiwan University, Taiwan.

### **I-2: Professional Experience:**

- 2002 – Present Senior Research Fellow, Center for Applied Research & Technology, Central Michigan University.
- 1999 – 2001 University Student Learning Outcomes Assessment Coordinator, Central Michigan University. Oversee the university student learning outcomes assessment activities.
- 1992 – Present Professor, Department of Mathematics, Central Michigan University.
- 1990 – 1991 Visiting Associate Professor, Graduate Institute of Statistics, National Central University, Taiwan.
- 1988 – 1992 Associate Professor, Department of Mathematics, Central Michigan University.
- 1985 -1990, 1994 –1998: University Statistical Consultant, Central Michigan University.
- 1984 – 1988 Assistant Professor, Department of Mathematics, Central Michigan University.
- 1983 – 1984 Teaching Assistant, Department of Statistics, Iowa State University.
- 1979 – 1984 Statistical Consultant, Department of Statistics, Iowa State University.
- 1976 – 1978 Computer Programmer, Computer Center, National Taiwan University

### **I-3 Honors, Awards and Distinctions**

- 2009: Outstanding Teaching Award, College of Science & Technology
- 2008: Fellow, American Statistical Association
- 2007: The First Place of 1<sup>st</sup> Education Team Excellence Competition organized by the American Society of Quality. (<http://nqec.asq.org/team-competition/2007-winners.html>)

- 2006: President Research Award for Outstanding Research Accomplishment, Central Michigan University
- 2006: Dow Chemical Certified Six Sigma Black Belt
- 1998: Elected member of the International Statistical Institute
- 2001: Outstanding Service and Leadership Award, the American Statistical Association.
- Distinguished Leadership Award for Outstanding Contribution of the Fields of Statistical Education and Applied Statistics listed in the International Directory of Distinguished Leadership (10<sup>th</sup>).
- Listed in the Marquis Who's Who in America. 57<sup>th</sup> Edition.
- Was nominated for outstanding teaching award at the college level and university level four times during this time period since 1990.

#### **I-4: Leadership Experience**

1. Led the development of the Graduate Certificate Program in Data Mining and currently serving as the program director at Central Michigan University.
2. Initiated, in 2006, and has been chairing the committee for the biennial National Undergraduate Statistics Project Competition sponsored by the Consortium for the Advancement on Undergraduate Statistics Education (CAUSE). A total of 36 project teams (over 70 students) from 24 institutions participated in the 1<sup>st</sup> project competition. The top three winning teams presented their winning projects in the 2006 United State Conference on Teaching Statistics and were presented at the 2007 ASA Joint Meetings at the CAUSE booth.
3. President, Mid-Michigan Chapter, American Statistical Association (1999-2004).
4. One of the founding members and advisory member for the Consortium on the Advancement of Undergraduate Statistics Education (2002-present).
5. Directed the Statistical Consulting Service for ten years at Central Michigan University.
6. Served as the University Assessment Coordinator (1999-2001): In charge of all aspects about student learning outcomes assessment including (a) leading the development of the university wide student learning outcomes assessment criteria and policy, (b) conducting workshops on learning outcomes assessment, (c) working with the Provost office to prepare reports for program reviews and accreditation and so on.
7. Served as the Area Coordinator (1999 – 2004) for Statistics and Applied Mathematics area in the department of mathematics. In charge of all aspects of curriculum and student issues. Also served as an Executive Committee member for the department to oversee the budget and course offerings in the department.

#### **I-5: Curriculum Development and Teaching Experience**

1. Leading the development of the Data Mining curriculum for the online MBA with concentration in Data Mining. The expected time for the program is Fall 2010.

2. Led the development of the Data Mining Certificate program across three departments (Computer Science, Geography and Mathematics) at Central Michigan University. This program began to accept students in Fall of 2007.
3. Led the development of the Ph.D. concentration in Statistics in the Department of Mathematics, Central Michigan University. This Ph.D. program started in 1996.
4. Led the development of an activity-based curriculum using real-time online database. The Real-time online web site is at <http://stat.cst.cmich.edu/statact/> supported by an NSF/CCLI grant (2003 to 2006).
5. Led the development of (with Famoye) an SPSS online training workshop using interactive movie clips(<http://calcnet.mth.cmich.edu/org/spss/>), which has been the top site on SPSS online training through most online search engine.
6. In charge of the development of Statistics Undergraduate program in the Department of Mathematics, Central Michigan University. This program has been in place since late 1980's
7. In charge of the student learning outcomes assessment for the department of Mathematics for six years.
7. Developed and taught many statistics courses at graduate and/or undergraduate level, including Statistical Methods for Data Mining, Statistical Quality Control, Six Sigma Strategy and Implementation, Design of Experiment, Introduction to Statistical Software, Applied Statistical Methods I and II, Mathematical Statistics I and II, Probability and Statistics for Engineers, Multivariate Statistical Methods, Theory of Statistical Inference.

## II. CREATIVE AND SCHOLARLY ACTIVITIES

### II-1: Refereed Articles, Book Chapters and manuscripts

1. Li, S., Black, D., Lee, C. & Famoye, F. (2009). Dependence models arising from the Lagrangian probability distribution. To appear in the Communications in Statistics – Theory & Methods. [Area: Generalized Discrete Distribution]
2. Sharaf El Din, G., Lee, C., Fattah, M. (2009). What Make Democracy Possible: a Predictive Modeling Approach. To appear in the Computational Intelligence Book Series (Ed. Lee, R.), Springer, Pub. [Area: Data Mining]
3. Akinsete, A., Famoye, F. & Lee, C. (2008). The Pareto distribution. *Journal of Statistics*, March, 1-17. [Area: Generalized Beta-class Distribution]
4. Li, S., Famoye, F., Lee, C. (2008) On Certain Mixture Distributions Based on Lagrangian Probability Models. the *Journal of Probability and Statistical Science*, 6(1), 91-100.[Area: Generalized Discrete Distribution]
5. Meletioui-Mavrotheris, M. and Lee, C. (2007) Effects of technological tools on introductory statistics students' understanding of sampling distribution and statistical inference. Book Chapter in "*Learning and teaching of Research Methods at University*" [Ed. Murtonen M, Rautopuro, J. & Vaisanen, P.] Published by Suomen Kasvatustieteellinen Seurary, *Research in Educational Sciences Series*. pp.,95-118. [Area: Statistics Education]

6. Lingji, K., Lee, C. & Sepanski, J. (2007). On the properties of beta-Gamma distribution. *Journal of Modern Applied Statistical Methods*, Vol 6(1) 187-211 [Area: Generalized Beta-class distribution]
7. Lee, C., Famoye, F. & Olumolade, O. (2007). Beta-Weibull distribution: Some properties and applications to censored data. *Journal of Modern Applied Statistical Methods*, Vol 6(1) 173-186. [Area: Generalized Beta-class distribution]
8. Meletioui-Mavrotheris, M., Lee, C., and Fouladi, R. (2007). Introductory Statistics, College Student Attitudes and Knowledge – A Qualitative Analysis of the Impact of Technology-Based Instruction. *International Journal of Mathematics Education in Science and Technology*, Vol 38(1), 65-83. [Area: Statistics Education]
9. Pararai, M., Famoye, F. & Lee, C. (2006). Generalized Poisson Regression Model for Underreported Counts. *Journal of Advances and Applications in Statistics* vol 6(3), 305-322. [Area: Measurement Error in discrete distribution]
10. Li, S., Famoye, F. & Lee, C. (2006). On some extension of the Lagrangian probability distribution. *The Far East Journal of Statistical Theory*, 18(1), 25-41. [Area: Discrete distribution]
11. Wang, P.C. and Lee, C. (2006). Strategies for Semi-Folding Fractional Factorial Designs. *Quality & Reliability Engineering International*, 22: 265-273 [Area: Design of Experiment]
12. Meletioui-Mavrotheris, M., and Lee, C. (2006). Introductory Statistics Students' Conceptual Development of Variation in Data Distributions. *Mediterranean Journal for Research in Mathematics Education*, 5(1), 29-48. [Area: Statistics Education]
13. Lee, C. (2005). *Use PACE Strategy to Teach Statistics – The PACE Approach*. MAA Notes #65: Innovations in Teaching Statistics (Garfield, Ed.). Published by the Mathematical Association of America, Chapter 3, pp. 13-21. [Area: Statistical Education]
14. Famoye, F. , Lee, C. & Olugbenga Olumolade (2005). The Beta-Weibull distribution. *Journal of Statistical Theory and Applications*, 121-138. [Area: Generalized Beta-class distribution]
15. Lee, C. and Lu, Xioamin (2005). Choice between Partial Least Square and Neural Network Models. *International Journal of Computer & Information Science*, Vol. 6, # 1, 31-37. [Area: Data Mining]
16. Famoye, F., Lee, C. & Eugene, N. (2004). Beta-Normal Distribution: Bimodality Properties and Applications. *Journal of Modern Applied Statistical Methods*, Vol. 3(1), 85-103. [Area: Generalized Beta-class distribution]
17. Meletioui-Mavrotheris, M. & Lee, C. (2002). Teaching students the stochastic nature of statistical concepts in an introductory statistics course. *Statistical Education Journal*, 1(2), 22-37. <http://fehps.une.edu.au/serj>. [Area: Statistics Education]
18. Eugene, N., Lee, C. & Famoye, F. (2002). A class of Beta-Normal Distributions – Properties and Applications. *Communications in Statistics, Theory & Methods*, 31(4) 497-512. [Area: Generalized Beta-class distribution]
19. Lee, C. (1999). A computer-assisted approach for teaching statistical concepts. *Journal of Computer at Schools*, pp. 193-208. [Area: Statistics Education]

20. Lee, C. & Matzo, G.(1998). *An evaluation of the process capability for the fuel injector process using monte carlo simulation*. Chapter 19, Academia/Industry Collaboration Case Study Handbook (Refereed) Published by SIAM, p. 251-269. [Area: Quality Control]
21. Wood, J. & Lee, C. (1998). Perceptions of job description: Interior decorator, interior designer and architect. *Journal of Perceptual and Motor Skills*, 1443-1452. [Area: Statistical Application]
22. Lee, C. & Famoye, F.(1996). A comparison of generalized Poisson model for chromosome aberrations. *Biometrical Journal* 38, 299-313. [Area: Discrete distribution]
23. Wright, J., Wood, J & Lee, C. (1996). Perceptions of job title: Interior decorator, interior designer and building designer or architect. *Perceptual and Motor Skills*, 83, 503-507. [Area: Statistical application]
24. Lee, C. (1994). Discussion paper on Constrained optimal experimental designs by Cook & Federov. *Journal of Statistics*, 26, 165-168. [Area: Design of Experiment]
25. Hoffman, C., Lee, C. and Rasche, (1993). A comparison of the total cholesterol and full lipid panels in identifying at-risk individuals in a community screening program. *The American J. of Health Promotion*, 260-262. [Area: Statistical application]
26. Lee, C. (1992). On the computation of central and noncentral Beta probabilities. *J. of Computational Statistics & Simulation*, 1-10. [Area: Statistical computing]
27. Famoye, F. & Lee, C. (1992). Estimation of generalized Poisson distribution. *Communication in Statistics Series B*, 21(1) : 173-188. [Area: Discrete distribution]
28. Aron, R., Earher, Y. & Lee, C. (1992). The distribution of the most favorable temperatures for the induction of citrus flowers in Israel. *International Journal of Biometeorology*, 36: 108-112. [Statistical application]
29. Angelos, J., Lee, Carl & Singh, K.P., (1991). B-spline approximation for the baseline hazard function. *J. of Environmetrics*.2(3): 323-339. [Area: Survival analysis]
30. Lee, C. (1990). On the characterization of Pitman measure of nearness. *Journal of Statistics & Probability Letters*, Vol. 8, 41-46. [Area: Estimation ]
31. Aron, R., Aron, I.-M. & Lee, C. (1990). A comparison of revenues and expenditures and Michigan school districts educational background, median family income, racial makeup and the drop out rate. *Journal of Educational Research Quarterly*, 14, 22-31. [Area: Statistical application]
32. Lee, C. (1988). Constrained optimal designs. *Journal of Statistical Planning and Inference*. 18, 377-389. [Area: Design of Experiment]
33. Lee, Carl & Singh, K.P. (1988). On the t-cumulative probabilities. *Communications in Statistics, Simulation & Computation*. 17, 129-135. [Area: Statistical computing]
34. Lee, C., Aron, R. & Aron, I.-M. (1988). An analysis of Michigan educational assessment program (MEAP) score and school districts revenues and expenditures. *Journal of American Educational Finance*. 13, 496-511. [Area: Statistical application]
35. Lee, C. (1988). On the computation of F-cumulative probabilities. *Communications in Statistics, Series B*. 17, 1191-1201. [Area: Statistical computing]

36. Lee, C. (1988). D-optimal Designs for polynomial regression when lower degree parameters are more important. *Utilitas Mathematica*, 34, 53-63. [Area: Design of Experiment]
37. Singh, K.P., Lee, Carl & George, E.O. (1988). On the generalized Log-Logistic models for survival data. *Biometrical Journal*, 30, 843-850. [Area: Survival analysis]
38. Lee, C. (1987). Constrained Optimal Designs for Regression Models. *Communications in Statistics - Theory & Method*, Vol.16(3), 765-783. [Area: Design of Experiment]
39. Lee, Carl and Peddada, D.S. (1987). Comparison of some common ratio estimators using Pitman measure of nearness. *Communication in Statistics - Theory & Method*, Vol. 16(7) 2017-2027. [Area: Estimation]
40. Lee, C. , Daniels, J. and Famoye, F. (2007). A Real-Time web-based system to facilitate meaningful learning in Statistics. (*Refereed*) *Proceedings of ED-MEDIA 2007, World Conference on Educational Multimedia, Hypermedia & Telecommunications* [Ed. Craig Montgomerie, Jane Seale], June 25-29, 2007, Vancouver, BC, Canada, pp.3619-3627. [Area: Statistics Education]
41. Meletiou-Mavrotheris, M. and Lee, C. (2007). A cross-national comparison of introductory statistics students' prior knowledge of graphs. (*Refereed*) *Proceedings publication in the 5<sup>th</sup> Congress of the European Society for Research in Mathematics Education*. Larnaca, Cyprus. [Area: Statistics Education]
42. Lee, C. (2007). How well can hand size predict height? A set of refereed instructional material in the 'Cooperative Learning Module' in the National Pedagogic Resource Library for statistics educators organized by the [CAUSE](#) and [SERC](#). [<http://serc.carleton.edu/sp/cause/cooperative/examples/18172.html>]. [Area: Statistics Education].
43. Lee, C., Rey, T. Tabolina, O, Mentele, J. & Pletcher, T. (2006). Modeling the network of loyalty-profit chain in chemical industry. *IEEE/ICIS06 Refereed Proceedings, 5th IEEE/ACIS International Conference on Computer and Information Science*, Hawaii, 7/10-7/12/06, p. 492-499. [Area: Data Mining]
44. Lee, C. and Famoye, F. (2006). Teaching Statistics Using A Real Time Online Database Created By Students. In A. Rossman & B. Chance (Eds). *Refereed Proceedings, International Conference on Teaching Statistics[CD-ROM]*, Salvador, Brazil, July, 2006. [Area: Statistics Education]
45. Zeleke, A., Lee, C. and Daniels, J. (2006). Developing Projects Based Students' Own Data In Introductory Statistics. In A. Rossman & B. Chance (Eds). *Refereed Proceedings, International Conference on Teaching Statistics [CD-ROM]*, Salvador, Brazil, July, 2006. [Area: Statistics Education]
46. Meletiou-Mavrotheris, M. and Lee, C. (2005). Exploring Introductory Statistics Students' Understanding of Variation in Histograms. (*refereed*) *Proceedings publication in the 4<sup>th</sup> Congress of the European Society for Research in Mathematics Education*, Sant Feliu de Guíxols, Spain. [Area: Statistics Education]
47. Lee, C., Rey, T. and Mentele, J. (2005). Structural Neural Network Models for Modeling Loyalty and Profitability. *Refereed Proceeding, SUGI30*, Philadelphia, Maryland, USA, April 2005. [Area: Data Mining]
48. Meletiou-Mavrotheris, M and Lee, C. (2005). Effects of technological tools on introductory statistics students' understanding of sampling distribution. *Refereed proceeding in the 11<sup>th</sup> Biennial Conference* ,

- 2005, at Cyprus, the European Association for Research on Learning and Instruction, 2005. [Area: Statistics Education]
49. Lee, C. and Lu, Xiaomin (2004). A Comparison of Partial Least Square Model and Neural Network Model. *Refereed Proceedings, 5<sup>th</sup> International Conference on Software Engineering, Artificial Intelligence, Networking & Parallel /Distributed Computing*, June 2004, Beijing, China. [Area: Data Mining]
  50. Wang, D. Lee, C., Mehta, R.H., Kaiser, J. & Bott, M. (2004). An Image Retrieval System Based on Patient Data and Image Content. *Refereed Proceedings, 5<sup>th</sup> International Conference on Software Engineering, Artificial Intelligence, Networking & Parallel /Distributed Computing*, June 2004, Beijing, China. [Area: Data Mining]
  51. Meletiou, M. & Lee, C. (2003). Investigating college-level introductory statistics students' thinking on variability: Insights gained from two studies. (*Refereed*) *Proceeding, the 3<sup>rd</sup> International Research Forum on Statistical Reasoning, Thinking and Literacy*, [edited: Lee, C.], Lincoln, Nebraska, July 23-28, 2003. [Area: Statistics Education]
  52. Lee, C., Zeleke, A. & Wachtel, H. (2002). Where do students get lost: the concept of variation. *Refereed Proceeding, the 6<sup>th</sup> International Conference of Teaching Statistics*, Cape Town, South Africa, July, 2002. [Area: Statistics Education]
  53. Meletiou, M. Lee, C. (2002). Student understanding of histograms: A stumbling stone to the develop of intuitions about variation. *Refereed Proceeding, the 6<sup>th</sup> International Conference of Teaching Statistics*, Cape Town, South Africa, July, 2002. [Area: Statistics Education]
  54. Lee, C., Meletiou, M., Wachtel, H. & Zeleke, A. (2002). The issue of motivation and expectation in the introductory statistics – obstacles and opportunities. *Refereed Proceeding, the 6<sup>th</sup> International Conference of Teaching Statistics*, Durban, South Africa, July, 2002. [Area: Statistics Education]
  55. Lee, C. (2000). A paradigm shift in the technology era in higher education. *Refereed Proceedings, ED-MEDIA 2000: (Refereed) The World Conference on Educational Multimedia, Hypermedia & Telecommunications*. Montreal, Canada. July, 2000. [Area: Statistics Education]
  56. Lee, C. (1999). A comparison of students' beliefs and attitudes towards statistics between technology-rich environment and the traditional lecture. *Refereed Proceedings, the International Conference on Mathematics/Science Education & Technology* at San Antonio, pp. 133-138. [Area: Statistics Education]
  57. Meletiou, M., Myers, M., Lee, C. (1999). The role of technology in the introductory statistics classroom: Reality and Potential. *Refereed Proceedings, the 1999 International Conference on Mathematics/Science Education & Technology*, pp. 292-297. [Area: Statistics Education]
  58. Lee, C. (1998). An assessment of the PACE strategy for an introductory statistics course. *Refereed Proceedings, The 5<sup>th</sup> International Conference on Teaching Statistics*, p. 1215-1221. [Area: Statistics Education]
  59. Lee, C. & St. John, D. (1998). On the use of technology for mathematics at secondary schools. *Refereed Proceedings of the SITE 1998 Annual Conference, Association for the Advancement of Computing in Education*, p. 618-621. [Area: Statistics Education]

60. Lee, C. (1997). Promoting active learning in an introductory statistics using the PACE strategy. *Refereed Proceeding, 6th International Symposium on Mathematics Education* at Mexico City, p. 199-206. [Area: Statistics Education]
61. Lee, C. (2003). *A Final Report on the Evaluation of the Effectiveness of Violence Prevention and Drug-Free School Project Conducted by the Regional Educational School District* (Funded by Department of Education, 1999-2002). This over 500 page report studies the effectiveness of research-based programs implemented in eleven middle schools in the Mid-Michigan area for preventing violence and drug-free schools. In addition to evaluating the effectiveness of the programs implemented, an integral part, equally important, of the study was to identify significant factors associated with risk behaviors of violence and substance usages at schools. The report is available on CD copy righted by the RESD.
62. Lee, C. (2000). *Quantitative Methods for Measuring and Assessing Uncertainties in Testing Process and Outcomes*. Manuscript prepared for an invited 60 hours workshop from July 30 to August 15, 2001 at the National Bureau of Standards & Metrology and Inspection, Taiwan, and published by the National Bureau of Standards & Metrology and Inspection, Taiwan). An online version can be viewed at <http://www.cst.cmich.edu/users/lee1c/workshop/>.
63. Lee, C. and Famoye, F. (1999). Online workshop in SPSS at <http://calcnet.cst.cmich.edu/org/spss/>. We develop a set of movie clips, each is about 5 to 10 minutes to introduce SPSS and data analysis. Using any search engine to search for 'SPSS Training', this site is usually in the top three sites.
64. Grabinski, R., Lee, C. & Chamberlain, M. (1999). *On the study of opinions and realities from parents, teachers and students points of view for charter schools : A Report on Charter School Profiles :1997-1998 School Year*.
65. Grabinski, R., Lee, C. & Chamberlain, M. (1998). *On the study of opinions and realities from parents, teacher and students points of view for charter schools: Chatter School Profiles:1996 - 1997 School Year*.
66. Lee, C. (1997). *A Survey Study of Student and Faculty Opinions on Current and Future Technology Implementation at Central Michigan University*, supported by the Information Technology Office.
67. Clemmer, R., Hill, J., Lee, C. Littlefield, A. & Pape, G. (1996). *A Final Report to the Stakeholders of the Saginaw Chippewa Tribe Gaming Expansion Evaluation Project - Adjustment of Progress Report, Crime impact, Health care impact, Law enforcement and court resources impact, Economic development impact, Quality of life, Hotel and convention center impact, Income transfer impact*. Central Michigan University Press, July, 96.
68. Clemmer, R., Hill, J., Lee, C. Littlefield, A. & Pape, G. (1996). *A Progress Report to the Stakeholders of the Saginaw Chippewa Tribe Gaming Expansion Evaluation Project. - Labor pool, Housing impact, Road needs, School impact, Wage impact, Population increase, Zoning, Day care impact*. Central Michigan University Press, April, 96.
69. Aron, R., Lee, Carl & Aron, I.-M. (1987). *Some Factors Associated With Student Performance on Michigan Educational Assessment Program (MEAP) Tests*. Central Michigan University Press.

## II-2: Non-refereed Proceeding Publications:

70. Lee, C., Mocko, M., Moreno, J., Rogness, N. (2008). An Overview of K – 16 Poster and Project Competitions. Proceedings, Statistics Education Section, Joint Statistical Meetings, August 6th, 2008, Denver, CO.

71. Famoye, F. and Lee, C. (2006). Evaluation of students' learning in real-time online activities environment. Proceedings, Statistics Education Section, Joint Statistical Meetings, August 9<sup>th</sup>, 2006, Seattle, WA, pp. 2272-2278.
72. Famoye, F. and Lee, C. (2005). Beta-weibull distribution. *Proceedings, Joint Statistical Meetings*, Minneapolis, MN., August, 2005.
73. Lee, C. and Famoye, F. (2005). Active Learning Using Real-Time Online Hands-on Activities. *Proceedings, Statistics Education Section, Joint Statistical Meetings*, Minneapolis, MN. , August, 2005.
74. Lee, C. (2004). Distance Learning – The experience of Teaching an Online Introductory Statistics. *Proceedings, Joint Statistical Meetings*, Toronto, Canada, August 10, 2004, 2740-2744.
75. Lee, C. & Meletiou, M. (2003). A missing link toward understanding variability: The unexpected difficulty of histograms. *Proceedings, the Joint Statistical Conference, American Statistical Association*, San Francisco, CA, August 3<sup>rd</sup> – 8<sup>th</sup>, 2003.
76. Lee, C., Zeleke, A. & Meletiou, M. (2003). On the issue of noncognitive factors in developing an active learning environment for introductory statistics. *Proceedings, Hawaii International Conference on Statistics and Related Fields, Honolulu, HI, June 5<sup>th</sup> – June 10<sup>th</sup>, 2003.*
77. Zeleke, A., & Lee, C. (2003). On students' conceptual understanding of variation in introductory statistics. To appear in the *Proceedings, Hawaii International Conference on Statistics and Related Fields, Honolulu, HI, June 5<sup>th</sup> – June 10<sup>th</sup>, 2003.*
78. Wang, D. & Lee, C. (2002). The effect of baseline selection in Hotelling's  $T^2$  two sample test for shape data. *The Proceedings[CD-ROM], Stat Computing Section of American Statistical Assoc*, 2002, New York.
79. Famoye, F., Lee, C., & Eugene, N. (2002). Bimodality properties and applications for Be-Normal distribution. *The Proceedings [CD-ROM], American Statistical Assoc*, 2002, New York.
80. Lee, C. (2001). Classroom experience in using the net for teaching. *Proceedings the 2001 International Statistical Institute Conference*, Seoul, South Korea.
81. Lee, C. (2000). Developing a student-centered environment in the technology-the case of introductory statistics. *Proceedings, American Statistical Association, 2000 Annual Meetings at Indianapolis, IN, August, 2000.* pp. 35-43.
82. Lee, C. (1999). Students' perspective on learning introductory statistics - Attitudes, Pedagogy and Contents. *Proceedings, American Statistics Association, 1999 Annual Meetings at Baltimore, August, 1999.* pp. 219-224.
83. Lee, C. & Hill, James, P. (1997). Crime Impact Study for a Native American casino in rural area. *1997 American Statistical Association Proceedings Section : Social Study*, p. 281-285.
84. Lee, C. & VanderKolk, K. (1996). Statistical models for maximum daily ozone concentrations in Detroit Metropolitan Area. *ASA Proceedings - Section Environmental Stat.*, 49-53.
85. Lee, C. & Pauken, D. (1995). Statistics and probability at secondary schools. *Proceedings of ASA meetings - Sec. Statistics Education*, 273-278.

86. Lee, C. (with Hogarth, B., Chiesa, T. and Siems, K.) (1993). A case study of causes associated with no-bore stamp V8 engines at a GM plant. *Proceedings of ASA – Section-Quality & Productivity*, 77-82.
87. Lee, C. (1992). Efficiency comparison of methods computing incomplete beta integral. *Proceedings of the American Statistical Assoc. 1992 Joint Meeting - Sec. Statistical Computing*, 108-112.
88. Lee, C. Hoffman, C. & Rasche, R. (1991). An analysis of lipid components associated with coronary heart disease. *Proceedings of the 1991 National Annual Statist. Conference in Taiwan*, 306-313.
89. Famoye, F. & Lee, C. (1990). Estimation of generalized Poisson distribution using weighted discrepancies method. *Proceedings of the 22nd Symposium on INTERFACE*, 332-335.
90. Lee, C. (1990). An efficient method for noncentral beta probabilities when parameters are small or moderate. *Proceedings of the 22nd Symposium on INTERFACE*, 430-433.
91. Lee, C. (1988). A new algorithm for Computing F-probability. *Proceedings of American Statistical Association-Section of Statistical Computing*, 1988.
92. Lee, C. (1986). D-optimal Designs for regression models when some parameters are more important. *Proceeding of the First International Statist. Symposium, Taiwan*, 471-503.
93. Lee, C. (1986). Estimation of Instructor's Performance. *Proceedings of the American Statistical Association - Statistical Education*, Vol. 5, 111-114.
94. Lee, C. (1986). Constrained optimal designs for polynomial regression. *Proceedings of the American Statist. Assoc. - Section on Survey Research Methods*, 280-285.

### **II-3: Jury/Media Articles:**

- Over 20 media/Newspaper articles quoted the Casino Impact Study between March and August, 1996. Many invited presentations with regards to the casino impact were given at local community meetings, city and county commissioner meetings.
- Over 15 media/Newspaper articles quoted the study “Some Factors Associated with Student Performance on Michigan Educational Assessment Program (MEAP) Tests”.
- The Casino Impact Study was selected the top five event in Isabella County, Michigan in 1996 by the area newspaper - Morning Sun on 12/31/96.

## **III. CONTRUBTIONS IN STATISTICAL CONSULTATION**

### **III-1: Consulting work for industry and organizations:**

- 2006- 2007: Serve as the expert statistician for an international team project involving Roberson Technology Non-profit Organization, National Health Bureau of India and National Institute of Medicine in India and Central Michigan University to evaluate an expert disease diagnosis system.
- 2002 – Present: Senior faculty research fellow at the Center of Applied Research in Technology, Central Michigan University Research Park. Working as a senior statistician expert for data mining and business intelligence projects contracted with private companies. I was involved with applied research projects for Dow Chemical, Dow Corning, EDS, International Papers, Ely-Lily, Henry Ford Hospital System, Soaring

Eagle Casino & Resort, General Motor, and others. A team of two to three researchers and two research associates is formed for each project. Projects include marketing strategies, loyalty modeling, Bank of Knowledge analysis, spatial and temporal pattern predictions, and text mining. My role is to provide problem solving strategies and technical expertise on the use of data mining and statistical techniques for the projects (see the External Funded Grant Section for details).

- 1996 – Present: Serve as a statistical consultant for RESD (Regional Education School District at St. Louis, MI) on projects related to institutional research, assessment and planning.
- (a) The school climate study is annually since 1996.
  - (b) The assessment of student learning and evaluation of charter schools was annually from 1996 to 1999.
  - (c) The project on school violence prevention and drug-free was a three years project from 2001-2003.
- 2002 - Serve as a statistical consultant and the supervisor of student intern for a quality control project at a local manufacturing company. The project involves with the applications of statistical quality control techniques to investigate factors associated with defective parts produced from several chemical processes.
- 1990 - Present: Expert statistician of the TELTECH Expert Knowledge Network -- Clients, who are from industry, go through TELTECH network to locate an expert to provide consultation on quality control, experimental design, sampling, modeling, etc.. Recent projects included a dose-response modeling for a chemical company and a quality control project.
- 1999-2001: Served as an expert statistician to investigate the effect of alooe versa on cancer patients contracted by the Mid-Michigan Hospital.
- 1998 – 1999: Served as an expert statistician (with Felix Famoye) to investigate the adequacy of the pole survey methodology for the joint poles estimation contracted by Consumer Energy and Ameritech. The project was to determine and modify a sampling methodology for estimating the total number of poles in the entire state of Michigan shared between Consumer Energy and Ameritech to resolve a conflict of several million dollars between these two companies.
- 1995 – 1996: Industry/Academia cooperative case study project with FORD (supported by NSF/ASA) - The performance of capability indices under nonnormal. (with Gus Matzo, senior technical specialist at FORD, Dearborn, MI). The study was published as a chapter in a case study book published by the SIAM Society (Ed. By Roxy Peck).
- 1993 – 1994: Statistical consultant at the Dow Corning Research Center to develop statistical models for a chemical process.
- 1991 – 1992: Statistical consultant for the GM Powertrain V8 engine plant at Flint. Helped the company to study the factors associated with the V8 engine production process.

### **III-2: Academic Statistical Consulting Work:**

- 2005 – Serve as a statistical consultant and data analyst for an NIH funded project on Chemical lab safety training program funded to Central Michigan University Research Corporation.
- 2004 – Serve as the project evaluator for the NSF/CCLI project on Activities for Introductory Statistics funded to Iowa State University, Department of Statistics.

2003- Serve as the project consultant on the research project “The impact of long term use of handheld graphing technology and trained teachers on student performance” by Burrill, G. at Michigan State University.

1985 - 1991, 1994 – August, 1998:

In charge of the statistical consulting service at Central Michigan University. To provide statistical consulting services to faculty, staff and graduate students for designing questionnaires and experiments, analyzing data, and interpreting results. On average, there are about 80 consulting projects per year.

August, 1979 - July, 1984 (Graduate Assistant):

Statistical consultant at the Department of Statistics, Iowa State University. To provide statistical consulting for the biological, agricultural and food sciences, and for the School of Veterinary.

July, 1976 - June, 1978 (full time):

Computer programmer and statistical consultant at Computer Center, National Taiwan University. To develop a statistical package and provide statistical consulting for the university.

#### **IV. PRESENTATIONS/WORKSHOPS ACTIVITIES**

##### **IV-1: Workshops Conducted and Sessions Organized at Professional Conferences:**

2006 – Organizer and Chair of a Special Contributed Session on “Fostering Active Learning in Introductory Statistics”. American Statistical Association, Stat. Edu. Section, Seattle, WA, August, 2006.

2006 – Workshop on Teaching Basic Statistics Using Real-time Hands-on Activities at the 57<sup>th</sup> Annual Conference, Michigan Council of Teachers of Mathematics, 8/8-8/11, 2006 at Holt, Michigan. (with Felix Famoye).

2005- Workshop on the use of real-time database for teaching statistics. American Mathematical Association for Two-Year Colleges, San Diego, November, 2005 (with Sue Lenker).

2004- Workshop student learning outcomes assessment for introductory statistics. Beyond Formula Conference, July, Rochester, NY, 2004.

2001 - Was invited to give a sixty-hours workshop on how to measure and assess uncertainties in proficiency tests by the National Bureau of Standards & Metrology and Inspection, Taiwan, July 30 to August 15, 2001.

1999-2001: Gave workshops on how to conduct student learning outcomes assessment and simple tools for classroom assessment regularly from college to college at CMU during my tenure of Assessment Coordinator.

1999 - Organizer and Leader of the Luncheon Roundtable on the effect of technology on student attitudes/beliefs. At the Annual Joint Statistical meetings at Baltimore.

1998 - Organizer and speaker of a two hours theme talk on Teaching and Learning Introductory Statistics at the 1998 International Conference of Research on Undergraduate Mathematics Education at South Bend, IN.

1997 - Organizer and chair of a special contributed session at 1997 Joint Statistical Meetings on Innovative Programs Using Technology for Introductory Statistics.

- 1996 - Gave a workshop on "Computer Graphical Presentations" at the 1996 Science/Math Workshop for middle/elementary School students organized by the Regional Educational Schools District.
- 1995- Initiated and organized the First Teaching Mathematics with Technology Institute for high school Math teachers on Algebra and Statistics hosted by Central Michigan University.
- 1995 - Gave an workshop on "How Well Can You Measure Without a Ruler?" at the 1995 Science/Math Workshop for middle/elementary school students organized by the Regional Educational Schools District.

#### **IV-2: Invited/Featured Talks and Presentations:**

- 2009- Lee, C. 'Strategy of conducting data mining projects with applications.' Department of Statistics, Seoul National University, May 25, 2009, Seoul, Korea.
- 2008- Lee, C., Mocko, M., Moreno, J. & Rogness, N. 'An Overview of K-16 Poster and Project Competitions. An invited presentation at the Joint Statistical Conference, Denver, August, 2008.
- 2007- Lee, C. and Angelos, J. 'Six Sigma Project for Improving Mathematics Placement. An invited presentation as the final four for the 1<sup>st</sup> Education Team Excellence Competition organized by the American Society of Quality. 15<sup>th</sup> National Quality Education Conference, November 11-13, St. Louis, MO.
- 2006 – Lee, C. Colloquium Talk on "The First Undergraduate Statistics Project Competition". Department of Statistics, Grand Valley State University, September, 2006.
- 2006 – Lee, C. and Famoye, F. Teaching Basic Statistics using Real-Time Hands-on Activities. The Data Day Special Event, Annual Conference organized by the Michigan Council of Teaching Mathematics, Holt, Michigan, August, 2006.
- 2006 - Lee, C. and Famoye, F. Teaching Statistics Using A Real Time Online Database Created By Students. *International Conference on Teaching Statistics*, Brazil, July, 2006.
- 2006 - Zeleke, A., Lee, C. and Daniels, J. Developing Projects Based Students' Own Data In Introductory Statistics. *International Conference on Teaching Statistics*, Brazil, July, 2006.
- 2006 – Daniels, J. and Lee, C. Colloquium on "Using Real-Time data for Teaching Statistics" at Department of Statistics, Western Michigan University, Kalamazoo, Michigan, March, 2006.
- 2005- Lee, C. Some Common Misconceptions and Unexpected Difficult Statistical Concepts. Workshop at National Taipei University, May 4<sup>th</sup>, 2005, Taiwan.
- 2005 - Lee, C. Some Data Mining Case Studies. May 5<sup>th</sup>, 2005, at the National Academia Sinica, Taipei, Taiwan.
- 2005 - Lee, C. Some Business Applications using Data Mining Techniques. May 3rd, 2005, at the National Central University, Taiwan.
- 2005 - Lee, C. Predictive Modeling for Loyalty and Profitability – A Data Mining Case Study in a Chemical Industry. April 28, 2005, at the National Central University, Taiwan.
- 2005 - Panelist on Research in Statistics Education: It's not a solo sport. The 1<sup>st</sup> United State Conference on Teaching Statistics, May 19-21, 2005, Columbus, OH.

- 2005 - Lee, C., Rey, T., Mentele, J. & Garver, M. Structural Neural Network Models for Modeling Loyalty and Profitability. Presented at the 30<sup>th</sup> SUGI Conference, Philadelphia, Maryland, USA, April 2005.
- 2005 - Lee, C. Activity-based curriculum using Technology and real-time online database created by students. Presented at the AMS/MAA Annual Conference, Atlanta, GA, January, 2005.
- 2004 – Lee, C. The issue of student attitudes and motivation in introductory statistics. Presented at the Beyond Formula Statistics Conference, Rochester, NY, July, 2004.
- 2004 - Lee, C. Planning and assessing student learning outcomes for statistics. Presented at the Beyond Formula Statistics Conference, Rochester, NY, July, 2004.
- 2004 - Lee, C. Distance Learning – the experience of teaching an online introductory statistics. Joint Statistics Meetings, Toronto, Canada, August, 2004.
- 2002 - Lee, C. Motivation and Active Learning. Presented at the Colloquium, Department of Statistics, Iowa State University, October, 2002
- 2002 - Lee, C. Motivation and Active Learning. Presented at the Colloquium, Department of Statistics, Kansas State University, October, 2002
- 2002- Lee, C., Meletiou, M., Wachtel, H. & Zeleke, A. The issue of motivation and expectation in the introductory statistics – obstacles and opportunities. The 6th International Conference of Teaching Statistics, Durban, South Africa, July, 2002.
- 2002- Lee, C. Developing an Active Learning Environment for Introductory Statistics - From Framework to Practice. International Conference on Stats, Probability & Relate. Northern Illinois University, June, 2002.
- 2001- Lee, C. Classroom experience in using the net for teaching. in the 2001 International Statistical Institute Conference, Seoul, South Korea.
- 2000- Lee, C. Making the case for Undergraduate Statistics. Symposium on Undergraduate Statistics Education Initiatives, American Statistical Association, Indianapolis, IN, August 12, 2000.
- 1999- Lee, C.: One of the three feature speakers at the Mid-West Conference On Teaching Statistics held at Oshkosh, Wisconsin in June, 1999.
- 1998- Lee, C., Fouladi, R. and Meletious, M. Organized and presented a two hours special theme presentation on Teaching and Learning on Introductory Statistics at the International Conference of Research on Undergraduate Mathematics Education at South Bend, IN September, 1998.
- 1997- Lee, C. An overview of test statistics for identifying dispersion effects for unreplicated fractional designs. Presented at the Department of Statistics at National Ching-Hua Univ., June, supported by the National Research Council, Taiwan.
- 1992 - Lee, C. A study of principle components associated with the complete lipid profile. Department of Biostatistics, Univ. of Michigan.
- 1991 - Lee, C. A view of statistical consultation from experience. Dept. of Statist., National Cheng Kung Univ., Taiwan.

- 1991 - Lee, C. From the misuse of statistics to statistical applications. Dept. of Statist., Tong-Hai University, Taiwan.
- 1991 - Lee, C. A new method for estimating discrete distributions. Institute of Statist., Academia Sinica, Taiwan.
- 1991 - Lee, C. Some misused/constructive examples of statistical applications. National Bureau of Census, Taiwan.
- 1991 - Lee, C., Hoffman, C. & Rasche, R. A study on the dimensionality of lipid profile associated with heart disease. 1991 National Annual Statist. Conference, Taiwan.
- 1991 - Lee, C. On the estimation of discrete distributions using the method of weighted rates of change. Dept. of Math., Univ. of Singapore.
- 1990 - Lee, C. Statistical consultation experience in universities. Invited talk at the Graduate Institute of Statist., National Ching-Hua University, Taiwan.
- 1990 - Lee, C. On the computation of incomplete Beta integral and its related distributions. Colloquium talk at the Graduate Institute of Statist., National Central Univ., Taiwan.
- 1990 - Lee, C. Parametric models for complex data. Invited talk at the Biometry Group, Dept. of Agronomy, National Taiwan Univ., Taiwan.
- 1989 - Lee, C. Some Aspects of Constrained Optimal Designs. Department of Statistics, NC State U., Raleigh.
- 1986 - Lee, C. Experimental error and sampling error for agricultural experiments. Department of Agronomy, National Taiwan University.

#### **IV-3: Contributed conference article presentations:**

- 2009- Sharaf El Din, G., Lee, C., Fattah, M. (2009). What Make Democracy Possible: a Predictive Modeling Approach. *10<sup>th</sup> International Conference on Software Engineering, Artificial Intelligence, Networking & Parallel /Distributed Computing*, May 27-29, Daegue, Korea.
- 2007 – Lee, C, Daniels, J. & Famoye, F. A Real-Time web-based system to facilitate meaningful learning in Statistics. ED-MEDIA, World Conference on Educational Multimedia. Hypermedia & Telecommunications. Vancouver, BC, Canada, June 25-29, 2007.
- 2007 - Zeleke, A. & Lee, C. Incorporating Online Real-Life Activities in Large Lecture Classes for Introductory Statistics. 2<sup>nd</sup> United States Conference on Teaching Statistics, Columbus, OH, May, 2007.
- 2007 – Lee, C. Fostering active learning using Real-time data gathered by students for introductory statistics. Hawaii International Conference in Mathematics, Statistics and Related Fields. Honolulu, Hawaii, January 2007.
- 2006 – Famoye, F. & Lee, C. Evaluation of student's learning in real-time online activities environment. Presented at the Joint Statistical Meeting, Seattle, WA, August 2006.

- 2006 – Li, S., Famoye, F. & Lee, C. Quasi-probability distribution based on the Lagrange expansions. Presented at the Joint Statistical Meeting, Seattle, WA, August 2006.
- 2006 – Lee, C. Real-time online database for statistics. May 19, 2006, CAUSE Webinar presentation.
- 2005 – Lee, C. and Famoye, F. Active learning using real-time online hands-on activities. Presented at the 2005 Joint Statistical Meetings at Minneapolis, Minnesota, August 7, 2005.
- 2005 - Famoye, F. and Lee, C. Beta-weibull distribution and its applications. Presented at the 2005 Joint Statistical Meetings at Minneapolis, Minnesota, August 10, 2005.
- 2005 - Lee, C. and Famoye, F. . Activity-based Learning Using Real-Time Online Hands-on Activities. The 1<sup>st</sup> United State Conference on Teaching Statistics, May 19-21, 2005, Columbus, OH.
- 2005 - Lee, C. An investigation of students' knowledge retention of statistical concepts using problem-solving methodology. The 1<sup>st</sup> United State Conference on Teaching Statistics, May 19-21, 2005, Columbus, OH.
- 2004 - Lee, C. and Lu, Xiaomin . A Comparison of Partial Least Square Model and Neural Network Model. *5<sup>th</sup> International Conference on Software Engineering, Artificial Intelligence, Networking & Parallel /Distributed Computing*, June 2004, Beijing, China.
- 2004 - Wang, D. Lee, C., Mehta, R.H., Kaiser, J. & Bott, M. An Image Retrieval System Based on Patient Data and Image Content. *5<sup>th</sup> International Conference on Software Engineering, Artificial Intelligence, Networking & Parallel /Distributed Computing*, June 2004, Beijing, China.
- 2004 - Lee, C. Distance Learning – The experience of Teaching an Online Introductory Statistics. Presented at the, *Joint Statistical Meetings*, Toronto, Canada, August 10, 2004, 2740-2744.
- 2003 - Meletioui, M. & Lee, C. Investigating college-level introductory statistics students' thinking on variability: Insights gained from two studies. The 3<sup>rd</sup> International Research Forum on Statistical Reasoning, Thinking and Literacy, Lincoln, Nebraska, July 23-28, 2003.
- 2004 Lee, C. & Meletioui, M. A missing link toward understanding variability: The unexpected difficulty of histograms. The Joint Statistical Conference, American Statistical Association, San Francisco, CA, August 3<sup>rd</sup> – 8<sup>th</sup>, 2003.
- 2005 Lee, C., Zeleke, A. & Meletioui, M. On the issue of noncognitive factors in developing an active learning environment for introductory statistics. Hawaii International Conference on Statistics and Related Fields, Honolulu, HI, June 5<sup>th</sup> – June 10<sup>th</sup>, 2003.
- 2003- Zeleke, A., & Lee, C. On students' conceptual understanding of variation in introductory statistics. Hawaii International Conference on Statistics and Related Fields, Honolulu, HI, June 5<sup>th</sup> – June 10<sup>th</sup>, 2003.
- 2002- Famoye, F., Lee, C., Eugene, N. Bimodality of Beta-Normal Distributions and applications. 2002 Joint Statistical Meetings at New York, August.
- 2002- Wang, D., Lee, C. The effect of baseline selection in statistical shape analysis. 2002 Joint Statistical Meetings at New York, August. 2002.

- 2002- Lee, C., Zeleke, A. & Wachtel, H. Where do students get lost: the concept of variation. To appear in the refereed proceeding, the 6th International Conference of Teaching Statistics, Durban, South Africa, July, 2002.
- 2002- Meletiou, M. Lee, C. Student understanding of histograms: A stumbling stone to the develop of intuitions about variation. The 6<sup>th</sup> International Conference of Teaching Statistics, Durban, South Africa, July, 2002.
- 2000- Lee, C. A paradigm shift in the technology era in higher education. Refereed Proceedings, ED-MEDIA 2000:The World Conference on Educational Multimedia, Hypermedia & Telecommunications. Montreal, Canada. July, 2000
- 2000- Lee, C. Misconceptions Vs. Missed Conceptions in introductory statistics. Presented at the Annual Michigan Mathematical Association, Mt. Pleasant, MI May, 2000
- 1999- Lee, C. & Searcey, M. Learning style, beliefs and anxieties in remedial college mathematics . Presented at the 4<sup>th</sup> International Conference on Research in Undergraduate Mathematics Education, Chicago, September 16-19, 1999.
- 1999- Lee, C. A comparison of students' beliefs and attitudes towards statistics between technology-rich environment and traditional lecture. Presented at the American Statistical Association Annual Meetings at Baltimore, August 8-14, 1999.
- 1999 - Lee, C. Meletiou, M. Statistical instruction informed by student's thinking: The case of statistical variation. Presented at the 4<sup>th</sup> International Conference on Research in Undergraduate Mathematics Education, Chicago, September 16-19, 1999.
- 1999- Meletiou, M. and Lee, C. Students' intuitive understanding of variability. The 2<sup>nd</sup> International Midwest Conference on Teaching Statistics at Oshkosh WI, June 26, 1999.
- 1999- Meletiou, M., Myers, M. & Lee, C. The role of technology in the introductory statistics classroom: Reality and Potential. Presented at the 1999 International Conference on Mathematics/Science Education and Technology at San Antonio in March.
- 1998- Lee, C. An assessment of the PACE strategy for an introductory statistics. Presented at the 5<sup>th</sup> International Conference On teaching Statistics at Singapore in June, 1998.
- 1998 - Lee, C. St. John, D. On the use of technology for mathematics at secondary schools Presented at the 1998 International Conference of Society for Information Technology & Teacher Education(SITE 98) at Washington D.C. in March.
- 1997- Lee, C. An assessment of the PACE model through student opinion survey. The 2nd International Collegiate Mathematics Education Conference.
- 1997 - Lee, C. & Hill, James, P. Crime Impact Study for a Native American casino in rural area. Presented at the 1997 Annual Statistical Meetings.
- 1997- Lee, C. Promoting active learning in an introductory statistics using the PACE strategy at the 6th International Mathematics Education Conference.
- 1997- Lee, C. Casino impact study for a Native American Casino in a rural area. Presented at the 1997 Joint Statistical Meeting at Las Angles, CA, August, 1997.

- 1997 - Lee, C. Teaching introductory statistics by the PACE approach. Presented at the 1st Midwest Conference on Teaching Statistics at Oshkosh. WI, March.
- 1996 - Lee, C. & Vanderkolk, K. Statistical models for modeling daily maximum ozone concentration in the Detroit metropolitan area. Presented at the 1996 ASA Meeting - Sec. Environmental Stat.
- 1995- Lee, C. & Pauken, D. A study of Statistics & Probability Curriculum for secondary schools in the State of Michigan. Presented at the 1995 ASA Meeting - Sec. Stat. Edu.
- 1994 - Lee, C., Famoye, F. A comparison of generalized Poisson models for the number of chromosome aberrations exposed to different dosages of radiation. Presented at the 1994 ASA Meeting-Sec. Biometrics.
- 1993- Lee, C. A case study on the factors associated with the "no-bore stamp" V8 engine cases at a GM plant. Presented at the 1993 Annual Meeting of the American Statistical Association - Section on Quality & Productivity.
- 1993 - Root, S. and Lee, C. Ego Identity Status and the Structure of Students' Daily College Experience. Presented at the Mid-Western Educational Research Association by Root.
- 1992 - Lee, C. Efficiency comparison of methods computing incomplete beta integral. Presented in the 1992 Joint Statistical Meetings.
- 1992 - Lee, C., Hoffman, C. and Rasche, R. An analysis of principal lipid components associated with the risk of coronary heart disease. Presented at the 7th National Conference on Chronic Disease Prevention and Control at Salt Lake City, Utah.
- 1991- Colarelli, S. & Lee, C. Personnel selection in complex organizations. Presented in the Annual Meeting of the Midwestern Psychological Association.
- 1991- Aron, R. & Lee, C. Favorable temperatures for the induction of citrus flowers in Israel. Presented in the 87th Annual Meeting of the Association of American Geographers.
- 1990- Lee, C. Comparison of sensitivity between survival and hazard functions. Presented at the 1990 ENAR Meeting at Baltimore.
- 1990 - Lee, C. An efficient method for noncentral beta probabilities when parameters are small or moderate. Presented at the 22nd Symposium on INTERFACE.
- 1990 - Famoye, F. & Lee, C. Estimation of generalized Poisson distribution using weighted discrepancies method. Presented at the 22nd Symposium on INTERFACE.
- 1989- Lee, C. On Generating randomly Censored Generalized Gamma Variate. Presented at the 2nd Annual IMSL Meeting at Ann Arbor.
- 1989 - Lee, C. An Algorithm for Incomplete Beta Integral. Presented at the 1989 Annual Statist. Meeting.
- 1989 - Lee, C. & Jobe, M. Evaluation of Coverage Probabilities for Control Charts. Presented at the 1989 Annual Statist. Meeting.
- 1988 - Lee, C., Aron, R. & Aron, I.-M., A comparison of dropout rates in the State of Michigan with respect to racial makeup. Presented at the 1988 Michigan Academy Conference.

- 1988 - Lee, C. A new algorithm for computing F-Probability. Presented at the 1988 Annual Joint Statistical Meetings.
- 1988 - Angelos, J., Lee, C. & Singh, K.P. B-spline approximation for estimating baseline hazard function. Presented at the 1988 Annual Joint Statistical Meetings.
- 1988 - Aron, R., Aron, I.-M. & Lee, C. An analysis of Michigan Educational Assessment Program (MEAP) scores and school district revenues and expenditures. Invited talk at the 1988 Annual Educational Finance Conference.
- 1986 - Lee, C. Estimation of instructor's performance at the 1986 National Statistical Meetings, Chicago.
- 1986 - Lee, C. D-optimal designs for regression models when some parameters are more important at the First International Statistical Symposium, Taiwan.
- 1985 - Lee, C. Constrained optimal designs for polynomial regression at the 1985 Joint Statistical Meetings, Las Vegas.
- 1985 - Lee, C. Constrained optimal designs for multiresponse models at the 191th Eastern Regional Meeting of the Institute of Mathematical Statistics.

## V. RECENT GRANT/CONTRACT ACTIVITIES AND PROFESSIONAL ACTIVITIES

### V-1: Funded External Grants/Contracts:

1. Lee, C., Inungu, J., Corbin, A. & Holmes, M. (2007). An evaluation study on the effectiveness and the diagnostic accuracy of GP physicians using NxOpinion expert system with Gastro-Intestinal (GI) disease patients (\$11600), 2007
2. Lee, C. (2007). School Climate Study , Gratiot-Isabella Regional Education School District (\$3780).
3. Holt, W. and Lee, C. Student Enrollment Project (FTIAC), Central Michigan University Research Corporation, (\$4960), 2006.
4. Lee, C. (PI), Famoye, F., Lenker, S., Sepanski, J., Frank, M., Wang, D., Low, W. Activity-based Cooperative Learning in Introductory Statistics Using Dynamic Web Database. NSF/CCLI Grant (\$177,052), 2003 - 2007.
5. Lee, C. (2006). GM Phoenix Project (\$360).
6. Lee, C. Longitudinal study on school climates in Mid-Michigan region. Supported by the Regional Educational School District (\$4000), 2005.
7. Lee, C. and Devine, R. Casino impact study for the Soaring Eagle Casino & Resort. (\$10,063), 2004.
8. Lee, C. and Kennedy, M. Predicting the usage of hospital beds using both in-patient and out-patient databases for the Henry Ford Hospital System (\$12,079), 2004.
9. Lee, C. and Inugu, J. Text mining on analyzing the patterns of doctors' and patients' comments for Eli-Lily Pharmaceutical Company (\$3,961 and \$3,301), 2004.

10. Lee, C. (Team Chair), Famoye, F., Erickson, D., St. John, D., Miles, T. & Richardson, A. To participate in the 1<sup>st</sup> TEAMS Conference to develop projects for reforming K-16 Statistics Education Curriculum Supported by the TEAMS Conference funded by NSF and ASA. University of Georgia, Athens, GA, USA. October, 2003. (\$6,000), 2003.
11. Lee, C. & Wang, D. Effect of Aloe Versa drink using quantified image data. Project from Mid-Michigan Hospital funded by Pardee Foundation. (\$3,500), 2002.
12. Grant Contract with RESD (Regional Education School District ) at St. Louis, Michigan for the project of “ School Climate Study” conducted by RESD yearly (\$2,500 annually), 1996-Present.
13. Lee, C., Li, B. & Westmoreland, S. Phase II data mining project for the International Paper. Supported by International Paper for the Center for Applied Research & Technology. (\$11,972), 2003.
14. Lee, C., Devine, R., Famoye, F. A study on modeling the gains Vs. Losses of a new business model supported by DOW-CORNING Company for the Center of Applied Research & Technology ( \$9,846), 2003.
15. Lee, C., & Palaniswami, K. Predictive modeling using Time Series, Cluster Analysis and Text Mining supported by EDS for the Center of Applied Research & Technology. (\$10,117), 2002.
16. Garver, M. & Lee, C. Predictive modeling for Loyalty & Profitability. Supported by DOW Chemical for the Center for Applied Research & Technology. (\$53,889), 2002.
17. Lee, C., Li, B. & Westmoreland, S. A data mining project for the International Paper. Supported by International Paper for the Center for Applied Research & Technology. (\$30,483), 2002.
18. Grant contract with RESD (Regional Education School District) at St. Louis, Michigan. Serves as a project evaluator on a federal grant for developing prevention programs for free drug and violence school environment (\$20,000), 2001-2003.
19. A study on the effectiveness of aloe versa for preventing/reducing side effects induced by radiation. Supported by Mid-Michigan Medical Center through the grant of Restricted Aloe Versa Grant (\$3,100), 1999.
20. A study of the adequacy of the pole survey methodology for the joint poles estimation. A grant contract supported by Consumer Energy and Ameritech. (With Felix Famoye, \$4,000), 1998.
21. NSF/ILI grant on developing a mobile computer lab for mathematical courses (with David Matthews, Sue Lenker, Dennis St. John, \$76,000), 1996.
22. Casino Impact Study Grant supported by Mt. Pleasant Area Government Agencies and Business. On “Saginaw Chippewa Tribe Casino Expansion Impact Study” (with Jim Hill, Dick Clemmer, Alice Littlefield, \$30,000), 1996.
23. Annenberg/NSF grant on "Innovative approaches in teaching mathematics service courses" - responsible for the course of Introduction to Statistics (\$150,000; Project co-Director: Susan Lenker (Math), Keith Nelson Rich St. Andre, Nancy Cooley), 1995.
24. Grant from the Institute of Teaching Math with Technology: To conduct two workshops on how to integrate technology into teaching Math. for middle and high school Math and Science teachers. (With Charles Vonder Embse, Dennis St. John, Sue Lenker and Felix Famoye. \$12000), 1995.

## VI. SERVICE

### VI-1: At the departmental level:

- Have served as the Area Coordinator for Statistics and Applied Mathematics for five years.
- Have serviced on every departmental committee for more than one time including Personnel, Hiring, Curriculum on Statistics Courses, Graduate, Assessment, Library and Technology committees.
- Have been the statistics advisor for Majoring in Statistics since 1999. Have supervised four Ph.D. dissertations, various Master Thesis and various dissertation and thesis committee member.
- Graduate Student Research Supervision (Ph.D. and Master)
  - Supervise (co-supervise) six Ph.D. student dissertations since 2000. Five graduated. Four of them are working at universities and one is working in bank. One is yet to graduate.
  - Served as a research committee member for various Ph.D. and Master's students in Mathematics department as well as several other departments.
  - Supervised several Master's thesis and Plan papers (over ten).
  - Supervised over 40 independent studies at both undergraduate and graduate level.

### VI-2: At University Level:

- Have served on many university committees and served as committee chair for several committees. They include FRCE, FTPD, Assessment Council, Library, DASH, Academic, Res Life, and Student Affairs liaison Committee and various hiring committees for hiring senior Administrative Professionals.
- Have served in the College Tenure and Promotion Personnel Committee, The Teaching Award Committee and others.

### VI-3: At the Professional Level:

- 2006- Present: Membership Committee member for the CAUSE (Consortium for the Advancement of Undergraduate Statistics Education).
- 2006 – Present: Committee Chair for the National Undergraduate Statistics Project Completion, sponsored by the CAUSE (Consortium for the Advancement of Undergraduate Statistics Education).
- 2005- Present: Editorial Board member for the Journal of Taiwan Studies.
- 2003-Present: Associate Editor for the CAUSE (Consortium for the Advancement of Undergraduate Statistics Education) Online Resources of American Statistical Association.
- 2003-Present: Advisory Board Member of the Statistics Education Research Division, CAUSE, American Statistical Association.
- 2002-Present: Research and Advisory Committee Member for the Center for Applied Research & Technology, Central Michigan University Research Corporation.

- 2002-2004: Advisory Board Member of the NSF-supported WEB ARTIST Statistics Assessment Project by Garfield, delMas and Chance.
- 2003-2005: Undergraduate Education Committee ASA/MAA Joint Committee.
- 1999-2004: President, Mid-Michigan Chapter, American Statistical Association.
- 2000: Ad Hoc committee on Undergraduate Statistics Education Initiative, American Statistical Association.

## **VII: MEMBERSHIPS OF PROFESSIONAL ORGANIZATIONS**

- American Statistical Association
- Association for the Advancement of Computing in Education
- International Chinese Statistical Association
- Consortium for the Advancement on Undergraduate Statistics Education
- American Society of Quality
- International Statistical Institute
- International Association of Statistical Education