Curriculum Vitae

Anwar H. Joarder, Ph.D.
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King Fahd University of Petroleum & Minerals
Dhahran, Saudi Arabia

Contents

0. Introduction

0.1 Personal Information

Full Name	ANWARUL HAQUE JOARDER
Mailing Address	Department of Mathematics and Statistics King Fahd University of Petroleum & Minerals (KFUPM) Dhahran, Saudi Arabia 31261
Phone	966 3 8604485 (Work), 860 5312 (Home)
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Email Addresses	anwarj@kfupm.edu.sa, ajstat@gmail.com
Homepage	http://www.kfupm.edu.sa/math
Date of Birth	4th November, 1958
Sex	Male
Marital Status	Married
Citizenship	Australian (Born and brought up in Pakistan but sided with Bangladesh since 1971)

0.2 Major Field of Specialization Statistics

0.3 Areas of Research Interest

Primary:

Multivariate Analysis (AMS MSC 2000: 62H05; 62H10; 62H20; 62F03; 62F10)
Statistical Distributions (60E05; 60E10; 62F35; 62H10)

Secondary:

Basic Statistics and Miscellaneous (62-01; 62-02; 60-01; 60-02)
Survey Sampling (62D05)

1. Essential Background

1.1 Education

1988 – 1992	Ph.D. in Statistics (1992) Department of Statistical and Actuarial Sciences **The University of Western Ontario** London, Ontario, Canada
1986 – 1988	M.Sc. in Statistics (1988) Completed with an 'A'-average **The University of Western Ontario** London, Ontario, Canada
1983 – 1985	M.Sc. in Statistics (1982) **First Class, First Position** Department of Statistics University of Dhaka, Bangladesh
1978 –1982	B.Sc. Honors in Statistics (1980) **First Class, Second Position** Department of Statistics University of Dhaka, Bangladesh
1975 –1976	Secondary School Certificate (1976) **First Division** Government B.L. College, Khulna Board of Intermediate and Secondary Education, Jessore, Bangladesh
1973 –1974	Secondary School Certificate (1974) **First Division** M.R. High School, Khulna Board of Intermediate and Secondary Education, Jessore, Bangladesh

1.2 Employment History

09. 2007—Date	**Professor**
03. 2000—08.2007	**Associate Professor**
09. 1997—02. 2000	**Assistant Professor** Department of Mathematics and Statistics **King Fahd University of Petroleum & Minerals** Dhahran, Saudi Arabia 31261
03. 1996—08.1997	**Lecturer (Equivalent to Asst Professor of USA)** School of Mathematics and Statistics **The University of Sydney** NSW, Australia 2006
02. 1995—02.1996	**Lecturer (Equivalent to Asst Professor of USA)** Department of Econometrics and Business Statistics **Monash University**

Clayton, Victoria 3168, Australia

09.1993—01.1995 **Assistant Professor**
Institute of Statistical Research and Training (ISRT)
University of Dhaka, Dhaka 1000, Bangladesh

01.1994—12.1994 **Visiting Faculty**
North South University, Dhaka, Bangladesh

05.1993—07.1993 **Instructor**
Faculty of Part Time and Continuing Education
The University of Western Ontario
London, Ontario, Canada N6A 5B7

09.1992—08.1993 **Assistant Professor**
Department of Statistical and Actuarial Sciences
The University of Western Ontario

09.1991—08.1992 Teaching Assistant/Research Assistant
Department of Statistical and Actuarial Sciences
The University of Western Ontario

07.1986—06.1990 Lecturer (on leave)
Department of Statistics, Jahangir Nagar University
Dhaka, Bangladesh

1.3 Major Awards and Scholarships

1991-1992	Special University Scholarship by University of Western Ontario
1986-1991	**Canadian Commonwealth Scholarship**
1986-1986	Admission Scholarship by the University of Western Ontario
1985-1985	Special Book Award by the University of Dhaka for M.Sc. Result
1983-1983	Scholarship by the University of Dhaka for B.Sc. Honors Result
1974-1980	Scholarship by the Board of Intermediate and Secondary Education

1.4 Course Works

Successfully completed twenty courses including advanced probability theory, design of experiments, survey sampling, decision theory, multivariate analysis, data analysis, and statistical computing and consulting.

1.5 M.SC. and PH.D. Theses

Ph.D. (1992) Thesis Title: Estimation of the Scale Matrix of a Multivariate T-Model

The multivariate *t*-model has relatively thicker tails than the multivariate normal model and found applications in the context of stock market problems. Improved estimation strategies have been developed for the scale matrix, eigen-values of the scale matrix and trace of the scale matrix under quadratic loss. The scale matrix has also been estimated under entropy loss. Some characterizations of the *t*-distribution have been done. [The Abstract of the Dissertation has been published by UMI Company, USA (ISBN: 0 -- 315 – 75376 -- 5)]

Written a project report entitled **Recent Studies in Elliptically Symmetric Distributions** in 1988 at the University of Western Ontario. Written a thesis entitled **A Critical Analysis of Some Problems on Regression, Design and Estimation** in 1985 at the University of Dhaka, Bangladesh.

1.6 Skills in Computing

Languages: Working experience with Fortran, and APL (A Probability Language)

Statistical Software: SPSS (Statistical Package for Social Science), SAS (Statistics Analysis System), SPIDA (Statistical Package for Interactive Data Analysis), S-PLUS, Minitab, Statistica, Excel, Execustat

Word Processing: Plain Tex, Latex, Microsoft Word etc.

2. Teaching

I had started my teaching career in September 1992 just before the completion of my Ph.D. degree in October 1992 at the University of Western Ontario, Canada. I have taught many service courses at six universities in Canada, Bangladesh, Australia and Saudi Arabia. I taught many core courses in statistics including Survey Sampling, Design of Experiments, Statistical Inference, Estimation theory and Multivariate Analysis with levels ranging from the first year to PhD level. I had been the coordinator for STAT 319 for more than 10 semesters at KFUPM.

2.1 Teaching Statement

See Appendix for 2.1 Teaching Statement

2.2 Teaching Experience

Areas of teaching excellence include elementary statistics, engineering statistics, business statistics, bio-statistics, mathematical statistics, multivariate statistical analysis, statistical inference, econometrics, design of experiments, regression analysis and survey sampling. A dozen of my educational papers in elementary statistics shows my interest and excellence in the understanding the depth of basic statistics.

Engineering Statistics: Taught 61 sections of Probability and Statistics for Engineers and Scientists (STAT319) over a period of 14 years at King Fahd University of Petroleum and Minerals, Saudi Arabia between 1997 and 20111, and one section of STAT241 at the University of Western Ontario, Canada in 1992. Also taught one section at University of Sydney, Australia in 1997.

Business Statistics: Taught 7 sections of Business Statistics (STAT211) at King Fahd University of Petroleum and Minerals, Saudi Arabia. Also taught 3 sections of Business Statistics (ECO172) at North South University, Bangladesh in 1994. Taught Business Statistics (STAT138) at University of Western Ontario, Canada in 1993.

Advanced Business Statistics: Taught 2 sections of Business Statistics (STAT212) at King Fahd University of Petroleum and Minerals, Saudi Arabia. Also taught 3 sections of Advanced Business Statistics (ECO173) at North South University, Bangladesh.

Finite Mathematics: Taught 1 section of Finite Mathematics (MATH 131) at King Fahd University of Petroleum and Minerals, Saudi Arabia in 1997.

Applied Regression and Design of Experiments: Taught 5 sections of the course MATH 560 at King Fahd University of Petroleum and Minerals, Saudi Arabia between 1997 and 2011.

Multivariate Analysis: Taught 3 sections of multivariate analysis in 3 semesters at University of Sydney, Australia between 1996 and 1997.

Biostatistics: Taught STAT155 at University of Western Ontario in 1993. Also taught at University of Sydney in 1997.

Estimation and Dependence: Taught at University of Sydney, Australia in 1997.

Econometrics: Taught ECM1021 and ECM1031 at Monash University, Australia in 1995. Also taught Econometrics and Statistical Inference at University of Dhaka, Bangladesh in 1993 and 1994.

Probability and Distribution Theory: Taught at University of Sydney, Australia in 1996.

A summary of Teaching Dossier is presented in Appendix for Section 2.2. Teaching Dossier

3. Research

3.1 Research Statement

See Appendix for 3.1 Research Statement

3.2 Research Papers (Mathematical; Theoretical; Methodical)

A total of 64 have been published or accepted for publication in international refereed journals. Research interests include mathematical statistics, multivariate estimation theory, basic statistics and survey sampling. ***ISI indexed papers totaling 23 have been typed green. The notation JPXX stands for Journal paper No. XX.***

JP01. Ali, M.M. and Joarder, A.H. (1991). Distribution of the correlation coefficient for the class of bivariate elliptical models. ***Canadian Journal of Statistics***, **19(4)**, 447--452. **(ISI)**

JP02. Joarder, A.H. and Ali, M.M. (1992 b). On some generalized Wishart expectations. ***Communications in Statistics – Theory and Methods***, **21(1)**, 283--294. **(ISI)**

JP03. Joarder, A.H. and Ali, M.M. (1992 a). Distribution of the correlation matrix for a class of elliptical models, ***Communications in Statistics – Theory and Methods***, **21(7)**, 1953--1964. **(ISI)**

JP04. Joarder, A.H. (1994). Some applications of Macdonald function in the multivariate *t*-distribution. *Journal of Statistical Studies*, 14, 115--124.

JP05. Joarder, A.H. (1995 a). The characteristic function of the univariate *t*-distribution. *Dhaka University Journal of Science*, 43(1), 117--125.

JP06. Joarder, A.H. and Alam, A. (1995). The characteristic function of the elliptical *t* distribution using a conditional expectation approach. *Journal of Information and Optimization Sciences*, 16(2), 307--310.

JP07. Joarder, A.H. (1995 b). Estimation of the scale matrix of a multivariate *t*-model. *Journal of Statistical Research*, 29(1), 55-- 66.

JP08. Joarder, A.H. (1995 c). Estimation of the covariance matrix of the multivariate normal distribution. *Pakistan Journal of Statistics*, 11(3), 159--165.

JP09. Joarder, A.H. and Hossain, M.A. (1995). Estimation of the trace of the scale matrix of scale mixture of multivariate normal distributions. *Journal of Information and optimization Sciences*, 16(3), 565—572.

JP10. Joarder, A.H. and Ali, M.M. (1996 a). On the characteristic function of the multivariate *t*-distribution. *Pakistan Journal of Statistics*, 12(1), 55—62.

JP11. Joarder, A.H. and Ali, M.M. (1996 b). On the characterization of spherical distributions. *Journal of Information and Optimization Sciences*, 17(1), 177-- 184.

JP12. Joarder, A.H. and Ahmed, S.E. (1996). Estimation of characteristic roots of scale matrix. ***Metrika***, **44(3)**, 259--267. (**ISI)**

JP13. Joarder, A.H. and Hossain, M.A. (1996). Estimation of the eigen-values of the scale matrix of a class of elliptical distributions. *Statistica*, 56(3), 314--319.

JP14. Singh, S; Joarder, A.H. and King, M.L. (1996). Regression analysis using scrambled responses. ***Australian Journal of Statistics*, 38**(2), 201--211. **(ISI)**

JP15. Singh, S. and Joarder, A.H. (1997 a). Unknown repeated trials in randomized response sampling. *Indian Society of Agricultural Statistics*, 50(1), 103-105.

JP16. Singh, S. and Joarder, A.H. (1997 b). Optional randomized response technique for sensitive quantitative variable. *Metron*, 55(1-2), 151--157.

JP17. Joarder, A.H. and Ali, M.M. (1997). Estimation of the scale matrix of a multivariate *t*-model under entropy loss. ***Metrika***, **46**(1), 21--32. **(ISI)**

JP18. Joarder, A.H. and Singh, S. (1997). Estimation of the trace of the scale matrix of a multivariate *t*-model using regression type estimator. *Statistics*, 29, 161--168.

JP19. Joarder, A.H. (1997). On the characteristic function of the multivariate Pearson Type II distribution. *Journal of Information and Optimization Sciences*, 18(1), 177—182.

JP20. Joarder, A.H. and Mahmood, M. (1997). An inductive derivation of Stirling numbers of the second kind and their applications in statistics. *Journal of Applied Mathematics and Decision Sciences*, 1(2), 151--157.

JP21. Joarder, A.H. (1998 a). On the statistical independence in a contingency table. *International Journal of Mathematical Education in Science and Technology,* 29(5), 780--782.

JP22. Joarder, A.H. (1998 b). Some useful Wishart expectations based on the multivariate *t*-model. ***Statistical Papers***, **39(2)**, 223--229. **(ISI)**

JP23. Singh, S. and Joarder, A.H. (1998). Estimation of finite population variance using random non-response in survey sampling. ***Metrika*, 47**(3), 241--249. **(ISI)**

JP24. Joarder, A.H. and Ahmed, S.E. (1998). Estimation of the scale matrix of a class of elliptical distributions. ***Metrika***, **48**, 149—160. **(ISI)**

JP25. Joarder, A.H. and Beg, G.K. (1999). Estimation of the trace of the scale matrix of the multivariate t-model under a squared error loss. *Statistica*, 59(2), 181--191.

JP26. Singh, S., Joarder, A.H. and Tracy, D.S. (2000). Regression type estimators forrandom non-response in survey sampling. *Statistica*, 60(1), 39-- 44.

JP27. Singh, S., Joarder, A.H. and Tracy, D.S. (2001). Median estimation using double sampling. ***Australian and New Zealand Journal of Statistics***, **43**(1), 33-46. **(ISI)**

JP28. Joarder, A.H. and Firozzaman, M. (2001). Quartiles for discrete data. *Teaching Statistics*, 23(3), 86-89.

JP29. Ahmed, S.E. ; Volodin, A.I. and Joarder, A. H. (2002). Pretest estimation of eigenvalues of a Wishart matrix. *Inernational Mathematical Journal*, 1 (3), 259--272.

JP30. Firozzaman, M. and Joarder, A.H. (2001). A refinement over the usual formulae for deciles. *International Journal of Mathematical Education in Science and Technology*, 32 (5), 761-765.

JP31. Joarder, A.H. and Singh, S. (2001). Estimation of the trace of the scaled covariance matrix of a multivariate *t*-model using a known information. ***Metrika***, **54** (1), 53-58. **(ISI)**

JP32. Joarder, A.H. (2002). Six ways to look at linear interpolation, *International Journal of Mathematical Education in Science and Technology*, 32 (6), 932-937.

JP33. Joarder, A.H. and Al-Sabah, W.S. (2002). The dependence structure of conditional probabilities in a contingency table. *International Journal of Mathematical Education in Science and Technology, 33(3),* 475-480.

JP34. Joarder, A.H. (2002). On some representations of sample variance. *International Journal of Mathematical Education in Science and Technology,* 33(5), 772-784.

JP35. Singh, S. and Joarder, A.H. (2002).Estimation of the distribution function and median in two phase sampling. *Pakistan Journal of Statistics* (S. E Ahmed *special issue edited by Serge B. Provost, The University of Western Ontario, Canada)*, 18(2), 301-319.

JP36. Joarder, A.H. (2003). The halving method for sample quartiles. *International Journal of Mathematical Education in Science and Technology*. 34(4), 629-633.

JP37. Joarder, A.H.(2003). The sample variance and first-order differences of observations. *Mathematical Scientist, 28, 129-133.*

JP38. Joarder, A.H. and Latif, R.M. (2004). A comparison and contrast of some methods for sample quartiles. *Journal of Probability and Statistical Science,* 2(1), 95-109.

JP39. Barone, L; Voulgaridis, G.Z and Joarder, A.H. (2004). On the dispersion of data in nonsymmetric distributions. *International Journal of Mathematical Education in Science and Technology*, 35(3), 419-424.

JP40. Singh, S., Grewal, I.S. and Joarder, A.H. (2004). General class of estimators in multi-character surveys. ***Statistical Papers*, 45**(4), 571-582. **(ISI)**

JP41. Joarder, A.H. and Laradji, A. (2005). Algebraic inequalities for measures of dispersion. *Journal of Probability and Statistical Science,* 3(2), 317-326.

JP42. Joarder, A.H. and Latif, R.M. (2006). Standard deviation for small samples, *Teaching Statistics*, 28(2), 40-43.

JP43. Joarder, A.H. (2006a). Product moments of a bivariate Wishart distribution. *Journal of Probability and Statistical Science*, 4(2), 2006, 233-244.

JP44. Kibria, B. M. G. and Joarder A. H. (2007). A short review of multivariate *t*-distribution. *Journal of Statistical Research*, 40(1), 59-72.

JP45. Laradji, A. and Joarder, A.H. (2007). Inequalities among some measures of location. ***Communications in Statistics – Theory and Methods.* 35**, 11), 1963-1970. **(ISI)**

JP46. Joarder, A.H. and Omar, M.H. (2007). Evaluation of moment integrals without integration. *International Journal of Mathematical Education in Science and Technology*. 38(4), 538-543.

JP47. Joarder, A.H. and Abujiya, M.R. (2007). The remainder method for sample percentiles. *International Journal of Mathematical Education in Science and Technology*, 38(5), 667-676.

JP48. Joarder, A.H. and Al-Sabah, W.S. (2007). Probability issues in without replacement sampling. *International Journal of Mathematical Education in Science and Technology*, 38(6), 823-831.

JP49. Singh, H.P.; Chandra, P; Joarder A.H. and Singh, S. (2007). Family of estimators of mean, ratio and product of a finite population using random nonresponse. ***Test: A Journal of the Spanish Statistical Society,*** 16(3), 565-597. **(ISI**

JP50. Joarder, A.H. (2007). On some characteristics of the bivariate *t*-distribuion. *International Journal of Modern Mathematics. 2(2), 191-204 [October 2007]*

JP51. Joarder, A.H. (2008). Some useful integrals and their applications in correlation analysis.***Statistical Papers****, 49(2), 211-224.* [(ISI), April 2008]

JP52. Joarder, A.H.; Al-Sabah, W.S. and Omar, M.H. (2008). *On the distribution of the norms of spherical distributions. Journal of Probability and Statistical Science, 6(1), 115-123.*

JP53. Joarder, A.H. (2008). Some characteristics of Mahalanobis distance for bivariate distributions. *International Journal of Modern Mathematics, 3(3), 315 - 325.*

JP54. Joarder, A.H. and Omar, M.H. (2008). A mass function based on correlation coefficient and its application. ***Statistics and Probability Letters*, 75(18), 3344-3349**. [(ISI), December 15, 2008]

JP55. Joarder, A.H. (2009). Variance of a few observations. *Teaching Statistics*, 31(2), 55-58.

JP56. Sarr, A.; Gupta, A.K. and Joarder, A.H. (2009). Estimation of the precision matrix of multivariate Pearson type II model. ***Metrika, 69(1), 31 - 44***. [(ISI), January 2009]

JP57. Joarder, A.H. (2009). Moments of product and ratio of two correlated chi-square variables. ***Statistical Papers*****,** 50(3), 581-592. [published online on 20 November 2007at http://www.springerlink.com/openurl.asp?genre=article&id=doi:10.1007/s00362-007-0105-0] [(ISI), June 2009]

JP58. Joarder, A.H. and Abujiya, M.R. (2009). Standardized moments for bivariate chi-square distribution. *Journal of Applied Statistical Science, 16(4), 1-9.*

JP59. Kibria, B.M.G. and Joarder, A.H. (2010) The multivariate T-distribution and its application in Regression Analysis. *Journal of Applied Statistical Science, 18(2), 17-30.*

JP60. Joarder, A.H.; Laradji, A.; and Omar, M.H. (2011). On some characteristics of bivariate chi-square distribution. Published online in **Statistics** since February 15. **DOI:** 10.1080/02331888.2010.543466 (ISI)

JP61. Omar, M.H. & Joarder, A.H. (2011). Some mathematical characteristics of the beta density function of two variables. Accepted in ***Bulletin of Malaysian Mathematical Science Society.*** http://www.emis.de/journals/BMMSS/pdf/acceptedpapers/2010-06-041_R1.pdf (ISI)

JP62. Joarder, A.H. (2011). Robustness of correlation coefficient and variance ratio under elliptical symmetry. Accepted in *Bulletin of Malaysian Mathematical Sciences Society.* http://math.usm.my/bulletin/html/accepted_papers.htm (ISI)

JP 63. Ahmed, S.E.; M. H. Omar, and A. H. Joarder (2011). Stabilizing the Performance of Kurtosis Estimator of Multivariate Data. Accepted in *Communications in Statistics – Computation and Simulation.*

Research Paper (Applied Statistics)

JP64. Kozak, M.; Stepien, W. and Joarder, A.H. (2005). Relationship between available and exchangeable potassium content and other soil properties. *Polish Journal of Soil Science*, 38(2), 179-186.

Research Paper in a Book

65. Joarder, A.H. (2010). Hypergeometric distribution and its application in statistics. Published in *International Encyclopedia of Statistical Science*. Edited by Miodrag Lovric. Springer. (1st Edition. Edition, December 1, 2010) , ISBN: 3642048978 , 1852 pages)

Revised/ Submitted Papers

Joarder, A.H. & Omar, M.H. (2011). On the moments of Sample Covariance from a Bivariate Normal Population. Submitted to *Journal of Applied Statistical Science,* on 13th April 2010.

Joarder, A.H. and Omar, M.H. (2011). A gentle approach to simple linear regression. Revised for *Model Assisted Statistics and Applications*.

Hassan, A.; Ahmad, P.B. and Joarder, A.H. (2011) *Bayesian Estimation in Some Power Series Distributions. Submitted to Journal of Applied Statistical Science on 5th October, 2011.*

Joarder, A.H. and Omar, M.H. (2011). The Exact Distribution of the Sum of Two Correlated Chi-Square Variables. Submitted to Applied Mathematics Letters on 20th December, 2011.

Joarder , A.H. and Omar, M.H. (2011). The Mathematical Expectation of Sample variance: A General Approach. Revised for *Statistica.*

Conference Papers

CP01. Joarder, A.H. (1995). Estimation of the trace of the scale matrix of a multivariate *t*-model, in Proceedings of the Econometric Conference, pp 467-474 (Monash University, Australia)

CP02. Firozzaman, M. and Joarder, A.H. (2001). "A Refinement over the usual formulae for deciles" published in the Proceedings *"Biology, Earth Sciences and Mathematics"* pp 371-376 of the First Saudi Science Conference, KFUPM, Saudi Arabia.

CP02. M.F. Hossain and A.H. Joarder (2007). "Identities Based on Probability Mass Functions", Festscrift in honor of George and Frances Ball Distinguished Professor of Statistics 'Mir Masoom Ali', (Ball State University, Indiana, USA), pp. 197-200, held between May 18 and May 19, 2007.

CP03. A.H. Joarder (2007). "Mahalanobis Moments of Bivariate Distributions" , Festscrift in honor of George and Frances Ball Distinguished Professor of Statistics 'Mir Masoom Ali', (Ball State University, Indiana, USA), pp. 201-206, held between May 18 and May 19, 2007.

3.3 Abstracts in Conferences (15)

1. Singh, S. and Joarder, A.H. (1996). "Estimation of finite population variance using random non-response in survey sampling" abstracted in *Sydney Meeting Abstracts,* pages 100--101. Sydney International Statistical Congress 1996 held in Sydney, Australia.

2. Joarder, A.H. (1999). "Robustness of product-moment correlation coefficient under a broader class of distributions" abstracted in the *Abstracts of Presented Papers*, page 5. The Fourth Meeting of the Saudi Association for Mathematical Sciences held during March 9-10, 1999 at King Saud University, Riyadh, Saudi Arabia.

3. Joarder, A.H. and Ahmed, S.E. (1999). "Estimation of the scaled covariance matrix of a class of elliptical distributions" abstracted on pages 88-89 as Manuscript Number 137 in the *Proceeding of the 27th Annual Meeting of Statistical Society of Canada* held at University of Regina, Regina, Saskatchewan during June 8-June 9, 1999.

4. Laradji, A. and Joarder, A.H. (2004). "Inequalities involving means and quantiles" abstracted in the *Proceedings of the Seventh Meeting of SAMS* (Saudi Association for Mathematical Sciences) held between April 7-8, 2004 in Prince Sultan University, Riyadh, Saudi Arabia.

5. Joarder, A.H. (2004). " Sample variance and first order differences in observations" abstracted in the *Proceedings of the Seventh Meeting of SAMS* (Saudi Association for Mathematical Sciences) held between April 7-8, 2004 in Prince Sultan University, Riyadh, Saudi Arabia.

6. Joarder, A.H. and Omar, M.H. (2007). "Evaluation of Mean and Variance Integrals without Integration" abstracted in the *Proceedings of the Third Saudi Science Conference*: *New Horizons in Science and their Applications,* p180, held between March 10-13 at King Fahd Cultural Center hosted by King Saud University, Riyadh, Saudi Arabia.

7. Joarder, A.H. (2007). "A Bivariate Chi-square Distribution and Some of its Properties" abstracted d in the *Proceedings of the Third Saudi Science Conference: New Horizons in Science and their Applications*, p182 held between March 10-13 at King Fahd Cultural Center hosted by King Saud University, Riyadh, Saudi Arabia.

8. Abstract of a talk "Distribution Theory with Two Correlated Chi-square Variables" has been published on p64 at the Proceeding of the 5th International Conference on Multiple Comparison Procedure" held in University Campus-Altes AKH, Vienna, Austria (Eds Martin Posch, Jason Hsu and Franz Konig).

9. Abstract of a talk presented at the 76th session (Distribution Theory 2) "A bivariate chi-square distribution and some of its properties" has been published on p 180, at the *Proceeding of the 7th World Congress in Probability and Statistics* at Singapore (July 14-July 19), 2008.

10. Presented a talk "Distribution of sample variances based on Bivariate normal population" on 14th April, 2009 at the first conference of the Saudi Association for Statistical Sciences (SASS) held between 14 and 15th April, 2009 at King Khalid University, Abha, Saudi Arabia.

11. Abstract of a talk "Two ways to the hypergeometric distribution" has been published at the proceeding of the Fourth Saudi Science Conference held between 21st March to 24th March at Taibah University, Madina, Saudi Arabia.

12. Abstract of a talk "The exact distribution of linear combination of correlated chi-square variables" presented on 9th March at the conference " Challenges in Statistics and Operations Research" held between 8th March and 10th March, 2011 organized by Kuwait University, Kuwait was published on page 33 of the Abstract Booklet.

13. Abstract of a talk " Robustness of variance ratio under elliptical symmetry" which was presented as an invited speaker at the 9th session, on March 24 at the conference " Mathematics and its Applications" held between March 23 to 24 at Al-Imam Muhammad ibn Saud Islamic University, Riyadh, Saudi Arabia. It was published on page 28 of the Abstract Booklet.

14. Abstract of a working paper "Joarder, A.H., Omar, M. H. and Riaz, M. (2011). On a correlated variance ratio distribution and its application" is published as Abstract 47 on page 19 of the Proceeding of *International Conference on Robust Statistics*, held between June 27to July 1, 2011, Valladolid (Spain).

15. Abstract of a talk based on working paper "Joarder, A.H., Omar, M. H. and Riaz, M. (2011). On a correlated variance ratio distribution and its application" is published on page 19 of the *Proceeding of Statistical Concepts and Method for the Modern World*, held between December 28 and December 30 in Colombo, Sri Lanka.

3.4 Research Papers in Citation (61 Citations)

Papers have been cited 61 times in scientific research journals and text books published by John Wiley and Sons, CRC Press, Cambridge University Press etc. These are detailed in Appendix 3.4.

3.5 Technical Reports (51)

01. Joarder, A.H. and Mahmood, M. (1997). An inductive derivation of Stirling numbers of the second kind and their applications in statistics. Technical Report No. 225, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

02. Joarder, A.H. and Mahmood, M. (1998). On the statistical theory of a *t*-population. Technical Report No. 231, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

03. Joarder, A.H. and Singh, S. (1998). Estimation of the trace of the scaled covariance matrix of a multivariate *t*-model using a power transformation. Technical Report No. 234, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

04. Joarder, A.H. and Ahmed (1998). Estimation of the scale matrix of a class of elliptical distributions. Technical Report No. 235, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

05. Joarder, A.H. and Beg, G.K. (1999). Estimation of the trace of the scale matrix of a multivariate *t* model under a squared error loss. Technical Report No. 243, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

06. Joarder, A.H. (1999). A class of improved estimators for the elliptical model under the entropy loss function. Technical Report No. 249, Department of Mathematical Sciences, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.

07. Firozzaman, M. and Joarder, A.H. (2000). A refinement over the usual formulae for quartiles. Technical Report No. 254, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

08. Joarder, A.H. and Al-Sabah, Walid S. (2001) The dependence structure of conditional probabilities in a contingency table. Technical Report No. 260, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

09. Joarder, A.H. (2001). On some representations of sample variance. Technical Report No. 269, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

10. Singh, S. and Joarder, A.H. (2001). Estimation of Distribution Function and Median in Two Phase sampling, Technical Report No. 270, Department of Mathematical Sciences, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.

11. Joarder, A.H. (2002). The Hinge Method and the Halving Method for Sample quartiles. Technical Report No. 273, Department of Mathematical Sciences, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.

12. Joarder, A.H. (2002). The Remainder Method for Sample Quartiles of Even Order. Technical Report No. 274, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

13. Joarder, A.H. (2002). The moments of a discrete distribution associated with the principle of inclusion and exclusion. Technical Report No. 277, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

14. Laradji, A. and Joarder, A.H. (2002). Inequalities involving sample means, median and extreme observations. Technical Report No. 283 (October), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

15. Joarder, A.H. (2002). Sample variance and the first order differences of observations. Technical Report No. 293, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

16. Joarder, A.H. (2004). Some inequalities in Descriptive Statistics. Technical Report No. 321 (June), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

17. Joarder, A.H. (2005). The Expected Sample Variance in a General Situation. Technical Report No. 328 (May), Department of Mathematical Sciences, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia.

18. Joarder, A.H. and Latif, R.M. (2005). Standard Deviation for Small Samples. Technical Report No. 329 (May), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

19. Joarder, A.H. (2005). Product Moments of Bivariate Wishart Distribution. Technical Report No. 330 (May), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

20. Joarder, A.H. (2005). On a Bivariate Chisquare Distribution. Technical Report No. 335 (June), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

21. Joarder, A.H. (2005). Some Useful Integrals and Their Applications in Correlation Analysis. Technical Report No. 338 (Nov 2005), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

22. Joarder, A.H. (2005). A Bivariate Integral Based on Wishart Distribution. Technical Report No. 339 (Dec 2005), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

23. Joarder, A.H. (2005). Moments of the Product and Quotient of Two Correlated Chisquare Random Variables. Technical Report No. 341 (Dec 2005), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

24. Joarder, A.H. and Al-Sabah, W.S. (2005). Probability Issues in Without Replacement Sampling. Technical Report No. 342 (Dec 2005), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

25. Joarder, A.H. and Abujiya, M.R. (2006). The Remainder Method for Sample Percentiles. Technical Report No. 343 (Jan 2006), Department of Mathematical Sciences, KFUPM, Saudi Arabia

26. Sing, H.P.; Chandra, P.; Joarder, A.H. and Singh, S. (2006). Family of estimators of mean, ratio and product of a finite population using random nonresponse. Technical Report No. 344 (Mar 2006), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

28. Joarder, A.H. (2006). An Introduction to the Bivariate T-Distribution. Technical Report No. 345 (Mar 2006), Department of Mathematical Sciences, KFUPM, Saudi Arabia

29. Joarder, A.H. (2006). Moments of the Bivariate T-Distribution. Technical Report No. 346 (Mar 2006), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

30. Joarder, A.H. (2006). Standardized Moments of Bivariate Distributions. Technical Report No. 347 (Mar 2006), Department of Mathematical Sciences, KFUPM, Saudi Arabia

31. Joarder, A.H. and Walid S. Al-Sabah (2006). On the distributions of Norms of Spherical Distributions. Technical Report No. 349 (May 2006), Department of Mathematical Sciences, KFUPM, Saudi Arabia.

32. Joarder, A.H. (2006). Mahalanobis Moments of the Bivariate Chi-sqaure Distribution Technical Report No. 350 (May 2006), Department of Mathematical Sciences, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia

33. Joarder, A.H. and Kibria, B.M.G. (2006). A Modest Introduction to Uncorrelated T-Model. Technical Report No. 354 (May 2006), Dept of Mathematical Science, KFUPM, Saudi Arabia

34. Joarder, A.H. (2006). Some Distributional Results in Two Correlated Chi-Sqaure Variables. Technical Report No. 356 (June 2006), Dept of Mathematical Science, KFUPM, Saudi Arabia

35. Joarder, A.H. (2006). Skewness and Kurtosis for Bivariate distributions. Technical Report No. 363 (November 2006), Dept of Mathematical Sciences, KFUPM, Saudi Arabia

36. Hassan, A.; Joarder, A.H. and Ahmad, P.B. (2006) Bayesian Estimation in Some Power Series Distributions. *Technical Report No. 369* (December 2006), Dept of Mathematical Sciences, KFUPM, Saudi Arabia.

37. Omar, M.H. and Joarder, A. H. (2006). On the central moments of Bivariate Beta Distribution. Technical Report No. 370 (December 2006), Dept of Mathematical Sciences, KFUPM, Saudi Arabia.

38. Hossain, M.F. and Joarder, A.H. (2007). Higher Order Mass Identities, *Technical Report No. 374* (January 2007), Dept of Mathematical Sciences, KFUPM, Saudi Arabia

39. Joarder, A.H. and Omar, M.H. (2008). Some Statistical Properties of a Bivariate Chi-square Probability Density Function, *Technical Report No. 382* (January 2008), Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

40. Joarder, A.H. and Omar, M.H. (2008). A mass function based on correlation coefficient and its application*, Technical Report No.* 387, (April 2008), Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

41. Joarder, A.H. and Omar, M.H. (2008). Some *Characteristics of Sample Covariance, Technical Report No.* 401, (November 2008), Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

42. Ahmed, S.E.; Omar, M.H. and Joarder, A.H. (2009). Estimation of Kurtosis for multivariate data. *Technical Report No.* 404, (April 2009), Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

43. Joarder, A.H.; Laradji, A. and Omar, M.H. (2009). The Probability of a Sample Outcome in Sampling Without Replacement. *Technical Report No.* 405, (May 2009), Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

44. Joarder, A.H. and Omar, M.H. (2009). A Gentle Approach to Linear Regression. *Technical Report No.* 407, (June 2009), Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

45. Omar, M.H. and Joarder, A.H. (2010). Some properties of Bivariate Chi-square Distribution and Their Application. *Technical Report No. 4*14, (June 2010), Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

46. Joarder, A.H. and Omar, M.H. (2010). On the product of Two Correlated Chi-Square Variables. *Technical Report No. 4*17, (June 2010), Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

47. Joarder, A.H. and Omar, M.H. (2010). The Distribution of the Sum of Two Correlated Chi-Square Variable. *Technical Report No.* 418 (December 2010), Department of Mathematics and Statistics, KFUPM, Saudi Arabia.

48. Joarder, A.H. (2011). Robustness of correlation coefficient and variance ratio in the class of bivariate elliptical distributions. *Technical Report No.* 420 (January 2011), Department of Mathematics and Statistics, KFUPM, Saudi Arabia.

49. Omar, M.H. and Joarder, A.H. (2011). Some Moment Characteristics of the Ratio of Correlated Sample Variances. *Technical Report No.* 423 (June 2011), Department of Mathematics and Statistics, KFUPM, Saudi Arabia.

50. Omar, M.H.; Joarder, A.H. and Riaz, M. (2011). The Cumulative Distribution Function of the Ratio of Correlated Sample Variances. *Technical Report No.* 422 (June 2011), Department of Mathematics and Statistics, KFUPM, Saudi Arabia.

51. Joarder, A.H. (2012). Some Instructional Issues in Hypergeometric Distribution. *Technical Report No.* 426 (February 2012), Department of Mathematics and Statistics, KFUPM, Saudi Arabia.

3.6 Funded Research Projects

Obtained Faculty Research Grant 1995 of an amount of $3500.00 for the project "Estimation of the Scale Matrix of a T-model under Quadratic Loss Function" from the Faculty of Business and Economics Research Committee, Monash University, Victoria, Australia. The project was successfully completed.

Obtained fund for writing ***Laboratory Manual for Probability and Statistics for Engineers and Scientists***" , KFUPM Press, Dhahran, Saudi Arabia.

Obtained Fast Track Research Grant FT 2004-22 on the proposal "Product Moments of Bivariate Wishart Distribution" (Co-investigator, Mr M.R. Abujiya) from KFUPM, Saudi Arabia. The published journal papers JP 51, JP54, JP57 and JP58 were based on this project. See Section 3.2 of my CV.

Obtained Fast Track Research Grant FT 2004-23 on the proposal "Expectations for Inverted Wishart Distribution" (Co-investigator, Dr R.M. Latif) from KFUPM, Saudi Arabia.

Obtained Fast Track Research Grant FT 100007 on the proposal "A Bivariate Chi-Square Distribution and Some of Its Properties" (Principal Investigator, Dr M.H. Omar) from KFUPM, Saudi Arabia for the period 1st March, 2010 to 28th February, 2011. The published journal paper JP60 is based on this project. See Section 3.2 of my CV.

3.7 Books Under Preparation

Hassen A. Muttlak; Anwar H. Joarder and Walid S. Al-Sabah (2004). " ***Laboratory Manual for Probabilty and Statistics for Engineers and Scientists***" , KFUPM Press, Dhahran, Saudi Arabia. (137 pages of size 21 x 29 cm^2 , ISBN 9960-07-205-03). This has been used in the department since the beginning of 2004.

Drafted a book entitled " ***Statistics for Science, Engineering and Technology***". The manuscript is of 350 pages typed up in A-4 size paper and divided into ten chapters.

4. Professional Development and Leadership

4.1 Membership in Professional Societies

Fellow of the Royal Statistical Society (FRSS # 19500), UK since May 11, 2005

Elected Member (#13197), **ISI** (International Statistics Institute, The Netherlands) since November 7, 2005

Member, Statistical Society of Australia (SSA), Australia (1996 – 2002)

Life Member, Bangladesh Statistical Association (BSA) since June 1989

Life Member, Bangladesh Association for the Advancement of Science (BAAS), Section 3, Membership # 872 (Serial # 7624) since April 2, 1994

Life Member (Serial # 137), Statistical Research Unit (SRU), University of Dhaka, Bangladesh since April 3, 1994

Dhaka University Teachers Cooperative (Membership # 624, DUTH # 610), Bangladesh

4.2 Serving on Editorial Boards

I have been working as a member or as an Associate Editor of some journals. I have been actively involved in reviewing papers for these journals, maintaining liaison between authors and the editor in the process of reviewing.

1. Associate Editor (2005 to date) of *Model Assisted Statistics and Applications (ISO Press, The Netherlands).*

Website: http://www.iospress.nl/html/15741699.php

2. Associate Editor (2007 to date) of *Journal of Probability and Statistical Science.*

Website: www.i-tel.com.tw/jpss/home/upload/JPSS_**editorial**%20**board**_2007.doc

3. Section Editor, *Albanian Journal of Mathematics*. Website:

http://journals.aulonapress.com/index.php/ajm/about/editorialTeam

4. Member (2001 to date) of AEB (Advisory Editorial Board), *International Journal of Mathematical Education in Science and Technology* (Loughborough University, England). Websites:

http://www.tandf.co.uk/journals/boards/tmes-edbrd.asp,
http://www.tandf.co.uk/journals/titles/0020739X.asp.

Refereed many papers of this journal, and maintained liaison with the editor and experts in different areas of statistics to get papers refereed.

5. Associate Editor (2002 to date) of *International Journal of Statistical Science,* University of Rajshahi, Bangladesh.

Website: http://ijss-ru0.tripod.com/

6. Associate Editor (2008 to date) of *Journal of Statistical Research*, Institute of Statistical Research and Training, University of Dhaka, Bangladesh.

Website: http://www.isrt.ac.bd/jsr

7. Member of Advisory and Review Board of *International Journal of Academic Research.*

Website: www.ijar.lit.az/en.php?go=board

Past Membership on Editorial Boards

Associate Editor (2006 to 2008) of *International Journal of Modern Mathematics* (Dixie W Publishing Corporation, PO Box 24190, Montgomery, Alabama, AL 36124, Tel: 1 (334) 462-6919). Website: http://ijmm.dixiewpublishing.com

Member of Advisory Board (2002 to 2009), *Umm Al Quora University Journal of Science, Medicine and Engineering (*Makkah Al Mukarrama, Saudi Arabia)

Associate Editor (2005 to 2009) of *Communications in Biometry and Crop Science (Warsaw University, Warsaw,* Poland). Website: http://agrobiol.sggw.waw.pl/cbcs.

4.3 Reviewing Papers for Journals (82 Papers)

Reviewed 77 papers for different international journals including Journal of Multivariate Analysis (Taylor and Francis, England), Communications in Statistics: Theory and Methods (Marcel Dekker, USA), International Journal of Mathematical Education in Science and Technology (Taylor and Francis, UK), Journal of Probability and Statistical Sciences (Taiwan), Journal of Applied Statistical Science (Nova Science, USA), Metrika (Physica Verlag, Germany), Statistical Papers (Germany), Statistics (England), International Journal of Statistical Science (Bangladesh), Journal of Statistical Research (Bangladesh), Mathematics, Statistics and Allied Fields (USA), and Arabian Journal of Mathematical Sciences (Saudi Arabia).

See Appendix 4.3: A List of Papers Reviewed.

4.4 Reviewing Books

Refereed a book entitled "Advanced Sampling Theory with Applications" by S. Singh which was submitted to John Wiley and Sons for possible publication. Offered by Ms Heather Haselkorn (Editorial Program Coordinator / Mathematics and Statistics / Scientific, Technical and Medical Publishing/ John Wiley and Sons, Inc./ 605 Third Ave/ New York, NY 10158-0012 / Email: hhaselko@wiley.com) through a letter dated November 3, 2000.

Refereed an updated version of the above book entitled "Advanced Sampling Theory with Applications" by S. Singh which was submitted to Kluwer Academic Publishers for possible publication. Offered by Mr Inge Hardon (inge.hardon@wkap.nl), Kluwer Academic Publishers through an email on October 3, 2002.

4.5 Presentation of Research Papers in Academic Departments (41Presentations)

01. *Recent Studies in Elliptically Symmetric Distributions*. Department of Statistical and Actuarial Sciences, University of Western Ontario, London, Canada.

02. *Some Aspects of the Multivariate T-distribution***.** Department of Mathematics and Statistics, University of Regina, Regina, Saskatchewan, Canada on May 4, 1992.

03. *Estimation of the Scale Matrix of a Multivariate T-model.* The University of Western Ontario, Canada on July 16, 1992.

04. *Application of Statistics in Psychology.* North South University, Bangladesh on September 10, 1994.

05. *One Way Analysis of Variance.* Statistics and Operations Research Unit, School of Computing and Mathematics, Deakin University, Geelong, Victoria, Australia on October 25, 1995.

06. *Robustness of Statistical Methods under Elliptical Distributions.* Department of Mathematics and Statistics, Australian Defense Force Academy, Canberra, ACT, Australia on November 22, 1995.

07. *Normal Approximation to Binomial Probabilities with Continuity Correction.* School of Mathematics and Statistics, The University of Sydney, NSW, Australia on February 8, 1996.

08. *Statistical Methods under Elliptical Distributions.* School of Mathematics and Statistics, The University of Sydney, NSW, Australia on May 10, 1996.

09. *Estimation of the covariance matrix of a multivariate t-model.* February 22, 1998 at Department of Mathematical Sciences , KFUPM, Saudi Arabia.

10. *Robustness of correlation coefficient under broader class of distributions.* October 25, 1998 at KFUPM, Saudi Arabia.

11. *Inequalities involving standard deviation and other descriptive statistics.* August 17, 2002 at Institute of Statistical Research and Training, the University of Dhaka, Bangladesh.

12. *On some representations of sample variance.* April 27, 2003 at Department of Mathematical Sciences, KFUPM, Saudi Arabia.

13. *Inequalities involving means and quantiles.* March 7, 2004 at Department of Mathematical Sciences, KFUPM, Saudi Arabia.

14. *Some inequalities in descriptive statistics.* December 5, 2004 at Department of Mathematical Sciences, KFUPM, Saudi Arabia.

15. *Product Moments of Bivariate Wishart Distribution.* March 29, 2005 at Department of Mathematical Sciences, KFUPM, Saudi Arabia.

16. *On the Evaluation of a Double Integral.* December 18, 2005 at MATH Seminar**,** Dept of Mathematical Sciences, KFUPM, Saudi Arabia.

17. *The Expectation of Sample Variance: An Elegant Approach.* September 10, 2005 at STAT Seminar, Dept of Mathematical Sciences, KFUPM, Saudi Arabia.

18. *The Distribution of Correlation Coefficient Based on a Bivariate t-population.* October 11, 2005 at STAT Seminar, Dept of Mathematical Sciences, KFUPM, Saudi Arabia.

19. *A Problem Related to Without Replacement sampling.* November 25, 2005 at MATH Education Seminar, Dept of Mathematical Sciences, KFUPM, Saudi Arabia.

20. *On a Bivariate Chi-square Distribution.* February 20, 2006 at STAT Seminar, Dept of Mathematical Sciences, KFUPM, Saudi Arabia.

21. *An Introduction to the Bivariate T-Distribution.* February 27, 2006, at STAT Seminar, Dept Mathematical Sciences, KFUPM, Saudi Arabia.

22. *Moment Integrals and Identities without Integration.* April 23, 2006 at MATH Seminar**,** Dept of Mathematical Sciences, KFUPM, Saudi Arabia.

23. *Statistical Independence: An Insight.* July 26, 2006 Applied Stat Seminar**,** ISRT, Dhaka University, Bangladesh

24. *Probability Issues in Without Replacement Sampling.* July 25, 2006 at Stat Seminar, Dept of Statistics, Dhaka University, Bangladesh

25. *Probability Issues in Ball Selection.* Jun 25, 2006 MATH Seminar**,** Dept of Math, Khulna University, Bangladesh

26. *Some Insights into Statistical Independence.* Oct 10, 2006, STAT Seminar**,** Dept of Mathematical Sciences, KFUPM, Saudi Arabia.

27. *A Comparison and Contrast of Some Methods of Sample Quartiles,* Sep 26, 2006, STAT Seminar**,** Dept of Mathematical Sciences, KFUPM, Saudi Arabia.

28. On the Multivariate Pearson Type II Distribution. April 10, 2007, STAT Seminar, Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

29. *A Mass Function Based on Correlation Coefficient and its Application,* May 26, 2008, STAT Seminar,

Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

30. A Gentle Introduction to Sample Variance, November 2, 2008, STAT Seminar, Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

31. Sample Variance: Some Mathematical Characterization. December 28, 2008, STAT Seminar, Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

32. The Probability that a Sample Variance Exceeds Another Sample Variance. February 20, 2009, Institute of Statistical Research and Training (ISRT), University of Dhaka, Bangladesh.

33. Robustness of Statistical Methods. December 13, 2009, STAT Seminar, Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

34. Two Ways to the Hypergeometric Distribution. January 5, 2010, MATH Seminar, Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

35. On the Sum of Two Correlated Chi-Square Variables. 23 May, 2010, MATH Seminar, Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

36. Three Ways of Probability of Selection of a Ball in Sampling Without Replacement. July 10, 2010, Dept of Mathematics, Khulna University, Bangladesh.

37. Distribution of Sum, Product and Ratio of Correlated Chi-Square Variables. July 12, 2010, Dept of Statistics, Jahangir Nagar University, Bangladesh.

38. Testing correlation and equivariance under Bivariate T-Distribution.16 January, 2011. STAT Seminar, Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

39. Robustness of Correlation Coefficient and Variance Ratio. 8 February, 2011. Institute of Statistical Research and Training (ISRT), University of Dhaka, Bangladesh.

40. The Exact Distribution of the Sum of Two Correlated Chi-Square Variables. 27 February, 2011, STAT Seminar, Dept of Mathematics and Statistics, KFUPM, Saudi Arabia.

41. Robustness of Variance Ratio Under Elliptical Symmetry**.** 15 March, 2011, *Systems Engineering Department , KFUPM, Saudi Arabia*

4.6 Scientific Conferences: Presentation of Research Papers or Attendance (22 Presentations; 25 Meetings)

01. Attended Inter-University Statistics Seminar (1993) at the Waterloo University, Canada. Also attended Inter-University Statistics Seminar (1988) at the University of Western Ontario, Canada.

02. Lectured on 'Interval Estimation' in the workshop for training the medical doctors organized jointly by BERPERT, Dhaka, Bangladesh and ISRT, University of Dhaka, Bangladesh in December 1995.

03. Presented a talk " Estimation of the Trace of the Scale Matrix of a Multivariate T-model" at the Department of Econometrics, Monash University, Clayton, Victoria, Australia on July 10, 1995. Also presented at the Econometric Conference at Monash, Monash University on July 14, 1995.

04. Presented a talk "Estimation of Finite Population Variance Using Random Non-response in Survey Sampling" at the *Sydney International Statistics Congress*, Sydney, Australia on July 9, 1996 (Sponsored by ISI, The Netherlands).

05. Chaired a session on Survey and Sampling Statistics - I on July 9, 1996 at the Sydney International Statistical Congress held at Sydney, Australia (Sponsored by ISI, The Netherlands).

06. Presented a talk "Application of Matrix Decomposition in the Estimation of Covariance Matrix" at the *Workshop on Matrix Theory and Applications* at King Fahd University of Petroleum and Minerals, Saudi Arabia on December 16, 1997.

07. Presented a talk "Robustness of the product-moment correlation coefficient under broader class of distributions" on March 9, 1999 at the *Fourth Annual Meeting of Saudi Association for Mathematical Sciences* held at King Saud University, Riyadh, Saudi Arabia.

08. Invited talk on "Estimation of the scaled covariance matrix of a class of elliptical distributions" in Session 24 of the 27 th Annual Meeting of Statistical Society of Canada held at University of Regina, Regina, Saskatchewan on June 8, 1999.

09. Chaired Session 34 in the *27 th Annual Meeting of Statistical Society of Canada* (June 6 to June 9) held at University of Regina, Regina, Saskatchewan, Canada on June 8, 1999.

10. Presented a talk on "Robustness of correlation matrix under broader class of distributions" on April 11, 2000 at the *Fifth Annual Meeting of Saudi Association for Mathematical Sciences* held at King Saud University, Riyadh, Saudi Arabia.

11. Presented a talk "A refinement over the usual formulae for deciles" on April 11, 2001 in The *First Saudi Science Conference* (KFUPM, Dhahran, Saudi Arabia) based on a paper by M. Firozzaman and Joarder, A.H. (2001). The talk was published in Proceedings of The First Saudi Science Conference (Biology, Earth Sciences and Mathematics), pp371-376.

12. Presented a talk "Evaluation of Mean and Variance Integrals without Integration" on March 11, 2007, at the *Third Saudi Science Conference*: *New Horizons in Science and their Applications* (Venue: King Fahd Cultural Center) hosted by King Saud University, Riyadh, Saudi Arabia.

13. Presented a talk "A Bivariate Chi-square Distribution and Some of its Properties" on March 11, 2007, at the *Third Saudi Science Conference*: *New Horizons in Science and their Applications* (Venue: King Fahd Cultural Center) hosted by King Saud University, Riyadh, Saudi Arabia.

14. Presented a talk "Distribution Theory with Two Correlated Chi-square Variables" at the *5th International Conference on Multiple Comparison Procedure* held in University Campus - Altes AKH, Vienna, Austria (Conference Proceeding: Multiple Comparison Procedure, Eds. Martin Posch, Jason Hsu and Franz Konig).

15. Presented a talk "A Mass Function Based on Correlation Coefficient and its Application" at the 4th session (May 23) of *Symposium on Global Analysis and Probability* , held between May 22 and May 23, 2008 Qaseem University, Buraida, Saudi Arabia.

16. A talk "A bivariate chi-square distribution and some of its properties" has been presented at the 76th Contributed Session (Distribution Theory 2) which is published on p 180, at the *Proceeding of the 7th World Congress in Probability and Statistics* at Singapore (July 14-July 19), 2008.

17. Presented a talk "Distribution of sample variances based on Bivariate normal population" on 14th April, 2009 at the first conference of the Saudi Association for Statistical Sciences (SASS) held between 14 and 15th April, 2009 at King Khalid University, Abha, Saudi Arabia.

18. Presented a talk "Two ways to the hypergeometric distribution" on 22nd March, 2010 in the Fourth Saudi Science Conference held between21st March to 24th March at Taibah University, Madina, Saudi Arabia.

19. Presented a talk "The exact distribution of linear combination of correlated chi-square variables" on 9th March at the conference " Challenges in Statistics and Operations Research" held between 8th March and 10th March, 2011 organized by Kuwait University

20. Presented a talk " Robustness of variance ratio under elliptical symmetry" as an invited speaker at the 9th session, on March 24 at the conference " Mathematics and its Applications" held between March 23 to 24 at Al-Imam Muhammad Ibn Saud Islamic University, Riyadh, Saudi Arabia.

21. Presented a talk " On the Distribution of Correlated Variance Ratio and Its Applications" at the Session IPS-2E: Distribution Theory I / Inference on Thursday, December 29, 2011 at International Statistical Conference: Statistical Concepts and Methods for the Modern World, held at Waters Edge, Colombo, Sri Lanka.

22. Chaired a session on “Distribution Theory“ on Friday, December 30, 2011 at International Statistical Conference: Statistical Concepts and Methods for the Modern World, held at Waters Edge, Colombo, Sri Lanka.

23. Attended a workshop “Mathematics Workshop Day 2012 organized by Department of Mathematics and Statistics, KFUPM, Saudi Arabia on January 3, 2012.

4.7 General Workshops Attended (24)

01. Attended a workshop on October 2, 1995 on “Making Learning Fun: Adding Zest and Quality to Your Small Group Teaching” conducted by Associate Prof. E. Murphy and organized by Professional Development Center, Monash University, Australia.

02. Attended several workshops on April 10, 1996 on “Quality Teaching and Research” organized by the Center for Teaching and Learning, The University of Sydney, Australia.

03. Attended workshop on June 18, 1996 on “Effective Use of Information Technologies in Teaching and Learning” organized by the Center for Teaching and Learning, The University of Sydney, Australia.

04. Completed a 15-hour English language course entitled The Accent Modification Course spanned over 15 weeks in semester 2, 1996 organized by the Center for Teaching and Learning, The University of Sydney, Australia.

05. Attended a workshop on KFUPM campus, Saudi Arabia on August 29, 2001 on “Prep-year Math” conducted by Professor Richard Aufmann, USA.

06. Attended three sessions during August 25-29, 2001 on “Preparing to Striving for Excellence in University Teaching and Learning” at KFUPM, Saudi Arabia conducted by Professor Sergio J. Piccinin, Director for University Teaching, University of Ottawa, Canada.

07. Attended four sessions during April 7 –1 16, 2002 on “Striving for Excellence in University Teaching and Learning III “ at KFUPM, Saudi Arabia conducted by Professor Sergio J. Piccinin, Director for University Teaching, University of Ottawa, Canada.

08. Attended four day workshop during September 9 –11, 2003 on “How to be an effective University Teacher and Increasing effectiveness as a University Teacher” at KFUPM, Saudi Arabia, conducted by Professor Henry Irvine Ellington, Education and Training Consultant, Robert Gordon University, UK.

09. Attended some workshops during December 2-21, 2003, on “The Treasures of the Islamic Scientific Tradition” at KFUPM, Saudi Arabia, conducted by H P Hogendijk, University of Utrecht (Holland).

10. Attended three day workshop during February 29 –March 2, 2004 on “Industrial Mathematics” at KFUPM, Saudi Arabia, conducted by Professor Noel Barton (Australia), Martin Brokate (Germany) and Pappalardi (Italy).

11. Attended a tutorial on Science Direct data base on March 28, 2004 at KFUPM, Saudi Arabia, conducted by Mr Shoaib Quraeshi.

12. Attended a three day workshop between March 7-9 on WebCT offered by Mr Junaid Siddiqui, Deanship of Academic Development, KFUPM, Saudi Arabia.

13. Attended two workshops during September 3 –4, 2005 on “Evaluating the Quality of Teaching: An Institutional Framework” at KFUPM, Saudi Arabia conducted by Professor Simon Barrie, Institute for Teaching and Learning, The University of Sydney.

14. Attended a workshop during March 14-15, 2006 on “Workshop on e-Learning in Higher Education: Challenges and Opportunities: WEHE-2006” at KFUPM, Saudi Arabia conducted among others by Professor David Ross, University of Southern Queensland, Australia.

15. Attended a workshop during September 3 and 4, 2006 on “Teaching Mathematics in the Preparatory Year” at KFUPM, Saudi Arabia conducted among others by Prof Peter Taylor, Queen's University, Canada and Prof Peter Galbraith, University of Queensland, Australia.

16. Attended a workshop on September 3, 2006, on “Using Course Design to Create more Significant Learning Experiences for Students” at KFUPM, Saudi Arabia conducted by Professor L.D. Fink, University of Oklahoma, USA.

17. Attended a workshop on during September 3 and 4, 2006, on “Teaching Mathematics in the Preparatory Year at KFUPM, Saudi Arabia conducted by Professor Peter Taylor, Queen's University, Canada and Professor Peter Galbraith, University of Queensland, Australia.

18. Attended a workshop on September 19, 2006 on “Developing Educational Objectives and Learning Outcomes” at KFUPM, Saudi Arabia.

19. Attended Workshops at KFUPM, Saudi Arabia, on "Teaching for Learning" held from 1 September to 2 September, 2007 conducted by Prof Sergio J. Piccinin, University of Ottawa, Canada and Prof Brian D. Wagner, University of Prince Edward Island, Canada.

20. Attended Workshops at KFUPM, Saudi Arabia, on "21st Century Curricula" and "Link Research and Teaching" conducted by Dr Paul Blackmore, King's College, England held on September 7, 2008.

21. Attended a Workshop at KFUPM, Saudi Arabia, on "Academic Development: What Works?" conducted by Dr Paul Blackmore, King's College, England held on September 8, 2008.

22. Attended a Workshop at KFUPM, Saudi Arabia, on "Designing a Curriculum to Support Student Understanding of Research in their Discipline” conducted by Professor Alan Jenkins, Oxford Brookes University, Oxford, UK on September 6, 2009.

23. Attended a Workshop at KFUPM, Saudi Arabia, on "Academic Portfolio: A New and Different Approach to Documenting Teaching, Research and Service” conducted by Professor Peter Seldin, Pace University, United States of America on September 20, 2010.

24. Attended a workshop on "New Landscape of Search & Discovery on ScienceDirect and Scopus SciVerse” by Dr Ahmed Rostom, Training manager for all Elsevier products for the regions Middle East, Africa and Iran on 24th April, 2011, organized by Deanship of Library Affairs and Department of Mathematics & Statistics, KFUPM.

4.8 Statistical Consulting

I have been consulting senior research students, engineers, doctors and professionals of a wide variety of disciplines for many years.

I consulted Mr. Nayyar Grami for his M.Sc. thesis entitled ‘Investigation of Slotted Aloha in Fang Channels’ under the supervision of Dr. Saud Al-Semari, Department of Electrical Engineering, King Fahd University of Petroleum and Minerals, Saudi Arabia during March to December, 1998. In particular I helped him to find the exact sampling behavior of the ratio of a kind of gamma distributions and also to calculate the cumulative distribution function.

I was responsible for statistical consulting in May 1996 run by **Statistical Consulting Service**, The University of Sydney. Many students and staffs across university were provided supports for their researches. In particular Dr. Scott Menzies MB BS, Ph.D Lecturer, Department of Surgery, The University of Sydney, a medical doctor asked for optimal sample size in testing whether education on surface microscopy can improve the diagnosis of melanoma cancer by general practitioners. An approximate formula for the optimal sample size that guarantees desirable power of a statistical test was derived for the given design of sample surveys.

4.9 Examination of Theses

Examined a Master of Applied Science (1997) thesis entitled ‘Application of

Multivariate Analysis to Assess the Macro-Scale Influence of Climate on Crop Production in the Fitzroy Catchment of Central Queensland', Department of Mathematics and Computing, Central Queensland University, Australia 4702.

Examined the following three theses of M.Sc. in Statistics (1992-93 held in 1994), Department of Statistics, Jahangir Nagar University, Savar, Dhaka, Bangladesh:

Maternal and Child Health of Urban Slum Population; A Study of the Socioeconomic Conditions of the People of Singair; Nonparametric Approach in Regression Analysis

4.10 Involvement in Theses Supervision

Member of MS thesis Committee entitled " Some Aspects of Statistical Quality Control Using Ranked Set Sampling" by Muazu R Abujiya during May 2002 to May 2003.

Member of the Ph.D. Thesis Committee (with Dr Saad A. Ahmed as the supervisor) for Mr. K.B. Abidogun, Mechanical Engineering, KFUPM.

Member of the Thesis Committee for M.Sc.Thesis (1999) of Mr. Abdul-Baasit Shaibu, Department of Mathematical Sciences, KFUPM, Saudi Arabia. The thesis entitled "Parameter Estimation using Median Ranked Set Sampling" was supervised by Dr. Hassen Muttlak, KFUPM, Saudi Arabia.

Member of the Thesis Committee for M.Sc. Thesis (1999) of Nayyar Grami, Department of Electrical Engineering, KFUPM, Saudi Arabia. The thesis entitled "Capacity of Slotted Aloha under Nakagami Fading" was supervised by Dr. Saud Al-Semari, KFUPM, Saudi Arabia.

Member of the Thesis Committee for M.Sc. (1998) Thesis of Abdulkhaleg Al-Baiyat, Department of Mathematical Sciences, KFUPM, Saudi Arabia. The thesis entitled 'Bayesian Prediction for the Multiple Linear Regression Model with First Order Auto-Correlation" was supervised by Dr. Walid S. Al-Sabah, Department of Mathematical Sciences, KFUPM, Saudi Arabia.

.4.11 Evaluation of a Research Proposal

01. Reviewed the Research Proposal " A New Test of Symmetry and Normality" by Dr Walid S. Al-Sabah for Sabbatical leave to University of California, Riverside, USA (Communicated on March 16, 2002 through letter with No. CGS/711/02 by Prof. Osama A. Jannadi, Chairman, University Research Committee, Deanship of Scientific Research, Office of the Dean, KFUPM, Saudi Arabia)

02. Evaluated an Online Course Proposal for STAT 211 – Business Statistics 1 (by Mr E. Al-Sawi, Mr R. Anabosi and Mr M. Saleh) received from Dr Mustafa M. Hariri, Director, E-Learning Center, DAD, KFUPM, Saudi Arabia on January 18, 2009.

03. Evaluated a research proposal "Order Statistics and Measures of Performance for Independent and Non-identical Inter-arrival and Service times in an M/M/1 Queueing Model" submitted to Deanship of Scientific Research at Dammam University, Saudi Arabia by Assistant Professor Manal Al-Ohally, Associate Professor Yousry AbdelKader and Maram Al-Wohabi during December, 2010.

5. University and Public Services

5.1 Services in the Department Committees

Undergraduate Committee: Member of Undergraduate Committee in the Department of Mathematical Sciences, KFUPM, Saudi Arabia in Term 971, 972, 981 and 982 (during September 1997 to June 1998, and also September 1998 to June 1999).

Member of the Undergraduate Committee, Department of Mathematical Sciences, KFUPM in Term 001 and 012 (during September 2000 to May 2001).

Member of the Undergraduate Committee, Department of Mathematical Sciences, KFUPM in Term 031 and 032 (during September 2002 to May 2003). Assessed a number of cases of transfer of credits for some courses in statistics.

Member of the Undergraduate Committee, Department of Mathematical Sciences, KFUPM in Term 021 and 022 (during September 2002 to May 2003). Prepared questionnaire for undergrad students for evaluation of our program**.**

Member of the Undergraduate Committee, Department of Mathematical Sciences, KFUPM in Terms 051, 052, 061, 062, 071 and 082 (during September 2005 to June 2008). Prepared questionnaire for undergrad students for evaluation of our undergraduate program**.** Assessed a number of cases of transfer of credits for some courses in statistics.

Search Committee: Member of the Search Committee, Department of Mathematical Sciences, KFUPM in Term 972 (during January 1998 to May 1998). Assessed numerous files of job applicants applying for positions in statistics.

Member of the Search Committee, Department of Mathematical Sciences, KFUPM in Term 011 and 012 (during September 2001 to May 2002).

Textbook Committee: Member of the Text Book Committee for changing the text (Modern Engineering Statistics by Lawrence L. Lapin, Duxbury Press, 1997) of STAT 319: Probability and Statistics for Engineers and Scientists to the new text (Probability and Statistics for Engineers and Scientists by Ronal d E. Walpole et al., 6th edition, published by Pearson Educational International) in 2005.

Member of the Text Book Committee for changing the text of MATH 560: Applied Regression and Design of Experiments in the semester 081 (September to February).

Chairman of the Text book Committee for changing the text (Probability and Statistics for Engineers and Scientists by Ronal d E. Walpole et al., 8th edition, published by Pearson Educational International) for STAT 319: Probability and Statistics for Engineers and Scientists. Presented the proposal of the new text book (Miller and Freund's Probability and Statistics for Engineers by Richard A. Johnson, (2005)., 7th ed., Pearson Educational International) at Department Council Meeting on January 13, 2009, and at a meeting with the Vice Rector on April 22, 2009.

Program Assessment Committee: Member of the Program Assessment Committee, Department of Mathematical Sciences, KFUPM in Term 041 and 042 (during September 2004 to May 2005). Prepared questionnaire for undergrad students for evaluation of our program**.** Attended about 35 meetings for the internal assessment of the undergrad program at KFUPM and actively involved in the effort of developing a 3 volume report.

Member of the Program Assessment Committee in Term 081 ad 082.

Research Committee: Member in the Semester 091, 092, 101 and 102 (September 2009 to August 2011).

Graduate Committee: Member of the MS Committee, Department of Mathematical Sciences, KFUPM in Term 991 and 992 (during September 1999 to May 2000). Member in the Semester 111 (September 2011 to January 2012)

5.2 College Committee

Member of the Short Course Evaluation Committee, KFUPM during January 2000 to May 2000.

5.3 PH.D. Entrance or Comprehensive Exams

Set Ph.D. Entrance Exam (April 26, 2006) question for Mr Mashiur Rahman (ID # 220256) requested by Civil Engineering Dept, KFUPM. Set, conducted and evaluated Ph.D. Entrance Exam for Mr Nuhu D Muazu (ID # 220404) requested by Civil Engineering Dept, KFUPM (held in April, 2006).

Set, conducted and evaluated Ph.D. Comprehensive Exam for Mr S Qamar's (ID # 990295) requested by Mechanical Engineering Dept, KFUPM (held in November 13, 2003).

I was an oral examiner of Mr S Qamar's (ID # 990295) PhD Comprehensive Exam chaired by Dr A K Sheikh, Dept of Mechanical Engineering on January 15, 2003.

Member of the PhD Comprehensive Exam (Oral) for Mr Taofeek Ayinde, Mechanical Engineering Department, KFUPM with Dr Zakir Hossain as the chairman. Attended oral defense on May 25, 1999.

Member of the Ph.D. Comprehensive Exam Committee (with Dr Saad A. Ahmed as the chairman) for Mr. K.B. Abidogun, a Ph.D. Student in Mechanical Engineering, KFUPM. Attended the oral defense on December 20, 1998.

Involved in the development of the proposed BS program with statistics option at the Department of Mathematical Sciences, KFUPM, Saudi Arabia.

Set, conducted and evaluated Ph.D. Comprehensive Exam for Mr. K.B. Abidogun for MATH 560 requested by Mechanical Engineering Dept, KFUPM (held in December 1998).

Set, conducted and evaluated Ph.D. Entrance Exam for MATH 560 requested by Civil Engineering Dept, KFUPM for Mr K. Iqbal Basha (held on June 3, 1998). Also set and evaluated PhD Exam (held on November 19, 2000) for Mr Basha .

Set and evaluated Ph.D. Entrance Exam for MATH 560 requested by Civil Engineering Dept, KFUPM for Mr Vakeel S. Imran and Mr Sadiq Khan (held on March 10, 1998).

5.4 Activities at the University of Dhaka, Bangladesh

Former member of the Academic Committee of the Institute of Statistical Research and Training (ISRT), University of Dhaka, Bangladesh. Former member of the Examination Committee of the Master of Statistics Program (1991-92, held in 1994), ISRT. During 1993-94, I was actively involved in the proposed Master of Applied Statistics program at the institute.

Performed Administrative duties for nearly 500 residential students as an Assistant House Tutor of Kabi Jasim Uddin Hall, University of Dhaka, Bangladesh for the period December 1993 to December 1994.

Appendix for 2.1. Teaching Statement

"*The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great inspires*" William Arthur Ward.

Statistics is the science of making decisions in the face of uncertainty. It is neither number crunching nor compilation of numerical information just for records as is believed by many, rather a methodology that helps solve the problem of uncertainties of the real world life. It tries to understand the nature of the problem by collecting information through appropriate designs, organize, analyze and make decisions. Mathematical theory of probability provides a solid foundation to such decisions made.

Statistics has been a demanding subject across disciplines. Numerous companies have always been searching for graduates in statistics, first to absorb and then to train them to suit their requirements. As a statistics instructor, one attempts to reinforce the analytical and problem-solving skills to a broad range of academic areas. In all subject contents and other educational endeavors, the applications of basic mathematical principles, deduction, and the scientific method militates the disciplined-reasoning abilities that one strives to develop.

Since I started my academic career as a university teacher, my goal has been to become an effective teacher with a positive attitude towards students and colleagues. The evaluation report of the courses I teach and myself by the students indicate that I am on the right track, if it is considered as an indicator. It is a continuous source of encouragement that keeps me moving forward on the road to be an efficient teacher. My interaction with my teachers during my student life, and now my interaction with students as an instructor have both helped me to rediscover the knowledge of the subject and enthusiasm for teaching.

Students need to be encouraged to ask questions. They need to receive genuine appreciation for their ideas, talents, and learning abilities. My experience has shown that prompt feedback, participation during their individual and group projects, flexibility in setting individual and group requirements, fair evaluation and grading, all help to a large extent to motivate them to meet their individual and group objectives. These in turn help me to meet my objective of being an efficient and effective teacher.

On a continuous basis, my students contribute a lot to make me understand their needs and my own limitations as their facilitator in the learning process. Another reason for my dedication towards excellence in academia is my keen interest in research publications and books. I have enjoyed my teaching profession over the years by being able to teach and reside in Canada, Australia, Bangladesh and Saudi Arabia. Hopefully, one day I will perfect my teaching techniques and will become an "ideal" teacher.

I usually present course materials by uploading these on WebCT. I follow the text book by typing the content from the book, enriching them by some annotations from my personal notes and efficiently integrating it while lecturing through the smart classroom facilities. I organize my lecture notes in three ways. For service courses in statistics, I avoid calculus and prefers to explain rationale behind statistical theories for wide spectrum of students. Emphasis is given on the understanding of the nature of randomness of real world phenomena, the formulation of statistical methods by using intuitive arguments and thereby making meaningful decisions.

Lecture notes are typed up from the book, projected on the screen and explained during every lecture. They are organized in a way that motivates students. In service courses, I start to motivate students with an easy problem and in so doing, underlying theory is discovered. Students actively take part in the process of formulation of the theory.

Some typical questions that may help students understand the material are projected on the screen and explained with reference to the particular section of the lecture material or the particular formula being employed. At the end of every chapter I encourage students to solve some typical questions prepared as Practice Problems, uploaded on WebCT, projected on the screen and explained in the class.

In certain courses, I give instructions to the students in the use of Statistica, MINITAB etc. while teaching multiple regression and analysis of variance techniques. I believe it helps students to read outputs from statistical packages.

I have always been attempting to improve my service to students I try to follow the schedule distributed on the first day of the course. I always offer a minimum of 5 office hours per week and encourage students to contact me at any time during working days, and also encourage them to ask questions by telephone or email.

The decision to base grades on computerized marking of multiple-choice questions is very detrimental. Thus, I like to do the marking of answer sheets myself so that I can know the level of my students after completion of the first mid-term exam. I then try to reach their level. To be fair with the students, I always mark one question at a time for all the exam booklets which reduces some sort of bias in marking, let alone the managerial time per exam booklet. Moreover, I set broad questions which requires to put ideas together to solve.

Teaching Style in the Classroom

Statistics is one of the subjects that almost everyone dreads. Students have lot of anxiety about the subject and most of the time they start the course with fear, disappointment and nervousness. However, it is the instructor's responsibility to make sure that the course is taught in an easy to understand language and make it fun. Below are some of the ways I apply so that these can make the Statistics class very fun and interesting and will increase students participation.

Encouragement: On the first day of the class, I tell the students your objectives of the course. One of the objective I tell students is that the class will be a fun and an entertaining one. Also I assure students that I will do your best to make the concepts easy to understand with interesting examples and exercises. This helps student develop a passion for learning.

Importance: I tell students the importance of the subject and why they should learn and work hard. I provide the reference that the use of Statistics can be found in almost every newspapers, magazines and other media outlets. I tell that understanding statistics on different media will ensure their success in their personal life. The subject will create a skill in using information around him to take right decisions in the face of uncertainty.

Motivation and Discovery: I try to motivate students by a real world example that is close to their life, say to their cars, computers, fridges, mobile phones etc. I pose a problem. Instead of solving the problem, I try to brainstorm the solution based on their past background and further motivation, helping a little by little, formulate the problem, and together we discover a well know formula. The joy of excitement and team work will leave impeccable impression in their mind. They will enjoy solving problems with that formula. It will be part of their life, rather than a formula imposed on to them, or rotten by them without interest.

Package: I prepare the lecture notes in some electronic format. I upload them in the Blackboard or WebCT. I also prepare home works in a way that contains problems that can be solved by the skills achieved during lecture, problems that need to put ideas together and problems that are a bit challenging. I also set the other exams keeping in mind the outcome of learning.

Presentation: Sometimes, I give them the assignment of picking an article from Newspapers, Magazines or other academic journals that has Statistical data and ask to present their finding in the class via a short 10 minute presentation. This provides them an opportunity to pick their favorite article and discuss their finding with the class. I also sometimes provide Lab Projects.

Interaction: I allow students to interact. I wander around the room so that shy students can also pass comments when I am closer to him or her. Their comments help you assess where they stand with respect to the content. Often I need to move back and prepare them for moving forward through an example or recapitulating the material.

Humor: I tell stories and jokes about statistics. If there are interesting videos about statistics, I show them during the class. Here is an humorous example. One house has been burnt by a sudden outbreak of fire. To investigate the cause of burning, somebody suggests to set more houses on fire to increase sample size!

Software Package: I try to teach basic course in a lab. Ideally basic stat courses should be taught in a lab environment. A statistical software / package has been essential to understanding the subject. The other alternative is the strong background in analysis. However visualization gets permanent impression on your mind.

Lifelong Learning: I try to provide the impression that by taking a course in statistics, they did not learn everything of it, rather they started becoming a better learner of it, and it will continue. He or she may loose the teacher's lecture note but internet facilities, books and journals will be around him to enrich his or her knowledge, to help him /her to take the right decision in the face of uncertainty.

Appendix for Section 2.2: Teaching Dossier (Anwar H. Joarder)

Some of the course titles are:
STAT319: Statistics for Engineers and Scientists, MATH560: Applied Regression and Design of Experiments, STAT211: Business Statistics, STAT212: Business Statistics (Advanced).

Year	Term	Course and Section No.	Institution	# Valid / Total respondents	Assessment /10
Spring 2011	102	STAT319.9, MATH560	KFUPM	20/31 9/12	8.44 8.52
Fall 2010	101	STAT319.4,7,8	KFUPM	20/30, 12/20, 6/19	8.08, 8.69, 9.01
Spring 2010	092	STAT211.6, STAT212.2,4	KFUPM	13/20, 25/34, 26/34	8.49, 8.12, 7.33
Fall 2009	091	STAT319.2,8,9	KFUPM	16/26, 19/25, 15/27	8.32, 8.54, 8.36

Year	Term	Course	Institution	# Valid respondents	Assessment
Summer 2009	083	STAT319.1,4,6	KFUPM	15, 11, 2	8.52, 8.59, 8.63
Spring 2009	082	STAT319.7,8,9	KFUPM	16, 9, 12	9.22, 8.95, 8.09
Fall 2008	081	STAT211.5,6	KFUPM	22, 17	8.95, 8.2
Spring 2008	072	STAT319.5,6,8	KFUPM	20, 27, 19	8.69, 8.76, 7.97
Fall 2007	071	STAT211.4,6	KFUPM	29,28	6.7, 7.37
Spring 2007	062	STAT319.5,6,8	KFUPM	25, 30, 29	NA, 8.89, 9.4
Fall 2006	061	STAT319.8,9	KFUPM	27, 21	9.61, 9.51

Year	Term	Course	Institution	# of Enrolments	Assessment
Spring 2006	052	STAT319.6,7,8	KFUPM	30, 27, 29	8.8, 8.53, 9.01
Fall 2005	051	STAT319.8,9	KFUPM	29, 28	8.93, 8.95

Spring 2005	042	STAT319.8, MATH560	KFUPM	27, 15	9.43, 8.97
Fall 2004	041	STAT319.7,8,9	KFUPM	30, 28, 30	8.87, 8.99, 8.59
Spring 2004	032	STAT319.5,8	KFUPM	32, 30, 33	9.39, 8.63
Fall 2003	031	STAT319.2,3,4	KFUPM	33, 35, 33	8.87, 8.84, 9.07
Summer 2003	023	STAT319	KFUPM	39	8.82
Spring 2003	022	STAT319.2,4	KFUPM	37, 36	9.26, 9.40
Fall 2002	021	STAT 319, MATH 560	KFUPM	32, 10	8.08, 9.32
Spring 2002	012	STAT319	KFUPM	33, 28, 30	8.57, 9.26, 8.60
Fall 2001	011	STAT319, MATH560	KFUPM	34, 14	8.58 , 9.56

Year	Term	Course	Institution	Enrolments	Assessment
Summer 2001	003	STAT319	KFUPM	28, 27	
Spring 2001	002	STAT319	KFUPM	26, 33, 30	8.98, 9.40, 9.09
Fall 2000	001	STAT319	KFUPM	35, 35, 35	9.03, 8.69, 9.33
Spring 2000	992	STAT319	KFUPM	33, 35, 34	8.48, 7.68, 8.54
Fall1 1999	991	STAT319	KFUPM	38, 39, 42	8.33, 7.78, 8.22
Spring 1999	982	STAT319	KFUPM	35, 34	7.21, 8.25
Fall 1998	981	STAT319	KFUPM	28, 28	8.54, 8.64
Spring 1998	972	STAT319, (MATH 560)	KFUPM	33, 28, 8	8.13, 8.62 (9.30)
Fall 1997	971	STAT319, MATH131	KFUPM	37, 34, 30	9.52, 9.13, 9.12

Year	Course	Institution	Sections (Semesters)	Assessment
1996-1997	Multivariate Analysis	University of Sydney	3 (3)	
1997	Biostatistics	University of Sydney	1(2)	
1997	Engineering Statistics	University of Sydney	1(1)	
1997	Estimation and Dependence	University of Sydney	1(1)	
1996	Probability and Distribution Theory	University of Sydney	1(1)	
1995	Econometrics	Monash University	6 (2)	

	(ECM1021, ECM1031)			

Year	Course	Institution	Sections (Semesters)	Assessment
1994	Business Statistics (ECO172, ECO173)	North South University	4 (2), 2(1)	
1994	Linear Algebra (MATH125)	North South University	1 (1)	
1994	Econometrics Statistical Inference	University of Dhaka	1 (1)	
1993	Sample Surveys and Design of Experiments	University of Dhaka	1(1)	

Year	Course	Institution	Sections (Semesters)	Assessment
1993	Basic Statistics (STAT135), Business Statistics (STAT138), Biostatistics (STAT155)	University of Western Ontario	3 (2)	
1992	Engineering Statistics (STAT241)	University of Western Ontario	2(1)	

Appendix for 3.1 Research Statement (Anwar H. Joarder)

The classical theory of Multivariate Statistical Analysis is primarily based on the assumption that the sample is governed by multivariate normal model. However, in the recent literature several authors have researched as to how the conclusions get affected if the population model departs from normality. The class of elliptical models have some intrinsic properties of the multivariate normal model and has been getting increasing attention by the researchers in the recent literature. In the present thesis, we restrict the model to a suitable multivariate *t*-model which belongs to the class of elliptical models and at the same time accommodates the multivariate normal model. This model has found applications in the context of a stock market problems.

The major contribution of my research is the development of many foundational results ranging from the distribution theory to the estimation theory for elliptical distributions with emphasis on the *multivariate t-distribution*. A recent text " *Multivariate t Distributions and Their Applications*" by Samuel Kotz and Saralees Nadarajah published by Cambridge University Press, UK cites many of my results and refers to 8 of my papers. My research papers have also been cited in reputed research journals, books published by John Wiley and Sons, CRC Press, etc. See Section 3.2. My research publications can be categorized into the following:

Multivariate Analysis (AMS MSC 2000: 62H05; 62H10; 62H20; 62F03; 62F10)
Statistical Distribution Theory (60E05; 60E10; 62F35; 62H10)
Basic Statistics and Miscellaneous (62-01; 62-02; 60-01; 60-02)
Survey Sampling (62D05)

Multivariate Analysis

The classical theory of Multivariate Analysis is based on the assumption that underlying observation vectors arise from independent multivariate normal distributions. The multivariate normal distributions have indeed played a predominant role in the historical development of statistical theory, and found applications in physical, biological, engineering and other branches of science and business.

Kotz (1975) presented a systematic classification of multivariate distributions based on various criteria such as type of dependence, analogy of mathematical form, model and characterizations. Kelker (1970) was the first statistician to develop statistical theory for multivariate elliptical distributions, a class of distributions which accommodates multivariate *t*-distribution and multivariate normal distribution as special cases. Fang and Anderson (1990) edited a book on multivariate elliptical distributions. Fang and Zhang (1990) were the first to come up with a book on multivariate analysis with elliptical distributions.

The multivariate *t*-distribution has fatter tails and can characterize many financial data especially stock return data. Zellner (1976) laid the foundation for modeling financial data under the assumption that observations follow *t*-distribution. Since then many authors tried to develop statistical theory for a *t*-population.

There have been numerous papers on the estimation of the covariance matrix of the multivariate normal distribution. Maximum likelihood method has been one of the most popular method of estimation for the covariance matrix. The most powerful property of the maximum likelihood estimator is the asymptotic normality which stems out, in fact, from the independence of the sample observations. However the assumption of the independence of the observations for multivariate elliptical distributions is true only for the special case of multivariate normal distribution. So some authors have tried to estimate the covariance by the criteria of loss functions.

In a series of papers estimation strategies for covariance matrix of the multivariate *t*-distribution, its trace, characteristics roots etc have been developed under squared error loss function [Joarder (1995 b), Joarder and Ahmed (1996), Joarder and Beg (1999)]. The covariance matrix of the multivariate *t*-distribution has also been estimated under an entropy loss function (Joarder and Ali, 1997). Trace and covariance matrix of the scale mixture of multivariate normal distributions have also been studied [Joarder and Hossain (1995), Joarder and Ahmed (1998)]. The covariance matrix of the multivariate t-distribution has been estimated by the use of a regression type of estimator (Joarder and Singh ,1997) and also by using a known information (Joarder and Singh, 2001). The covariance matrix based on multivariate normal distribution has been estimated by Joarder (1995c). Eigen-values of a Wishart matrix based on multivariate normal distribution has been estimated by Pretest Method (see Ahmed, Volodin and Joarder, 2001). Precision matrix of the multivariate Pearson Type II model has been considered by Sarr, Gupta and Joarder (2009).

Kibria and Joarder (2010) reviewed multivariate t-distribution with an application to regression analysis. The kurtosis parameter of multivariate data has been studied by Ahmed, Omar and Joarder (2011).

Statistical Distribution Theory

The distribution of the correlation coefficient based on bivariate elliptical distributions has been derived (Ali and Joarder, 1991). This proves the robustness of the distribution correlation coefficient in the wider class of bivariate elliptical distributions and *t*-test for the uncorrelatedness. The distribution theory has been extended to multivariate elliptical distributions to derive the distribution of correlation matrix (Joarder and Ali, 1992). Some integral results with applications to correlation analysis have been developed (Joarder, 2007).

Characteristic functions of several multivariate distributions say Multivariate *t*-distribution, Multivariate Pearson Type II Distribution, Uniform Distribution on or inside Unit Hyper-Sphere etc have been derived in terms of well known special functions [Joarder (1995 a), Joarder and Alam (1995), Joarder and Ali (1996 a), Joarder (1997)]. Spherical Distributions, a special class of elliptical distributions, have been characterized geometrically and analytically (Joarder and Ali ,1996 b). Some applications of Macdonald function in the multivariate *t*-distribution has been discussed (Joarder, 1994). Stirling numbers of the second kind has been derived by an inductive method and applied to find moments of integer valued random variables (Joarder and Mahmood ,1997).

Identities involving Wishart matrix based on the multivariate *t*-distribution have been derived (Joarder and Ali ,1992 b). Some useful expected values of important functions of Wishart matrices based on the

multivariate *t*-model has been derived (Joarder, 1998 b). These are important for the loss theoretic estimation of covariance matrix and its characteristics. Product moments of bivariate Wishart distribution have been derived (Joarder, 2006).

A short review of multivariate *t*-distribution has been considered by Kibria and Joarder(2006). Some characteristics of bivariate *t*-distribution have been presented by Joarder (2007). A set of general characteristics have been developed for Mahalanobis distance has been developed for any bivariate distribution by Joarder (2008). Moments of product and ratio of two correlated chi-square variables have been considered by Joarder (2007). Standardized moments for bivariate chi-square distributions has been derived by Joarder and Abujiya (2008). A mass function based on product moment correlation coefficient has been used to calculate moments of sample variances and correlation coefficient by Joarder and Omar (2008).

My current research interest centers in extending the bivariate statistical theory based on normal distribution to broader class of distributions. In a series of papers Joarder (2009), Joarder and Abujiya (2009), Joarder, Laradji and Omar (2010) tried to derive different characteristics of bivariate chi-square distribution. We have proved robustness of variance ratio under bivariate elliptical symmetry. See Joarder (2011). Some characteristics of beta ensity function of two variables have been studied by Omar and Joarder (2011).

Basic Statistics and Miscellaneous

It has been proved that statistical independence and linear dependence of a square contingency matrix are equivalent (Joarder, 1998 a). The dependence structure of conditional probabilities in a square contingency table has been considered by Joarder and Al-Sabah (2002). A halving method (Joarder 2003) has been proposed for the quartiles. A remainder method (Firozzaman and Joarder, 2001) has been proposed for quartiles and deciles . Linear interpolation has been viewed by Joarder (2002) from six different perspectives. Sample variance has been calculated by Joarder (2002) and Joarder (2003) without the use of sample mean by the first order differences of observations. A comparison and contrast for sample quartiles has been considered by Joarder and Latif (2004). Some inequalities among some measures of location have been developed by Laradji and Joarder (2006). Algebraic inequalities have been developed by Joarder and Laradji (2005) for measures of dispersion. A remainder method for sample percentiles has been developed by Joarder and Abujiya (2007).

An alternative representation of hypergeometric mass function revealing much closeness to binomial mass function has been presented by Joarder and Al-Sabah (2007) and Joarder (2010).

Survey Sampling

Scrambled randomized response method has been applied to linear regression model (Singh, Joarder and King , 1996). Optional randomized response technique has been developed for sensitive qualitative variable (Singh and Joarder, 1997b).

Finite population variance has been estimated by the use of random non-response (Singh and Joarder 1998). Unknown repeated trials in randomized response sampling has been considered by Singh and Joarder (1997 a). Regression type estimators in the presence of non-response has been discussed by Singh, Joarder and Tracy (2000). Some regression type estimators have been studied for random non-response in different situations under the assumption that the number of sampling units on which information cannot be obtained due to random non-response follows some probability distribution (see Singh, Joarder and Tracy (2001).

Distribution function and median in two phase sampling have been estimated by Singh and Joarder (2002). General class of estimators in multicharacter surveys is considered in Singh, Grewal and Joarder (2004). Singh, Chandra , Joarder and Singh (2007) have developed family of estimators of mean, ratio and product of a finite population under random nonresponse.

References

Kelker, D. (1970). Distribution theory of spherical distributions and a location scale parameter generalization. *Sankhya, Ser.* A, **32**, 419—430.

Kotz, S. (1975). Multivariate distributions at a cross-road. In *Statistical Distributions in Scientific Work*, (eds. G.P. Patil, S. Kotz and J.K. Ord, D. Reidel Publ. Co.), 1, 247—270.

Fang, K.T. and Anderson, T.W. (1990). *Statistical Inference in Elliptically Contoured and Related Distributions*. Allerton Press, New York.

Fang, K.T. and Zhang, Y. (1990). *Generalized Multivariate Analysis*. Springer Verlag.

Zellner, A. (1976). Bayesian and non-Bayesian analysis of the regression model with multivariate Student-t error term. *Journal of American Statistical Association*, **71**, 400—405 (correction, 71, 1000).

For other references see Section 3.2 of the CV.

Appendix for Section 4.3: A List of Papers Reviewed (A.H. Joarder)

Reviewed 3 papers for *Journal of Statistical Research*, Jahangir Nagar University, Bangladesh during 1993-94.
04. Reviewed a paper entitled "A necessary condition for a quadratic form to have a chi-squared distribution: An accessible proof (Manuscript # 97/197) by Andre I. Khuri" for *International Journal of Mathematical Education in Science and Technology*, UK , during March to May 1998.
05. Reviewed a paper entitled " On statistically convergent series" by B.C. Tripathy (Manuscript # Math /5) for *The Punjab University Journal of Mathematics*, Pakistan during September 1998 to October, 1998.
06. Reviewed a paper entitled "Generating covariance matrices" (Manuscript # 98/278)" by A.S. Dorvlo for *International Journal of Mathematical Education in Science and Technology*, UK, during July to September 1998.
07. Reviewed a paper entitled "Variance estimation for finite population" (Manuscript # 99-02-17)" for *Metrika*, Germany in February 1999.
08. Reviewed a paper entitled "Estimating a normal dispersion matrix and the precision matrix" By N.S. Farsipour and N. Abbasi for *Statistical Papers*, Germany during February to May 1999.
09. Reviewed a paper entitled "A note on statistical limit points" (Math/2) by B.C.Tripathy for *Punjab University Journal of Mathematics*, Pakistan during September to October 1999.
10. Reviewed a paper entitled "Seismic hazard calculation based on sizes and inter-arrival times" by G.R. Dargahi-Noubary and Yixun Shi for *Journal of Applied Statistical Science*, USA during September to November 1999.
11. Reviewed a paper entitled "An improved estimator for estimating the ratio of two population means in survey sampling when some observations are missing" (Manuscript # 99-10-14B) by B.C. Gupta and Sarjinder Singh for *Metrika*, Germany during November and December, 1999.
12. Reviewed a paper entitled "A pedagogical technique for teaching expected value of perfect information" (Manuscript # 00/ 114) by B.R. Asrabadi for *International Journal of Mathematical Education in Science and Technology*, UK in March 2000.
13. Reviewed a paper entitled " On a new proof for an identity involving C_n^k and partial sums of some series (Manuscript # 01/304) by Bai-ni Guo and Feng Qi for *International Journal of Mathematical Education in Science and Technology,* UK in February 2001.
14. Reviewed a paper entitled "Random sampling, random samples and statistical models: Their role in statistical inference" (Manuscript # (# 01/404) by Mario M. Ojeda and Hardeo Sahai for *International Journal of Mathematical Education in Science and Technology*, UK in November 2001.

15. Reviewed a paper entitled " A note on exponential distribution and the inter-occurrence times of fatal plane (Manuscript # 01/382) by Philip W. Gwanyama for *International Journal of Mathematical Education in Science and Technology*, UK in August 2001.
16. Reviewed a paper entitled " Derivation of an F-distribution: A new look" (Manuscript # 02/526) by Walford I.E. Chukwa for *International Journal of Mathematical Education in Science and Technology*, UK in April 2002.

17. Reviewed a paper entitled "A second look at Neyman-Pearson lemma" (Manuscript # 01/431) by K Y Chan and T C Chua for *International Journal of Mathematical Education in Science and Technology*, UK in February 2002.

18. Reviewed a paper entitled " On confidence intervals for the negative binomial distribution" (Manuscript # 2211001) by Anwer Khurshid, Mohammed I. Ageel and Raheeq A. Lodhid for Umm Al-Qura *University Journal of Science, Medicine and Engineering*, Saudi Arabia in May 2002.

19. Reviewed a paper entitled " Improving ratio-type quantile estimates in a finite population" (Received from Prof Dr Gotz Trenkler through a letter dated June 6, 2002) by M. Rueda and A. Arcos for *Statistical Papers*, Germany during June to August, 2002.

20. Reviewed a paper " Multiplication Theorems for $[N, p, \alpha]$ Summability" by Satish Chandra for *Journal of Natural Sciences and Mathematics*, Pakistan in September 2002.

21. Reviewed a paper entitled " Students' computational and conceptual understanding of the connections among the concepts of standard deviations, z-scores, and normal distributions" by Melissa L. Reyes (Received from Prof Martin Harrison, Editor, through a letter dated October 7, 2002) for *International Journal of Mathematical Education in Science and Technology*, UK in October 2002.

22. Reviewed a paper entitled " Observations on the dispersion of data in non-symmetric distributions" by L. Barone and G Z Voulgaridis (Received from Prof Martin Harrison, Editor, through a letter dated October 7, 2002) for *International Journal of Mathematical Education in Science and Technology*, UK in October 2002.

23. Reviewed a paper entitled " Analysis of the topic of probability for teaching (Manuscript # 03/770)" by T Kvatinsky and R Even (Received from Prof Martin Harrison, Editor, through a letter dated July 14, 2003) for *International Journal of Mathematical Education in Science and Technology*, UK in August 2003.

24. Reviewed a paper entitled " A unique expression of the size of samples in several sampling procedures"(Received from Prof K.C. Chang, Editor, through a letter dated August 15, 2003) for *Journal of Probability and Statistical Sciences*, Taiwan during August and September 2003.

25. Reviewed a paper entitled " The Correlation Matrix Problem" (Manuscript # 02/662) by M Samuels (Received from Dr Martin Harrison through a letter dated September 24, 2003) for *International Journal of Mathematical Education in Science and Technology*, UK during September and October 2003.

26. Reviewed a paper entitled " Another view to deriving a negative binomial random variable" (Received from Dr K C Chao through an email) for *Journal of Probability and Statistical Science*, Taiwan during October to November 2003.

27. Reviewed a paper entitled " K-S test for goodness of fit and waiting times for fatal plane accidents " by Philip W Gwanyama (Received from Dr Martin Harrison) for *International Journal of Mathematical Education in Science and Technology*, U.K. during November and December 2003.

28. Reviewed a paper entitled " A method of constructing confounded design of the type 6x6 " by J L Bhowmik (Received from Dr Martin Harrison) for *International Journal of Mathematical Education in Science and Technology*, U.K. during February 2004.

29. Reviewed a paper entitled " A method of testing interaction in a nonreplicated two-way classification experiment (Manuscript # 189)" by A A Al-Shia and S S Yang for *Arabian Journal for Mathematical Sciences*, Riyadh, Saudi Arabia U.K. during March - May 2004.

30. Reviewed a paper entitled " The design of scoring schemes for surveys using the block total response" (Manuscript # A04-082) by Narelle F. Smith (Received from N. Balakrishnan) for *Communications in Statistics: Theory and Methods*, published by Marcel Dekker, New York, USA.

31. Reviewed a paper entitled " Exploring the concept of random sets in teaching statistics" (Manuscript # 04-205) by G. Dhomponsa and Hung T. Nguyen for *International Journal of Mathematical Education in Science and Technology*, UK, during September to December 2004.

32. Reviewed a paper entitled " Quantiles for the mixtures of normal distributions" by M. Rahman, R. Rahman and L.M. Pearson (Manuscript # 04-288) for *International Journal of Mathematical Education in Science and Technology*, UK, during February and March 2005.

33. Reviewed a paper entitled " Evaluation of linear, polynomial, Lagrange, and single variable regression models for filling 1-6 hour gaps in energy use and weather data" by David E. Claridge and Hui Chen for *International Journal of Energy Research* edited by I. Dincer (Canada) (www.interscience.wiley.com)

34. Reviewed a paper entitled " Moments of bivariate t distribution with correlated marginals" (Received from Dr K C Chang through an email) for *Journal of Probability and Statistical Science*, Taiwan during November 2004 to February 2006.

35. Reviewed a paper entitled " A truncated Cauchy distribution" by S Nadarajah and S. Kotz (Manuscript # 05-091) for *International Journal of Mathematical Education in Science and Technology*, UK, during September 2005.

36. Reviewed a paper " On the linear combination of logistic and Gumbel random variables" for *International Journal of Information and System Sciences*, Canada in April 2006.

37. Reviewed a paper "A new technique to handle missing data" by S. Gonzale, M. Rueda and A. Arcos" for *Statistical Papers, Germany* during June (Communicated by the Editor Prof. Dr. Götz Trenkler) in May 2006.

38. Reviewed a paper "Statistics with Confidence: A Comparison" by B.M.G. Kibria for *Journal of Probability and Statistical Science*, Germany during June 2006.

39. Reviewed a paper "Estimation Methods for the Multivariate t-Distribution" by S. Nadarajah and S. Kotz for *Journal of Multivariate Analysis* during November 2005 to January 2006.

40. Reviewed a paper " A Truncated Bivariate Cauchy Distribution" by S. Nadarajah and S. Kotz for *Bulletin of Malaysian Mathematical Sciences Society* during October 2006.

41. Reviewed a paper " An improved estimator to analyse missing data" by S. Gonzalez, M. Rueda and A. Arcos for *Statistical Papers* during June 2006 to January 2007.

42. Reviewed a paper " Equidistant Regression Modeling" (Manuscript No. MAS68_Blind) for *Model Assisted Statistics and Applications* during March 2007.

43. Reviewed a paper " Logistic & Bessel Random Variables: Distribution of XY" by S. Nadarajah for AJSE (Manuscript # 0611) during March 2007

44. Reviewed a paper " On the independence of Trails-Assumption in Geometric Distribution" (Manuscript # TMES 2007-0222) for *International Journal* of *Mathematical Education in Science and Technology*, UK, during March 2007.

45. Reviewed a paper " Some Posterior Distributions for the Normal Mean" by Nadarajah, Saralees (Manuscript # TMES 2007-0101) for *International Journal of Mathematical Education in Science and Technology*, UK, during March 2007.

46. Reviewed a paper " The Weibul Length Biased Distribution" by S.A. Shaban and N.A. Boudrissa *submitted to Journal of Applied Probability and Statistics, Dixie W Publishers, USA during June to August, 2007.*

47. Reviewed a paper " Approximating the Cumulative Distribution Function of Normal Distribution" by Amit Choudhury, Subasis Ray and Pradipta Sarkar submitted to *Journal of Statistical Research* during August 2007.

48. Reviewed a paper " Some Recurrence Relations for the Expectations of Function of Generalized Order Statistics for a General Form of Distribution" by Zaki Anwar, Haseeb Athar and R.U. Khan submitted to *Journal of Statistical Research* during August 2007.

49. Reviewed a paper "Computing Percentage Points of the Largest Among Student's T Random Variables" by S. Nadarajah (Manuscript # TMES 2007-0214) for *International Journal of Mathematical Education in Science and Technology*, UK, during September 2007.

50. Teaching Statistics Using Simulation Data: Application of Principal Components Analysis to Artificial Data" (Manuscript # TMES 2007-0237) for *International Journal of Mathematical Education in Science and Technology*, UK, during October 2007.

51. Reviewed a paper "Logistic Distributions" by S. Nadarajah for *Arabian Journal of Science and Engineering* (Manuscript # 0704) in December 2007.

52. Reviewed a paper "A Simple Method of Computing the Sample Size for Chi-Square Test for the Equality of Multinomial Distributions" by Neil C. Schwertman and Jeffrey A Nelsen for *Computational Statistics and Data Analysis* (Mansucript # CSDA-D-07-00919) in February 2008.

53. Reviewed a paper "Transient solution of the M/M/C queue with balking and reneging: a continued fraction approach" by R. Al-Seedy, A. Elsherbiry, S. El-Shehawy, S. Ammar for *International Journal of Modern Mathematics* (Manuscript # 080506AEEA) in May 2008.

54. Reviewed a paper " An Alternative Method for Computing Mean and Covariance Matrix of Some Multivariate Distributions" (Manuscript # TMES 2008-0070) for *International Journal of Mathematical Education in Science and Technology*, in May 2008.

55. Reviewed a paper " Pearson's Correlation Between Three Variables; Using Student's Basic Knowledge of Geometry for mathematical Statistics" (Manuscript # TMES 2008-0063) for *International Journal of Mathematical Education in Science and Technology*, during June 2008.

56. Reviewed a paper "On simple calculation of the Fisher information in hybrid censoring schemes" (Manuscript # GSTA – 2008-002) for *Statistics* during July 2008.

57. Reviewed a paper "General formulae for finding mean, variance, measures of skewness and kurtosis" (Manuscript # P35Y2008) for *Journal of Statistical Research,* during October 2008.

58. Reviewed a paper " New Contagious Distribution and Its Applications In Queuing Theory" by A. Hassan and S.B. Ahmad (Manuscript # 080428HA) for *International Journal of Modern Mathematics,* during October 2008.

59. Reviewed a paper "Population modeling with M&Ms" (Manuscript Number TMES – 2008-0106) for *International Journal of Mathematical Education in Science and Technology*, during November 2008.

60. Reviewed a paper "Stem and Leaf Analysis and its validation for moments" (Manuscript # IJSS M 0822) for *International Journal of Statistical Sciences*, during November 2008.

61. Reviewed a paper "How learning and teaching of mathematics can be made interesting: A study based on statistical analysis" by S. Abbasi and K. Iqbal (Manuscript Number TMES – 2008-0118) for *International Journal of Mathematical Education in Science and Technology*, during November 2008.

62. Reviewed a paper " Double logistic curve in regression modeling" (Manuscript # TMES – 2008-0184) for *International Journal of Mathematical Education in Science and Technology*, during December, 2008.

63. Reviewed a paper "Distribution of correlation matrix and applications" by T. Pham-Gia and N. Turkkan (Manuscript # JMVA -08-200) for *Journal of Multivariate Analysis* during December 2008.

64. Reviewed a paper “Moments from Cumulants and Vice-Versa” (Manuscript # TMES 2008-0186) for *International Journal of Mathematical Education in Science and Technology*, during June 2008.

65. Reviewed a paper "Wrongly assessing linearity in one variable may lead to gross distribution of correlation matrix and applications" by Hutchinson Timothy (Manuscript # TMES 2009-0006) for *International Journal of Mathematical Education in Science and Technology*, during February, 2009.

66. Reviewed a paper “Toward a Reference Curve for the Grades of Each Course" (Manuscript ID # TMES- 2009-0089) for *International Journal of Mathematical Education in Science and Technology* in September 2009.

67. Reviewed a paper “Testing the Equality of Several Covariance Matrices (Manuscript ID# JSCS-2008-0151.R1) by Pham-Gia, Thu and Turkkan, Noyan for *Journal of Statistical Computation and Simulation* between 05 October 2009 and 04 December 2009.

68. Reviewed a paper, “Bimatrix variate generalised beta distributions” by Author: Diaz-Garcia, Jose A. And Gutierrez-Jaimez, Ramon submitted *to Statistical Papers* during August to December, 2009.

69. Reviewed a paper “The effect of activity based instruction in conceptual development of seventh grade students in probability” submitted to *International Journal of Mathematical Education in Science and Technology* (Manuscript TMES-2009-0178) between October 2009 and December 2009.

70. Reviewed a paper “The sum of alternating series of odd powers of the reciprocals of odd positive integers”, submitted to *Journal of Mathematics, Statistics and Allied Fields* during March 2010.

71. Reviewed a paper "Use of total possiblistic uncertainty as a measure of students' modeling capacities" for *International Journal of Mathematical Education in Science and* Technology (Manuscript TMES 2010-0025) during March 2010.

72. Reviewed a paper "."Deal, or No Deal: Using games to improve student learning, retention, and decision making" by Chow, Alan; Woodford, Kelly; Maes, Jeanie for *International Journal of Mathematical Education in Science and* Technology (Manuscript TMES 2010-0025) during May 2010.

73. Reviewed “Distribution of the sample correlation matrix and applications” for the journal *Statistics* (Manuscript GSTA-2009-0137) during July 2010.

74. Reviewed a paper "An elementary proof of independence of least squares estimators of regression coefficients and of variances in linear regression" for *International Journal of Mathematical Education in Science and* Technology (Manuscript No. TMES 2010-0122) during September 2010.

75. Reviewed a paper “The bivariate noncentral chi-square distribution - a compound distribution approach” (Manuscript No. AMC-D-09-02989) for *Applied Mathematics and Computation.*

76. Reviewed a paper "Sub-Nyquist artifacts in one and multi-dimensional sampling” for *International Journal of Mathematical Education in Science and* Technology (Manuscript No. TMES 2010-0219) during December 2010.

77. Reviewed a paper "Ask Marilyn in the Mathematics Classroom: Probability Questions” for *International Journal of Mathematical Education in Science and* Technology (Manuscript No. TMES-2011-0001) during February 2011.

78. Reviewed a paper "Sample size for the z test and Its confidence interval” by Liu, Xiaofeng for *International Journal of Mathematical Education in Science and* Technology (Manuscript No. TMES - 2011-0281) during April 2011.

79. Reviewed a paper “ The Multivariate Skew-slash t and Skew-slash Cauchy Distributions” Manuscript No. MASA351.2011)” for *Model Assisted Statistics and Applications* during April, 2011.

80. Reviewed a paper “Two New Pascal Type Triangles And Their Association with Coin Tossing Experiment” for Aligarh Journal of Statistics during May 2011.

81. Reviewed a paper “Randomly Weighted Average with Beta Random Proportions” by H. Homei (Manuscript # AJSE-D-11-11620) *for Arabian Journal for Science and Engineering* during August and September 2011.

82. Reviewed a paper “Paradoxes and Counterexamples in Teaching and Learning of Probability at University” by Sergiy Klymchuk and farida Kachapova (Manuscript # TMES-2011-0217) during August and September.

83. Reviewed a paper "What's the Probability of a Rational Ratio being Irreducible?." for International Journal of Mathematical Education in Science and Technology (Manuscript # TMES-2011-0093) during May to August.

84. Reviewed a paper “Moments of a particular random variable via Stirling numbers" for International Journal of Mathematical Education in Science and Technology (Manuscript # TMES-2011-0306) during November.

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