

Dr Mudassir Uddin

Curriculum Vitae
last updated Monday, April 24, 2011

PERSONAL INFORMATION

Place of Birth: Karachi, Sindh, PAKISTAN
Citizenship: Pakistani.
Languages: Urdu, English.

Home Address:

C-70, Staff Town
Karachi University Campus
Karachi - 75270

Business Address:

University of Karachi
Department of Statistics
Karachi
Karachi – 75270, Pakistan

Current Position:

Professor & Chairman
Department of Statistics
University of Karachi
Pakistan.

E-mail: mudassir2000@hotmail.com, muddin@uok.edu.pk.

EDUCATION

Ph.D. 1999

Statistics (University of Aberdeen, Aberdeen, United Kingdom)
Dissertation Title: *Simplified Principal Components Analysis*.
Supervisor: **Dr. Ian T. Jolliffe**.

M.Sc. 1996

Statistics (University of Oxford, Oxford, United Kingdom)
Dissertation Title: *Multivariate Density Estimation by Projection Pursuit Methods*.
Supervisor: **Dr. Francis H. C. Marriott**

M.Phil. 1991

Statistics (University of Karachi, Karachi, Pakistan)
Dissertation Title: *Sweep-Out Components Analysis*.
Supervisor: **Dr. M. Atiqullah**

M.Sc. 1986

Statistics (University of Karachi, Karachi, Pakistan)

By Course work.

Technical Report Title: *Computational Parts of Factor Analysis.*Supervisor: **Dr. Junaid Sagheer Siddiqui****PROFESSIONAL ACADEMIC & TEACHING EXPERIENCE****a) Teaching:**

<u>POST</u>	<u>DEPARTMENT/INSTITUTION</u>	<u>PERIOD</u>
Teacher (Full Time)	<i>Department of Statistics</i> University of Karachi	13-11-1986 to 28-02-1987
Research Analyst/Assistant	<i>Community Health Sciences</i> The Aga Khan University	01-03-1987 to 28-03-1988
Lecturer	<i>Department of Statistics</i> University of Karachi	29-03-1988 to 28-11-1999
Assistant Professor	<i>Department of Statistics</i> University of Karachi	29-03-1999 to 31-12-2000
Associate Professor	<i>Department of Statistics</i> University of Karachi	01-01-2001 to 10-11-2005
Professor	<i>Department of Statistics</i> University of Karachi	11-11-2005 till todate

VISITING FACULTY MEMBERS AT VARIOUS DEPARTMENTS OF KU

<u>Program</u>	<u>Course</u>	<u>Department</u>	<u>Session</u>
M.S.	Regression Analysis	Statistics	2009-2011
M.S.	Advanced Econometrics	Statistics	2009-2010
M.S.	Research Methodology	Dean, Science	2010
M.Phil/PhD	Biostatistics Methods	HEJ	2008
M.Phil	<i>Biostatistics in Pharmacy</i>	<i>Faculty of Pharmacy</i>	2002-2003
MCS Program	<i>Advanced Statistical Methods</i>	<i>Computer Science</i>	2004-2010
M.A. Program	<i>Economics and Finance</i>	<i>Economics</i>	2003, 2006
M.Sc. Program	<i>Biostatistical Methods</i>	<i>Environmental Studies</i>	2006-8
M.Sc. Program	<i>Active Maths and Design</i>	<i>M.Sc (Applied Statistics)</i>	2007-2011
M.Com Program	<i>Inferential Statistics</i>	<i>Commerce</i>	2003
MBA Program	<i>Business Statistics</i>	<i>Business Administration</i>	2003,2006-8

M.Sc. Program	<i>Computational Statistics</i>	<i>Microbiology</i>	2002, 2004
M.Sc. Program	<i>Social Statistics</i>	<i>Social Work</i>	1990-1991
M.Sc. Program	<i>Biostatistics</i>	<i>Biochemistry</i>	1989-1990
BS Program	<i>Statistical Methods</i>	<i>Computer Science</i>	1993-1994, 2000-2003 2006-2010
BS (Actuarial)	<i>Probability Theory</i>	<i>Statistics</i>	2005-2011
Post Graduate Diploma	<i>Statistics</i>	<i>Statistics</i>	2000-2003, 2011

FIELDS OF INTERESTS & SPECIALIZATIONS

Mudassir Uddin's research interests are in *Computational and Graphical Statistics, Non-parametrics* and *Multivariate Analysis* especially in *Dimension Reducing Techniques and related areas*, although he has worked in *Applied Statistics*, and continues to maintain an interest in *Statistical Computing*. Standard commercial statistical packages are good for routine analyses of sets of data without non-standard features. Commercial packages are fast and implement algorithms and procedures that were seen to be viable at the time the package was written. For *statistical research* one requires more flexibility than these packages generally provide. A statistician has an idea for a non-standard approach to the problem and wants to try it out. In these situations a more flexible system is required. It is not the time it takes the computer to execute the commands that is important but rather the time it takes the statistician to develop new software. New statistical methods need good software if they are going to be adopted rapidly, so he maintains an interest in *Statistical Computing*, particularly in the packages **R, S-PLUS, SAS, STATA and MINITAB** (on which he has written several codes related to *Projection Pursuit Density Estimation methods* and different *Dimension Reducing techniques*). Currently he is working on Financial Econometrics with reference to Pakistani data sets. Name is in the approved list of Ph.D. supervisors of HEC.

RESEARCH GUIDANCE

M.Phil/PhD Degree:

Currently a student is working on the problems in simplification and interpretation of some multivariate techniques for M.Phil/PhD Degree.

M.Sc. Degree

M.Sc. Thesis:

<u>Students</u>	<u>Title</u>	<u>Year</u>
Nida Butt	“Causality Analysis between Financial Development and Economic Growth”	2009

M.Sc. Reports:

<u>Students</u>	<u>Title</u>	<u>Year</u>
Muhammad Shahbaz Khan	“Some Comments on the Multivariate Exponential Weighted Moving Average Control Charting Schemes”	2000
Muhammad Rizwan Basar	“Principal Component Analysis”	2000
Nosheen Akhtar	“Shape and Size Constrained Principal Component Analysis”	2001
Surraya Burhan	“Methods of Extracting Simple Structure”	2001
Faiza Ghulam Nabi	“Spatial Analysis on Plants Population Using Geostatistics”	2002
Humaira Khan	“Factor Analysis”	2002
Fariha Khan	“Influential Observation in Regression Analysis”	2003
Farah Afzal	“Principal Components in Regression Analysis”	2003
Marium Rasheed	“Canonical Correlation Analysis with Statistical Packages”	2004
Urooba Tabbasum	“Graphical Representation of Multivariate Data”	2004
Fareesa Kamal	“Detection of Outliers”	2005
Sameera Kamal	“Variable Selection in Linear Regression Model”	2005
S.Tauqeer Ahmed Hashmi	“Discriminant Analysis”	2006
M. Furqan Saleem	“Multivariate Analysis Using R”	2006
Shoaib Aqeel	“Population projection using Rank-size Rule”	2007
Mehvish Hussain	“Investigating Data with Andrews’ Plot”	2007
Nazia Abdul Qadir	“Analyzing the Relationships between Economic Variables using Canonical Correlations”	2008
Muhammad Danish	“Visualizing Multivariate Data”	2008
Muhammad Waqqar	“Population projection using Rank-size Rule”	2009
Adnan Danish	“R, Excel or RExcel”	2010
Tanzila Yaqoob	“Survival Analysis Using STATA”	2010

PEER-REVIEWED PUBLICATIONS

1. Nabi, F. G. and Uddin, M. (2007) *Impact of Regime Shifting on Pakistan's Economy*. Karachi University Journal of Science, 35, 11-22. (Pakistan).
2. Khan, A.; Solangi, M.S.; Nawab, B.; and Uddin, M. (2007) *Efficacy of Fertinmakil and Carbofuran agent Nematode populations and growth and yield parameters of two wheat varieties*. Int. J. Biotech., 4(2-3), 237-240. (Pakistan)
3. Uddin, M. (2005) *Interpretable Dimension Reducing Tools: Alternative to Principal Components Analysis*. Karachi University Journal of Science, 33(1 & 2), 57-70. (Pakistan)
4. Jolliffe, I. T; Trendafilov, N. T. and Uddin, M. (2003) *A Modified Principal Component Analysis based on the LASSO* Journal of Computational and Graphical Statistics, 12, 531-547. (USA).
5. Uddin, M. and Meenai, Y. (2003) *A Proposed Minitab Macro for enhancing the Correspondence Analysis*. Proc. Islamic Society of Statistical Sciences, 113-117. (Pakistan)
6. Uddin, M. and Nabi, F.G. (2003) *Spatial Analysis on Plant Population using Geostatistics*. Karachi University Journal of Science, 31(1), 17-24. (Pakistan)
7. Jolliffe, I. T; Uddin, M. and Vines, S. K. (2002) *Simplified EOFs --- Three Alternatives to Rotation* Climate Research, 20(3), 271-279. (Germany).
8. Uddin, M. and Shaukat, S.S. (2001) *Simplified Principal Components*. Proc. Eighth Statist. Seminar., Department of Statistics, University of Karachi, Pakistan .
9. Uddin, M. (2001) *Projection Pursuit Density Estimations*. Proc. Eighth Statist. Seminar., Department of Statistics, University of Karachi, Pakistan.
10. Shahbaz., M. K. and Uddin, M. (2001)) *Some Comments on the Multivariate Exponentially Weighted Moving Average Control Charting Schemes* Proc. Sixth Statist. Seminar., Department of Statistics, University of Karachi, Pakistan.
11. Jolliffe, I. T and Uddin, M. (2000) *The Simplified Component Technique: An Alternative to Rotated Principal Components*, Journal of Computational and Graphical Statistics, 9, 689-710. (USA).
12. Uddin, M. (1998) *Multivariate Density Estimation by Projection Pursuit Methods*. J. Appl. Statist. Sci., 7, 113-135. (USA).
13. Zaidi, R. A., Shaukat, S.S., and Uddin, M. (1997) *A Demographic Study of Dysdercus Koenigii (Fabr.) (Hemiptera: Pyrrhocoridae) With Some Statistical Considerations of Biometric Functions*. Scientific Khyber, 10, 85-94.
14. Husain, G., Shaukat, S.S., and Uddin, M. (1996) *Robust estimation of species diversity: Application of some computer intensive methods* Proc. Sixth Statist. Seminar., Department of Statistics, University of Karachi, Pakistan.
15. Uddin, M. (1994) *An alternative approach to multivariate components analysis*. Proc. Fifth Statist. Seminar. pp. 100-108. Department of Statistics, University of Karachi, Pakistan.
16. Uddin, M., Atiqullah, M., and Shaukat, S.S. (1994) *Sweep-Out component analysis as an ordination model: An alternative to principal component analysis*. Coenoses, 9, 155-158. (Italy).
17. Atiqullah, M. and Uddin, M. (1993) *Sweep-Out Components Analysis*. J. Appl. Statist. Sci., 1(1), 67-79. (USA).
18. Shaukat, S.S. and Uddin, M. (1989) *An application of canonical and principal component analysis to the study of desert environment*. Abstracta Botanica, 13, 17-45. (Budapest).
19. Shaukat, S.S. and Uddin, M. (1989) *A comparison of principal component and factor analysis as an ordination model with reference to desert ecosystem*. Coenoses., 4, 15-28. (Italy).

20. Shaukat, S.S. and Uddin, M. (1987) A heuristic approach to minimization of sampling effort and detection of pattern in vegetation surveys. *Mod. Trends Pl.Sci. Res. Pak.* 18-23.
21. Uddin, M., Siddiqui, J.S., and Shaukat, S.S. (1986) A computational approach to factor analysis. *Proc. Fourth Statist. Seminar.* 94-101.

AWARDS AND HONORS

1. **Central Overseas Training Scholarship** from the Ministry of Education, Government of Pakistan to pursue higher studies at Britain (UK).
2. **One year Award** from the Faculty of Mathematical Science, University of Aberdeen, UK.

INVITED LECTURES

1. Lecture on "Univariate & Bivariate Distributions" delivered at the "Six Day In-Service Training Course in Statistics for the College Teachers" at the Higher Education Commission, Reginal Office, Karachi from 26-31 July 2004.
2. Lecture on "Transformation of the Random Variables" delivered at the "Six Day In-Service Training Course in Statistics for the College Teachers" at the Higher Education Commission, Reginal Office, Karachi from 26-31 July 2004.
3. Lecture on "Basic Methods for Biostatistics - I" delivered at the "Three Day In-Service Training Course in Statistics for the College Teachers" at the Higher Education Commission, Reginal Office, Karachi from 10-12 June 2001.
4. Lecture on "Basic Methods for Biostatistics - II" delivered at the "Three Day In-Service Training Course in Statistics for the College Teachers" at the Higher Education Commission, Reginal Office, Karachi from 10-12 June 2001.

PEER-REVIEWED CONFERENCE SYMPOSIA, PAPERS & POSTERS

1. Paper on "A Proposed Minitab Macro for enhancing the Correspondence Analysis", In collaboration with Yaseen Meenai, *Presented at the Seminar on Bioinformatics, Information Technology and Biostatistics* (December 27-28, 2003), *National College of Business Administration and Economics, Lahore.*
2. Paper on "Interpretable Dimension Reducing Techniques" Presented at the Workshop on Statistical Methods in Research with special reference to Applied Biology (January 27-29, 2003).
3. Paper on "Sampling Designs for Acquisition of field data in Nematology", In collaboration with S. Shahid Shaukat, Presented at the National Symposium on Nematology (January 7-9, 2002).
1. Paper on "Projection Pursuit Density Estimation", *Presented at the Eighth Statist. Seminar., Department of Statistics, University of Karachi, Pakistan* (July 12-14, 2001).
2. Paper on "Simplified Component Technique Analysis", In collaboration with S. Shahid Shaukat. *Presented at the Eighth Statist. Seminar., Department of Statistics, University of Karachi, Pakistan* (July 12-14, 2001).

3. Paper on "Some Comments on the Multivariate Exponentially Weighted Moving Average Control Charting Schemes", In collaboration with M. Shahbaz Khan, *Presented at the Eighth Statist. Seminar., Department of Statistics, University of Karachi, Pakistan* (July 12-14, 2001).
4. Paper on "Simplified EOFs --- Three Alternatives to Rotation ", In collaboration with Professor Ian T Jolliffe and Vines, S.K., Presented at 8th International Meeting on Statistical Climatology, University of Luneburg, Netherland, (March 12-16, 2001).
5. Poster on "Least Absolute Shrinkage and Selection Operator-based Principal Components", In collaboration with Professor Ian T Jolliffe, Presented at the Geometry of Data Analysis, The Annual Open University Statistics Conference, 7-8 January, 1999 at St. Hugh's College, Oxford, England.
6. Paper on "Simplified Component Technique", Presented at the Royal Statistical Society Conference 1998, University of Strathclyde, Glasgow, Scotland, (September 6-11, 1998).
7. Paper on "Projection Pursuit Density Estimation", Presented in the 19th Research Students Conference in Probability and Statistics, University of Southampton, England (March 25-28, 1996).
8. Paper on "An alternative approach to multivariate components analysis", Presented at the Fifth Statistics Seminar, University of Karachi, Pakistan (February 6-7, 1994).
9. Paper on "A Comparison of Principal Component And Factor Analysis As An Ordination Models With Reference To A Desert Ecosystem", In collaboration with S. Shahid Shaukat, Presented in the First Symposium of Statistics in Science and Technology, Civic Centre, Karachi, Pakistan (July 8-9, 1987).
10. Paper on "A Computational Approach To Factor Analysis", In collaboration with Junaid S. Siddiqui and S. Shahid Shaukat, Presented at the Fourth Statistics Seminar, University of Karachi, Pakistan (September 3-4, 1986).

ADMINISTRATIVE EXPERIENCE

1. Working as **Chairman**, Department of Statistics, University of Karachi since 14 April 2011 till todate.
2. Served as **Chairman**, Department of Business Administration, University of Karachi since 23 December 2003 to 18 March 2004.
3. Served as **Director Admissions**, University of Karachi since 16 January 2003 to 06 March 2004.
4. Served as **Deputy Director**, Evening Program since 25 June 2002 to 17 December 2003.
5. Served as **Student Adviser** since 1st January 2003 to todate at the Department of Statistics, University of Karachi.
6. Served as **Member of Student Advisers Committee** during 2000-2002.
7. Served as **Member** (since 1989) on several Admissions Committees to finalize admissions on Departmental/Central basis.

REFERENCES

Professor Ian T. Jolliffe

Department of Mathematical Sciences, Meston Building, King's College, Aberdeen AB24 3UE, Scotland, UK.

Current Address: 30 Woodvale Road, Gurnard, Cowes, Isle of Wight, P031 8EG, UK.

E-mail: ian@sandloch.fsnet.co.uk.

Dr F.H.C. Marriott

Department of Statistics, 1 South Parks Road, Oxford OX1 3TG, England, UK.

E-mail: marriott@stats.ox.ac.uk.

Professor Dr Junaid S. Siddiqui

Department of Statistics, University of Karachi, Karachi-75270

Tel: 9243131-7 lines, Ext 2332.

Professor Dr S.M. Aqil Burney

Department of Computer Science, University of Karachi, Karachi-75270

E-mail: burney@computer.org.

Professor Dr Ejaz Ahmed

College of Business Management, Karachi, Pakistan

E-mail: eahmed.sqc@gmail.com, eahmed@iobm.edu.pk.