

C.V

DR. MUHAMMAD ASIF

ACADEMICIAN, STATISTICIAN, AND DATA SCIENTIST

OBJECTIVE

I love my job as a teacher, research supervisor and statistical consultant, advising students, researchers, and traders on the use of statistical methodology and developing new statistical models. Now, I want to be part of success in an environment of growth and excellence.

SKILLS

My teaching and research experience in Statistics, OR , and Data Science have provided me high level of skills of Statistical Modelling, Programming, Communication and Presentation.

CONTACTS

Email: m.asif609@gmail.com

Phone: +923018996009

EXPERIENCE

ASST. PROFESSOR • UNIVERSITY OF MALAKAND, PAKISTAN • JULY 2014-

Research Supervision:

MPhil: Awarded: 1, Thesis Submitted: 4, In-Progress: 11

PhD: None

Courses taught: •Statistical Packages (SPSS, MiniTab), •Probability and Distribution Theory, •Statistical Design and Analysis of Experiments, •Regression Analysis, •Econometrics, •Survival Analysis, •Time Series Analysis and Forecasting, •Multivariate Analysis, and •Biostatistics.

Additional Responsibilities:

- Head of Department of Statistics, University of Malakand
- Member of Board of Faculty, University of Malakand.
- Member of PhD program review Committee, QEC, UoM.
- Member of Graduate Study Committee, Department of Statistics, to evaluate student's research proposals and thesis.
- Focal Person Office of Research Innovation and Commercialization, Department of Statistics, University of Malakand.
- Member of Self Assessment team, Quality Enhancement Cell (QEC), University of Malakand
- Convener of Disciplinary/UFM Committee, Department of Statistics

SPORT STATISTICIAN • BUZZ SPORTS LTD, UK • NOV 2010 –MAR 2012

Summary: I worked in this company as part-time along with my Ph.D. in Sport Statistics at the University of Salford, UK. I combined my skills in statistical modelling with expert knowledge of cricket to develop pricing model for BuzzSport Ltd, a betting company in UK. I did most of the work on the models, from the theoretical basis through data management to benchmarking of the model, independently.

LECTURER • UNIVERSITY OF MALAKAND, PAKISTAN • SEP 2006 –JUNE 2013

LECTURER • KHYBER GROUP OF COLLEGES, PAKISTAN • SEP 2005–SEP 2006

JOURNAL PUBLICATIONS

- **Asif, M.** & McHale, I.G (2016) In-play forecasting of win probability in One-Day International cricket: a dynamic logistic regression model. *International Journal of Forecasting*, 32 (1), 34-43 (**HEC Best Research Paper Award 2015/16**)
- McHale, I.G & **Asif, M.** (2013) A modified Duckworth–Lewis method for adjusting targets in interrupted limited overs cricket. *European Journal of Operational Research*, 225, 353-362
- Nazir, N., Jan, M. R., Ali, A., **Asif, M.**, Idrees, M., Nisar, M., Zahoor, M., and Naser, M. (to appear). Prevalence of Hepatitis C Virus Genotypes and Potential Transmission Risks in Malakand Khyber Pakhtunkhwa, Pakistan. *Virology Journal*.

CONFERENCES, WORKSHOPS, AND SEMINARS

Asif, M. and McHale, I.G.(2017) “Estimating margin of victory in Twenty-20 International Cricket” Paper presented at MathSport International Padua, Italy.

Asif, M. and McHale, I.G.(2011) “Applications of Duckworth and Lewis method “ Oral presentation in 53rd International Conference of OR in Sports stream, organized by The OR Society the United Kingdom

Asif, M., McHale, I.G. (2011) “Using rain rule to forecast matches in limited overs cricket ” Oral Presentation in 3rd International Conference of Mathematics in Sport organized by Institute of Mathematics and its Applications (IMA) United Kingdom

Attended the three days workshop (March 2011) on the topic “All models are wrong... Model uncertainty and selection in complex models” organized by the Johann Benoulli Institute and Department of Philosophy, University of Groningen, Netherland

Attended the two days workshop (March 2008) on the topic “Use of Auxiliary information in Sampling” organized by Center for Advance Studies in Mathematics, Lahore University of Management Sciences, Pakistan.

AWARDS AND RESEARCH GRANT INCOME

May 2009, award from Salford Business School, University of Salford, UK, worth £ 5,200/-

January 2011, research project BuzzSports Ltd, UK, worth £ 21,950/-

March 2011, travel grant award from University of Salford, UK, to attend International workshop at University of Groningen, Netherlands EU.

June 2011, grant from University of Salford, UK, to present paper at International Conference in Salford. UK

September 2011, travel grant award from University of Salford, UK, to present paper at International Conference in Nottingham, UK

April 2012, one-year financial assistance from University of Malakand, Pakistan, for my PhD study worth £ 9,000/-

June 2017, travel grant by Higher Education Commission, Pakistan, to present paper at International Conference in Italy EU.

November 2017, Best Research Paper Award 2015/16 by Higher Education Commission, Pakistan.

EDUCATIONAL QUALIFICATIONS

PH.D • UNIVERSITY OF SALFORD, UK • 2009-2013

Field of Specialization: Statistics and Operational Research

Research Summary: The main title of the PhD project was “*Statistical modelling in Limited Overs International Cricket*”. The thesis addressed two areas related to the International Cricket. First, investigating the issue of resetting targets in rain interrupted matches and developed a new model and modelling approach to this end. Second, a forecasting model, we referred it as Dynamic Logistic Model, to predict match outcome probabilities in-play.

Research Competency: The PhD work is published in two high quality peer-reviewed International journals. Further, the work was presented in the two international conferences held in Nottingham and Salford, UK respectively.

Honor: A1, award of PhD with no correction

M.PHIL • DEPARTMENT OF STATISTICS, UNIVERSITY OF PESHAWAR • 2007-2009

Subjects: Regression Analysis, Applied Multivariate Analysis, Modeling and Simulation, Advanced Econometrics, Data Processing and Computer programming, Logical Reasoning and Research Methods, Survival Data Analysis, Time Series Analysis and Forecasting.

Result: 3.1 CGPA

Note: Only course-work was completed successfully at the University of Peshawar, for research I got admission in MPhil (Research only) at the University of Salford, UK in March 2009. In January 2011, after the achievement of the research grant income from BuzzSports Ltd, I submitted my MPhil thesis for leading to PhD. Hence, I passed the Transfer Assessment Examination at Salford University that leads to successfully accomplishment of my PhD in July 2013.

M.Sc • DEPARTMENT OF STATISTICS, UNIVERSITY OF PESHAWAR, PAKISTAN • 2003-2005

Subjects: Statistical Methods, Probability and Distribution theory, Sampling and Survey methods, Linear Algebra & Numerical Analysis, Data Processing and Statistical Computing, Design and Analysis of Experiments, Statistical Inference, Regression Analysis and Econometrics, Multivariate Analysis, Population Studies.

Results: First Class

B.Sc • GOVT. COLLEGE PESHAWAR, PAKISTAN • 2001-2003

Subjects: Mathematics-A (Calculus and Analytical Geometry, Mathematical Technique) Statistics-I (Statistical Methods, Introduction to Probability and distribution, some discrete and continuous probability distribution, Simple linear Regression and Correlation) , Statistics-II (Estimation, Testing of Hypothesis, ANOVA models), Computer Science (C/C++, Discrete Mathematics, Algorithm and Flow-Chart)

Results: First Class

Note: In all above qualifications, the language of teaching and examinations conducted was in English

STATISTICAL PACKAGES/PROGRAMMING SKILLS

R LANGUAGE • 2010-PRESENT

Summary: All my statistical computing, data management, and graphics are done using R in the RStudio, a powerful and productive user interface for R language. Apart from using R system libraries. I am acquainted with recently published R libraries. For example, to create R packages for my personal usage I use 'devtools' and 'roxygen2' libraries. To make dynamic document for my data analysis I use 'rmarkdown'. For data visualization and management I am fluent in 'ggplot2' and 'dplyr' libraries respectively. Moreover, for statistical modelling apart from commonly used system library 'stats' I also have advance skills using 'minpack.lm' to fit non-linear models, for example McHale and Asif (2013) model for Duckwoth-Lewis method.

SPSS-MINITAB PACKAGE

Summary: Although mostly I use R for the data Analysis. I also have advance skills in using SPSS and Minitab packages for data analysis. This is because firstly, prior to 2010, I extensively used these packages for statistical computing and graphics. Secondly, still we train our students in using SPSS-Minitab as learning these packages is the part of their syllabus. Moreover, the research students of biological sciences prefer to used because of the GUI features.

C/C++

Summary: During my B.Sc and M.Sc degree crouses I had learned programming skills in C/C++. All my practical work of Statistical Inference where the parameter estimates were not derived analytically, for example by Maximum-Likelihood Estimation, I used to write C/C++ code to follow Numerical Analysis approach. For example, Newton's Raphson's method. The same job can now be done more easily and effectively in R. Therefore, it is been long time that I have never used C/C++.

OTHER COMPUTER SKILLS

• **EndNote X8 • MS-Word • MS-Excel • MS-PowerPoint • Dropbox**