Muhammad Yaseen

Curriculum Vitae

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Profile

- **Data Scientist** with **twenty-two years of teaching & research experience** executing data driven decisions & solutions to increase efficiency & accuracy
- **Experienced at** developing **statistical models**, using predictive data modeling & analyzing data algorithms to deliver insights & implement action-oriented solutions to complex problems
- **Proficient in** developing **R package/software** for **statistical analysis & machine learning**
- **Looking to use** my academic & professional qualification to manage **statistical machine learning** & data related solutions to achieve **research & business goals**

Work Experience

Research Methodology & Monitoring & Evaluation Expert	*Asian Development Bank - BISP, Pakistan*	*2021-03-26 to Present*
Assistant Professor	*University of Agriculture, Faisalabad*	*2014-02-25 to 2021-03-25*
Lecturer	*University of Agriculture, Faisalabad*	*2003-10-25 to 2014-02-24*
Teaching Assistant	*Dept. of Statistics, UNL, Lincoln-NE, USA*	*2009-08-01 to 2012-05-11*
Statistician	*UNMC, Lincoln-NE, USA*	*2009-03-01 to 2012-05-11*
Lecturer	*Univ. of Agriculture, Faisalabad*	*2002-12-23 to 2003-10-24*
Lecturer	*G.C. University, Faisalabad*	*2002-11-01 to 2002-12-21*

Education & Qualifications

Doctor of Philosophy (Statistics)	*University of Nebraska, Lincoln-NE, USA*	*2012*
Master of Philosophy (Statistics)	*University of Agriculture, Faisalabad-Pakistan*	*2005*
Master of Science (Statistics)	*University of Agriculture, Faisalabad-Pakistan*	*2001*

Awards & Academic Distinctions

- **Research Productivity Allowance (RPA-2012**, Category G) by the Pakistan Council of Science & Technology, Islamabad, Pakistan
- *Higher Education Commission (HEC) Pakistan* **Approved PhD Supervisor**
- **PhD scholarship** under the Faculty Development Program of University of Agriculture-Faisalabad
- **Teaching Assistant (TA)** at **University of Nebraska-Lincoln USA** during PhD studies
- **Research Assistant (RA)** at **University of Nebraska-Lincoln USA** during PhD studies
- **First Position** in **MPhil** (Statistics)
- **Second Position** in **MSc** (Statistics)

Software Skills

- *Proficient in:*

R	**Python**	**SciPy**	**Pandas**	**SciKit-Learn**	**matplotlib**
Seaborn	**SparkR**	**tensorflow**	**SQL**	**LaTeX**	**markdown**
git	**SAS**	**SPSS**	**Eviews**	**Mathematica**	**Maxima**

- *Conducted **forty-seven** computer aided statistical workshops as a resource person*
- *On the training panel of National Institute of Banking & Finance (**NIBAF**), State Bank of Pakistan (**SBP**), Karachi, Pakistan & National Institute of Managmnt (**NIM**), Lahore, Pakistan*

Software/Packages Developed

- *Developed the following **R packages/software**:*

agriTutorial	*Tutorial Analysis of Some Agricultural Experiments*
bayesammi	*Bayesian Estimation of the Additive Main Effects and Multiplicative Interaction Model*
baystability	*Bayesian Stability Analysis of Genotype by Environment Interaction (GEI)*
DiallelAnalysisR	*Diallel Analysis with R*
dmai	*Divisia Monetary Aggregates Index*
eda4treeR	*Experimental Design and Analysis for Tree Improvement*
gvcR	*Genotypic Variance Components*
PakPC2017	*Pakistan Population Census 2017*
PakPMICS2014Ch	*Multiple Indicator Cluster Survey (MICS) 2014 Child Questionnaire Data for Punjab, Pakistan*
PakPMICS2014HH	*Multiple Indicator Cluster Survey (MICS) 2014 Household Questionnaire Data for Punjab, Pakistan*
PakPMICS2014HL	*Multiple Indicator Cluster Survey (MICS) 2014 Household Listing Questionnaire Data for Punjab, Pakistan*
PakPMICS2014Wm	*Multiple Indicator Cluster Survey (MICS) 2014 Women Questionnaire Data for Punjab, Pakistan*
PakPMICS2018	*Multiple Indicator Cluster Survey (MICS) 2017-18 Data for Punjab, Pakistan*
PakPMICS2018bh	*Multiple Indicator Cluster Survey (MICS) 2017-18 Birth History of Children Questionnaire Data for Punjab, Pakistan*
PakPMICS2018fs	*Multiple Indicator Cluster Survey (MICS) 2017-18 Children Age 5-17 Questionnaire Data for Punjab, Pakistan*
PakPMICS2018hh	*Multiple Indicator Cluster Survey (MICS) 2017-18 Household Questionnaire Data for Punjab, Pakistan*
PakPMICS2018mm	*Multiple Indicator Cluster Survey (MICS) 2017-18 Maternal Mortality Questionnaire Data for Punjab, Pakistan*
PakPMICS2018mn	*Multiple Indicator Cluster Survey (MICS) 2017-18 Men Questionnaire Data for Punjab, Pakistan*
ppcSpatial	*Spatial Analysis of Pakistan Population Census*
PSLM2015	*Pakistan Social and Living Standards Measurement Survey 2014-15*
qccrs	*Quality Control Charts under Repetitive Sampling*
rgsp	*Repetitive Group Sampling Plan Based on Cpk*
stability	*Stability Analysis of Genotype by Environment Interaction (GEI)*
StroupGLMM	*R Codes and Datasets for Generalized Linear Mixed Models: Modern Concepts, Methods and Applications by Walter W. Stroup*
SupMZ	*Detecting Structural Change with Heteroskedasticity*
VetResearchLMM	*Linear Mixed Models: An Introduction with Applications in Veterinary Research*

- *Developed the following LaTeX **packages/software**:*

UAFSynopsis   *LaTeX class for the Synopsis of the University of Agriculture, Faisalabad-Pakistan*

UAFThesis   *LaTeX class for the Thesis of the University of Agriculture, Faisalabad-Pakistan*

PakJAS   *LaTeX class for Pakistan Journal of Agricultural Sciences*

Research Interests

- *Data Science*
- *Machine Learning*
- *R, Python, LaTeX, markdown & Reproducible Research*
- *Statistical Modeling & Computing*
- *Spatial & Temporal Modeling*
- *Generalized Linear Mixed Models*
- *Multivariate Techniques & Analysis*
- *Design & Analysis of Experiments*
- *Econometrics*

Publications

18 i10-index, 15 h-index & 955 Citations (Since 2007)

Books

1. Shah, D., Hussain, K. S., Khan, M. I., **Yaseen, M.**, Kakli, M. B., Piracha, Z. F., Zia, M. A., and Javed, M. I. (2021). *Pakistan Education Statistics 2017-18*. National Education Management Information System (NEMIS), Academy of Educational Planning & Management (AEPAM), Islamabad, Pakistan. ISBN: 978-969-444-115-3 https://myaseen208.github.io/PakEduStat2017-18/.

Refereed Research Papers

1. Mehmood, K., Bao, Y., Saifullah, Bibi, S., Dahlawi, S., **Yaseen, M.**, Abrar, M. M., Srivastava, P., Fahad, S., and Faraj, T. K. (2022). Contributions of Open Biomass Burning and Crop Straw Burning to Air Quality: Current Research Paradigm and Future Outlooks. *Frontiers in Environmental Science* **10**, 854292. https://doi.org/10.3389/fenvs.2022.852492 **(Impact Factor: 4.24)**.

2. Bao, Y., Mehmood, K., Saifullah, **Yaseen, M.**, Dahlawi, S., Abrar, M. M., Khan, M. A., Saud, S., Dawar, K., Fahad, S., and Kh.Faraj, T. (2021). Global research on the air quality status in response to the electrification of vehicles. *Science of The Total Environment* **795**(3), 148861. https://doi.org/10.1016/j.scitotenv.2021.148861 **(Impact Factor: 7.963)**.

3. Chattha, W. S., Ahmad, H. B., Farooq, M. A., Shafqat, W., **Yaseen, M.**, Ihsan, M. Z., Alghabari, F., and Alzamanan, S. M. (2021). A novel parent selection strategy for the development of drought-tolerant cotton cultivars. *Plant Genetic Resources* **19**(4), 299–307. https://doi.org/10.1017/S1479262121000332 **(Impact Factor: 1.08)**.

4. Fatma, S., Sabir, M., Aziz, T., Ahmad, H. R., **Yaseen, M.**, Rehman, M. Z. ur, and Hakeem, K. R. (2021). Comparison of Fine and Coarse Rice Varieties for Nickel Accumulation and Growth Response at Different Levels of Nickel. *CLEAN–Soil, Air, Water* **49** (6), 2000336. https://doi.org/10.1002/clen.202000336 **(Impact Factor: 1.77)**.

5. Gul, H., Ghazali, S. S. A., **Yaseen, M.**, and Qasim, H. (2021). A Study on Time Use of Nurses and Paramedical Staff, Working in Public Hospitals of District Rahim Yar Khan, Bahawalpur, Pakistan. *International Journal of Innovation, Creativity and Change* **15**(3), 931–944. **(Impact Factor: 0.26)**.

6. Haq, M. E. ul, Kamran, M., Sahib, A., **Yaseen, M.**, Anwar, M. F., Abbas, H., Chand, S. A., Hameed, A., Rashid, A., Khan, Q. A. T., Shahbaz, M. U., Abbas, W., and Ali, S. (2021). Nitrogen application accelerates the downy mildew disease severity with leaf age in canola plants. *Archives of Phytopathology and Plant Protection* **54**(19-20), 1569–1577. https://doi.org/10.1080/03235408.2021.1929041 **(Impact Factor: 0.735)**.

7. Jamil, S., Shahzad, R., Rahman, S. U., Iqbal, M. Z., **Yaseen**, **M.**, Ahmad, S., and Fatima, R. (2021). The level of Cry1Ac endotoxin and its efficacy against H. armigera in Bt cotton at large scale in Pakistan. *GM Crops and Food* **12**(1), 1–17. https://doi.org/10.1080/21645698.2020.1799644 (**Impact Factor: 3.444**).

8. Qasim, H., Ghazali, S. S. A., **Yaseen**, **M.**, and Gul, H. (2021). Pensioners and their Time Use: A Case Study of District Rahimyar Khan, Pakistan. *International Journal of Innovation, Creativity and Change* **15**(3), 1050–1060. (**Impact Factor: 0.26**).

9. Bashir, M. R., **Yaseen**, **M.**, Mahmood, A., Din, A. M. ud, and Khan, Q. A. T. (2020). Adaptability trials of sesame germplasm against macrophomina phaseolina (tassi) goid by using ammi biplot analysis in Pakistan. *International Journal of Agriculture and Biology* **23**, 851–856. https://doi.org/10.17957/IJAB/15.1361 (**Impact Factor: 0.89**).

10. Chattha, W. S., Shakeel, A., Iqbal, M., **Yaseen**, **M.**, Amin, M., and Mahmood, N. (2020). Quantifying the Effect of Water Deficit on Cotton Genotypes Using Agro-physiological and Biochemical Parameters. *Journal of Natural Fibers*. https://doi.org/10.1080/15440478.2019.1710654 (**Impact Factor: 3.370**).

11. Jameel, H. T., Panatik, S. A., Nabeel, T., Sarwar, F., **Yaseen**, **M.**, Jokerst, T., and Faiz, Z. (2020). Observed social support and willingness for the treatment of patients with schizophrenia. *Psychology Research and Behavior Management* **13**, 193–201. https://doi.org/10.2147/PRBM.S243722 (**Impact Factor: 2.03**).

12. Bashir, M. R., Mahmood, A., Atiq, M., **Yaseen**, **M.**, Rajput, N. A., Aftab, M., Din, A. M. U., Mohsan, M., and Khan, Q. A. T. (2019). Assessment of genetic variability in mustard against alternaria leaf spot disease through natural field conditions. *Pakistan Journal of Phytopathology* **31** (02), 211–216. https://doi.org/ (**Impact Factor: 0.11**).

13. Rehman, F., Saeed, A., **Yaseen**, **M.**, Shakeel, A., Ziaf, K., Munir, H., Tariq, S. A., Raza, M. A., and Riaz, A. (2019). Genetic evaluation and characterization using cluster heat map to assess NaCl tolerance in tomato germplasm at the seedling stage. *Chilean Journal of Agricultural Research* **79**(1), 56–65. https://doi.org/10.4067/S0718-58392019000100056 (**Impact Factor: 0.883**).

14. Ishaq, K., Iqbal, M. F., Younas, M., Yaqoo, M., Ahmed, T., **Yaseen**, **M.**, and Hashim, M. M. (2017). *Effect of source of procurement of milk on the composition of milk supplied in Rawalpindi city.* http://rizingnation.pk/detail/Effect-of-source-of-procurement-of-milk-on-the-composition-of-milk-supplied-in-Rawalpindi-city/ZgQ6Ht09ZKa5bwjE8qi1qr4rcwm9er8TLviniP3_P3c. *The Rizing Nation.*

15. Jameel, H. T., Nabeel, T., and **Yaseen**, **M.** (2017). Effects of training for in-hand manipulation on legibility of Urdu handwriting. *Journal of Inclusive Education* **1**, 7–18.

16. Murtaza, G., Murtaza, B., Kahlon, U. Z., and **Yaseen**, **M.** (2017). A comparative study of different amendments on amelioration of saline-sodic soils irrigated with water having different EC: SAR ratios. *Communications in Soil Science & Plant Analysis* **48**(22), 2630–2641. https://doi.org/10.1080/00103624.2017.1416130 (**Impact Factor: 1.327**).

17. Raza, M. M., Khan, M. A., **Yaseen**, **M.**, Munawar, A., and Sabir, Z. (2016). Exploring the Potential of Multivariate Analysis to Study the Impact of Cotton Leaf Curl Disease on Yield Traits. *Pak. J. Agri. Sci.* **53**(3), 339–347. (**Impact Factor: 1.049**).

18. Ansari, T. M., Hanif, M. A., Rasool, T., Ali, M., Nadeem, R., and **Yaseen**, **M.** (2015). Reclamation of wastewater containing Cu(II) using alginated *Mentha spicata* biomass. *Desalination & Water Treatment*, 1–10. (**Impact Factor: 1.173**).

19. Aslam, M., Maqbool, M. A., **Yaseen**, **M.**, and Qamar-U-Zaman (2015). AMMI Biplot analysis for comparative evaluation of maize genotypes under different saline environments. *Pak. J. Agri. Sci.* **52**(2), 339–347. (**Impact Factor: 1.049**).

20. Fatima, K., Khan, M. A., Raza, M. M., **Yaseen**, **M.**, Iqbal, M. A., and Shahbaz, M. (2015). Identification of resistant source in lentil germplasm against Fusarium wilt in relation to environmental factors. *Academic Research Journal of Agricultural Science & Research* **3**(4), 60–70.

21. Jabran, K., Ullah, E., Hussain, M., Farooq, M., Zaman, U., **Yaseen**, **M.**, and Chauhan, B. S. (2015). Mulching Improves Water Productivity, Yield and Quality of Fine Rice under Water-saving Rice Production Systems. *Journal of Agronomy & Crop Science* **201**(2015), 389–400. (**Impact Factor: 2.444**).

22. Tanveer, A., Javaid, M. M., Irfan, M., Khaliq, A., and **Yaseen**, **M.** (2015). Yield Losses in Chickpea (Cicer arietinum L.) with Varying Densities of Euphorbia dracunculoides L. *Weed Science* **63**, 522–528. (**Impact Factor: 1.87**).

23. Novacek, M. J., Mason, S. C., Galusha, T. D., and **Yaseen**, **M.** (2014). Bt transgenes minimally influence maize grain yield and lodging across plant populations. *Maydica* **59**(1), 90–95. (**Impact Factor: 0.534**).

24.   **Yaseen**, **M.**, Griess, J. K., Mason, S. C., and Jackson, D. S. (2014). Potential use of GGE Bi-plot analysis to evaluate white Sorghum grain attributes for end uses. *Pak. J. Agri. Sci* **51**(1), 263–271. **(Impact Factor: 1.049)**.

25.   Lum, A., Albrecht, J. A., **Yaseen**, **M.**, Litchfield, R., and Ritter-Gooder, P. (2013). Food-handling Practices and Knowledge among Families with Young Children. *Food Protection Trends* **33**(6), 358–375.

26.   Novacek, M. J., Mason, S. C., Galusha, T. D., and **Yaseen**, **M.** (2013). Twin Rows Minimally Impact Irrigated Maize Yield, Morphology, and Lodging. *Agronomy Journal* **105**(1), 268–276. **(Impact Factor: 1.542)**.

27.   Shahzad, M. W., Razaq, M., Hussain, A., **Yaseen**, **M.**, Afzal, M., and Mehmood, M. K. (2013). Yield and Yield Components of Wheat (Triticum Aestivum L.) affected by Aphid feeding and sowing time at Multan, Pakistan. *Pak. J. Bot* **45**(6), 2005–2011. **(Impact Factor: 1.207)**.

28.   Zakria, M., **Yaseen**, **M.**, Muhammad, F., and Mahmood, S. (2013). Modelling Fertility Patterns of Pakistan during 1984-2007. *Pakistan Journal of Statistics* **29**(4), 479–486. **(Impact Factor: 0.336)**.

29.   Jabran, K., Ali, A., Sattar, A., Ali, Z., **Yaseen**, **M.**, Mubshir, H., Iqbl, J., and Munir, M. K. (2012). Cultural, mechanical and chemical weed control in wheat. *Crop & Environment* **3**(1-2), 50–53.

30.   Masood, M. A., Raza, I., and **Yaseen**, **M.** (2012). Estimation of Optimum Field Plot Size and Shape in Paddy Yield Trial. *Pakistan J. Agric. Res.* **25**(4), 280–287.

31.   McFarland, K. K., Reinhardt, J. W., and **Yaseen**, **M.** (2012). Rural dentists Does growing up in a small community matter? *The Journal of the American Dental Association* **143**(9), 1013–1019. **(Impact Factor: 1.822)**.

32.   Griess, J., Mason, S., Jackson, D., Galusha, T., Pedersen, J., and **Yaseen**, **M.** (2011). Environment and Hybrid Influences on Rapid-Visco-Analysis Flour Properties of Food-Grade Grain Sorghum. *Crop Science* **51**, 1757–1766. **(Impact Factor: 2.02)**.

33.   McFarland, K., Salama, F., and **Yaseen**, **M.** (2011). Access to Dental Care for Rural Children: A Survey of Nebraska General Dentists. *The Journal of Rural Health* **27**, 205–210. **(Impact Factor: 1.429)**.

34.   Yamin, M., Tahir, A., Nasir, A., and **Yaseen**, **M.** (2011). Studying the impact of farm mechanization on wheat production in Punjab-Pakistan. *Soil & Environment* **30**(2), 151–154.

35.   Griess, J., Mason, S., Jackson, D., Galusha, T., **Yaseen**, **M.**, and Pedersen, J. (2010). Environment and Hybrid Influences on Food-Grade Sorghum Grain Yield and Hardness. *Crop Science* **50**(4), 1480–1489. **(Impact Factor: 2.02)**.

36.   McFarland, K., Reinhardt, J., and **Yaseen**, **M.** (2010). Rural Dentists of the Future: Dental School Enrollment Strategies. *Journal of Dental Education* **74**(8), 830–835. **(Impact Factor: 1.108)**.

37.   Saddiqi, H. A., Iqbal, Z., Khan, M. N., Sarwar, M., Muhammad, G., **Yaseen**, **M.**, and Jabbar, A. (2010). Evaluation of three Pakistani sheep breeds for their natural resistance to artificial infection of Haemonchus contortus. *Veterinary Parasitology* **168**, 141–145. **(Impact Factor: 2.331)**.

38.   Saeed, M., Iqbal, Z., Jabbar, A., Masood, S., Babar, W., Saddiqi, H., **Yaseen**, **M.**, Sarwar, M., and Arshad, M. (2010). Multiple anthelmintic resistance and the possible contributory factors in Beetal goats in an irrigated area (Pakistan). *Research in Veterinary Science* **88**, 267–272. **(Impact Factor: 1.33)**.

39.   Arshad, M., Suhail, A., Gogi, M., **Yaseen**, **M.**, Asghar, M., Tayyib, M., Karar, H., Hafeez, F., and Ullah, U. (2009). Farmers' perceptions of insect pests and pest management practices in Bt cotton in the Punjab, Pakistan. *International Journal of Pest Management* **55**(1), 1–10. **(Impact Factor: 0.602)**.

40.   Saifullah, Ghafoor, A., Sabir, M., Zia-Ur-Rehman, M., and **Yaseen**, **M.** (2008). Removal of Lead from Calcareous Contaminated Soils by Organic Acids. *International Journal of Agriculture & Biology* **10**(2), 173–178. **(ISI)**.

41.   Yasmeen, F., Mahmood, S., Hassan, M., Akhtar, N., and **Yaseen**, **M.** (2008). Comparative productive performance and egg characteristics of pullets and spent layers. *Pakistan Veterinary Journal* **28**(1), 5–8. **(ISI)**.

42.   Iqbal, Z., Sarwar, M., Jabbar, A., Ahmed, S., Nisa, M., Sajid, M., Khan, M., Mufti, K., and **Yaseen**, **M.** (2007). Direct and indirect anthelmintic effects of condensed tannins in sheep. *Veterinary Parasitology* **144**, 125–131. **(Impact Factor: 2.016)**.

43.   Jabbar, A., Zaman, M., Iqbal, Z., **Yaseen**, **M.**, and Shamim, A. (2007). Anthelmintic activity of Chenopodium album (L.) and Caesalpinia crista (L.) against trichostrongylid nematodes of sheep. *Journal of Ethnopharmacology* **114**(1), 86–91. **(Impact Factor: 2.049)**.

44.   Malik, M. A., Iqbal, Z., Javed, A., Malik, N. A., Munir, I., Ahmad, M., Bashir, T., and **Yaseen**, **M.** (2007). Alpha (α)-Adrenergic Blocker (Doxazosin): Role in Medical Management of Ureteric Stone. *Saudi German Hospitals Medical Journal* **2**(1), 30–35.

45. Munir, M., Malik, M., and **Yaseen**, **M.** (2007). Performance of sunflower in response to nitrogen management at different stages. *Pakistan Journal of Agricultural Sciences* **44**(1), 12–15. **(ISI)**.

46. Nadeem, M., Khan, M., Iqbal, Z., Sajid, M., Arshad, M., and **Yaseen**, **M.** (2007). Determinants influencing prevalence of louse infestations on layers of District Faisalabad (Pakistan). *British Poultry Science* **48**(5), 546–550. **(Impact Factor: 1.005)**.

47. Raza, M. A., Iqbal, Z., Jabbar, A., and **Yaseen**, **M.** (2007). Point prevalence of gastrointestinal helminthiasis in ruminants in southern Punjab, Pakistan. *Journal of Helminthology* **81**(03), 323–328. **(Impact Factor: 1.229)**.

48. **Yaseen**, **M.**, Zakria, M., Shahzad, I., Khan, M., and Javed, M. (2005). Modeling and forecasting the sugarcane yield of Pakistan. *International Journal of Agriculture & Biology* **7**(2), 180–183. **(ISI)**.

R Packages/Software

1. Edmondson, R., Piepho, H.-P., and **Yaseen**, **M.** (2019). *agriTutorial: Tutorial Analysis of Some Agricultural Experiments*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.5.

2. **Yaseen**, **M.** (2019). *PakPMICS2018: Multiple Indicator Cluster Survey (MICS) 2017-18 Data for Punjab, Pakistan*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.0.

3. **Yaseen**, **M.** and Nadeem, A. (2019). *dmai: Divisia Monetary Aggregates Index*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.0.

4. **Yaseen**, **M.**, Ullah, S., and Haider, G. (2019). *SupMZ: Multiple Indicator Cluster Survey (MICS) 2017-18 Birth History of Children Questionnaire Data for Punjab, Pakistan*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.0.

5. **Yaseen**, **M.** and Usman, M. (2019a). *PakPMICS2018bh: Multiple Indicator Cluster Survey (MICS) 2017-18 Birth History of Children Questionnaire Data for Punjab, Pakistan*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.0.

6. **Yaseen**, **M.** and Usman, M. (2019b). *PakPMICS2018fs: Multiple Indicator Cluster Survey (MICS) 2017-18 Children Age 5-17 Questionnaire Data for Punjab, Pakistan*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.0.

7. **Yaseen**, **M.** and Usman, M. (2019c). *PakPMICS2018hh: Multiple Indicator Cluster Survey (MICS) 2017-18 Household Questionnaire Data for Punjab, Pakistan*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.0.

8. **Yaseen**, **M.** and Usman, M. (2019d). *PakPMICS2018mm: Multiple Indicator Cluster Survey (MICS) 2017-18 Maternal Mortality Questionnaire Data for Punjab, Pakistan*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.0.

9. **Yaseen**, **M.** and Usman, M. (2019e). *PakPMICS2018mn: Multiple Indicator Cluster Survey (MICS) 2017-18 Men Questionnaire Data for Punjab, Pakistan*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.0.

10. **Yaseen**, **M.**, Aslam, M., Ullah, S., Azam, M., Jun, C.-H., and Kashif, M. (2018). *qccrs: Quality Control Charts under Repetitive Sampling*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.0.

11. **Yaseen**, **M.**, Aslam, M., Ullah, S., and Kashif, M. (2018). *rgsp: Repetitive Group Sampling Plan Based on Cpk*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.0.

12. **Yaseen**, **M.** and Dilber, M. A. (2018a). *PakPC2017: Pakistan Population Census 2017*. https://cran.r-project.org/web/packages/PakPC2017/index.html. R package version 1.0.0.

13. **Yaseen**, **M.** and Dilber, M. A. (2018b). *ppcSpatial: Spatial Analysis of Pakistan Population Census*. https://cran.r-project.org/web/packages/ppcSpatial/index.html. R package version 0.1.0.

14. **Yaseen**, **M.** and Dilber, M. A. (2018c). *ppcSpatial: Spatial Analysis of Pakistan Population Census*. https://cran.r-project.org/web/packages/ppcSpatial/index.html. R package version 0.2.0.

15. **Yaseen**, **M.** and Eskridge, K. M. (2018a). *stability: Stability Analysis of Genotype by Environment Interaction (GEI)*. https://cran.r-project.org/web/packages/stability/index.html. R package version 0.1.0.

16. **Yaseen**, **M.** and Eskridge, K. M. (2018b). *stability: Stability Analysis of Genotype by Environment Interaction (GEI)*. https://cran.r-project.org/web/packages/stability/index.html. R package version 0.2.0.

17. **Yaseen**, **M.**, Eskridge, K. M., and Murtaza, G. (2018). *stability: Stability Analysis of Genotype by Environment Interaction (GEI)*. https://cran.r-project.org/web/packages/stability/index.html. R package version 0.5.0.

18. **Yaseen**, **M.**, Jarquin, D., Perez-Elizalde, S., Burgueno, J., and Crossa, J. (2018). *baystability: Bayesian Stability Analysis of Genotype by Environment Interaction (GEI)*. https://cran.r-project.org/web/packages/baystability/index.html. R package version 0.1.0.

19. **Yaseen**, **M.** and Ullah, S. (2018a). *eda4treeR: Experimental Design and Analysis for Tree Improvement*. https://cran.r-project.org/web/packages/eda4treeR/index.html. R package version 0.1.0.

20. **Yaseen**, **M.** and Ullah, S. (2018b). *eda4treeR: Experimental Design and Analysis for Tree Improvement*. https://cran.r-project.org/web/packages/eda4treeR/index.html. R package version 0.2.0.

21. **Yaseen**, **M.** and Ullah, S. (2018c). *gvcR: Genotypic Variance Components*. https://cran.r-project.org/web/packages/gvc/index.html. R package version 0.1.0.

22. **Yaseen**, **M.** (2017a). *PakPC2017: Pakistan Population Census 2017*. https://cran.r-project.org/web/packages/PakPC2017/index.html. R package version 0.1.0.

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24. **Yaseen**, **M.** (2017c). *PakPC2017: Pakistan Population Census 2017*. https://cran.r-project.org/web/packages/PakPC2017/index.html. R package version 0.3.0.

25. **Yaseen**, **M.** and Dilber, M. A. (2017a). *PakPC2017: Pakistan Population Census 2017*. https://cran.r-project.org/web/packages/PakPC2017/index.html. R package version 0.4.0.

26. **Yaseen**, **M.** and Dilber, M. A. (2017b). *PSLM2015: Pakistan Social and Living Standards Measurement Survey 2014-15*. https://cran.r-project.org/web/packages/PSLM2015/index.html. R package version 0.1.0.

27. **Yaseen**, **M.** and Dilber, M. A. (2017c). *PSLM2015: Pakistan Social and Living Standards Measurement Survey 2014-15*. https://cran.r-project.org/web/packages/PSLM2015/index.html. R package version 0.2.0.

28. **Yaseen**, **M.**, Duchateau, L., Janssen, P., and Rowlands, J. (2017). *VetResearchLMM: Linear Mixed Models - An Introduction with Applications in Veterinary Research*. https://cran.r-project.org/web/packages/VetResearchLMM/index.html. R package version 0.2.0.

29. **Yaseen**, **M.** and Usman, M. (2017a). *PakPMICS2014Ch: Multiple Indicator Cluster Survey (MICS) 2014 Child Questionnaire Data for Punjab, Pakistan*. https://cran.r-project.org/web/packages/PakPMICS2014Ch/index.html. R package version 0.1.0.

30. **Yaseen**, **M.** and Usman, M. (2017b). *PakPMICS2014HH: Multiple Indicator Cluster Survey (MICS) 2014 Household Questionnaire Data for Punjab, Pakistan*. https://cran.r-project.org/web/packages/PakPMICS2014HH/index.html. R package version 0.1.0.

31. **Yaseen**, **M.** and Usman, M. (2017c). *PakPMICS2014HL: Multiple Indicator Cluster Survey (MICS) 2014 Household Listing Questionnaire Data for Punjab, Pakistan*. https://cran.r-project.org/web/packages/PakPMICS2014HL/index.html. R package version 0.1.0.

32. **Yaseen**, **M.** and Usman, M. (2017d). *PakPMICS2014Wm: Multiple Indicator Cluster Survey (MICS) 2014 Women Questionnaire Data for Punjab, Pakistan*. https://cran.r-project.org/web/packages/PakPMICS2014Wm/index.html. R package version 0.1.0.

33. **Yaseen**, **M.**, Duchateau, L., Janssen, P., and Rowlands, J. (2016a). *VetResearchLMM: Linear Mixed Models - An Introduction with Applications in Veterinary Research*. https://cran.r-project.org/web/packages/VetResearchLMM/index.html. R package version 1.0.0.

34. **Yaseen**, **M.**, Duchateau, L., Janssen, P., and Rowlands, J. (2016b). *VetResearchLMM: Linear Mixed Models - An Introduction with Applications in Veterinary Research*. https://cran.r-project.org/web/packages/VetResearchLMM/index.html. R package version 0.1.0.

35. **Yaseen**, **M.** and Eskridge, K. M. (2016). *DiallelAnalysisR: Diallel Analysis with R*. https://cran.r-project.org/web/packages/DiallelAnalysisR/index.html. R package version 0.1.1.

36. **Yaseen**, **M.**, Munawar, A., Stroup, W. W., and Eskridge, K. M. (2016). *StroupGLMM: R Codes and Datasets for Generalized Linear Mixed Models: Modern Concepts, Methods and Applications by Walter W. Stroup*. https://cran.r-project.org/web/packages/StroupGLMM/index.html. R package version 0.1.0.

Publications in Conference Proceedings

1. Batool, Z. and **Yaseen**, **M.** (2016a). Time Series Analysis and Forecasting of Water Reservoir in Pakistan. In: *14-th International Conference on Statistical Sciences, Karachi, Pakistan.* Vol. 29, pp.195–202.

2. Shafiq, F., Arif, M., and **Yaseen**, **M.** (2016). Impulse Response Function Analysis: An Application to Macroeconomic Data of Pakistan. In: *14-th International Conference on Statistical Sciences, Karachi, Pakistan.* Vol. 29, pp.67–76.

3. Zafar, H., Arif, M., and **Yaseen**, **M.** (2016a). An Empirical Investigation of Economic Variables of Pakistan by Using Autoregressive Distributed LAG Model. In: *14-th International Conference on Statistical Sciences, Karachi, Pakistan.* Vol. 29, pp.203–214.

4. Naveed, M., Saifullah, Bibi, S., **Yaseen**, **M.**, and Murtaza, G. (2015). Grain Cadmium concentration decreased in Rice (Oryza sativa L.) while managing different Water Regimes. In: *International Conference on Soil Sustainability for Food Security, Univ. of Agri., Faisalabad, Pakistan.*

5. Batool, S. and **Yaseen**, **M.** (2014a). Spatial Analysis of Hepatitis C Epidemiology in Faisalabad District. In: *12-th International Conference on Statistical Sciences, Karachi, Pakistan.* Vol. 26, pp.391–396.

6. Saleem, S. and **Yaseen**, **M.** (2014a). Modeling Survival Rates of Cardiovascular Patients in Faisalabad. In: *12-th International Conference on Statistical Sciences, Karachi, Pakistan.* Vol. 26, pp.397–402.

7. Zakria, M, **Yaseen**, **M.**, Muhammad, F., and Mahmood, J. (2012a). Modelling the Age Specific Fertility Rates of Rural and Urban Areas of Pakistan During 1984-2007. In: *Proc. ICCS-12, Doha, Qatar.* Vol. 23, pp.607–618.

Abstracts Published in Conferences

1. Jabeen, S., Usman, M., and **Yaseen**, **M.** (2018). Factors affecting C-section deliveries in Punjab. In: *16-th International Conference on Statistical Sciences: Advances in Statistics and Data Management: It's Role in National Growth and Socio-Economic Developments, Peshawar, Khyber Pakhtunkhwa, Pakistan.*

2. Saleem, S., Munir, R., and **Yaseen**, **M.** (2018). Empirical Comparison of Partial Least Squares, Principal Component and Ridge Regression in the presence of multicollinearity. In: *16-th International Conference on Statistical Sciences: Advances in Statistics and Data Management: It's Role in National Growth and Socio-Economic Developments, Peshawar, Khyber Pakhtunkhwa, Pakistan.*

3. Ishaq, K., Younas, M., **Yaseen**, **M.**, Ali, M., and Riaz, M. (2017). Effect of physical form of feed and addition of live yeast culture (saccharomyces cerevisiae) on the growth performance and carcass traits of beetal male kids under high input feeding system. In: *2017 International Conference on Agricultural and Food Science (ICAFS2017) & 7-th International Conference on Biotechnology and Bioengineering (7-th ICBB) ICAFS&ICBB2017, Lahore, Pakistan.*

4. Batool, Z. and **Yaseen**, **M.** (2016c). Time Series Analysis and Forecasting of Water Reservoir in Pakistan. In: *14-th International Conference on Statistical Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.*

5. Irfan, M. and **Yaseen**, **M.** (2016). Bayesian network for modeling relationships among variables of neonatal sepsis. In: *14-th International Conference on Statistical Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.*

6. Jameel, H. T., Nabeel, T., and **Yaseen**, **M.** (2016). Development of a Tool for the Assessment of English and Urdu Handwriting. In: *14-th International Conference on Statistical Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.*

7. Khan, S., **Yaseen**, **M.**, Idress, N., and Ghamkhar, M. (2016). Structural Equation Modeling to study the relationship of Cotton fiber traits. In: *14-th International Conference on Statistical Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.*

8. Khan, U. W., **Yaseen**, **M.**, and Arif, M. (2016). Bayesian Approach: An Alternative of Additive Main effect and Multiplicative Interaction (AMMI) model for Genotype-by-Environment Interaction (GEI). In: *14-th International Conference on Statistical Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.*

9. Lodhi, T. S. and **Yaseen**, **M.** (2016). Drought Forecasting using Seasonal Autoregressive Integrated Moving Average Models and Artificial Neural Networks. In: *14-th International Conference on Statistical Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.*

10. Munawar, A., Arif, M., **Yaseen**, **M.**, Ullah, S., and Ahmad, H. R. (2016). Interpolating CD Metal in Soil Using Spatial Techniques in Metropolis Areas of Faisalabad. In: *14-th International Conference on Statistical Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.*

11. Nazir, N. and **Yaseen**, **M.** (2016). Assessing the In-control Robustness of Progressive Mean Control Chart. In: *14-th International Conference on Statistical Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.*

12. Raza, M. M., Khan, M. A., **Yaseen**, **M.**, and Nutter, F. (2016). Exploring the slow rusting potential of wheat genotypes against leaf and strip rust of wheat. In: *APS Annual Meeting, Tampa, Florida, USA.*

13. Rehman, F., Saeed, A., Munir, H., Shakeel, A., Saleem, M. F., Ziaf, K., **Yaseen**, **M.**, and Raza, M. A. (2016). Genotype × Environment interaction for NaCl tolerance in *Solanum lycopersicum* L. at seedling stage. In: *2-nd International Conference on Horticultural Sciences (ICHS2016), University of Agriculture, Faisalabad, Pakistan.*

14. Shafique, F., Arif, M., and **Yaseen**, **M.** (2016). Impulse Response Function Analysis: An Application to Macroeconomic Data of Pakistan. In: *14-th International Conference on Statistical Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.*

15. Zafar, H., Arif, M., and **Yaseen**, **M.** (2016b). An Empirical Investigation of Economic Variables of Pakistan by using Autoregressive Distributed Lag Model. In: *14-th International Conference on Statistical Sciences, Jinnah Sindh Medical University, Karachi, Pakistan.*

16. Raza, M. M., Khan, A., M., **Yaseen**, **M.**, Atiq, M., Mushtaq, A., Ikram, A., and Riaz, K. (2015). Biorational management of leaf rust of wheat caused by Puccinia recondita rob.ex. Desm. f. Sp. tritici. In: *10-th Biennial International Conference of Pakistan Society for Microbiology. Microbiology and Molecular Genetics, Punjab University, Lahore, Pakistan.*

17. **Yaseen**, **M.** and Eskridge, K. M. (2015). Linear System of Simultaneous Equations with Random Effects. In: *International Conference on Management, Education & Social Sciences Research, University of Karachi, Karachi, Pakistan.*

18. Batool, S. and **Yaseen**, **M.** (2014b). Spatial Analysis of Hepatitis C Epidemiology in Faisalabad District. In: *12-th International Conference on Statistical Sciences, Karachi, Pakistan.*

19. Chattha, W. S., Shakeel, A., Akram, H. M., Saeed, A., Saleem, M. F., and **Yaseen**, **M.** (2014). Evaluating genetic variability for water-deficit tolerance in Gossypium hirsutum L. In: *5-th International Conference on Agriculture, Food Security & Climate Change, University of Poonch, Rawalakot, Azad Kashmir, Pakistan.*

20. Ishaq, K., Younas, M., Yaqoob, M., Mirza, M. A., **Yaseen**, **M.**, and Rafiq, M. (2014). Effect of Dietary Protein Levels and Age of Weaning on the Growth Performance of Beetal Male Kids under High Input Feeding System. In: *International Participated Small Ruminant Congress, Konya, Turkiye.*

21. Saleem, S. and **Yaseen**, **M.** (2014b). Modeling Survival Rates of Cardiovascular Patients in Faisalabad. In: *12-th International Conference on Statistical Sciences, Karachi, Pakistan.*

22. **Yaseen**, **M.** and Eskridge, K. M. (2014a). Combining Experiments - A tool for selection of Superior and Stable Genotypes tested in diverse Environments. In: *12-th International Conference on Statistical Sciences, Dow University of Health Sciences, Karachi, Pakistan.*

23. **Yaseen**, **M.** and Eskridge, K. M. (2014b). Linear Model- A Unified Approach for Regression, ANOVA, and ANCOVA. In: *12-th International Conference on Statistical Sciences, Dow University of Health Sciences, Karachi, Pakistan.*

24. **Yaseen**, **M.**, Eskridge, K. M., Arif, M., and Nadeem, A. (2014). Fitting Simultaneous Equations using Multivariate Approach. In: *12-th International Conference on Statistical Sciences, Dow University of Health Sciences, Karachi, Pakistan.*

25. Rafiq, M., Younas, M., Ishaq, K., Yaqoob, M., Shahzad, A., and **Yaseen**, **M.** (2013). Effect of feeding systems on growth performance and blood urea concentration of beetal and teddy male kids. In: *Proceedings of the 2-nd Workshop on Dairy Science Park, Peshawar-25120, Pakistan*, pp.98.

26. Zakria, M., **Yaseen**, **M.**, Muhammad, F., and Mahmood, J. (2012b). Modelling the Age Specific Fertility Rates of Rural and Urban Areas of Pakistan During 1984-2007. In: *The 12-th Islamic Countries Conference on Statistical Sciences (ICCS-12), Doha, Qatar.*

27. Abbas, R. Z., Iqbal, Z., and **Yaseen**, **M.** (2008). Anticoccidial Activity of Salinomycin Sodium in Broilers. In: *The 1st International Veterinary Poultry Congress, Tehran, Iran.*

28. Mustafa, G., Yasmin, I., **Yaseen**, **M.**, and Ullah, S. (2008). Modeling and Forecasting Gross Domestic Product Deflator for Pakistan. In: *The 4th National Conferecne on Statisttical Sciences, University of Gujrat, Gujrat, Pakistan.*

29. Saeed, M., Iqbal, Z., Jabbar, A., **Yaseen**, **M.**, and Arshad, M. (2008). Anthelmintic Resistance: Beetal Goats in Punjab (Pakistan). In: *The Parasitology Conference, Kalampura, Malaysia.*

30. Ahmad, I., Arif, M., **Yaseen**, **M.**, Idrees, N., Ahmad, I. J., and Hassan, M. U. (2007). Latent Variables Approach for handling Multicollinearity Problem. In: *International Conference on Statistical Sciences with Special Reference to Survival Data Analysis, G.C University Lahore, Lahore, Pakistan.*

31. Ullah, S., **Yaseen**, **M.**, and Arif, M. (2007). Exploring Uses and Abuses of internet by using Correspondence Analysis. In: *International Conference on Statistical Sciences with Special Reference to Survival Data Analysis, G.C University Lahore, Lahore, Pakistan.*

32. **Yaseen**, **M.** (2007). Comparison of proposed Estimators of Box's correction in Single Factor Experiments having three Repeated Measures on the same subjects. In: *The 3rd National Conferecne on Statisttical Sciences and its application to Engineering, Biostatistics, Industrial, Computer & Telecom Technology, National University of Computer and Emerging Sciences FAST-NU, Lahore, Pakistan.*

33. Jabbar, A., Zaman, M. A., Iqbal, Z., **Yaseen**, **M.**, and Shmim, A. (2006). Anthelmintic Activity of Chenopodium album (L..) and Caesalpinia crista (L.) against Trichostrongylid Nematodes of Sheep. In: *The 9th International Congress on Ethnopharmacology, Nanning, Guangxi, P.R. China.*

Manuals

1. Khan, M. I., **Yaseen**, **M.**, and Arif, M. (2006). *Manual for Biometric Techniques for Agriculture Research in Pakistan using STATISTICA.* Department of Mathematics & Statistics, Univ. of Agriculture, Faisalabad.

Statistical Training & Workshops Offered

1. ***In-Service Eight Weeks Mandatory Pre-Promotion Training Research Officer (BS-17) to Senior Research Officer (BS-18) 1st Session*** held on January 29, 2021 & February 29, 2021 at Forest Services Academy Ghoragali, Murree, Pakistan

2. ***In-Service Eight Weeks Mandatory Pre-Promotion Training Research Officer (BS-17) to Senior Research Officer (BS-18) 1st Session*** held on January 22, 27-28, 2021 at Forest Services Academy Ghoragali, Murree, Pakistan

3. ***In-Service Eight Weeks Mandatory Pre-Promotion Training Research Officer (BS-17) to Senior Research Officer (BS-18) 1st Session*** held on January 19-20, 2021 at Forest Services Academy Ghoragali, Murree, Pakistan

4. ***Training Course on Capacity Building of NARS Scientists in Advance Analytical Techniques*** held on October 27-29, 2020 at Ayub Agricultural Research Institute (AARI), Faisalabad , Pakistan

5. ***Training Course on Capacity Building of NARS Scientists in Advance Analytical Techniques*** held on November 25-28, 2019 at National Agricultural Research Centre, Islamabad, Pakistan

6. ***Econometrics using STATA*** held during July 29, 2019 to August 2, 2019 at National Institute of Banking & Finance (NIBAF), Karachi, Pakistan

7. ***1st International Workshop on Scholarly Writing and Publishing*** held on March 18-21, 2019 at the University of Agriculture, Faisalabad, Pakistan

8. ***Python: Programming for Statistics*** held on February 18, 2019 at Department of Statistics, Bahauddin Zakariya University, Multan, Pakistan

9. ***An Introduction to Statistics using SPSS*** held on August 16-17, 2018 at National Textile University, Faisalabad, Pakistan

10. ***Emerging Technologies in Research: Google Apps and SPSS*** held on May 15-16, 2018 at Ayub Agriculture Research Institute, Faisalabad, Pakistan

11. ***An introduction to R for Agricultural Research*** held on May 09-11, 2018 at Ayub Agriculture Research Institute, Faisalabad, Pakistan

12. ***Structural Equation Modeling with Latent Variables using R*** during ***Symposium on Professional Development of New Generation of Research Scholars*** held on December 14, 2017 at COMSATS Institute of Information Technology, Lahore, Pakistan

13. **Applied Econometrics** during **Statistical Officers Training Scheme (SOTS-7)** held on December 12-13, 2017 at National Institute of Banking & Finance (NIBAF), Islamabad, Pakistan

14. **Statistical Methods for Researchers using R** held on August 10-12, 2017 at the University of Agriculture, Faisalabad, Pakistan

15. **Statistical Methods for Researchers using R** held on August 07-09, 2017 at the University of Agriculture, Faisalabad, Pakistan

16. **An Introduction to R & Bioconductor for Computational Biology & Bioinformatics** during one day international workshop on **Application of Computational Biology in Biotechnology** held on July 31, 2017 at National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad, Pakistan

17. **An Introduction to LaTeX: UAF Synopsis and Thesis** held on July 26-28, 2017 at the University of Agriculture, Faisalabad, Pakistan

18. **Statistics for Veterinary and Animal Science using R** held on July 17-19, 2017 at the University of Agriculture, Faisalabad, Pakistan

19. **Statistics for Veterinary and Animal Science using R** held on July 17-19, 2017 at the University of Agriculture, Faisalabad, Pakistan

20. **Generalized Linear Mixed Modeling for Agricultural Sciences** held on February 25, 2017 at Bahauddin Zaria University, Multan, Pakistan

21. **Technical and Patent Writing** held on January 28, 2017 at the University of Agriculture, Faisalabad, Pakistan

22. **Generalized Linear Mixed Models using R** held on December 13, 2016 during **14-th Islamic Countries Conference on Statistical and Allied Sciences (ICCS-14)** held on December 12-15, 2016 at Multan, Pakistan

23. **An Introduction to LaTeX** held on December 13, 2016 during **14-th Islamic Countries Conference on Statistical and Allied Sciences (ICCS-14)** held on December 12-15, 2016 at Multan, Pakistan

24. **An Introduction to Econometrics with R** held on February 22-25, 2016 at National Institute of Banking & Finance (NIBAF), State Bank of Pakistan, Karachi, Pakistan

25. **Statistics: The Art and Science of Learning from Data** held on February 6, 2016 at the University of Agriculture Faisalabad, Pakistan

26. **Quantitative Techniques for Decision Making** during 20-th Mid-Career Management Course (MCMC) held on Aug 21, 24-25, 2015 at National Institute of Management, Lahore, Pakistan

27. **An Introduction to LaTeX** held on May 27, 2015 at National Institute of Banking & Finance (NIBAF), State Bank of Pakistan, Karachi, Pakistan

28. **An Introduction to R** held on May 25-26, 2015 at National Institute of Banking & Finance (NIBAF), State Bank of Pakistan, Karachi, Pakistan

29. **Structural Equation Modeling with R** held on May 24, 2015 at Iqra University, Karachi, Pakistan

30. **Generalized Method of Moments Estimation with R** held on April 06, 2015 at Iqra University, Karachi, Pakistan

31. **An Introduction to R** held on March 28, 2015 at the University of Agriculture Faisalabad, Pakistan

32. **An Introduction to LaTeX** held on August 13, 2014 at National Institute of Banking & Finance (NIBAF), State Bank of Pakistan, Karachi, Pakistan

33. **An Introduction to R** held on August 11-12, 2014 at National Institute of Banking & Finance (NIBAF), State Bank of Pakistan, Karachi, Pakistan

34. **An Introduction to R-Programming Language for Statistical Computing** held on May 24 to June 14, 2013 (16 Contact Hours) at University of Agriculture Faisalabad, Pakistan

35. Training Course on **Statistical and Economic Analysis of Experimental Data using Statistical Software** held on December 17-21, 2012 at Agricultural Research Institute (ARI), Muzaffarabad, AJK, Pakistan

36. **SPSS Training for Social Sciences** held on August 13-20, 2007 at University of Agriculture Faisalabad, Pakistan

37. **Design and Analysis of Agricultural Research Experiments using STATISTICA/Minitab (Biological Sciences)** held on August 06-11, 2007 at University of Agriculture Faisalabad, Pakistan

38. **Statistical and Economical Analysis of Field Experiments** held on May 21-25, 2007 at AZRE, Quetta, Balochistan, Pakistan

39. **Advanced Econometric Techniques using EViews** held on August 24-29, 2006 at Department of Mathematics & Statistics, University of Agriculture, Faisalabad, Pakistan

40. **Workshop on Applied Multivariate Statistical Techniques Using Different Statistical Packages** held on June 05-10, 2006 at Department of Mathematics & Statistics, University of Agriculture, Faisalabad, Pakistan

41. **STATISTICA Training Workshop of Biological Scientists** held on August 08-13, 2005 at Department of Mathematics & Statistics, University of Agriculture, Faisalabad, Pakistan

42. **SPSS Training Workshop of Social Scientists** held on August 01-06, 2005 at Department of Mathematics & Statistics, University of Agriculture, Faisalabad, Pakistan

43. **Advanced Biometric Techniques for Agricultural Research in Pakistan** held on June 20-25, 2005 at Department of Mathematics & Statistics, University of Agriculture, Faisalabad, Pakistan

44. **Training Course on Design and Analysis of Agricultural Field Experiments using STATISTICA** held on Feb 21-25, 2005 at Social Sciences Institute, National Agriculture Research Center, Islamabad, Pakistan

45. **Research Methodology and Analytical Techniques** held from 21-06-04 to 03-07-04 in the Department of Mathematics & Statistics, University of Agriculture, Faisalabad, Pakistan

Training & Workshops Attended

1. **5th Workshop on Advanced Techniques for Scientific Programming and Management of Open Source Software Packages Science** organized by The Abdus Salam International Centre for Theoretical Physics (ICTP), in collaboration Sharif University of Technology, Tehran, Iran held on March 04-15, 2017, at Sharif University of Technology, Tehran, Iran

2. **Second Consultative Workshop on Multiple Indicator Cluster Survey (MICS) Punjab 2017** held on January 31, 2017 at Faisalabad Institute of Cardiology (FIC), Faisalabad, Pakistan

3. **Technical and Patent Writing** held on January 28, 2017 at the University of Agriculture, Faisalabad, Pakistan

4. **14-th Islamic Countries Conference on Statistical and Allied Sciences (ICCS-14)** held on December 12-15, 2016 at Multan, Pakistan

5. **Four-Day Workshop on "Hybrid Course Design and Development"** organized by U.S.-Pakistan Center for Advanced Studies in Agriculture and Food Security, October 18-21, 2016, University of Agriculture-Faisalabad, Pakistan

6. **The CODATA-RDA School of Research Data Science** organized by The Abdus Salam International Centre for Theoretical Physics (ICTP), in collaboration with International Council for Science - Committee on Data for Science and Technology (CODATA), The Research Data Alliance (RDA), The World Academy of Sciences and The Association of Commonwealth Universities (TWAS), August 01-12, 2016, Abdus Salam International Center for Theoretical Physics (ICTP), Trieste, Italy

7. **Dialogue on Current Fertilizer Policy** organized by Food and Agriculture Organization (FAO) of the United Nations, June 06, 2016, Ramada Hotel, Islamabad, Pakistan

8. **Two-Day Workshop on "4R Nutrient Stewardship for Food, Economic and Environmental Security"** organized by Food and Agriculture Organization (FAO) of the United Nations, April 04-05, 2016, Serena Hotel, Islamabad, Pakistan

9. **14-th International Conference on Statistical Sciences** held on March 14-16, 2016 at Jinnah Sindh Medical University, Karachi, Pakistan

10. **2-nd International Conference on Horticultural Sciences (ICHS2016)** held on February 18-20, 2016 at the University of Agriculture, Faisalabad, Pakistan

11. **Water Dialogue on Irrigation System of Pakistan: Challenges & Opportunities** held on February 10, 2016 at the University of Agriculture, Faisalabad, Pakistan

12. **Grant Writing Workshop - Competitive Grants Program** organized by U.S.-Pakistan Centers for Advanced Studies in Agriculture/Food Security, June 01, 2015, University of Agriculture- Faisalabad, Pakistan

13. **International Conference on Management, Education & Social Sciences Research** held on April 4-5, 2015 at the University of Karachi, Karachi, Pakistan

14. **12-th International Conference on Statistical Sciences** held on March 24-26, 2014 at the Dow University of Health Sciences, Karachi, Pakistan

15. **Reference Management in Scientific Writings**, Oct 25, 2014 at Dept. of Physics, University of Agriculture-Faisalabad, Pakistan

16. **One day Workshop on Scientific Writing**, May 24, 2014 at Dept. of Agronomy, University of Agriculture-Faisalabad, Pakistan

17. **2-nd Annual Workshop on Scientific Writing & Plagiarism**, May 07, 2014 at the University of Agriculture-Faisalabad, Pakistan

18. **Statistical Learning**, presented by Drs. Trevor Hastie & Rob Tibshirani, January 20, 2014 to April 04, 2014 Stanford University, Stanford, CA, USA (Through Stanford Online OpenEdx)

19. **Advanced Multivariate Techniques**, March 23, 2014 at the Dow University of Health Sciences, Karachi, Pakistan

20. **Introduction to SAS**, March 23, 2014 at the Dow University of Health Sciences, Karachi, Pakistan

21. **Introduction to SPSS**, March 22, 2014 at the Dow University of Health Sciences, Karachi, Pakistan

22. **Remote Sensing for Monitoring Agricultural Crops and Assessing Soil Salinity**, presented by Dr. Muhammad Waqar, February 3-15, 2014, at the University of Agriculture, Faisalabad, Pakistan

23. **Development in Applied Forecasting for Business and Economics**, presented by Dr. Muhammad Akram, January 16-17, 2013, at the University of Agriculture, Faisalabad-Pakistan

24. **Introduction to Statistical Software R**, presented by Dr. Muhammad Akram, January 15, 2013, at the University of Agriculture, Faisalabad-Pakistan

25. **Three-day Workshop on Data Analysis & Developing Research Grant Proposal**, presented by Drs. H. Anwar Ahmad & Shaukat Ali Bhatti, December 27-29, 2012, at the University of Agriculture, Faisalabad-Pakistan

26. ***Learn R In-Depth***, presented by Dr. Paul Geissler, June 7 to August 25, 2011 (23 contact hours), U.S. Geological Survey

27. ***Generalized Linear Mixed Model***, presented by Prof. Charles McCulloch in the ***2011 Joint Statistical Meetings*** on August 1, 2011 at Miami Beach Florida, USA

28. ***Bayesian Inference***, presented by Prof. Bruno Sanso in the ***2011 Joint Statistical Meetings*** on July 31, 2011 at Miami Beach Florida, USA

29. ***Analysis and Design of Agricultural Research: A Generalized Mixed Model Perspective***, presented by Prof. Walter Stroup in the ***Conference on Applied Statistics in Agriculture*** held on May 1-3, 2011 at Kansas State University, Manhattan, Kansas, USA

30. ***Learn R by Example***, presented by Dr. Paul Geissler, October 12 to November 16, 2010 (32 contact hours), U.S. Geological Survey

31. ***Fitting and evaluating mixed models using lme4*** , presented by Prof. Douglas Bates in the ***R User Conference, useR! 2010***, at the Gaithersburg, Maryland, USA, campus of the National Institute of Standards and Technology (NIST), during July 21-23, 2010

32. ***Applied spatial data analysis with R*** , presented by Dr. Virgilio Gomez-Rubi in the ***R User Conference, useR! 2010***, at the Gaithersburg, Maryland, USA, campus of the National Institute of Standards and Technology (NIST), during July 21-23, 2010

33. ***Training for International Teaching Assistants*** held on August 3-7, 2009 at University of Nebraska-Lincoln USA

34. ***Faculty Development Program*** held on March 27-28, 2007 at The University of Faisalabad, Faisalabad, Pakistan

35. ***Workshop on Intelligent Data Analysis Methods in Functional Genomics*** held on March 17-18, 2007 at Lahore University of Management Sciences, Lahore, Pakistan

36. ***Workshop on Data Analysis*** held on March 10-11, 2007 at Lahore University of Management Sciences, Lahore, Pakistan

37. ***Workshop on Foundation of Data Mining*** held on June 11-12, 2005 at Lahore University of Management Sciences, Lahore, Pakistan

38. ***Staff Development Course*** under the scheme National Academy of Higher Education, held from May 9-June 4, 2005 at University of Agriculture, Faisalabad, Pakistan

39. ***Research Orientation Program on Research Methodology and Analytical Techniques*** held on June 15-30, 2004 at University of Agriculture, Faisalabad, Pakistan

40. ***Bio-Informatics, Information Technology and Bio-Statistics*** held on December 27-28, 2003 at National College of Business Administration and Economics, Lahore, Pakistan

41. ***EU Asia Link Project Short Course on Principles of Experimental Design and Analysis*** organized by SALINE Agriculture Research Center, University of Agriculture, Faisalabad, held from December 1-12, 2003 at University of Agriculture, Faisalabad, Pakistan

42. ***GRE Preparation Course of 45 teaching hours*** held on 27-10-2003 to 12-11-2003 at University of Agriculture, Faisalabad, Pakistan