

Curriculum Vitae



Name: Prof. Dr. Yousaf Hayat
Father's Name: Muhammad Saleem
Designation: Professor in Statistics
Department: Mathematics, Statistics and Computer Science,
Faculty of Rural Social Sciences
Organization: The University of Agriculture, Peshawar-Pakistan
Present Position: **Chairman** Department of Mathematics, Statistics and Computer
Science, The University of Agriculture, Peshawar-Pakistan

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Academic Qualifications

Distinction: **Gold Medal in M.Sc Statistics (Session 1997-98)**

HEC Approved Supervisor: Yes (2011-2017)

Degree/ Certificate	Year	Div	University/Institution
Postdoctorate	2014	-	The University of Queensland, Australia
Ph. D	2008	-	Institute of Bioinformatics, Zhejiang University, Hangzhou, P. R. China
M. Phil	2005	1 st	Department of Statistics, University of Peshawar, Pakistan
M.Sc	1998	1 st	Department of Statistics, University of Peshawar, Pakistan
B.Sc	1995	1 st	Gomal University, D. I. Khan, Pakistan
F.Sc	1993	1 st	BISE, Bannu
SSC	1991	1 st	BISE, Bannu
B.Ed	1999	1 st	Allama Iqbal Open University (AIU), Islamabad

Awards and Scholarships/fellowship:

- First class first position in M.Sc Statistics in order of merit (1998).

- Best Achievement Award for Meritorious Services at BRAINS Post Graduate College of Information Technology, Peshawar (2000).
- International Certificate of Excellence awarded by the journal of “Scientific Research Monthly”, Hong Kong in recognition of research paper (2007).
- Higher Education Commission (HEC) Scholarship for PhD studies (PR China, 2005).
- HEC approved supervisor (2011-2017)
- Endeavour Award Fellowship for postdoctoral research at the University of Queensland, Australia (2014).

Books/Chapter Publication

1. Published a Chapter “Experimental Designs” in a book “Statistical and Economic Analysis of Experimental Data”. Published by NARC Pakistan Agricultural Research Council, Islamabad, 2014.
2. Experimental Designs: With Application to R for Agricultural Experiments (Book in progress).

Research Interest:

Applied Statistics, Biostatistics, Regression Analysis, Econometrics, Experimental Designs, Linear and Mixed Linear Models, Statistics and HRM, Statistical Genetics and Bioinformatics, Agricultural Statistics/Climate Change, Time Series Analysis, and Multivariate Statistics

Statistical Software’s Skills:

SPSS, MSTATC, MINITAB, Statistix, Gretl and SAS for data analysis.

Teaching Experience

1. Professor, The University of Agriculture, Peshawar (18-09- 2017- Current).
2. Associate Professor, The University of Agriculture, Peshawar (29-12- 2009 to 17-09- 2017).
3. Assistant Professor, The University of Agriculture, Peshawar (05-09-2009 to 28-12- 2009).
4. Lecturer, The University of Agriculture, Peshawar (1st Sept. 2000- 28th December 2009).
5. Lecturer, BRAINS Post Graduate College IT, Peshawar (16th Sept. 1999- 31st August 2000).

6. Lecturer, NIBM, Peshawar (1st June 1999- 30th Sept. 1999).
7. Lecturer, Post Graduate College Lakki Marwat (October 1, 1998-30th April1999)

Courses Developed:

- Developed one course for M.Phil/PhD Statistics students in the revised curriculum of Higher Education Commission, and approved by the HEC, Islamabad as well as the BOS, BOF and Academic Council of the University of Agriculture, Peshawar, and MBA (1.5/3.5)/MS(MS) approved by BOS, BOF, Academic Council and Syndicate.
1. Theory of Mixed Linear Models
 2. Advanced Research Methods for MBA 1.5/3.5 and MS(MS), IBMS, the University of Agriculture, Peshawar. It is also approved by the BOS, BOF and Academic Council of the University.
 3. Applied Statistics for Social Sciences, PhD course, approved by BOS and BOF.

Teaching (Courses Taught)

- Applied Statistics: PhD Agriculture Sciences
- Logical Reasoning and Social Research methods: MPhil Statistics
- Regression Analysis: MPhil Statistics
- Theory of Linear Models: MPhil Statistics
- Theory of Mixed Linear Models: MPhil Statistics
- Statistics for Social Sciences: M.Sc (Hons)/MPhil
- Experimental Designs & Analysis: M.Sc (Hons) Agriculture
- Advanced Research Methods, MS Management Sciences course
- Statistical Methods: M.Sc Statistics
- Experimental Design-I: M.Sc Statistics
- Applied Multivariate: M.Sc Statistics
- Statistics-I and Statistics-II: B. Sc (Hons) Agriculture
- Biostatistics: B.Sc (Hons) Biotechnology/DVM
- Business Statistics: BBA(Hons)
- Inferential Statistics, Probability and Statistics: BBA(Hons), BS(IT) and BS(CS)
- Statistical Methods for Social Sciences: B.Sc (Hons) Economics
- Statistical Methods for Social Sciences: B.Sc(Hons) course for the students of Agriculture and Applied Economics

M.Phil/MS Students Supervision (As Supervisor)

S.No.	Name	Thesis Title	Status/year
1.	Qaisar Khan	Ownership structure and Dividend Payout Policy	Completed/2011
2.	M. Abdullah Shah	Comparative Financial Performance Analysis of Lucky Cement and Kohat Cement Company Limited	Completed/2011
3.	Wajid Ali	Studying Behaviour Attributes and Student's Academic Performance: A Case Study of Agricultural University Peshawar	Completed/2012
4.	Tanveer Alam	Human Resource Management Policies and Organizational Performance in the Industrial Sector, Hayatabad	Completed/2012
5.	M. Faizan Ali	Effect of Distributive and Procedural Justices on Job Satisfaction in the Industrial Sector	Completed/2012
6.	Fazlullah	Financial Performance of MCB Bank Before and After Privatization	Completed/2013
7.	Waqas Rahman	Comparative Financial Analysis of Bank Alfalah and National Bank of Pakistan	Completed/2013
8.	Wasif ur Rehman	Determinants of Inflation in Pakistan	Thesis completed, 2014
9.	Al Hamra Shuaib	Effect of work centrality on work behavior of employees: moderating role of psychological capital	completed, March 2014
10.	M. Irfan Ullah	All Possible and Stepwise Regression Analysis of Macro Economic Variables	Completed/2015
11.	Asim Zia	Effect of change in organization and employee empowerment on employee performance: moderating role of culture	Completed 2013
12.	Fazal-e-Subhan	Effect of insurgency on the financial performance of hotelling industry in District Swat	Thesis Completed 2013
13.	Muhammad Zubair	Multi Level Models Under Change Distributional Assumptions	Completed-Jan 2016
14.	Muhammad Ishaq Khan Khattak	Impact of macroeconomic variables on stock index: Evidence from four Asian countries	Completed Jan-2016
15.	Bashir Muhammad	Effect of Shareholder's on Corporate Governance	Completed-2016
16.	Faheem Ullah	Risk factors of depression: A logistic regression approach	Completed Jan-2016
17.	Syed Umar Ali Shah	Effect of Ethical Leadership on Employee Well-being: The Moderating Role of Organizational Culture	Completed June-2017
18.	Tariq Zaman	Co-integration and Causality Analysis of Economic Force and Equity	Completed Oct.-2017
19.	M. Shah Nawaz	Statistical Study of the Risk Factors of Chronic Kidney Disease: A Logistic Regression Approach	Completed 2018
20.	Fahim Ullah Khan	Impact of Risk Management Practices on Customers Trust in Commercial Banks of Pakistan	Completed 2018
21.	Mr. Zahid Khan	Risk Factors of Stroke: A Statistical Study	Completed 2019
22.	Ms. Afshan Naz	Statistical Study of Problems Faced by the Students Residing in Different Hostels	Completed 2019
23.	Mr. Abdur Rehamn	Fitting Parametric Models to Survival Data: A Comparative Study of Maximum Likelihood and Bayesian Estimations	Completed 2019
24.	Mr. Zahir Shah	Analysis of Climate Change Data: A Statistical Study	Completed 2019
25.	Ms. Sarwa Jabeen	Risk Factors of Tuberculosis Disease: A Statistical Study	Completed 2019
26.	Shahzada M. Saleem	Statistical Analysis of the Risk Factors of Low Back Pain : A Logistic Regression Approach	Completed January, 2021
27.	Muhammad Khan	Comparison of Different Methods for Estimating the Parameters of Weibull Distribution	Completed March, 2021

Supervision of PhD Students (as Member)

- Member supervisory committee (Co-supervisor) of Ph.D student, Department of Agronomy, The University of Agriculture, Pakistan (PhD Completed).
- Member supervisory committee (Co-supervisor) of Ph.D student, Department of Agriculture and Applied Economics, The University of Agriculture, Pakistan (PhD Completed).
- Member supervisory committee (Co-supervisor) of Ph.D student, Department of Plant Breeding and Genetics, The University of Agriculture, Pakistan (PhD Completed).
- Member supervisory committee (Co-supervisor) of Ph.D student (Economics), Institute of Development Studies, The University of Agriculture, Pakistan (PhD Completed).

Academic Activities/Administration/Committees Member

- Chairman, Department of Maths/Stat/Computer Science, The University of Peshawar, Since July 2018-till date.
- Remained Chairman, Department of Maths/Stat/Computer Science, The University of Peshawar, May 7, 2012 to June 18, 2015.
- Director CNEP (Additional Charge), The University of Agriculture, Peshawar-Pakistan (Since August, 2013- August 2021).
- Member Board of Studies, Institute of Business and Management Sciences (IBMS), The University of Agriculture, Peshawar, Pakistan. Feb. 2009-2018.
- Member Board of Studies, Department of Statistics, University of Peshawar, 2009-2017.
- Member Board of Studies M.Sc (Hons.), Department of Agriculture & Applied Economics, The University of Agricultural, Peshawar. February 18, 2009-2017.
- Remained member Board of Studies, Department of Extension Education Communication, The University of Agriculture, Peshawar. Jan 31, 2009-2013.
- Member Board of Studies, Department of Human Nutrition, The University of Agriculture, Peshawar. April 1, 2009 to March 2011.
- Member Board of Studies, Department of Plant Pathology, The University of Agriculture, Peshawar. April 7, 2009-August 2012.
- Member Board of Studies, Department of Rural Sociology, The University of Agriculture, Pakistan. Since 2010-2013.
- Member supervisory committee (Co-supervisor) of Ph.D student, Department of Agricultural Economics, The University of Agriculture, Pakistan.
- Member Scrutiny and Quantification Committee approved by the Syndicate, May 2012-2019 (Faculty, The University of Agriculture, Peshawar).
- Member Scrutiny and Quantification Committee approved by the Syndicate, 2016-Current (Administration Cadre, The University of Agriculture, Peshawar).

- Member Scrutiny and Quantification Committee, AUPSC (Boys and Girls), 2018-Current, The University of Agriculture, Peshawar).
- Convener Board of Studies, Department of Mathematics, Statistics and Computer Science, The University of Agriculture, Peshawar. May, 2012-June 2015.
- Member Board of Faculty, Faculty of Rural Social Sciences, The University of Agriculture, Peshawar. May 2012-Current.
- Member (Co-opted) BOS, Department of Entomology, The University of Agriculture, Peshawar. June 2021-Current.
- Member (Co-opted) BOS, Department of Plant Protection, The University of Agriculture, Peshawar. May 2021-Current.

Conference/Seminar Arranged/Organized

- Organized a “One day seminar on official statistics and the role of academia” May 8, 2015 at the University of Agriculture, Peshawar.

Workshop/Seminars/Conferences

1. First Research Workshop for M.Phil and PhD Students. 2010. Department of Statistics University of Peshawar, Pakistan, at Bara Gali August 05-09, 2010. Paper Presented: Influence of Outliers on QTL Mapping for Complex Traits.
2. Joint Higher Education Links Programme, National Workshop on “Advanced Research Techniques and Research Management in Life Science”. Department of Agronomy, NWFP Agric. University, Peshawar, Pakistan. Presented: Problems in Linear Mixed for Analysis of Complex Quantitative Traits (As a Speaker). 11-12th March, 2009.
3. Statistical and Economic Analysis of Experimental Design Data Using Statistical Softwares, Training arranged by TARNAB Research Station, 21-26 May, 2012.
4. Burning Issues in Advanced Research Methods in the Context of 21st Century, By IQRA National University, Hayatabad, Peshawar (Invited Speaker), September 11, 2012.
5. Attended International Workshop “three days workshop on Statistical Modeling using R”, arranged by The University of Queensland, Australia, 21-23 July, 2014.
6. Attended 13th International Conference on Statistical Sciences: Statistics: Future Risks, Challenges and Developments, Match 16-18, 2015, Islamia College University Peshawar.

Elected Membership

1. Vice President of Agriculture University Teachers Association (AUTA) for the session 2008-09.

2. Vice President of Agriculture University Teachers Association (AUTA) for the session 2009-10.
3. Elected member of Agriculture University Teacher's Foundation (AUTF) from the constituency of Associate Professor (2011-12).
4. Elected member of Syndicate from the constituency of Associate Professor, since October, 2015 to September 18, 2017.
5. Member Executive Council AUTA, Session 2018-2019.
6. Member Executive Council AUTA, Session 2020-21.

List of Publications

Publications in Impact Factor Journals

1. Anwar Ali Shad, Jehan Bakht, Hamid Ullah Shah, and **Yousaf Hayat**. 2016. Antioxidant activity and nutritional assessment of under-utilized medicinal plants. Pak. J. Pharm. Sci., 29(6): 2039-2045.
2. Shah, M.K., U. Saddique, S. Ahmad, **Y. Hayat**, S.U. Rahman, M.F. Hassan and T. Ali. 2017. Isolation rate and antimicrobial susceptibility profiles of *Mycoplasma mycoides* subspecies capri field isolates from sheep and goats in Pakistan. ELSEVIER, Small Ruminant Research, 153: 118-122.
3. Shafi, M., R. Zaman, J. Bakht, Hamayoon, **Y. Hayat** and S. Shah. 2015. Dry Matter Partitioning and grain yield of wheat as affected by phosphorus and its application methods. Pakistan Journal of Botany, 47(SI): 281-287.
4. Khan, S. A., J.C. Reese, C. Predeesh, M. Murugan and Y. Hayat. 2015. Categories of resistance in wheat to green bug *Schizaphis, Graminum* (RONDANI) through a novel technique direct current electrical penetration graph (DC-EPG). Pakistan Journal of Botany, 47(SI): 307-312.
5. Shaheen, N., M. Hassan, Q. Mahmood and Y. Hayat. (2015). Maternal and fetal blood lead concentrations under non-occupational lead exposure and associated factors in Pakistan. Toxicological & Environmental Chemistry, 1-9: <http://dx.doi.org/10.1080/02772248.2015.1060726>. **IF = 0.825**.
6. **Hayat, Y.**, Yang, J., and Zhu, J. (2015). Mixed model approaches for detecting influential observations in genetic data analysis. Pakistan Journal of Statistics, 31(3): 121-134. **IF = 0.140**.

7. Shahzad, S., S. Hayat, S. Nazir, H. Javed, **Y. Hayat**, M.Amir and A. M. Serat. (2014). Analyzing Data for Grounding a Problem Theory in Software Engineering. *Life Science Journal*, 11(10s): 61-69. **IF = 0.165**
8. Sabeen, M., Q. Mahmood, M. Irshad, I. Fareed, A. Khan, F. Ullah, J. Hussain, **Y. Hayat** and S. Tabassum. 2013. Cadmium phytoremediation by *Arundo donax* L. from contaminated soil and water. *BioMed Research International*, Vol. 2013, pp 1-9: <http://dx.doi.org/10.1155/2013/324830>. **IF = 1.579.**
9. Anwar, S., M. Shafi1, J. Bakht, M. T. Jan and **Y. Hayat**. (2011). Response of barley genotypes to salinity stress as alleviated by seed priming. *Pak. J. Botany*, 43(6): 2687-2691. **IF = 0.947.**
10. Anwar, S., M. Shafi1, J. Bakht, M. T. Jan and **Y. Hayat**. 2011. Effect of salinity and seed priming on growth and biochemical parameters of different barely genotypes. *African Journal of Biotechnology*, 10(68): 15278-15286. **IF = 0.573.**
11. Shafi, M., J. Bakht, Raziuddin, **Y. Hayat** and G.P. Zhang. (2011). Genotypic difference in the inhibition of photosynthesis and chlorophyll fluorescence by salinity and cadmium stresses in wheat. *Journal of Plant Nutrition*, 34(3): 315-323. **IF = 0.868.**
12. Islam, E., Liu, D., Li, T., Yang, X., Jin, X., Khan, M. A., Mahmood, Q., **Hayat, Y.** and Imtiaz, M. (2011). Effect of Pb toxicity on the growth and physiology of two ecotypes of *Elsholtzia argyi* and its alleviation by Zn. *Journal of Environmental Toxicology*, 26(4): 403-416. **IF = 1.831.**
13. Zhou, H. K., **Hayat, Y.**, Fang, L. J. Guo, R. F., He, J. M. and Xu, H. M. (2010). Analysis of genetic and genotype × environment interaction effects for agronomic traits of rice (*Oryza sativa* L.) in salt tolerance. *Pakistan Journal of Botany*, 42(5): 3239-3246. **IF = 0.947.**
14. Khan, I., Afsheen, S., Din, N., Khattak, S. U. K., Khalil, S. K., **Hayat, Y.** and Lou, Y. (2010). Appraisal of Different Wheat Genotypes against Angoumois Grain Moth, *Sitotroga cerealella* (Oliv.). *Pakistan J. Zool.*, 42(2): 161-168. **IF = 0.338.**
15. Mahmood, Q., Zheng, P., **Hayat, Y.**, Jin, R. C., Azim, M. R., Jilani, G., Islam, E., and Ahmed, M. (2009). Effects of nitrite to sulfide ratios on the performance of anoxic sulfide oxidizing reactor. *The Arabian Journal for Science and Engineering*, 34(1A): 45-54. **IF = 0.385.**
16. Daud, M.K., M.T. Variath, S. Ali, U. Najeeb, M. Jamil, **Y. Hayat**, M. Dawood, M.I. Khan, M. Zaffar, S.A. Cheema, X.H. Tong, and S.J. Zhu. 2009. Cadmium-induced

- ultramorphological and physiological changes in leaves of two transgenic cotton cultivars and their wild relative. *Journal of Hazardous Materials*, 168(2-3): 614-625. **IF = 2.975** .
17. Mahmood, Q., **Y. Hayat, G.** Jilani, Z. Hussain, M.R. Azim, and M. Waseem. 2009. Back Propagation Neural Networks to Predict the Performance of Anoxic Sulfide Oxidizing Reactor, *Kuwait Journal of Science and Engineering*, 36(2A) 1-14. **IF = 0.051**.
 18. Daud M. K., Sun, Y., Dawood, M., **Hayat, Y.**, Variath, M. T., Wu, Y. X., Raziuddin, Mishkat, U., Salahuddin, Najeeb, U., Zhu, S. (2009). Cadmium-induced functional and ultrastructural alterations in roots of two transgenic cotton cultivars and their distant wild relative. *Journal of Hazardous materials*, 161 (1): 463-473. **IF = 2.975**.
 19. **Hayat, Y.**, Yang, J., Xu, H. M., and Zhu, J. (2008). Influence of outliers on QTL mapping for complex traits. *Journal of Zhejiang Univ. Sci. B*, 9(12): 931-937. **IF = 1.679**.
 20. Liu, G. F., Yang, J., Xu, H. M., **Hayat, Y.**, and Zhu, J. (2008). Genetic analysis of grain yield conditioned on its component traits in rice (*Oryza sativa* L.). *Australian Journal of Agricultural Research*, 59(2): 189 – 195. **IF = 1.352**.
 21. Mahmood, Q., Zheng, P., **Hayat, Y.**, Islam, E., Wu, D. L., and Jin, R. C. (2008). Effect of pH on anoxic sulfide oxidizing reactor performance. *Bioresource Technology*, 99: 3291-3296. **IF = 3.103**.
 22. Mahmood, Q., Zheng, P., Wu, D.L., Wang, X. S., **Hayat, Y.**, Islam, E., Hassan, M. J., Jilani, G., and Rashid, M. A. (2007). Prediction of Anoxic Sulfide Biooxidation under various HRTs using Artificial Neural Networks. *Biomedical and Environmental Sciences*, 20: 398-403. **IF = 0.845**.
 23. Mahmood, Q., Zheng, P., Cai, J., **Hayat, Y.**, Hassan, M. J., Wu, D.L., and Hu, B. L. (2007). Sources of Sulfide in waste streams and Current Biotechnologies for its removal. *Journal of Zhejiang Univ. Sci. A*, 8(7): 1126-1140, June 2007. **IF = 0.807**.

Publications in National and International Journals

24. Din, I. and **Y. Hayat**. 2021. ANOVA or MANOVA for correlated traits in agricultural experiments. *Sarhad Journal of Agriculture*, 37 (4): 1250-1259.
25. Khan, K., W. Khan, **Y. Hayat**, S. M. Ahmad and K.K. Raza. 2020. A comparative study of students' and teachers' perceptions about english textbooks at intermediate level and their role in promoting students' proficiency in English. *International Journal of English Linguistics*, 10(2): 40-50

26. Ullah, R., K. Nawab, K. Ullah, M. . Z. Khan, **Y. Hayat**, I. Ullah, R. Ullah, A. Nawaz, and S. Malik. 2020. Are personal protective equipment of pesticides use a priority of farmers at the cost of health?. *International Journal of Biosciences*, 16(3): 66-82.
27. Ijaz, M., Q. U. Zaman, **Y. Hayat** and Z. Zaheer. 2020. Bayesian estimation of the parameter of Exponential distribution under Jeffery prior. *Advances and Applications in Statistics*, 60 (2): 189-199.
28. Ijaz, M., A. U. Khan, S. M. Asim, **Y. Hayat**, S. H. Shah, M. Farooq, K. Ali, Neelam and S. Zubair. 2020. A new ratio type estimator to estimate the population mean using auxiliary information. 2020. *Advances and Applications in Statistics*, 63 (1): 97-108.
29. Anam Sarwar, Sumera Afsheen, Syed Shakeel Shah, Sabila Afzal, Ahmed Zia, Inamullah Khan and **Yousaf Hayat**. 2019. Potential of plant oils against *Callosobruchus maculatus* (Coleoptera; Bruchidae) on stored mung bean (*Vigna radiata*). *Asian Journal of Agriculture and Biology*, 7(2): 204-209.
30. Khan, N. U., A. Zalan, A. Petruzzello, I. U. Din, F. Haq and **Y. Hayat**. 2018. Determining the Actual Prevalence of Hepatitis B in Khyber Pakhtunkhwa-Pakistan: A Meta-Analysis. *The Open Virology Journal*, 12, (Suppl-1, M4) 33-41.
31. Fayaz, M., A. Jan, D. Jan, G. Ali and **Y. Hayat**. 2016. Does the quantity and quality of cereal respond to changes in income? Evidence from Pakistan. *Sarhad Journal of Agriculture*, 32(3): 177-183.
32. Shahzada, G., U. A. Khan, S. R. Ghazi and **Y. Hayat**. 2015. Gender differences in self-estimated multiple intelligence among secondary school students. *Pakistan Journal of Psychological Research*, 30(1): 81-94.
33. Jan, A., D. Jan, **Y. Hayat**, A. Sadiqa, G. Ali and M. Fayaz. 2014. Logarithmic transformation: A tool for normalizing residuals in ANOVA models. *Sarhad Journal of Agriculture*, 30(3): 375-378.
34. **Hayat, Y.**, W. Ali, S. Hayat, A. U. Rahman, S. Shahzad and Z. Hussain. 2013. Studying behavior attributes and student's academic performance. *Sarhad Journal of Agriculture*, 29(3): 461-467.
35. Ali, L., M. Shah, A. Ullah, I. Alam, A. Jan, **Y. Hayat**, M. Ibrar, G. Ali. 2013. An assessment of livelihood attainment through local handicraft in district Swat, Pakistan. *Journal of Society and Communication*, Vol. 2013: 200-219:

36. Iqbal, M., Zaman, Q. and **Hayat, Y.** 2012. Determinants of Smoking Behavior among the University Students. PUTAJ, University of Peshawar, 20: 117-125.
37. Rafiq, A., F.A. Jan, **Y. Hayat**, and M. Fayyaz. 2012. An analysis of technical, vocational and commercial education contribution towards faculty satisfaction in terms of academic and professional development. Sarhad Journal of Agriculture, 28(2): 365-371.
38. Rahman, A. U., **Y. Hayat**, S. Hayat, Q. Zaman, M. Iqbal and A. Rahman. 2012. Impact of outliers on the socio-economic factors affecting education. Sarhad Journal of Agriculture, 28(1): 109-114.
39. Zeb, Q., I. Khan, M. Inayatullah, **Y. Hayat**, A.U.R. Saljoqi and M. A. Khan. 2011. Population dynamics of citrus whiteflies, aphids, citrus psylla leaf miner and their biocontrol agents in Khyber Pakhtunkhwa. Sarhad Journal of Agriculture, 27(3): 451-457.
40. Rahman, A. U., **Y. Hayat**, Z. Habib and J. Iqbal. 2011. Rural-urban disparities in Khyber Pakhtunkhwa, Pakistan. Sarhad Journal of Agriculture, 27(3): 477-483. **Citation = 5.**
41. Hussain, Z., Z. Mahmood and **Y. Hayat**. (2011). Modelling the daily rainfall amounts of N-west Pakistan for agricultural planning. Sarhad Journal of Agriculture, 27(2): 313-321.
42. Zaman, Q. **Hayat, Y.**, Suhail, S. M Khan, M. and Shah, S. W. (2009). Small and large sample performance of Kaplan- Meier and Shrunken Kaplan-Meier survival functions. *Sarhad J. Agric.* 25 (4): 181-190.
43. Liu, G. F., Zhou, H. K., Hu, H., Zhu, Z. H., **Hayat, Y.**, Xu, H. M., and Yang, J. (2007). Genetic analysis for brix weight per stool and its component traits in sugarcane (*Saccharum officinarum*). *Journal of Zhejiang Univ. Sci. B*, 8(12):860-866.
44. **Hayat, Y.**, Salahuddin, Mahmood, Q., Islam, E., and Yang, J. (2007). Comparative studies of outliers based on statistical methods to evaluate and select the optimum regression model for fertilizers utilization. *Scientific Research Monthly*, 3:81-84, 100. (International Journal). Hong Kong, China.
45. Khan, S. A., Hussain, N., Ullah, F. and **Hayat, Y.** (2007). Screening of wheat genotypes for resistance against cereal aphids. *Sarhad J. Agric.* 23(2): 427-434.
46. Khan, S. A., Ullah, F., Hussain, N., **Hayat, Y.**, and Sattar, S. (2007). Natural enemies of cereal aphids in North West Frontier Province (NWFP) Pakistan. *Sarhad J. Agric.* 23(2): 435-439.
47. Mahmood, Q., Wu, D. L., Qureshi, A.S., Khan, M.R., **Hayat, Y.**, Jilani, G., Shamsi, I.H., Tajammul, M. A., and Daud, M. K. (2006). Heterosis, Correlation and Path Analysis of

- Morphological and Biochemical Characters in Wheat (*Triticum aestivum* L. emp. Thell). *Agricultural Journal* 1(3): 180-185.
48. Shamsi, I. H., Jilani, G., Marwat, K. B., Mahmood, Q., Khalid, S., and **Hayat, Y.** (2006). Response of Poaceous Weeds in Wheat to Post-Emergence Herbicides. *Caspian J. Env. Sci.* 4(1): 9-16.
 49. Zaman, Q., Salahuddin, **Hayat, Y.**, Azam, M., and Strasak, A. M. (2006). Statistical analysis of risk factors associated with Beta-thalassemia. *Acta Informatica Medica* 14(4): 191-194.
 50. Khan, S. A., Hussain, N., Saljoqi, A. U. R., and **Hayat, Y.** (2006). Resistance of the maize variety Jalal against corn leaf aphid *Rhopalosiphum Maidis*, its impact on pest density and effects on yield and yield components. *Journal of Agric. and Biol. Sci.* 1(2): 30-34.
 51. Khan, S. A., Ullah, F., Hussain, N., Saljoqi, A. U. R., **Hayat, Y.**, and Sattar, S. (2006). Distribution pattern of the cereal aphids in the wheat growing areas of the North West Frontier Province (NWFP) of Pakistan. *Sarhad J. Agric.* 22(4): 655-659.
 52. **Hayat, Y.**, and Salahuddin. (2005). Socio-economic factors and demand of various fertilizers in district Peshawar. *Int. J. Biol. Biotech.* 2(1): 215-221.
 53. Mahmood, Q., Zheng, P., Rehan, S. M., Islam, E., Rashid, M. A., and **Hayat, Y.** (2005). Anatomical studies on water hyacinth (*Eichhornia Crassipes* (Mart.) Solms) under the influence of textile wastewater. *Journal of Zhejiang Univ. Sci. B* 6(10). 991-998.
 54. Mahmood, Q., Qureshi, A. S., Khan, M. R., Tajammul, M. A., and **Hayat, Y.** (2005). Genetic variability, heterosis, character correlation and path analysis of yield components in wheat (*Triticum aestivum* L. emp. Thell). *Int. J. Biol. Biotech.* 2(4): 995-999.
 55. Mahmood, Q., Zheng, P., Islam, E., **Hayat, Y.**, Hassan, J., Jilani, G., and Jin, R. C. (2005). Lab scale studies on water hyacinth (*Eichhornia crassipes* Mart Solms) for biotreatment of textile wastewater. *Caspian J. Env. Sci.* 3(2): 83-88.
 56. Salahuddin, **Hayat, Y.**, Shah, S., and Khattak, M. (2004). Consumption of N, P and K-fertilizers as affected by various factors in NWFP: A statistical study. *Journal of Pure and Applied Sciences*, 23(1): 1-13.
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