

# **DR. ZIL-E-HUMA BUTT, PhD.**

(HEC-approved supervisor)

**Mailing Address:** Assistant Professor, Department of Zoology, Sardar Bahadur Khan Women's University, Brewery Road, Quetta, 87300, Pakistan.

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## **MISSION STATEMENT:**

As an Assistant Professor of Zoology at SBK Women's University with over 20 years of dedicated service, my mission is to foster a deep understanding and appreciation for the biological sciences in my students. I am committed to inspiring future scientists through innovative teaching methods, cutting-edge research, and a supportive learning environment. My goal is to contribute to the advancement of zoological knowledge while nurturing my students' intellectual growth and professional development, empowering them to make significant contributions to zoology and beyond.

## **PERSONAL:**

Father Name:	Mohammad Ashique Butt
Gender:	Female
Marital Status:	Married
Date of Birth:	21 <sup>st</sup> February 1977
Domicile:	District Quetta, Balochistan
Language:	English, Urdu, Pashto, and Punjabi.
N.I.C No:	54400-8953068-0

## **EDUCATION:**

<i>Degree</i>	<i>Institute/University</i>	<i>Year of Passing</i>	<i>Grade/Division</i>
Ph.D (Zoology)	University of Balochistan, Quetta	2021	4 CGPA
M.Phil (Physiology)	Center of Advanced Studies in Vaccinology and Bacteriology, Quetta	2012	1 <sup>st</sup> Div

<b>M.Sc (Zoology)</b>	University of Balochistan, Quetta	1998	1 <sup>st</sup> Div ( <i>First Position</i> )
<b>B.Sc (Zoology, Chemistry, Geography)</b>	University of Balochistan, Quetta	1996	1 <sup>st</sup> Div ( <i>3<sup>rd</sup> Position</i> )
<b>F.Sc (Pre-Medical)</b>	Govt. Girls College Quetta	1994	1 <sup>st</sup> Div
<b>Matric (Science)</b>	Govt. Girls High School Mission Road Quetta.	1992	1 <sup>st</sup> Div

## **Skills**

- i. **Teaching and Curriculum Development:**
  - a. Over 20 years of experience teaching undergraduate and postgraduate zoology.
  - b. Skilled in developing curricula and employing diverse teaching methodologies to enhance student engagement and learning outcomes.
- ii. **Research and Publication:**
  - a. Strong research background with numerous publications in reputable scientific journals.
  - b. Expertise in conducting field and laboratory research, securing grants, and collaborating with research institutions.
- iii. **Student Mentorship and Advising:**
  - a. Dedicated to mentoring students, providing academic guidance, and supporting professional development.
  - b. Experienced in supervising student research projects and theses, fostering a supportive academic environment.
- iv. **Laboratory Management:**
  - a. Proficient in managing laboratory operations, maintaining equipment, ensuring safety protocols, and overseeing lab staff.
  - b. Skilled in experimental design, data analysis, and reporting findings.
- v. **Public Speaking and Communication:**
  - a. Strong public speaking skills, with experience presenting research findings at conferences and seminars.
  - b. Effective communicator, able to convey complex scientific concepts to diverse audiences. Published author with scientific writing and peer review experience.
- vi. **Interdisciplinary Collaboration:**
  - a. Adept at collaborating with colleagues from various disciplines to advance research and educational initiatives.
  - b. Experience working with governmental and non-governmental organizations on conservation and biodiversity projects.
- vii. **Technological Proficiency:**
  - a. Competent in using advanced software for data and statistical analysis, and research documentation.

- b. Familiar with virtual learning platforms and online teaching tools to facilitate remote education.

### **PRACTICAL EXPERIENCE**

- I have been working as an **Assistant Professor** in the **Department of Zoology, SBK Women's University**, Quetta since October 2012.
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- Worked as a **Lecturer** in the Department of Zoology from May 2003 till October 2012
- One year of experience as a **Lecturer of Zoology** at **Garrison Academy**, Quetta Cantt.
- One year of teaching experience as a Zoology and Chemistry lecturer for **A Level** at **ISIS College**, Quetta.

### **PROFESSIONAL DEVELOPMENT/WORKSHOPS:**

- Attended a 3-month certificate course in *Teaching & Learning in Higher Education* (June 27 -Sep 24, 2005) by the **Learning Innovation Division, Higher Education Commission** at HEC Islamabad.
- **International Computer Driving License (ICDL 2005)** holder.
- Participated in **Disaster Management Workshop** held at Sardar Bahadur Khan Women's University Quetta. (22<sup>nd</sup> -24<sup>th</sup> Nov 2011)
- HEC workshop on "**Applied Molecular Genetics**" held from July 31 – August 5, 2006, at Sardar Bahadur Khan Women's University Quetta.
- Workshop on "**Gel Electrophoresis (SDS PAGE)**" held from 3<sup>rd</sup> – 7<sup>th</sup> Jan 2012 at Sardar Bahadur Khan Women's University Quetta.
- Attended a four-day workshop on "**Identification of Mycoplasma Species (Bacteria) through Molecular tools (PCR & RFLP)**" from 26<sup>th</sup> March – 29<sup>th</sup> March 2012 at Sardar Bahadur Khan Women's University Quetta.
- Organized a four-day workshop on **SPSS** for research development, at Sardar Bahadur Khan Women's University Quetta, from 16<sup>th</sup> April – 19<sup>th</sup> April 2012.
- Participated in the "**6<sup>th</sup> International and 15<sup>th</sup> National Conference on Dynamic Trends in Plant Science-Fostering Environmental and Food**

**Security”**, from May 9-11,2017 at Sardar Bahadur Khan Women’s University Quetta.

- Presented poster presentation at the **International Conference on Pharmaceutical Sciences**, conducted by the faculty of pharmacy & health sciences, University of Balochistan, Quetta, September 26-27 2018.
- Participated in 4 days training workshop on **“Infection prevention & control, good laboratory clinical practices & patient occupational safety”** jointly organized by Fungal Biotechnology Lab, Department of Biotechnology, Balochistan University of Information Technology, Engineering & Management Sciences (BUIEMS) & Centre for Environmental and Occupational Health (CEOH) National Institute of Health (NIH), Department of Health, Quetta on 17-20 May 2022.
- Member of the Board of Faculty for the faculty of Life Sciences of SBKWU Quetta.
- One-day training workshop on Research Methodology and How to Write Research paper on 25th October 2022, at Department of Zoology SBKWU, Quetta.
- Participated in a 5-day “Women Leadership Program” workshop by Higher Education Commission, National Academy of Higher Education, held at Regional NAHE HUM BUITMES, Quetta, May 8-12, 2023.
- Participated in 4 days **“Student Support Services Annual Summit”**, by USAID’s Higher Education System Strengthening Activity, in PC Bhoorban Islamabad, from June 20-23, 2023.
- Participated in a two-day hands-on workshop on **“PRACTICAL APPROACHES IN BIOINFORMATICS”**, from 16<sup>th</sup> to 17<sup>th</sup> November 18, 2023.
- Member of the Relevance Assessment Committee of the Department of Zoology in SBKWU Quetta in 2023.
- Member of the Departmental Research Committee (DRC) for the Department of Zoology of SBKWU Quetta.
- Alumni focal person of SBKWU Quetta as a part of student support services aided by HESSA
- Participated as a resource person in FDP training from 14<sup>th</sup> May 2024 to 21<sup>st</sup> May 2024 in SBKW University Quetta

- Currently looking after the affairs of Kamyab Jawan Markaz / Youth Development Centre in SBKWU since 22<sup>nd</sup> May 2024, under order No.88/44/SBKWU/2024/406
- HEC-approved Supervisor since 2023
- Participated as a guest speaker at an impactful online workshop on mastering Sustainable Development Goals (SDGs). This workshop, in collaboration with Skillistan and the Green Youth Movement Club SBKWU Quetta, on 31<sup>st</sup> July 2024
- Participated in a four-day online training/ workshop by the Chief **Sustainable Development Goals** in the Ministry of Planning on all 17 SDGs, as **YoUNGS** (Youth University Network on SDGs) focal person of SBKWU, Quetta, among the 140 universities of Pakistan, from 8<sup>th</sup> Aug -13<sup>th</sup> Aug 2024.
- Has imparted training to mentees under the Women's Empowerment and Mentoring Program (WEMP), organized by the National Academy of Higher Education (NAHE)HEC, at SBK Women's University, Quetta, from 20<sup>th</sup> December 2024 to 20<sup>th</sup> April 2025
- Attended a workshop of an HEC-approved supervisor in SBK Women's University in 2024.
- Working as Head of the Zoology Department SBKWU since 27<sup>th</sup> March 2025, under the notification no.100/HR/SBKWU/2025/308.

### **ACADEMIC ACHIEVEMENTS:**

- Secured HEC Indigenous scholarship for PhD studies.
- Gold Medalist in M.Sc. Zoology from the University of Balochistan, Quetta.
- Won the President Talent Scholarship in M.Sc. (1997) from HEC, Islamabad.

### **COURSES TAUGHT**

<b>BS</b>	Cell Biology, Molecular Biology, Biochemistry-I, Biochemistry-II, Evolution, Systematic Zoology, Zoogeography, Animal Physiology, Ecology, Animal Behaviour
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<b>MSc.</b>	Cell Biology, Molecular Biology, Evolution, Systematic Zoology, Zoogeography, Animal Physiology, Ecology
<b>M.Phil.</b>	Advanced Biochemistry
<b>PhD.</b>	Advanced Medical Endocrinology

## **PUBLICATIONS:**

1. Rafiq, N., Rafiq, S., Channa, F. N., Sajjad, N., Munir, F., **Huma, Z.**, & Sahar, T. (2024). Analysis of GSTA1 Genetic Variation in Healthy Women Versus Breast Cancer Patients in a Local Cohort.
2. Shahzadi Sanam, Sabeena Rizwan, Irum Javid, Sobia Munir, Farida Behlil, **Zile Huma**, Farrukh Bashir, Fazeela Mandokhail. (2024). DIABETIC NEPHROPATHY IN QUETTA CITY: A CROSS-SECTIONAL HOSPITAL BASED STUDY. *Journal of Population Therapeutics and Clinical Pharmacology*, 31(9), 2161-2168). <https://doi.org/10.53555/3an8ex89>
3. Naz, G., Tariq, N., Maryam, M., Khatoon Hayat, D., Kausar, T., Zubair, S., Ishaque, U., Zahra, U., & e **Huma, Z.** (2024). The Biology and Clinical Spectrum of Herpes Simplex Virus: Diagnostic and Therapeutic Perspectives". *History of Medicine*, 10(2), 847-875.
4. Huma Tareen, Farrukh Bashir, Irum Javid, Naheed Sajjad, **Zile Huma**, Muhammad Riaz, Khurram Shazad Buzdar, Muhammad Aamir Raza, & Uzma Jabeen. (2024). INCORPORATION OF CDS NANOPARTICLES INTO PMMA MATRIX AND THEIR PHOTOCATALYTIC RESPONSE AGAINST METHYLENE BLUE. *Journal of Population Therapeutics and Clinical Pharmacology*, 31(7), 1537–1548. <https://doi.org/10.53555/jptcp.v31i7.7320>
5. Iftikhar Hussain, Alizzah Amanat, Farrukh Bashir, Muhammad Tasaeen, **Zile Huma**, Nelofer Jamil, Irum Javid, Muhammad Shahid, Muhammad Aamir Raza. (2024) Rapid and Catalytic Pyrolysis of *Eriobotrya Japonica* Seed Oil: Effect of Temperature and Catalyst Additives. *Kurdish Studies* (ACCEPTED)
6. Yousaf, Z., Samad, A., **Huma Z.**, Syed, I., Jaffar, S., Ashrafuddin, S., Khan, C., ... & Muhammad, S. G. (2024). Determination and Assessment of Bacterial Infection and its Antimicrobial Resistance in Pregnant Women in Quetta, Balochistan. *Pak-Euro Journal of Medical and Life Sciences*, 7(2), 145-150.
7. Batool, Z., Tareen, M., Bashir, F., Riaz, M., Fehmid, **Huma Z.**, S., Behlil, F., & Mushtaq, A. (2024). Comparative analysis of Kidney Stones Collected from Male

- and Female Samples of Different Age Groups from Quetta City. *Pak-Euro Journal of Medical and Life Sciences*, 7(1), 89-96.
8. Hussain, I., Bashir, F., **Huma Z.**, Raza, M. A., Mushtaq, A., Bhelil, F., Riaz, M., ... & Raza, M. A. **(2023)**. Role of Physiochemical Parameters on the Extent of Aflatoxins in Curry/Chili Powder. *Pak-Euro Journal of Medical and Life Sciences*, 6(4), 453-466.
  9. Qurban, Q., Bashir, F., Bhelil, F., Mushtaq, A., Rizwan, S., Riaz, M., **Huma Z** ... & Raza, M. A. **(2023)**. In-silico Identification and Characterization of Chemical Stress Responding Genes in Yeast (*Saccharomyces cerevisiae*). *Pak-Euro Journal of Medical and Life Sciences*, 6(3), 343-352.
  10. Maryam, M., Manzoor, A. **Huma, Z.** **(2023)**. A comparative evaluation of five milk-producing mammals: Benefits and safety. *Archives of Veterinary Science*, 28(4).
  11. Bibi, A., Tariq, N., Ali, H., **Butt, Z. E. H.**, Kausar, T., & Maryam, M. **(2023)**. Genotyping of KELL blood group in multiethnic populations of Quetta, Pakistan. *Health Biotechnology and Biopharma (HBB)*, 7(2), 66-81.
  12. AN ENSEMBLE MACHINE LEARNING APPROACH FOR THE PREDICTION OF BODY WEIGHT OF CHICKENS FROM BODY MEASUREMENT M. Urooj, Farhat Iqbal, and **Zil-E-Huma** *J. Anim. Plant Sci.*, 33 (4) **2023**
  13. Iqbal, F., Raziq, A., **Zil-E-Huma et al.** Using the artificial bee colony technique to optimize machine learning algorithms in estimating the mature weight of camels. *Trop Anim Health Prod* **55**, 86 **(2023)**.  
<https://doi.org/10.1007/s11250-023-03501-x>
  14. Urooj Arshad, Ashif Sajjad, Inam ul Haq, Shaista Anjum, **Zil-e-Huma**, Arshad Hussain and Fouzia Noreen. Phytochemical, antimicrobial and elemental status of three anti-diabetic medicinal plants of Balochistan, Pakistan. *Pure and Applied Biology*. Vol. 12, Issue 1, pp357-364.  
<http://dx.doi.org/10.19045/bspab.2023.120038>
  15. Khilji, F. U. R., **Huma, Z. E.**, Baloch, N. S., Shoaib, M., Iqbal, Z., Raziq, A., ... & Ishaq, R. Physicians' Response and Preparedness of Terrorism-Related Disaster Events in Quetta City, Pakistan: a qualitative inquiry. *Frontiers in Public Health*, 1646, <https://doi.org/10.3389/fpubh.2022.912762>

16. **Zil-e-Huma**, Abdul Malik Tareen, Abdul Samad, Muhammad Zahid Mustafa, Maqsood Maryam, Sabeena Rizwan, Ali Akbar, Immunogenic protein profiling of pathogenic *Escherichia coli* strains isolated from infants with diarrhea in quetta balochistan, Journal of King Saud University Science, **2022**, 101883, ISSN 1018-3647, <https://doi.org/10.1016/j.jksus.2022.101883>.  
  
(<https://www.sciencedirect.com/science/article/pii/S1018364722000647>)
17. Ishaq, R., Shoaib, M., Baloch, N. S., Sadiq, A., Raziq, A., **Huma, Z. E.**, ... & Iqbal, Q. Profile and Predictors of Maternal Quality of Life during physiological pregnancy: a cross-sectional analysis. Frontiers in Public Health, 2275. 17 January **2022** | <https://doi.org/10.3389/fpubh.2021.801035>
18. Iqbal, F., Raziq, A., **Huma, ZE.**, and Khan, M.A. (**2021**). An application of least square support vector machine model with parameter optimization for predicting body weight of Harnai sheep breed. Turkish Journal of Veterinary and Animal Sciences. 45: 716-725. DOI: 10.3906/vet-2009-105.
19. Faraz, A., Waheed, A., Tauqir, N.A., Ishaq, H.M., Iqbal, F., and **Huma, Z.E.** (**2021**). Feedlot Performance and Serum Profile of Buffalo (*Bubalus Bubalis*) Calves Under High Input Feeding Systems. Buffalo Bulletin. 40(2): 325-333.
20. Iqbal, F., Eyduran, E., Ali, M., Raziq, A., **Huma, ZE.**, Tirnik, C., and Sevgenler, H. (**2021**). Modelling and Predicting the Growth of Indigenous Harnai Sheep in Pakistan: Non-linear Functions and MARS Algorithm. Tropical Animal Health and Production. 53:248.
21. Iqbal F., Waheed, A., **Huma, ZE.** and Faraz, A. (**2021**). Comparing the predictive ability of machine learning methods in predicting the live body weight of Beetal goats of Pakistan. Pakistan Journal of Zoology. 1-8. DOI: <https://dx.doi.org/10.17582/journal.pjz/20191003081007>.
22. Iqbal, F., Waheed, A. and **Huma, ZE.** (**2019**). Nonlinear Growth Functions for Body Weight of Thalli Sheep Using Bayesian Inference. Pakistan Journal of Zoology, 51(4): 1421 – 1428.
23. Iqbal, F., Ali, M., **Huma, ZE.**, and Raziq, A. (**2019**). Predicting the live weight of Harnai sheep through penalized regression models. The Journal of Animal & Plant Sciences. 29(6).
24. Iqbal, F., Eyduran, E., Mikail, N., Sariyel, V., **Huma, Z. E.**, Aygün, A., & Keskin, İ. (**2019**). A Bayesian approach for describing the growth of Chukar partridges.



25. **HUMA, Z. E.**, Tareen, A. M., Ullah, K., Asmat, T. M., Samad, A., Iqbal, A., Mustafa, M. Z., & Ahmad, I. (2019). Incidence of Diarrheagenic Escherichia coli Pathotypes in Children Suffering from Diarrhea in Tertiary Care Hospitals, Quetta, Pakistan. Pakistan Journal of Zoology, 51(6) p.2015-2021
  
26. **HUMA, Z. E.**, & IQBAL, F. (2019). Predicting the bodyweight of Balochi sheep using a machine learning approach. Turkish Journal of Veterinary and Animal Sciences, 43(4), 500-506. DOI: 10.3906/vet-1812-23
  
27. Iqbal, F., Tariq, M.M., Eyduran, E., **Huma, ZE.**, Waheed, A., Bukhari, F.A., Ali, M., Rashid, N., Rafeeq, M., Ullah, A., and Mustafa, Z. (2018). Fitting Nonlinear Growth Models on Weight in Mengali Sheep Through Bayesian Inference. Pakistan Journal of Zoology, 51(2), 459.
  
28. Tariq, M.M., Iqbal, F., Eyduran, E., Bajwa, M.A, **Huma, ZE.**, and Waheed, A. (2013). Comparison of Non-Linear Functions to Describe the Growth in Mengali Sheep Breed of Balochistan. Pakistan Journal of Zoology. 45(3): 661 – 665.
  
29. **Huma, Z.**, Rafeeq, M., Bajwa, M.A., Tariq, M.M., Rashid, N., and Tanweer, A.J. 2012. Effect of Aspergillus oryzae extracts on the performance of Balochi lambs. Sarhad Journal of Agriculture. 28(3):465-468
  
30. Jan, F.H., **Huma, Z.E.**, Tariq, N., Sajjad, N. (2016) Menstrual syndrome: severity, frequency, and symptomatology in adolescent girls of Quetta, Pakistan. Journal of Experimental Biology and Agricultural Sciences 4(2):128–132.

## RESEARCH PROJECTS / M. PHIL STUDENTS

Name: Racheal Azmat

Registration No.: 2001/SBK (WU) M. PHIL- 16/863

Title of Thesis: isolation and characterization of bacillus cereus from rice samples of street vendors and restaurants of Quetta.

Name: Zartasha Yousaf

Registration No. 2008/SBK(WU)/M.Phil. \_18/1506:

Title of Thesis: Isolation and Identification of Bacterial Pathogens Associated with Urinary Tract Infections (UTI) in Pregnant Females in Quetta

Name: Maria Shams

Registration No.: 2010/SBK(WU)/M. Phil-18/1471

Title of Thesis: Bacteriological quality assessment of fresh fruits sold in Quetta Pakistan

Name: Pertamina Farooq

Registration No.: 2012/SBK (wu)/M. Phil-19/1808.

Title of Thesis: Evaluation of changes in flesh quality of carps (*Labeo rohita* and *Cirrhinus mrigala*) at different temperatures.

Name: Sana Shahid

Title: Investigating The Correlation Between Thyroid Function And Mental Well-Being Among Quetta's Population. (2022- 2024)

Name: Anita Haider

Title: Prevalence Of Hypothyroidism And Hyperthyroidism In Quetta City And Its Correlation Analysis with Uric Acid Levels. (2022- 2024)

Name: Hafiza Rafia Abdul Qayyum

Title: Assessment of Acetylcholine Levels and Cognitive Impairment in Drug-Addicted Adolescents in Quetta, Pakistan. (2023-2025)

Name: Maryam Muhammad Ibraheem

Registration No. Registration No: 2013/SBK(WU)/M.Phil. 24/1975

Title: Genetic Characterization of G.209t>G SNP In The (*Gnrhr*) Gene Using Tetra-Primer Arms PCR in Lehri and Khurasani Goats