**Professor Asif Jamal (PhD) Gold Medalist**

**Director, Affiliated Colleges**

**HEC Approved PhD Supervisor**

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| Map pointer icon, GPS location symbol, map pin sign, map icon sign on white  back , #Ad, #location, #symbol, #map, #GPS, #Map #… | Map icons, Pin logo, Location  icon | Professor, Department of Microbiology, Quaid-i-Azam University, Islamabad, 45320, Pakistan. |
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|  | <https://www.qau.edu.pk/profile.php?id=805013> |

*With 18 years (Post-PhD 10 years) of teaching and research experience at University level, I have supervised 62 M.Phil, 6 PhD theses and published 63 research papers (37 in last five years) in reputed international journals (Total Impact Factor: 260; Citation 2058) and 9 book chapters. Currently, my group is working on various aspects of applied and environmental microbiology specifically soil microbial ecology, biocontrol of plant pathogens using biosurfactants and environmental remediation. In the year 2017, I have won three competitive grants from Higher Education Commission of Pakistan (15 million PKR) and 3.7 Million developmental grant for Affiliated Colleges. I have been associated with curriculum development/revision team for improving BS/MPhil/PhD courses at par with international standards. I have been assigned diverse management tasks both within and off-campus. These includes; member admission committees (MSc/MPhil/PhD), BS program coordinator, Member student advisory committee, senior resident warden for boy’s hostel; Member University sports committee, Deputy Director, Quality Enhancement Cell, In- charge, Quality Enhancement Cell of Affiliated colleges, Director of Affiliated Colleges and M.Phil/PhD programs review committee.*

## ACADEMICS

* PhD Chemistry/Biotechnology G.C University, Lahore,2014 (Thesis Title: Studies on Microbial and Plants Surfactants for their Use in Soil Remediation
* M.Phil Microbiology QAU, 2004 (Thesis Title: Isolation and Characterization of Crude Oil Degrading Bacteria)
* M.Sc Biology QAU, 2001(Thesis Title: Biodegradation of Phenolic Compounds by *P.putida*).

## PROFESSIONAL ACTIVITIES:

* Director, Affiliated Colleges, QAU, 2023-todate
* Professor, Department of Microbiology, Quaid-i-Azam University, Islamabad-Pakistan. 2024- todate
* **Associate Professor,** Department of Microbiology, Quaid-i-Azam University, Islamabad-Pakistan. 2022- 2024
* **Assistant Professor,** Department of Microbiology, Quaid-i-Azam University, Islamabad-Pakistan. 2015- 2022
* **Lecturer,** Department of Microbiology, Quaid-i-Azam University, Islamabad-Pakistan. 2009-2015
* **Assistant Professor,** Institute of Molecular Biology and Biotechnology, The University of Lahore, Lahore, Pakistan.2007-2009
* **Research Assistant,** Department of Biology, Microbiology Research Lab, Quaid-i-Azam University, Islamabad, Pakistan.2001-2003.
* **Courses Taught:** Soil Microbiology, Fermentation Technology, Advances in Microbiology, Fundamentals of Microbiology, Molecular Microbiology**,** Microbial Diversity, Microbial Physiology, Biosafety and Risk Management, Current Trends in Biotechnology, Cell Biology, Soil Microbiology and Microbial Biotechnology.
* **Courses Developed:**

1. Research Innovation and Entrepreneurship (M.Phil/PhD)
2. Molecular Microbiology(B.S, M.Sc)
3. Advances in Bacterial Physiology (M.Phil/PhD)
4. Agriculture Microbiology (M.Phil/PhD)

* **External Examiner:** University of the Punjab, Hazara university Manshera, International Islamic University, Arid agriculture University Rawalpindi, The University of Lahore, GC University, Lahore.
* **Grants Reviewer:** Higher Education Commission of Pakistan& Pakistan Science Foundation for the evaluation of competitive research grants
* **Scientific Reviewer:** Lancet Public Health**,** Journal of Hazardous Materials**,** Soil and sediment contamination**,** Bioremediation Journal, Bioremediation & Biodegradation, Applied Biochemistry and Biotechnology, Bioengineering and Biotechnology, Environmental Technology. Brazilian J Microbiology, Tarkya J Natural Sciences, International Journal of leather science and engineering.
* **Member:** University Sports Committee (2019-2022)
* **Member** PhD Admission Committee (2020-2023)
* **Member** Board of Faculty of Biological Sciences, Quaid-i-Azam University (2017-19),
* **Member** Board of studies, Department of Microbiology.
* **Member Quaid-i-Azam University Academic Council (2024 to date)**

## Senior Resident Warden Boys Hostels (2015-2018)

* Deputy Director Quality Enhancement Cell, Quaid I Azam University(2019-todate)
* Incharge, Quality Enhancement Cell of Affiliated Collages (2020 todate)
* Focal Person, ICT Affiliated Colleges (2020- todate)
* BS Microbiology Program Coordinator (2020-to2021)
* Member: Self-assessment process, M.Phil/PhD review, accreditation and University ranking committee (2021-to date)
* Student advisor, Department of Microbiology, QAU, 2023-todate
* Member rules review committee for Affiliated Colleges (2022-present)
* Director, Affiliated Colleges, Quaid-i-Azam University, Islamabad, 2023-todate

**National Level:**

* Member Higher Education Commission committee for third party validation of Prime Minster Laptop Scheme (2021-2022)
* Subject expert of Biology, National Curriculum Committee 2022-23.
* Subject expert of Biology, Post Exam Analysis, MDCAT, 2021. Pakistan Medical Commission
* Subject expert of Biology, MTCAT paper and examination, 2022, Pakistan Medical Commission

**Research Interest**

* + Ap**plied and Environmental Microbiology**
  + Bioremediation, Biodegradation and biosurfactants: Characterization of non-ribosomal and glycolipid biosurfactants,
  + Soil and Agriculture Microbiology: Biological control of phytopathogens, Plant growth promotion and agriculture yield improvement using biosurfactant producing microbes

## R& D Infrastructure Established:

* Established Applied and Environmental Microbiology Research Group**(2017)**
* Established Applied and Environmental Microbiology Lab **(2017)**
* Establishment of Quality Enhancement Cell for Affiliated Colleges **(2023)**

## COMPETITIVE RESEARCH GRANTS:

* **Principle Investigator;** Development of biological treatment system for pulp and paper industry waste water, Awarding Agency (Higher Education commission of Pakistan) 4.23 million PKR **(2017-2020).**
* **Co-Principle Investigator;** Production and Characterization of Biochar and its application for soil Bioremediation and as Bio-fertilizer. Awarding Agency (Higher Education commission of Pakistan) 7.0 million PKR**(2017-2020).**
* **Co-Principle Investigator** , Production of microalgal biomass, as potential biofertilizer, using wastewater leading to removal of pollutants and pathogenic loads Pakistan Science Foundation (PKR 4.3 Million) **(2022-2024)**
* **QECAC Development grant PKR 3.7 M,** Higher Education commission of Pakistan, 2021-2023.

## Academic & Intellectual Contribution

**Books Chapters**

1. Asif Jamal\*, Muhammad Ishtiaq Ali, Ahitsham bin Masood. Role of biosurfactants in agriculture, **Advancements in biosurfactants research**, ***Springer publishers***, (**2023),** 1st Edition
2. Asif Jamal\* Ahtisham bin Masood, Muhammad Ishtiaq Ali. Pollution mitigation utilizing biosurfactants, Industrial Applications Of Biosurfactants And Microorganisms: Green Technology Avenues From Lab To Commercialization, **Elsevier Publications** **2024**
3. Asif Jamal and Ramla rehman. Role of Biosurfactants in drug adsorption, Industrial Applications Of Biosurfactants And Microorganisms: Green Technology Avenues From Lab To Commercialization, **Elsevier Publications 2024**
4. Asif Jamal\*, Irfan Ali, Muhammad Ishtiaq Ali, Ahtisham Bin Masood, Introduction And Classification Of Biosurfactants, Industrial Applications Of Biosurfactants And Microorganisms: Green Technology Avenues From Lab To Commercialization, **Elsevier Publications** **2023**
5. Mansoor, Afsheen, Asif Jamal\*; Masood, Aetsham; Muhammad Ishtiaq Ali, Magnetic surfactants: Introduction, chemistry and properties" Magnetic Surfactants: Design, Chemistry, & Utilization, **American Chemical Society**. **2024**
6. Recent Advances in Treatment Technologies for Antibiotics and Antimicrobial Resistance Genes: **A**ntibiotics and antimicrobial resistance; Occurrence and treatment technologies, ***Springer publishers***, (**2020),** 1st Edition.
7. Aetsam Bin Masooda, Malik Badshaha, Urooj Qayyuma, Muhammad Ishtiaq Alia, Zaixing Huangb and Asif Jamala\* **(2025)** Synthesis, Characterization and Screening of Microbial Biosurfactants with their Vivid Applications in Textile Industry, Royal Chemical Society.
8. Asif Jamal\*, Aetsam Bin Masood, Muhammad Ishtiaq Ali, Malik Badshah (**2025**) Bio-inspired Materials for Enhanced Supercapacitor Performance: Opportunities and Challenges, Royal Chemical Society.
9. Urooj Qayyum1, Aetsam Bin Masood1, Noor Ul Ain1, Faiza Gul1, Muhammad Ansar1, Maryum Syed1, Muhammad Ishtiaq Ali1, Malik Badshah1, Zaixing Haung2,3, Asif Jamal\*1. **(2025)** Microbially derived surfactants, properties, production and anti-corrosive applications. Springer, (Under progress)

**Research Papers**

1. Abdul Baseer Khan, Muhammad Ishtiaq Ali, Malik Badshah, Zaxing Haung, **Asif Jamal** **(2025)**, Enhancing agricultural sustainability through the combined use of bio-slurry and chemical fertilizers: Insights from field trials in pea and radish" Bioresource Technology Reports. (Accepted Impact factor 4.3)
2. Aehtisham Bin Masood, Muhammad Ishtiaq Ali, Malik Badshah, Nicleson Mogens, **Asif Jamal** **(2025)** Antifungal potential of non-ribosomal peptide producing Serratia surfactantfaciens (S31) and Alcaligenes pakistanensis (S33) isolated from the Solanum lycopersicum rhizosphere. Physiol and Mol. Plant Patho, [Volume 139](https://www.sciencedirect.com/journal/physiological-and-molecular-plant-pathology/vol/139/suppl/C), 102778 (Impact factor **3.3**)
3. Muhammad ishtiaq Ali, Asif Jamal **(2025)** Enhanced methane production from bloom algal biomass using hydrothermal and hydrothermal-alkaline pretreatment with anaerobic digestion. Nature, Scientific Reports (Accepted impact factor **4.8**)
4. Mengmeng Li ,Zaixing Huang, FangJing Liu a, Asif Jamal g, MuhammadIshtiaq Ali, Michael Urynowicz **(2025)** Effects of Zn2+ and Co2+ on methane production of Shengli lignite pretreated with H2O2. Fuel (impact factor **7.1**)
5. Samia Sakindar, Muhammad ishtiaq Ali, Asif Jamal*\**, Zaixing haung, Munir Bahkit (2024), Deciphering supramolecular arrangments, micellization patterns and antimicrobial potential of bacterial rhamnolipids under treatments of extreme pH and salt concentration. Front. Microbiology Vol 15 [doi.org/10.3389/fmicb.2024.1493843](https://doi.org/10.3389/fmicb.2024.1493843) (Impact factor **5.2**)
6. Mansoor, A., Mansoor, E., Mehmood, M. Asif Jamal*\*.* (2024) Novel microbial synthesis of titania nanoparticles using probiotic *Bacillus coagulans* and its role in enhancing the microhardness of glass ionomer restorative materials. *Odontology*, 10266-024-00921-5 (Impact factor 2.4)
7. Tabassum Rasool1, Muhammad Ansar, Irfan Ali4, Muhammad Ishtiaq Ali1, Zaixing Huang2,3,Michael Urynowicz3, Asif Jamal1\*. (2024) Performance Evaluation of Gravity-Driven Bioreactor (GDB) for Simultaneous Treatment of Black Liquor and Domestic Wastewater, Environmental Science and Pollution research (Impact factor **7.6**)
8. Tabassum Rasoola, Muhammad Ishtiaq Alia, AsifJamala\*,, Zaixing Huangd,Michael Urynowiczd. (2023) Performance Evaluation and Microbial Profiling of Integrated Vertical Flow Constructed Wetland (IVFCW) for Simultaneous Treatment of Domestic and Pulp and Paper Industry Wastewater, Saudi Journal of Biological Sciences, (Impact factor 4.4).
9. Abdul Haq, Ayesha Malik, Alam Khan, Joseph E. Weaver, Ling Wang, Haji Khan, Samiullah Khan, Aamer Ali Shah, Safia Ahmed, Asif Jamal, Francis L. de los Reyes, Malik Badshah, (2023) Effect of removal of inhibitors on microbial communities and biogas yield of Jatropha curcas seeds during continuous anaerobic digestion, Journal of Cleaner Production (Impact factor 1**0**)
10. Khadim Dawar, Ishaq Ahmad Mian, Shadman Khan, Anwar Zaman, Subhan Muhammad Ishtiaq Ali, Asif Jamal, Mo Zhu, Shah Masaud Khan, Khaled El-Kahtany, Shah Fahad, (2023) Alleviation of cadmium toxicity and fortification of zinc in wheat cultivars cultivated in Cd contaminated soil, South African Journal of Botany, Volume 162 (Impact Factor 2.7)
11. Faisal Jan, Hamza Arshad, Mehreen Ahad, Asif Jamal\* Donald Smith (**2023**) In vitro assessment of Bacillus subtilis FJ3 affirms its biocontrol and plant growth promotion potential. Frontier in Plant Sciences V. 14, doi.org/10.3389/fpls.2023 (Impact factor **4.8**)
12. Afsheen Qamar, Muhammad Ishtiaq Ali, Asif Jamal\* (**2023**) Synthesis of TiO2 nanoparticles and demonstration of their antagonistic properties against selected dental caries promoting bacteria. Pak. Journal of Medical Sciences (impact factor **2.2**)
13. Afsheen Qamar, Muhammad Ishtiaq Ali, Malik Badshah, Asif Jamal\* **(2023)** Antibacterial effect of Titanium-Oxide nanoparticles and their application as alternative to antibiotics**.** Pakistan Veterinary Journal (Vol. 43, Issue 2/3, impact factor **5.4**).
14. [H. Rehman](https://link.springer.com/article/10.1007/s13762-023-05006-4#auth-H_-Rehman-Aff1), [W. Rehman](https://link.springer.com/article/10.1007/s13762-023-05006-4#auth-W_-Rehman-Aff2), [Z. Qu](https://link.springer.com/article/10.1007/s13762-023-05006-4#auth-Z_-Qu-Aff2), [M. Ahmad](https://link.springer.com/article/10.1007/s13762-023-05006-4#auth-M_-Ahmad-Aff1), [S. Yousaf](https://link.springer.com/article/10.1007/s13762-023-05006-4#auth-S_-Yousaf-Aff1), [A. Jamal](https://link.springer.com/article/10.1007/s13762-023-05006-4#auth-A_-Jamal-Aff3) & [M. Iqbal](https://link.springer.com/article/10.1007/s13762-023-05006-4#auth-M_-Iqbal-Aff1) **(2023)** Electromagnetic biochar: a novel material for cadmium adsorption from industrial wastewater. [International Journal of Environmental Science and Technology](https://link.springer.com/journal/13762), <https://doi.org/10.1007/s13762-023-05006-4>. (Impact factor **3.4**)
15. Arif Ur Rehman, Aisha Tabassum, Ayesha Aftab, Nafeesa Zahid, Asif Jamal. Abdulrahim A. Sajini, Asma Gul, Bashir Ahmad, **(2023)** Artemisia vulgaris reduced and stabilized titanium oxide nanoparticles for anti‑microbial, anti‑fungal and anti‑cancer activity. Applied Nanoscience <https://doi.org/10.1007/s13204-023-02859-6> (Impact factor **3.67**)
16. Weiting Zhang, Qianyun Mo, Zaixing Huang , Muhammad Muhammad Sabar, Gordana Gordana Medunić , Tatjana Tatjana Ivošević, Huan He , Muhammad Sabar, Fangjing Liu, Hongguang Guo, Rizwan Haider, Muhammad Ishtiaq Ali and Asif Jamal **(2023).** Contaminants from a former Croatian coal sludge dictate the structure of microbiota in the estuarine sediment and soil. Frontier of Microbiology. doi.org/10.3389/fmicb.2023.1126612 (Impact Factor **5.2**)
17. Javed Khan, Muhammad Ishtiaq Ali, Asif Jamal, Jahangir Khan Achakzai, Jafir Hussain Shirazi, Abdul Haleem (**2023**). Assessment of the dibenzothiophene desulfurization potential of indigenously isolated bacterial consortium IQMJ-5: A different approach to safeguard the environment. Archives of Microbiology (Impact factor **2.6**)
18. SalehaParveen,Maryam Aslam, Muhammad Ishtiaq Ali, **Asif Jamal\*** (2022) Optimizing biocatalytic potential of *Dipodascus australiensis* M2 for degrading lignin under laboratory conditions. Microbiological research journal (doi:10.1016/j.micres.2022.127179 Impact Factor **6.9**)
19. Muhammad Ishtiaq Ali, Asif Jamal, (2022) Response of mixed bacterial culture diazothiophene desulfurization under the influence of surfactants and microscopicslly characterized nanoparticales. Microscopy research and techniques (<https://doi.org/10.1002/jemt.24230> impact factor **2.1**)
20. Ayesha Kashif, Ramla Rehman, Ahmed Fuwad, H.N.P. Dayarathne; Asif Jamal, Muhammad NaumanAftab; BanditaMainali; Younggyun Choi. **(2022)** Current advances in the classification, production, properties and applications of microbial biosurfactants - a critical review, Advances in Colloid and Interface Science; 306 102718 (**Impact factor 19.3**)
21. Afsheen Mansoor, Muhammad Ishtiaq Ali, Mazhar Mehmood and Asif Jamal\***(2022) S**ynthesis and Characterization of Titanium oxide Nanoparticles with Novel Biogenic process for the Dental Application, A Review: Nanomaterials 12(7):1078**( Impact factor 4.3)**
22. Fida Muhammad Khan, Fakhar I Abbas, Naeem Ali, Asif Jamal (2022) Molecular assessment of microbial diversity on eggshell of chukar partridges (Alectorischukar) under semi-captive conditions. Nucleosides, Nucleotides & Nucleic Acids doi. 10.1080/15257770.2022.2053712 **(Impact factor 1.3)**
23. Javeed khan, Asif Jamal, Muhammad Ishtiaq Ali **(2022)**, Optimizing metabolic performance of mixed bacterial culture towards dibenzothiophene desulfurization under varying nutrient and environmental factors, Polish J. Environmental studies. [doi.org/10.15244/pjoes/147650](https://doi.org/10.15244/pjoes/147650)**(impact factor 1.4)**
24. Farhana Bibi, **Asif Jamal,** Zaixing Huang, Muhammad Ishtiaq Ali **(2022)** Advancement of and role of abiotic stresses in microalagae biorefinary with a focus on lipid production, Fuel **(**Volume 316, 15, 123192**, Impact 7.5)**
25. Quratul Ain Rana, Muhammad AdilNawa, Zeeshan sheikh, SalihaPerveen,**Asif Jamal,** Safia Ahmad, Rahul Gauttum, Sami ullah Khan, Malik Badshah**(2021)** Production of Bioethanol and Biogas from Spirodelapolyrhiza in a Biorefinery Concept and Output Energy Analysis of the Process, Biomass Conversion and Biorefinery, doi.org/10.1007/s13399-021-02066-9 **(Impact factor 4.1)**
26. Zaixing Huang, Muhammad Ishtiaq Ali, **Asif Jamal(2022),** A review on Biotransformation of coal to methane by enhancement of chemical pretreatment. Fuel, [Volume 308](https://www.sciencedirect.com/science/journal/00162361/308/supp/C), 121961. (**Impact factor 7.5)**
27. Ramla Rehman, Naeem Ali, Malik Badshah, Muhammad Ishtiaq Ali, Zaixing Huang and **Asif Jamal**\***(2021)**. Crude oil biodegradation potential of biosurfactant producing *P. aeruginosa* and *Meyerozyma* spp. **Journal of Hazardous Materials,** [418](https://www.sciencedirect.com/science/journal/03043894/418/supp/C), 15, 126276**(impact factor 11.3)**
28. Farhana Hussain, **Asif Jamal**, Muhammad Ishtiaq Ali **(2021)** Deciphering role of technical bioprocess parameters for bioethanol production using microalgae, Suadi Journal of Biological Sciences, [28, 12](https://www.sciencedirect.com/science/journal/1319562X/28/12), 7595-7606**(Impact Factor 4.4).**
29. Latif Akanji, RamlaRehman, Onyemara, C. Ebel, R, **Asif Jamal** (**2021).** A novel technique for interface analysis: behavior of sophorolipids biosurfactant obtained from *Meyerozyma* spp. MF138126 during low-salinity heavy-crude experiments. **Fuel**, 287, 120697 **(Impact factor 7.5)**
30. Zihao Chen, Xin-Ying Huang, Huan He, \*, Jie-Lin Tang, Xiu-Xiang Tao, Hua-Zhou Huang, RizwanHaider, Muhammad Ishtiaq Ali, Asif Jamal and Zaixing Huang, (**2021)**, Bioleaching Coal Gangue with a Mixed Culture of *AcidithiobacillusFerrooxidans* and *AcidithiobacillusThiooxidans*. Minerals 2021, 11, 1043. (**Impact factor 2.2**)
31. Noureen Fatima, Asif Jamal, Zaixing Huang, RabiaLiaquat, Rizwan  
    Haider, Dr Muhammad Ishtiaq**Ali (2021)** Extraction and Chemical Characterization of Humic Acid from Ligniteand Bituminous Coal using Nitric acid as pretreatment. Sustainability Sustainability **2021**, 13(16), 8969 (**Impact factor 3.889**)
32. Shirazi, J. H., Ali, M. I., Jamal, A., Saqib, Z., & Rashid, A. (2021). Effects of Seasonal Changes on the Patients Flux to Basic Health Units in Pakistan. Iranian Journal of Public Health, 50(5), 1065-1067.**Iranian Journal of Public Health** (Impact Factor**1.6)**
33. AneelaYounas Malik, Muhammad Ishtiaq Ali, Asif Jamal, Uzma Farooq, NaziaKhatoon, William H. Orem, Elliott P. Barnhart, John R. San Filipo, Zaixing Huang **(2020).** Coal biomethanation potential of various ranks from Pakistan: A possible alternative energy source. **Journal of Cleaner Production**. 255:120177 **(Impact Factor 10)**
34. BeenishSadaqat, NaziaKhatoon, AneelaYounas Malik, Asif Jamal, Uzma Farooq, Muhammad Ishtiaq Ali, Huan He, Fang-Jing, Liu, Hong guangGuo, Michael Urynowicz, Qiurong Wang, Zaixing Huang **(2020)** Enzymatic decolorization of melanin by lignin peroxidase from *Phanerochaete chrysosporium*. **Scientific Reports-Nature**. **10,**20240**(Factor 4.6)**
35. Muhammad Adnan Sabara , Muhammad Ishtiaq Ali , NoureenFatimaa , AneelaYounas Malika , Asif Jamal , RabiaLiaquat , HuanHed , Fang-Jing Liud , HongguangGuoe , Michael Urynowiczf , Zaixing Huang **(2020)** Evaluation of humic acids produced from Pakistani subbituminous coal by chemical and fungal treatments, [**Fuel**,](https://www.sciencedirect.com/science/journal/00162361)[278,](https://www.sciencedirect.com/science/journal/00162361/278/supp/C) 118301 **(Impact factor 7.5)**
36. Bushra Fatima, RabiaLiaqat, Asif Jamal & Muhammad Ishtiaq Ali **(2020)** Enhanced biogas production at mesophelic and thermophilic temperatures from a slaughterhouse waste with zeolite as absorbant, **International Journal of Environmental science and Technology (Impact factor 3.1)**
37. Sadia Aziz, LaibaYaseen, Asif Jamal, Uzma Farooq, Zahid Qureshi, Muhammad Ishtiaq Ali **(2020).** Fabrication of Biochar from organic wastes and its effect on wheat growth and soil microflora. **Polish Journal of Environmental Studies**. 29(2):1069–1076 **(Impact factor 1.4)**
38. Saeed Ullah Jan, Muhammad Adnan Sabar, **Asif jamal,** Huda Ahmed Alghamdi, Işik,VeysiAkşahin,BashirAhmadandMuhammadIshtiaqAli**(2020).**ImpactofZeaMaysLWasteDerived Biochar on Cadmium Immobilization and Wheat Plant Growth. Pakistan **Journal of Agricultural Sciences.** 57(4) **(Impact Factor 0.8)**
39. Bushra Fatima, Asif Jamal, Muhammad Inshtiaq Ali **(2020)** Enhanced bioremediation of diesel rage hydrocarbons in soil using biochar made from organic waste. **Environmental monitoring and assessment** 7;192(9):569 **(impact factor3.307)**
40. Jafir Hussain Shirazi, MuhamamdIshtiaq Ali, Asif Jamal, ZafeerSaqib, Abdul Rashid **(2020).** Effects of Seasonal Changes on the Patients flux to Basic Health Units in Pakistan. **Iranian Journal of Public Health** *50(5);10651067* **(Impact Factor1.6)**
41. [Muhammad Ali Furqan,](http://www.pjoes.com/Author-Muhammad%20Ali-Furqan/98641)[UzmaFarooq,](http://www.pjoes.com/Author-Uzma-Farooq/9207)[RabiaLiaquat,](http://www.pjoes.com/Author-Rabia-Liaquat/29144)[Huda Ahmed Alghamdi,](http://www.pjoes.com/Author-Huda-Alghamdi/132072)[BashirAhmad,](http://www.pjoes.com/Author-Bashir-Ahmad/18728)[ZahidQureshi,](http://www.pjoes.com/Author-Zahid-Qureshi/52046)[AsifJamal,](http://www.pjoes.com/Author-Asif-Jamal/29145)[IsfahanTauseef,](http://www.pjoes.com/Author-Isfahan-Tauseef/52045)[SyedKashifHaleem,](http://www.pjoes.com/Author-Syed-Haleem/127625)[InayatUllah,](http://www.pjoes.com/Author-Inayat-Ullah/131667)[MuhammadIshtiaq Ali](http://www.pjoes.com/Author-Muhammad-Ali/29143)**(2020).** Catalytic efficiency of *Acidithiobacillusferrooxidans*for bioleaching of Copper fromChalcocite Containing Sulfide Ore of RekoDiq Deposits of Balochistan, Pakistan. Pol. J. Environ. Stud. 2020;29(2):1593–1600**. (Impact factor1.4)**
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## PhD Supervision

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| --- | --- | --- | --- | --- | --- | --- |
| **Sr. No.** | **Name** | | | **Thesis Title** | **Year** | |
| 1 | Syeda Ramla Rehman | | | Bioprocessing of biosurfactants from microbial sources and their Applications | 2015-2019  **Completed** | |
| 2 | Samia Sakindar | | | Production and characterization of biosurfactants and their role as antimicrobial agents | 2017-2025  **Completed** | |
| 3 | Saliha Perveen | | | Role of Fungi and their Enzymes for the Treatment of Wastewater from Pulp and Paper Industry | **2019-2023**  **Completed** | |
| 4 | Afsheen Qamar | | | Fabrication of TiO2 nanoparticales by microbial and plant resources for their use in developing innovative restorative material for dental caries | **2020-2023**  Completed | |
| 5 | Tabassum Rasool | | | Designing bioprocess for the treatment of pulp and paper industrial Wastewater | Completed 2020-2024 | |
| 6 | | Faisal Jan | Developing biotechnological strategies for improving plant growth and crop yield | | | 2020-2025 Completed |
| 7 | | Ahtisam Bin Masood | Biodegradation of pesticides by plant growth promoting bacteria | | | 2022  In progress |
| 8 | | Abdul Baseer Khan |  | | | 2019  In progress |
| 9 | | Ihsan Ullah |  | | | 2024  In progress |

**M.Phil Thesis Supervision**

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| --- | --- | --- | --- |
| **Sr. No.** | **Name** | **Thesis Title** | **Year** |
| 1 | Fozia khan | Media optimization for the production of rhamnolipid from newly isolated strains of *P.aeruginosa* | 2013-15 |
| 2 | Sobia Ali | Studies on newly synthesized nanoparticles for their antimicrobial activity against selected pathogen. | 2013-15 |
| 3 | Syeda farishta | Prevalence and molecular characterization of carbapanemase producing *P.aeruginosa*from clinical isolated in tertiary care hospitals. | 2013-15 |
| 4 | Hafsa Iqbal | Evaluation of antibiotic resistance pattern among oral bacteria and their response towards different drugs with nanoparticles amalgams. | 2013-15 |
| 5 | Neak Muhammad | Studies on various virulence factors among *Enterococci spp* isolated from tertiary care hospitals. | 2013-15 |
| 6 | Samiasikandar | Evaluation of physio-chemical and biological (antimicrobial properties) ofrhamnolipid produced by *P.aeruginosa.* | 2014-16 |
| 7 | Humairayasmeen | Process optimization for remediation of hydrocarbon contaminated soil using microbial surfactant. | 2014-16 |
| 8 | Fida Muhammad | Molecular identification of egg shell microflora of chukar partridges (AlectorisChukar) | 2014-16 |
| 10 | Agha saddam Hussain | Studies on production and surface active properties of biosurfactant produced by fungi isolated from soil. | 2014-16 |
| 11 | Zeesthanif | Application of statistical design to investigate optimum growth and biosurfactant production from a newly isolated bacterial strain. | 2014-16 |
| 12 | Naheedgulfam | Antagonistic and comparative properties of soil borne *Bacillus spp* NG16 against selected fungal phytopathogens. | 2015-17 |
| 13 | Abdul baser khan | Characterization of an efficient biosurfactant producing bacteria fromsugar industry waste and their possible biotechnological uses. | 2015-17 |
| 14 | Hira niaz | Antagonistic efficiency of Bacillus strain HN03 isolated from agricultural soil and its role as biocontrol agent. | 2015-17 |
| 16 | Momenairum | Evaluation of microbial properties of biosurfactants against some important pathogens. | 2015-17 |
| 17 | Syed Muhammad Aamir | Study on optimum conditions for biodegradation of crude oil | 2015-17 |
| 18  CV .Page8 | Benish Ayub | Bioremediation of Heavy metals with the application of Biosurfactants | 2016-2018 |
| 19 | AnberKhaliq | Molecular investigation of Non Ribosomal Peptide Synthetase system in a metal resistant Bacillus strain | 2016-2018 |
| 20 | EjazUlHaq | Biodegradation of lignin; isolation, molecular characterization and process optimization | 2017-19 |
| 21 | Maryam Aslam | Lignin degradation in pulp and paper industry waste by selected microorganisms | 2017-19 |
| 22 | Faisal Jan | Characterization of antifungal peptides from Bacillus strains | 2017-19 |
| 23 | Waqar Ali | Development of synthetic microbial communities for improving the yield of soybean | 2017-2019 |
| 24 | Sana Ullah | Evaluating the role of selected microbial communities for plan yield enhancement | 2017-2019 |
| 25 | Sundas Sana | Evaluation of Bacillus strain as Environmental Friendly Biocontrol Agent | 2016-2018 |
| 26 | Nadia Begum | Deciphering role of Indigenous Microorganisms in Controlling Agricultural Pathogens | 2016-2018 |
| 27 | Aliza Fatima | Cost effective Production of Biosurfactants and their Applications in Pharmaceutical Industry | 2016-2018 |
| 28 | Asad Ali | Potential of Bacillus ssp. Showing Antagonistic Activity against Some Bacterial and Fungal Pathogens | 2016-2018 |
| 29 | IffatQazi | Isolation and characterization of lignin degrading bacteria from pulp and paper wastewater | 2018-2020 |
| 30 | Mir Azmat Khan | Characterization of rhizosphere microorganisms as plant growth promoters | 2018-2020 |
| 31 | Meher Un Nisa Rana | Assessment of lignin degradation by selected fungal strains | 2018-2020 |
| 32 | Shehryar Jamil | Prevalence and Antibiotic Susceptibility Pattern of *Pseudomonas aeruginosa* in Abbottabad | 2020-2022 |
| 33 | Samia Hameed | Suppression of Growth and Biochemical Activities of Plant Pathogens by *Bacillus* spp. Isolated from Agriculture Soil. | 2019-2021 |
| 34 | Faisal Mazhar | Optimization of media for protease producing *Bacillus subtilis* using Response Surface Methodology. | 2015-2017 |
| 35 | Saira | Characterization of Microbial Surfactants as Antimicrobial Agents. | 2016-2018 |
| 36 | Maryam Aslam | Treatment of Black Liquor by the Application of Isolated Fungal Strains | 2017-2019 |
| 37 | Abdul Baseer Khan | Characterization of an Efficient Biosurfactant Producing Bacteria from Sugar Industry Waste for its Possible Biotechnological Use | 2017-2019 |
| 38 | Mobina Adeeb | Process Optimization for the Degradation of Kraft Lignin by Bacteria. | 2019-2021 |
| 39 | Mehreen Ahad | Studies on Non-Ribosomal Lipopeptide Producing Bacillus Strains for their Antifungal Action | 2020-2022 |
| 40 | Hamza Arshad | Bacillus Driven Biological Control of Rice Seedling Rot Disease | 2020-2022 |
| 41 | Saleha Parveen | Comparative Analysis of Production and Properties of Rhamnolipids Extracted from Clinical and Environmental Isolates of *Pseudomonas aeruginosa.* | 2016-2018 |
| 42 | Maria Khaliq | Evaluating Biotechnological Potential of Selected Bacterial Strains for Controlling Fungal Pathogens, Phosphate Solubilization and Plant Growth. | 2019-2021 |
| 43 | Amara Tanveer | Studies on Antifungal Properties of Non-ribosomal Peptides from Selected Bacteria and their Role in Plant Growth Promotion | 2020-2022 |
| 44 | Iffat arif | Microbial Synthesis of Nanoparticles and their Possible Role in Biodegradation of Lignin | 2020-2022 |
| 45 | Muneeba | Deciphering Biotechnological Potential of Microbial Consortia for Improving Phosphate Availability in Soil | 2020-2022 |
| 46 | Soniya | Characterization of Biochar and Non-Ribosomal Peptide Producing Bacteria for Augmenting Plant Growth and Protection Against Agriculture Pathogens. | 2019-2021 |
| 46 | Hamid Khan | Combine efficacy of vertical flow constructed wetland linked with anaerobic baffle reactor to treat blended wastewater | 2021-2023 |
| 47 | Maqsood Awan | Operational Analysis of vertical flow constructed wetland fitted with aerobic-anaerobic chambers for the treatment of Black liquor | 2021-2023 |
| 48 | Danish | Analysis of Fengycin genes in Bacillus strains with the focus to determine their biocontrol potential against fungal pathogens | 2021-2023 |
| 49 | Maheen Ada | Fabrication of Biochar using domestic Wastewater Sludge and its application along with beneficial soil Bacteria for improving Plant growth | 2021-2023 |
| 50 | Saba Talib | Evaluation of Phosphate solubilizing pattern of selected bacterial strains and their agro-biotechnological potential | 2021-2023 |
| 51 | Ahsan ullah | Improving soil agriculture properties by the implication of compost, compost tea and soil microorganisms | 2021-2023 |
| 52 | Muneera Quddos | Characterization of bacillus and its lipopeptides for controlling fungal phytopathogens and enhancing agriculture output | 2021-2023 |
| 53 | Maryam Wazir Khan | Investigating the potential contribution of plant growth promoting rhizospheric bacteria in the biodegradation of pesticides | 2021-2023 |

**Conference/Workshops Attended and Organized:**

* 4th international conference on applied zoology 2021, Quaid-i-Azam University, Islamabad
* 3rd international conference on applied zoology 2020, G G University, Faisalabad
* International Virtual Master Trainers Workshop on Effective Online Teaching and Assessment Skills organized by Inter University Consortium for Promotion of Social Sciences Pakistan, 24th July to 28th August, 2020.
* 1st International Seminar on Times Higher Education University Rankings, 24thOctober, 2019, The University of Lahore.
* 12th International microbiology conference, Society of microbiology, Abotabad University of Science and Technology, February2019
* 11th International Biennial Conference of Pakistan Society for Microbiology on Applied Microbial Genomics in Punlic Health, Food, Pharma and Agriculture, 18-20 December 2017,
* 1st International Conference on Microbiology, Pakistan Society for Microbiology-Abotabad University of Science and Technology, September2016
* Training workshop on Patent application filling and drafting, 19th February 2015, Office of research innovation and commercialization, Quaid-i-AzamUniversity,Islamabad
* 7thInternational Conference on Revitalization of degraded areas (Poland) October 6-8, 2015 (HEC Travel Grant)
* 8thInternational Conference on Revitalization of degraded areas (Poland) October 6-8, 2014 (HEC Travel Grant)
* Intellectual Property Rights and Innovation Policy, 6-10 June, 2011, COMSTECH and HEC,Islamabad
* Academic research skills, American information and resource center U.S embassy, Islamabad, October 20, 2009
* International Productivity Congress, National Productivity organization, Ministry of Industries, Govt. of Pakistan 17-18 November,2011
* International Seminar on Wastewater Treatment and its Re-use, Quaid-i-Azam University, Islamabad, 17 May2012,
* Emerging superbugs-standardizing antimicrobial susceptibility testing, surveillance and lab biosafety hands on workshop, 25-27 February 2013, Agha Khan University,Karachi
* American Society for Microbiology-Karachi University National Microbiology Teachers Training Workshop, ASM-KU Bio resource center, Karachi, 27-30 September 2013
* Training Workshop on SPSS and EndNote, Office of Research Innovation and Commercialization, Quaid- i-Azam University, Islamabad, 7-8 November,2013
* Quality assurance in analytical chemistry; Department of chemistry, GC University, Lahore,2011.
* Seminar on Setting new standards 21st century, Higher education commission, Islamabad,2011
* Seminar on Trends in Process engineering and bioenergy, Quaid-i-azam University, Islamabad, 13th December,2011
* Master Classes Training, British council of Pakistan and Columbia University, 17 Jan,2012
* Regional Peace and Economics: Developing role of China and Pakistan, National University of Scienceand Technology, Islamabad, 16th January2012
* Knowledge exchange Master Classes, Entrepreneur University Leadership, HEC-British Council Islamabad, July2012
* Pak-US Science and Technology Symposium, National University of Science and Technology, Islamabad, 31-Jan-1st Feb 2013

## Professional Memberships:

* American Society for Microbiology, USA
* European Federation of Biotechnology
* Pakistan Society of Microbiology
* Microbiology Society, Scotland
* Life time member; Applied Zoological Society of Pakistan

## References:

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