

AKANKSHA BHARDWAJ

Present Address

Chandkheda,
Ahmedabad- 382424
Gujarat, India.

Mobile: +91-9988287955

E-mail id: knksh.bhardwaj@gmail.com

Permanent Address

Aima, Palampur- 176061
Distt. Kangra,
Himachal Pradesh, India

Google Scholar page: <https://scholar.google.com/citations?user=zzG8CzIAAAAJ&hl=en&oi=sra>

ResearchGate: <https://www.researchgate.net/profile/Akanksha-Bhardwaj-4>

1. EDUCATIONAL QUALIFICATIONS

- **Ph.D. in Environmental Science and Technology** from Central University of Punjab, Bathinda, Punjab (**Thesis Submitted**).
- **UGC-NET-JRF** (2016) in Environmental Science
- **M.Phil. in Environmental Science and Technology** from Central University of Punjab, Bathinda, Punjab, (2015) with **76%, Grade- O (Outstanding)**.
- **M.Sc. (Environmental Science)** from College of Basic Sciences, CSK Himachal Pradesh Agriculture University, Palampur (Himachal Pradesh) (2012) with **8.15/10 OCPA**.
- **B.Sc. (Medical)** from College of Basic Sciences, CSK Himachal Pradesh Agriculture University, Palampur (Himachal Pradesh), (2010) **with 7.30/10.00 OCPA**
Subjects: Zoology, Botany, and Chemistry
- **12th (Medical)** from DAV Public School, Palampur (Himachal Pradesh), in 2007 with **76.4% (CBSE)**.
- **10th (Science)** from DAV Public School, Palampur (Himachal Pradesh), in 2005 with **77.2% (CBSE)**.

2. SCHOLARSHIP/STIPEND/FELLOWSHIP/AWARDS/ACHIEVEMENTS

- DST AWSAR award for Popular Science Story Under Ph.D. Category (2020).

- Oral research Presentation award in International Conference on Bio and Nano Technologies for Sustainable Agriculture, Food, Health, Energy and Industry held at Guru Jambheshwar University of Science and Technology (2018).
- UGC-JRF (2016) - Environmental Science
- UGC NET (2015) – Environmental Science
- ASRB NET (2015) - Environmental Science
- University scholarship during M. Phil programme
- University stipend during M. Sc. Programme

3. RESEARCH PROFILE AND EXPERTISE

Expertise in Research Area

- Adsorption technology (Batch and Column)
- Biochar- Production, Characterization, and modification
- Water quality monitoring
- Remote sensing and GIS
- Bio-indicators of water quality

Other Expertise

- Experience on working with ORIGIN Pro, ArcGIS Desktop version 10.2, ERDAS IMAGINE, QGIS version 3.14.
- Experience on working with instruments like Zeta analyser, BET surface area analyzer, Atomic Absorption Spectrophotometer (AAS), Inductively coupled plasma mass spectrometry (ICPMS), Flame Photometer, Thermodigester, Thermo Gravimetric Analysis (TGA), and Fourier transform Infra-Red Spectrophotometer (FTIR); exposure to GCMS and SEM-EDS; Water and soil quality related Instruments.
- I am proficient in all physical and wet chemical methods of sample preparation for the above techniques as well as instrumentation/operation, calibration, data quality assurance and data interpretation. I also have an experience in scientific content writing, project writing for external funding and report preparation.

Research Profile

- Total number of research articles: 7 (6 Peer-reviewed)

- Book Chapters: 2

TITLE OF RESEARCH PROJECT/THESIS

Ph.D. Thesis title: Adsorption performance of nutrient leached biochar for organic and inorganic contaminants.

M.Phil. Thesis title: Assessment of spatio-temporal dynamics of Harike wetland using geospatial technology.

M.Sc. Thesis title: Diatoms as indicators of water quality in Khajiyar Lake, H.P.

RESEARCH PUBLICATIONS

1. **Bhardwaj, A.**, Nag, S., Hussain, K., Arora, M., Pandey, P., & Babu, J. N. (2022). Adsorption of Zn(II) on Pristine and SPLP/TCLP Leached Rice Straw Biochar: an Interplay of Precipitation and Ion Exchange. *Water, Air, & Soil Pollution*, 233, 475.
2. **Bhardwaj, A.**, Nag, S., Hussain, K., Pandey, P., & Babu, J. N. (2022). Effect of temperature and fly ash content on the catalytically pyrolyzed rice straw biochar–fly ash composites for methylene blue adsorption. *Asia-Pacific Journal of Chemical Engineering*, e2828.
3. **Bhardwaj, A.**, Nag, S., Dahiya, A., Pandey, P., Arora, M., & Babu, J. N. (2022). Effect of Pyrolysis Temperature on Mechanistic Transformation for Adsorption of Methylene Blue on Leached Rice-Straw Biochar. *CLEAN–Soil, Air, Water*, 50(4), 2100108.
4. **Bhardwaj, A.**, Najar, G. N., & Pandey, P. (2017). Geospatial technology applied to spatiotemporal assessment of Harike Wetland, Punjab. *Lakes & Reservoirs: Research & Management*, 22(4), 349-363.
5. Najar, G. N., **Bhardwaj, A.**, & Pandey, P. (2017). A spatio-temporal water quality assessment of the Beas and Sutlej Rivers at the Harike Wetland: A Ramsar site in Punjab, India. *Lakes & Reservoirs: Research & Management*, 22(4), 364-376.
6. **Bhardwaj, A.**, & Chauhan, R. (2016). Response of diatoms to water quality in Khajiyar lake, Himachal Pradesh. *Ecology, Environment and Conservation* 22(2):775-779.

7. **Bhardwaj, A., & Chauhan, R. (2015).** Physico-Chemical Characteristics of Khajiyar lake, District Chamba, Himachal Pradesh. Journal of Environment and Biosciences 29(1): 231-233.

Book Chapters

1. **Bhardwaj, A., Pandey, P., & Babu, J. N. (2022).** Remediation of heavy metals using biochar and its modified forms (Under Publication)
2. Nag, S., **Bhardwaj, A., Pandey, P., Arora, M., & Babu, J.N. (2018).** Use of Agricultural Solid wastes as Adsorbents. In Organic Pollutants in Wastewater I (Publishers- Materials Research Forum LLC).

4. TEACHING INTEREST

- Environmental chemistry and, Pollution
- Ecology
- Solid waste management
- Remote sensing and GIS
- Environmental laws
- Environmental/Civil Engineering
- Analytical chemistry
- Instrumentation

Teaching Experience: Taken theory classes of Vocational degree students during Ph.D. period for six months.

Research Experience: Worked as Junior Research Fellow (2016-2018) and Senior Research Fellow (2018-2021) in Department of Environmental science and Technology, Central University of Punjab, Bathinda.

5. TRAININGS/WORKSHOPS/CONFERENCES

1. Workshop on “Intellectual Property Rights (IPRs) and Entrepreneurship”, Central University of Punjab, Bathinda, April 27, 2022.

- 2.** Presented research work in International Symposium on “Recent Advances in Self-assembled Materials and Supramolecular Chemistry”, GNDU, Amritsar, India, March 19, 2022.
- 3.** Presented research work in National Conference on “Recent Advances in Science and Technology for Sustainable Development”, DAV College, Bathinda, March 5, 2022.
- 4.** Online Sessions Series by Institutions’ Innovation Council -MHRD’s Innovation Cell from 28th April to 22nd May 2020.
- 5.** Science Academies’ Science Leadership Workshop organised by Central University of Punjab from 22 June 2020 to 28 June 2020.
- 6.** Presented research work in Presented research paper in International conference on “Advanced materials, energy and environmental sustainability” held from 14-15th December, 2018 at UPES, Dehradun, India.
- 7.** Presented research work in International conference on “Bio and Nano technologies for sustainable agriculture, food, health, energy and industry” held from 21-23 February, 2018 at Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India.
- 8.** Workshop on GC-MS applications and sample preparation techniques held on 11th January, 2019 at Central University of Punjab, Bathinda.
- 9.** Presented research work in National Conference on Chemical and Environmental Sciences: Innovations and Advances at Punjabi University, Patiala, India, February 15-16, 2018.
- 10.** Training conducted by IIRS, Dehradun (outreach program) on “Close Range Photogrammetry and terrestrial Laser Scanning” from January 08, 2018 to January 12, 2018.
- 11.** National Workshop Popularisation of Remote Sensing Based Maps & Geospatial Information (online) (Jointly organised by ISRS & ISRO) (August 11, 2017)
- 12.** Seminar on “The Evolving importance of Intellectual Property Rights” on 30th January, 2016 at Central University of Punjab, Bathinda.

13. Twenty-one days DST-NRDMS Sponsored Winter/ Summer School Training Programme on “Geospatial Technology-Significance, Applications and Beyond” organized by Annamalai University, Tamil Nadu from February 24 to March 15, 2016.

14. Training conducted by IIRS, Dehradun (outreach program) on “Geospatial Technologies for Urban Planning” from February 11, 2016 to March 15, 2016.

15. Five days workshop on “GIS and its Applications: Recent Trends in Geography and Geology” organized by Centre for Geography and Geology, Central University of Punjab, Bathinda, February 15-19, 2016.

16. Two days GIS training programme on “Introduction to ArcGIS II” conducted by ESRI, India at Central University of Punjab, Bathinda, May 13-14, 2015.

17. One day National workshop on “Training the trainers: water, quality and health” on 11th February, 2015 at Central University of Punjab, Bathinda.

18. Presented research work in 18th Punjab Science Congress, conducted by Punjab Academy of Sciences (February 7-9, 2015).

19. Training conducted by IIRS, Dehradun (outreach program) on “Geospatial Techniques for Natural Resource Management” from January 27, 2015 to March 27, 2015.

20. Training conducted by IIRS, Dehradun (outreach programme) on “Basics of Remote sensing, GIS and GNSS” from August 04, 2014 to November 14, 2014.

6. PERSONAL PROFILE

Father’s Name: Satish Bhardwaj

Date of Birth : 06.12.1989

Gender : Female

Marital Status: Married

Nationality : Indian

Languages known: Hindi, English

7. EXTRA-CURRICULAR ACHIEVEMENTS

- 1st Prize in Inter College Youth festival (Fine arts) (2008, 2009)
- Participation in Inter University Youth festival (Fine arts) (2009)
- 1st Prize in Inter College Table Tennis Competition (2010)
- 2nd Prize in Photography competition on International day for Biodiversity, organized by Central University of Punjab (2016).
- 1st Prize in 'Quiz Competition', organized as a part of Foundation Day celebrations, Central University of Punjab (2018).
- 2nd Prize in 'Best out of waste' competition organized as a part of Foundation Day celebrations, Central University of Punjab (2019).
- Department representative of the Institution's Innovation council (2020-2022).

8. REFERENCES

Dr. J. Nagendra Babu

Assistant Professor

Department of Chemistry

Central University of Punjab, Bathinda 151401

Contact details- nagendra.babu@cup.edu.in, +91-9915598259

Dr. Puneeta Pandey

Assistant Professor

Department of Environmental Science and Technology

Central University of Punjab, Bathinda 151401

Contact details- puneetapandey@gmail.com, +91-9501982035

9. DECLARATION

I, Akanksha Bhardwaj, hereby declare that the information provided by me in the CV is correct and true to the best of my knowledge and belief.

Akanksha Bhardwaj

Place: Ahmedabad, Gujarat