

PERSONAL INFORMATION

Dr Samina Bibi

 Village and P.O Drosh, Tehsil and District Chitral, 17220, PK , Pakistan

 saminabibi@wus.edu.pk

Gender Female | Date of birth 01 April 1989 | Nationality Pakistani

EDUCATION

PhD, Environmental Aerosol Physics (2017)

Department of Physics, University of Peshawar, Pakistan

Thesis Title: Monitoring and Measurement of Absorbing Aerosol and its Climatic Implications in Karachi, Pakistan

TEACHING EXPERIENCE

Fall 2025 - continue

Assistant Professor/ Head of the Department of Physics
Women University Swabi, KP Pakistan

Fall 2018 - Spring 2023

Assistant Professor
Shaheed Benazir Bhutto Women University, Peshawar, Pakistan

RESEARCH AREAS

- Atmospheric Physics and Aerosol Science
- Air Quality and Climate Interaction
- Optical, Physical, and Radiative Properties of Aerosols
- Satellite Remote Sensing and Modeling (MODIS, OMI, CALIPSO, etc.)
- Aerosol–Radiation–Climate Interactions

RESEARCH SKILLS

Experimental Methods:

- Particulate matter sampling through Low volume sampler
- Aethalometer run & data extraction for BC

Analytical Techniques:

- XRD; X-ray diffraction
- SEM; Scanning electron microscopy
- EDS; X-ray energy dispersive spectroscopy
- FTIR: Fourier Transform Infrared spectroscopy

Remote sensing:

- HYSPLIT, MODIS, OMI, MERRA-2 Model

Software's:

- OPAC Model
- SBDART Model
- Trajstat,
- Origin,

FUNDED RESEARCH PROJECT

Principal investigator:

- Comprehensive Characterization and Morphology of Particulate Matter: Implication for Air Quality and Climatic Impact,

Funded by the Higher Education Commission (HEC), Pakistan — Grant #2471, PKR 0.5 million (2019)

Contributor:

Strengthening of Shaheed Benazir Bhutto Women University, Peshawar

PSDF project — 109 million PKR (2021)

LIST OF PUBLICATIONS

1. Saima Mohyuddin, Muhammad Ikram, Khan Alam, **Samina Bibi**, Maqbool Ahmad, Ehtiram Ul Haq “The influence and contribution of fine mode particles to aerosol optical properties during haze events at the foothills of Himalaya-Karakorum region” *Atmospheric Environment*, 290 (2022) 119388
2. Bahader Zeb, Khan Alam, **Samina Bibi** “Optical Properties of Black Carbon Aerosols and their Corresponding Radiative Effects over Four High Altitude Station in Himalaya Karakorum Hindukush Range (Northern Pakistan)” *Atmospheric Environment* 238 (2020), 117711
3. Khan Alam, Rehana Khan, Armin Sorooshian, Thomas Blaschke, **Samina Bibi**, Humera Bibi “Variation in aerosol optical properties due to a haze episode in the Himalayan foothills: Implications for climate forcing” *Aerosol and Air Quality Research*, 18 (2018), 1331–1350
4. Muhammad Iftikhar, Khan Alam, Armin Sorooshian, Waqar Adil Syed, **Samina Bibi**, Humera Bibi “Contrasting aerosol optical and radiative properties between dust and urban haze episodes in megacities of Pakistan” *Atmospheric Environment*, 173 (2018), 157–172
5. **Samina Bibi**, Khan Alam, Farrukh Chishtie, Humera Bibi “Characterization of absorbing aerosol types using ground and satellites based observations over an urban environment”, *Atmospheric Environment*, 150 (2017), 126-135
6. **Samina Bibi**, Khan Alam, Farrukh Chishtie, Humera Bibi, Said Rahman “Temporal variation of Black Carbon concentration using Aethalometer observations and its relationships with meteorological variables in Karachi, Pakistan”, *Journal of Atmosphere & Solar Terrestrial Physics*, 157–158 (2017), 67–77
7. **Samina Bibi**, Khan Alam, Farrukh Chishtie, Humera Bibi, Said Rahman “Observations of Black Carbon Aerosols characteristics over an urban environment: Radiative forcing and related implications”, *Science of the Total Environment*, 603-604 (2017), (319– 329)
8. Humera Bibi, Khan Alam, Farrukh Chishtie, **Samina Bibi**, Imran Shahid, Thomas Blaschke “Intercomparison of MODIS, MISR, OMI, and CALIPSO aerosol optical depth retrievals for four locations on the Indo-Gangetic plains and validation against AERONET data”, *Atmospheric Environment*, 111 (2015), 113-126
9. Humera Bibi, Khan Alam, **Samina Bibi** “In-depth discrimination of aerosol types using multiple clustering techniques over four locations in Indo-Gangetic plains”, *Atmospheric Research*, 81 (2016), 106–114
10. Humera Bibi, Khan Alam, Thomas Blaschke, **Samina Bibi**, Muhammad Jawed Iqbal “Long-term (2007–2013) analysis of aerosol optical properties over four locations in the Indo-Gangetic plains”, *Applied Optics*, 55 (2016), 6199-6211
11. Humera Bibi, Khan Alam, **Samina Bibi** “Long-term analysis of shortwave direct aerosol radiative forcing for four locations on the Indo-Gangetic plains: Implications to climate forcing”, *Atmospheric Environment*, 163 (2017) 166-181
12. **Samina Bibi**, Khan Alam, Humera Bibi, Hidayat Ullah Khan, Bibi Safia Haq “Variation in Aerosol Optical Depth and its Impact on Longwave Radiative Properties in Northern Areas of Pakistan”, *Journal of GeoSpace Science*, 1 (2015), 28-43
13. Ehtiram ul Haq, Khan Alam, **Samina Bibi**, Arindam Roy “High concentration of black carbon in northern Pakistan: Characteristics, source apportionment and emission source regions”, *Atmospheric Environment*, 293 (2022), 119475

ACHIEVEMENTS AND AWARDS

- **Young Scientist Award**, World Federation of Scientists (WFS), during PhD Studies.