

Shayesta Islam
Email: bhatshayesta9@gmail.com

Curriculum Vitae

Name: Shayesta Islam
Father's Name: Abdul Salam Bhat
Address: Shailhal, Handwara, Kupwara, J&K, India
Contact No: 6005851489
Nationality: Indian
DOB: 10/03/1996
Email Address: bhatshayesta9@gmail.com
drshayesta.islam@cusrinagar.edu.in

Summary:

- B.Sc Forestry (Hons) from Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir.
- M.Sc Environmental Sciences from Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir.
- UGC-NET (National Eligibility Test) Environmental Sciences qualified.
- Ph.D Environmental Sciences at Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir.
- ICSSR Doctoral Fellow for year 2023-24.

Academic Qualification:

S.No	Degree	Subjects	University	OGPA/Points
01	B.Sc	Forestry	SKUAST-K	8.375
02	M.Sc	Environmental Sciences Title of M.Sc thesis: "Impact Assessment of Leachate on Soil and Surface Water Quality of Dumpsite Achan, Srinagar"	SKUAST-K	8.722
03	NET	Environmental Sciences	UGC	162
04	Ph.D	Environmental Sciences	SKUAST-K	8.863

		Title of Thesis: “Development of Microbial Consortium for Decomposition of Litter in Temperate Forest Ecosystem of Kashmir Himalaya”		
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Research Articles Published:

- Shayesta Islam, Javeed Iqbal Ahmad Bhat*, Shoukat Ara, Malik A. Aziz *, Saba Bandy, Ishfaq Abedi, Ikhtlaq Ahmad Mir, Sumaya Manzoor. Harnessing Forest Rhizospheric Microflora: A Sustainable Alternative to Litter Burning and a Pathway to Revive Economically Important Tree Species in the Temperate Himalayas. Geomicrobiology. 23 Sept. 2025.
- H. Bano, N. Zahra, Fozia H, Areeba A, U.A. Mir, Fayzan A. Bhat, **S. Islam**, Bergish P. Bhat, Junaid A. Bhat , Shahid A. Mir, G. Gulzar, M. Chopra, S. Amjid, Mehak S, Shafoon S, M. Fayaz, R. Bashir , N. Hassan and Z. Mushtaq. 2025. A Critical review on five major Wetlands of Kashmir: Addressing threats and Restoration Opportunities. Agriculture Association of Textile Chemical and Critical Reviews Journal. 13(1).
- **Shayesta Islam**, Haleema Bano, Malik Asif Aziz, Fahad Alatobi. 2024. Landfill leachate: an invisible threat to soil quality of temperate Himalayas. PLOS ONE 19(11): e0314006
- Gousia Gani, **Shayesta Islam**, Malik Asif Aziz, Zaffar Mahdi Dar, Amjad Masood, Khalid Hussian Bhat, Mohd Ayoub Bhat, Faheem Jeelani Wani, Seema Nargis. Screening of *Pseudomonas* species for growth promoting potential of Rice (*Oryza sativa*) under temperate conditions. Biopesticides International. 20(1): 1- 7.
- **Shayesta Islam**, Javeed Iqbal Ahmad Bhat, Malik. A. Aziz, Shoukat Ara, Saba Bandy and Ishfaq Abedi. 2024. Degradation Potential of Trichoderma Isolated from Rhizospheric Soil on Picea smithiana Litter in the Himalayan Range of North Western Kashmir. Biopesticides International. 20 (1): 1-6.
- **Islam, S.**, Bano, H., Bhat, J.I.A., Aziz, M.A., Shahid-ul-Islam, Nazir, N., Ali, T., Wani, O, A. 2023. Landfill leachates a new threat to water quality: A case study from Temperate Himalayas. Environmental Monitoring and Assessment, 195:689
- Nargis, S., Asif A. Malik., Mushtaq A. Malik., Zaffar M. Dar., Aamir H, Mir., Mehreen

M. Siddiqui., **Shayesta, Islam** *, Amjad Masood., Sajad A. Bhat and Gousia, Gani. 2023. PGPR inoculation influenced the yield and quality attributes of cucumber (*Cucumis sativa* L.) under temperate ecologies. *Ecology environment & Conservation*, 29(3): 338-343.

- Manzoor, S., Ara, S., Bhat, J.I.A., Nazir, N., Bhat, Z.A., Khan, F. A., Islam, S., Ayoub, I.B and Azad, H. 2023. Assessing biopulping as an eco-friendly technology for paper making from rice straw using *Pleurotus sajor-caju*. *Ecology environment & Conservation*. 29(4): 1914-1920
- Bano, H., Malik, S., Rather, R.A., Bhat, J.I., **Islam, S.**, Bhat, T.A., Bhat, M.A. 2022. Impact of Anthropogenic Activities on Physico-Chemical Properties of Sediment of Hokersar Wetland: A Protected Wildlife Reserve (Ramsar Site No. 1570) Of Kashmir Himalaya. *Bangladesh Journal of Botany* 51 (1), 83-92.
- Malik Asif Aziz ,Zaffar Mahdi Dar, Amjad Masood, Aamir Hassan Mir, Shahid Ahmad Padder, Gousia Gani, **Shayesta Islam**, Seema Nargis, Raaqib Rasool Pararray.2022. Application of Microbial Inoculants Enhanced Microbial Population Load in Himalayan Cypress and Blue Pine Rhizosphere. *Environment and Ecology* 40 (2), 354-359.
- H Bano, **S Islam**, F Noor, MA Bhat. 2020. Biosensors and Bioremediation as Biotechnological Tools for Environmental Monitoring and Protection. *Int. J. Curr. Microbiol. App. Sci* 9 (10), 3406-3425.

Book Chapters:

1. Mehreen Siddiqui, Malik Asif Aziz, Mushtaq A. Malik, Zaffar M. Dar, Showket Siddiquee, **Shayesta Islam** and Amjad Masood. (2020). Single Cell Protein Production and Process: An Overview. *Advances in Multidisciplinary Research and Development*. 1: 136- 150.
2. Malik Asif, **Shayesta Islam**, Mushtaq A Malik, Zaffar Mahdi Dar, Amjad Masood, Saima Shafi, Bisma Rashid, Showkat Sidique. 2021. Nano Pesticides Application in Agriculture and their Impact on Environment. *Agricultural Development in Asia. Intech open*. 1-11
3. Malik Asif Aziz, **Shayesta Islam**, Gousia Gani, Zaffar M. Dar, Amjad Masood, Syed H. Baligah. 2023. AM Fungi as a Potential Biofertilizer for Abiotic Stress Management. *Arbuscular Mycorrhizal Fungi in Agriculture-New Insights. Intechopen*

4. **Shayesta Islam**, Malik A. Aziz, Zaffar M Dar and Amjad Masood. 2023. Plant Growth Promoting Rhizobacterial Consortium: A Sustainable Crop Production Strategy. Symbiosis in Nature. Intech open.
5. Malik Asif Aziz, Zaffar M. Dar, Mushtaq Ah. Malik, Amjad Masood, Shahid Ah. Padder, Saima Shafi, Gousia Gani, **Shayesta Islam** and Raqib Rasool. 2022. Antibiotic Fermentation: An Industrial Manufacturing Overview. Fundamentals of Environmental Microbiology. 131-151.
6. Asifa Yousuf Wani, Malik Asif Aziz, Shahid Ahmad Padder, Amjad Masood, Zaffar Mahdi Dar, Saima Shafi, Bisma Rashid Rashid, Ayman Azad, **Shayesta Islam** and Ruhee Bano. 2022. Downstream Processing in Fermentation. Fundamentals of Environmental Microbiology. 111-126.
7. Malik Asif Aziz, Khursheed Ahmad Bhat, **Shayesta Islam**, Syed Hujjat, Saima Shafi, Ayman Azad, Amjad Masood, Gousia Gani, Raqib Rasool and Bisma Rashid. 2022. Transgenic Plants and Microbial Interaction. Fundamentals of Environmental Microbiology. 67-80.
8. Malik Asif Aziz, Khursheed Ahmad Bhat, **Shayesta Islam**, Syed Hujjat, Saima Shafi, Ayman Azad, Amjad M, Gousia Gani, Raqib Rasool and Bisma Rashid. 2022. Microbial Metabolites in Nutrition and Healthcare. Fundamentals of Environmental Microbiology. 35- 44.
9. Malik Ahsaf Aziz, Shayesta Islam, Syed Hujjat ul Baligah, and Burhan Hamid. 2024. Ecofriendly and Innovative Techniques for Managing Organic Pollutants. Environmental Nexus in Waste Management, Integrated waste management. Trends, Policies and perspectives. CRC Press Taylor and Francis. 106-125.
10. Malik Ahsaf Aziz, Shayesta Islam, Zaffar Mahdi Dar, Syed Hujjat ul Baligah, and Burhan Hamid. 2024. Urban and Industrial Liquid Waste: Sources, EcoToxicological Effects, and Sustainable Management. Environmental Nexus in Waste Management, Integrated waste management. Trends, Policies and perspectives. CRC Press Taylor and Francis. 151-169.

Pamphlets Published:

1. Published pamphlet on “Integrated Disease Management of Late Blight of Tomato and Downey Mildew of Cucurbits under Protected Conditions” vide no. Au/DE/255F/2022; Dated: 17-11-2022.
2. Published pamphlet on “Microbes and Environmental Remediators” vide no.

Au/DE/256F/2022; Dated: 29-11-2022.

Conferences:

1. Attended National seminar on **“Climate Change and its Impact on Himalayan Ecology and Food Security”** organized by Division of Environmental Sciences, SKUAST-K, Shalimar during 13-14 March, 2019.
2. Attended one day online National Conference on **“Biodiversity Conservation and sustainable future (BCSF-2020),** organized by Govt SAM degree collage Budgam and Govt degree Collage Pulwama, Jammu and Kashmir on 6th June, 2020.
3. Attended 4th international conference on **“Global Approaches in Natural Resource Management for Climate Smart Agriculture (GNRSA-2020) during Pandemic Era of Covid-19”** held at conference hall, Shobhit Deemed University, Modipuram, Meerut, UP, India during 26-28 February, 2021.
4. Attended international conference on **“Impact of Climate Change on Socio- Economics and Ecological Transformation in Himalayan Region”** organized by Mahima Research Foundation and Social Welfare in Collaboration with Division of Environmental Sciences, Faculty of Horticulture, SKUAST-K from 21-23 Sept, 2023

Abstracts published:

- Abstract entitled **“Impact of leachate from Achan dumping site, Srinagar on soil quality at different locations”** published in Souvenir on “4th international conference on “Global Approaches in Natural Resource Management for Climate Smart Agriculture (GNRSA-2020) during Pandemic Era of Covid-19” held at conference hall, Shobhit Deemed University, Modipuram, Meerut, UP, India during 26-28 February, 2021.
- Abstract entitled **“Seasonal and Spatial Variation in Heavy metal Concentration of Soil around Municipal Solid Waste Landfill of Kashmir Himalayas”** published in Souvenir on International conference on **“Impact of Climate Change on Socio- Economics and Ecological Transformation in Himalayan Region”** organized by Mahima Research Foundation and Social Welfare in Collaboration with Division of Environmental Sciences, Faculty of Horticulture, SKUAST-K from 21-23 Sept, 2023

Awards:

- Received **best poster presentation award** in “International conference on **“Impact of Climate Change on Socio- Economics and Ecological Transformation in Himalayan Region”** organized by Mahima Research Foundation and Social Welfare in Collaboration with Division of Environmental Sciences, Faculty of Horticulture, SKUAST-K from 21-23 Sept, 2023.
- Received **best thesis award from Dr. Ram Avatar Shiksha Samiti (DRASS)** for excellent contribution in the field of Agriculture and allied sector on 5th Dec. 2024.

Fellowships:

Received ICSSR Doctoral fellowship for the year 2023-24 vide file number ICSSR/RFD/2023-24/SHORT-TERM/6

Patents:

Filed patent on “**Novel microbial consortium for degradation of complex forest litter**” wide application number “202411067830”

Filed patent on “**Modified Inoculation and transfer loop with inbuilt ethanol tank for high efficiency and preciseness**” wide application number “202511069582”

Trainings/Workshops:

1. Attended 10 days field-oriented training Programme on “**Forest Fire Emergency Control and Management**” organized by faculty of forestry, SKUAST-K in collaboration with forest protection force, J &K government, From November 20-30, 2017.
2. Attended 10 days skill development training from 12-21 January 2020 on “***In-vitro* Production of Saffron Cormlets**” organized by genome engineering and societal biotechnology lab Division of Plant Biotechnology Faculty of Horticulture under NMHS sponsored project.
3. Attended international webinar on “Women in science and their role in sculpting modern agriculture” organized by Bihar Agriculture University held on 26 August, 2020.
4. Attended 10 Days Online International Training Programme On “**Climate Risk Assessment And Its Management Through Agro meteorological Approaches**”

organized by Dryland Agriculture Research Station, Rangreth SKUAST, Kashmir, w. e. f 21-30 Oct, 2020.

5. Attended one week online international training program on “**Secondary Agriculture for doubling farmers income: using efficient technologies**” organized by Division of Agronomy, FoA, Wadura under IDP-NAHEP, SKUAST-Kashmir from 5-11 Oct, 2020.
6. Attended Ten Days Training Programme on “**Role of Nanotechnology in Modern Agriculture**” organized by Division of Plant Pathology, FoH, Sher-e-Kashmir University of Agricultural Sciences and Technology of Kashmir under IDP-NAHEP SKUAST-K, held from February 1st –10th, 2021.
7. Attended 7 days training Programme on “**Production of organic manures with special reference to vermicomposting technology**” conducted by Directorate of Extension, SKUAST-K in collaboration with Division of Vegetable Science, Faculty of Horticulture, SKUAST-K from 13-19 Dec, 2021.
8. Attended one-week national training program on “**Recent Advances in Development of Bioformulations for Use in Sustainable Agro Ecosystems in India**” organized by Division of Basic Sciences and Humanities, Faculty of Agriculture, Wadura, under IDP- NAHEP-ICAR-SKUAST KASHMIR during March 25th to 31st, 2021.
9. Attended “**High-End workshop on Development of Novel Bio-formulations for use in sustainable Agro-ecosystems**” organized by Division of Basic Sciences and Humanities, FoA, Wadura, SKUAST-Kashmir, sponsored by DST-SERB under accelerate Vigyan Scheme, New-Delhi held 1st August to 10th August, 2022.
10. Attended 21 Days Summer School on “**Recent Trends in Sustainable Livestock and Crop Production Technologies vis-à-vis Climate Change**” jointly organized by ICAR- Indian Grassland and Fodder Research Institute, Regional Research Station, Srinagar, Bihar Animal Sciences University, Patna, Bihar and National Agriculture Development Cooperative Ltd (NADCL) Baramulla, UT of J &K, during June 18- July 8, 2022.
11. Participated in two week SERB-Sponsored training programme on “**Molecular markers in plant pathology: From Basics to their Application**” held from 26th Dec, 2022 to 9th January, 2023, organized by Division of Plant Pathology, SKUAST-

K.

12. Attended one Month training Programme on **“Hands on Training on Laboratory Techniques for Potential Bio-Control Agents”** from 14th September -13th October, 2023, organized by Dryland Agriculture Research Station (DARS), in collaboration with Division of plant pathology, SKUAST-K, under IDP-NAHEP SKUAST-K.
13. Participated in five days training programme on **“identification of plant endophytes for plant protection against fungal diseases and environment stress”** organized by Division of plant pathology, SKUAST-K, Shalimar, under IDP-NAHEP, SKUAST- K from 27 – 31, Dec 2023

Experience:

- Worked from 10th March 2023 to 31 Dec, 2023, in the externally funded project, **“Bacterial Endophytes of grapes: A new approach for biocontrol of diseases”**.
- Worked as project JRF under DST- SERB sponsored project entitled **“Exploration of Cold Tolerant Microbial Wealth of Gurez Valley of Kashmir Himalayas for Development and Popularization of Novel Bioformulations for Application in Sustainable Organic and Natural Production System”** from 09 May 2024 to 14 May 2025.

Other Information:

- Served as **Student proctor** of Habba Khatoon PG Girls Hostel, SKUAST-K for the academic years 2018-2020, and received Certificate of Appreciation for having excellent managerial skills.
- Registered **six bacterial sequences in National Gene Bank** with accession numbers PP104808, PP125824, PP125826, PP125827, PP125834, PP133529 and one fungal sequence with accession number PP125837 from my Ph.D research work

