CURRICULUM-VITAE

DR. SHAILESH KUMAR VISHWAKARMA

PERMANENT ADDRESS

187, Moh- Kashi Nagar
Near- Sharma Farm,
Lakhimpur-Kheri, 262701
E-mail: shailesh0365@gmail.com
Contact No.: Mob: 7055452821, 8604040365 (whatsapp)



CAREER OBJECTIVE

To be a part of organization that offers challengers and a growth oriented environment which help me contribute best of my knowledge, skills and ability in the growth of my organization, and to attain new heights in my field of work, through effective use of available technology, techniques and constant learning.

PROFESSIONAL QUALIFICATION

- **Ph.D.** in Biotechnology from Hemvati Nandan Bahuguna Garhwal Central University, Uttarakhand (awarded) 2022.
- Qualified **CSIR-UGC NET** (June, 2017).
- **M.Sc. Biotechnology** (2014) with 68.05% from Bundelkhand University, Jhansi, Uttar Pradesh.
- **B.Sc.** (Zoology and Chemistry) (2012) with 53% from B.R.D Degree College, Lakhimpur-Kheri, affiliated to CSJM, Kanpur University, Uttar Pradesh.
- Higher Secondary (XII) with 58% from G.I.C, Allahabad, U.P Board, 2007. (Subjects: Biology, Chemistry, Physics, Hindi & English)
- High School (X) with 63% from G.I.C, Allahabad, U.P Board, 2004. (Subject: Mathematics, Science, Hindi, English, Social Science & Sanskrit)

TECHNICAL SKILLS

- Isolation of bacteria and fungi from different type of samples, Microbial culture handlings and maintenance
- Staining techniques and microscopy
- DNA, RNA and protein isolation from different type of samples, Polymerase Chain

Reaction (PCR)

- Electrophoresis techniques (SDS-PAGE, agarose),
- TLC and Column Chromatography
- UV-Vis spectrophotometry,
- Phyto-chemical analysis

Sanger sequence analysis, Phylogenetic analysis, NGS data analysis. MS Office, AI tools, Statistical analysis and scientific writing.

RESEARCH INTEREST

- Microbial Ecology, Bioremediation, Heavy Metal and Antibiotic Resistance Mechanisms, Environmental Microbiology, Genomic Analysis, Applied Biotechnology, Plant-Microbe Interactions, Plant Growth-Promoting Rhizobacteria (PGPR), Bioinformatics and Data Analysis

RESEARCH EXPERIENCE

- One month training program on **"Basic Molecular Biology and Biotechnology"** from Genetech Laboratories, Biotech Park, Lucknow**.**
- Six month dissertation work from ABC Genomics, Biotech Park, Lucknow, entitled "**Biochemical and molecular based detection of *Pseudomonas aeruginosa* contamination of water sample collected from Lucknow region**".
- Worked as **Project Fellow** at **Indian Institute of Petroleum, Dehradun** in a project entitled "**Protein Photovoltaic**" for 6 month (08-12-2014 to 05-06-2015).
- Worked as **Young Professional** at **ICAR-National Bureau of Agriculturally Important Microorganisms**, Kushmaur, Maunath Bhanjan, Uttar Pradesh, India, for 13 month.
- Currently working as **Young Professional** in the project "**Genetic Diversity Analysis and Host Pathogen Interaction of Leaf Blight Complex of Wheat**" since September, 2023.

PUBLICATIONS

- **Vishwakarma, S.K.,** Patil, A., Pandey, A. et al. Biosorption of Heavy Metal (Mn2+) by Thermophilic Bacterial Strains Isolated from Surya Kund Hot Spring, Yamunotri, Uttarakhand. Appl Biochem Biotechnol (2023). https://doi.org/10.1007/s12010-023-04682-9
- **Vishwakarma, SK**, Arya M, and Singh S (2020) Potential of thermophilic bacteria in bioremediation of heavy metals. International Journal of Higher Education and Research, 10(2):173-189 http://dx.doi.org/10.7755/ijher170720.10
- **Vishwakarma SK,** Pandey A, Arya M (2021) Biochemical and molecular characterization of cultivable bacterial diversity of Suryakund hot spring,

Yamunotri, India. Vidyabharati International Interdisciplinary Research Journal, 12(1) 436-446

- Singh S, Arya M, **Vishwakarma SK** (2019) Advancements in Methods Used for Identification of Lichens. International journal of current microbiology and applied sciences, (8)319-7706 https://doi.org/10.20546/ijcmas.2019.808.169
- Singh S, Arya M, **Vishwakarma SK** (2018) DNA Barcoding: A Significant Molecular Approach for Identification Upto Species Level. Remarking An Analisation, 3(3) 2394-0344
- Singh S, Arya M, **Vishwakarma SK** (2019) Sustainable Bioprospecting of Himalayan Lichens for the Production of Natural Dyes. Asian Resonance 8(2) 0976-8602
- Singh HV, Singh UB, Kumar A, Malviya D, Nagar N, **Vishwakarma SK**, Ilyas T, Shahid M, Shafi Z, Sahu PK (2022) Prospecting the plant 'holobiont': strategies for selection to exploitation of effective microbial inoculants for natural farming. Plant Disease Research. 37(2):250-1.
- Kashyap, A.S., Manzar, N., **Vishwakarma, S.K.** et al. Tiny but mighty: metal nanoparticles as effective antimicrobial agents for plant pathogen control. World J Microbiol Biotechnol 40, 104 (2024). https://doi.org/10.1007/s11274-024-03911-5

BOOK CHAPTER

- **Vishwakarma, S. K.,** Ilyas, T., Shahid, M., Malviya, D., Kumar, S., Singh, S., & Singh, H. V. (2024). Bacillus spp.: Nature's Gift to Agriculture and Humankind. In *Applications of Bacillus and Bacillus Derived Genera in Agriculture, Biotechnology and Beyond* (pp. 1-36). Singapore: Springer Nature Singapore.
- **Shailesh K. Vishwakarma**, Talat Ilyas, Deepti Malviya, Zaryab Shafi, Mohammad Shahid, Bavita Yadav, Udai B. Singh, Jai P. Rai, H.B. Singh, Harsh V. Singh (2022) Arbuscular Mycorrhizal Fungi (AMF) as Potential Biocontrol Agents. In: Rhizosphere Microbes: Biotic Stress Management by Singh et al. (eds.), Microorganisms for Sustainability (Book Series) pp. 197-222.
- Ilyas, T., **Vishwakarma, S. K.,** Shahid, M., Malviya, D., Kumar, S., Singh, S., ... & Singh, H. V. (2024). Exploring the Potentiality of Bacillus amyloliquefaciens as a Prominent Biocontrol Agent: A Comprehensive Overview. *Applications of Bacillus and Bacillus Derived Genera in Agriculture, Biotechnology and Beyond*, 133-150.
- Shahid, M., Singh, U. B., Ilyas, T., Malviya, D., **Vishwakarma, S. K.,** Shafi, Z., & Singh, H. V. (2024). Bacillus-Mediated Degradation of Recalcitrant Agricultural Pesticides: A Cutting-Edge Approach Towards the Clean-Up of Environmental Contaminants. In *Applications of Bacillus and Bacillus Derived Genera in Agriculture, Biotechnology and Beyond* (pp. 213-251). Singapore: Springer Nature Singapore.

- Mohammad Shahid, Udai B. Singh, Talat Ilyas, Deepti Malviya, **Shailesh K. Vishwakarma**, Zaryab Shafi, Babita Yadav, Harsh V. Singh (2022) Bacterial inoculants for control of fungal diseases in Solanum lycopersicum L. (tomatoes): A comprehensive overview. In: Rhizosphere Microbes: Biotic Stress Management by Singh et al. (eds.), Microorganisms for Sustainability (Book Series) pp. 311-340.
- Bavita Yadav, Udai B. Singh, Deepti Malviya, **Shailesh K. Vishwakarma**, Talat Ilyas, Zaryab Shafi, Mohammad Shahid, Harsh V. Singh (2022) Nematophagous fungi: Biology, Ecology and potential application. In: Detection, Diagnosis and Management of Soilborne Phytopathogens by Singh et al. (eds.), Microorganisms for Sustainability (Book Series).
- Deepti Malviya, Talat Ilyas, Rajan Chaurasia, Udai B. Singh, Mohammad Shahid, **Shailesh K. Vishwakarma**, Zaryab Shafi, Bavita Yadav, Sushil K. Sharma, Harsh V. Singh (2022) Engineering the Plant Microbiome for Biotic Stress tolerance: Biotechnological Advances. In: Rhizosphere Microbes: Biotic Stress Management by Singh et al. (eds.), Microorganisms for Sustainability (Book Series) pp. 133-152
- Talat Ilyas, Deepti Malviya, Zaryab Shafi, Mohammad Shahid, **Shailesh K. Vishwakarma**, Bavita Yadav, Udai B. Singh, Jai P. Rai, H.B. Singh, Harsh V. Singh (2022) Biochar mediated suppression of soil-borne pathogens in agronomically important crops: An Outlook. In: Detection, Diagnosis and Management of Soilborne Phytopathogens by Singh et al. (eds.), Microorganisms for Sustainability (Book Series).
- Zaryab Shafi, Talat Ilyas, Mohammad Shahid, **Shailesh K. Vishwakarma**, Deepti Malviya, Bavita Yadav, Pramod K. Sahu, Udai B. Singh, Jai P. Rai, H.B. Singh, Harsh V. Singh (2022) Microbial Management of Fusarium wilt in Banana: A comprehensive overview. In: Detection, Diagnosis and Management of Soilborne Phytopathogens by Singh et al. (eds.), Microorganisms for Sustainability (Book Series).
- M Arya, Singh S, **Vishwakarma SK** (2022) Lichens: Natural and Most Sensitive Biomonitors of Atmospheric Changes. In Recent Advancements in Sciences with Special Reference to Himalaya, ANCIENT PUBLISHING HOUSE, pp 143-155.

Others

- 21 sequence of bacterial 16S RNA gene in NCBI database.
- 1 fungal and 4 bacterial culture deposited in Culture collection at ICAR-NBAIM.

WORKSHOP/CONFERENCE

- Nine days online workshop on “Fundamentals of Next generation sequence analysis in Linux ”, 2024.

- Two Day Online workshop on "Evolutionary & Phylogenetic Analysis", 2023.
- Completed 5 Days online training in Bioinformatics, 2023.
- Attended two days workshop on "Microbial Technologies" held at Department of Biochemical Engineering B.T. Kumaon Institute of Technology Dwarahat, Almora, 2018.
- Poster presentation in a National Conference on perspective in Natural and Applied Sciences at UCBMSH. Dehradun, 2018.
- Attended a National Level workshop on Intellectual Property Rights (IPR) on 17 Nov, 2018.
- Attended 4 days Conference Young Scientists' Conference (2018) organized by India International Science festival (IISF).
- One day workshop on Laboratory Biosafety protocols (2018), Organized by Institutional Biosafety Committee (IBSC) and Department of Zoology and Biotechnology at HNB Garhwal University.
- Four days application training on "Spectrum two FTIR Spectrophotometer & Spectrum 10 software" held at Indian Institute of petroleum, Mohkampur, Dehradun-248005.

EXTRA-CURRICULAR ACTIVITIES

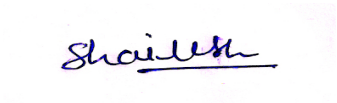
- Assisted in a national training program "Exploring Host-Pathogen Interaction in crop plants: Integrating Classical and Molecular approaches"" from 7-14 Fab, 2024 at ICAR-NBAIM.
- Participated and won 2nd prize in Environmental Day quiz program (2019) organized by IQAC of HNB Garhwal University.
- Completed 5 days online training "Master class on Advanced Excel Formulas".
- Actively participated in organizing a 3 days' event of DNA Day (2017) at the Department of Zoology and Biotechnology, HNB Garhwal University.
- Attended World Tuberculosis Day, 2018 at the Department of Botany and Microbiology, HNB Garhwal University.
- Participated in the national workshop on recent advancements in atmospheric science with special reference to Himalaya (RAAS-2019) at Department of Physics, HNB Garhwal University.
- Participated in the symposium on "Higher education: Challenges, Best Practices and social Accountibility" (2017), organized by Sri Dev Suman Uttarakhand University Badshahithaul, New Tehri in collaboration with HNB Garhwal University.

PERSONAL PROFILE

Name	:	Shailesh Kumar Vishwakarma
Father's Name	:	Ram Kumar Vishwakarma
Mother's Name	:	Sudha Devi Vishwakarma
Date of Birth	:	10-05-1989
Gender	:	Male
Marital Status	:	Married
Language	:	English and Hindi
Nationality	:	Indian
Hobbies	:	Reading, Travelling,
Strength	:	Opportunity Seeker to Prove Myself, Optimistic, Confident, Honest, Decisive, Innovative, Excellent Communication and Interpersonal Skills.

DECLARATION

I hereby declare that all the information given by me is true to the best of my knowledge and belief.



Shailesh Kumar Vishwakarma

Date: 03/06/2024
Place: Mau, Uttar Pradesh

REFERENCES

Dr. Mamta Arya
Assistant Professor
Department of Biotechnology
HNB Garhwal University, Uttarakhand
E mail ID: mamta.arya.hnbgu@gmail.com
Mob: +919411349200

Dr. Pooja Saklani
Associate Professor
Department of Biotechnology
HNB Garhwal University

Email: poojasaklani@rediffmail.com
Mob:+917088569285

Dr. Udai Bhan Singh
Senior Scientist
NBAIM, Mau (U.P)
Email: udaibhu1@gmail.com
Mob: +919559931327