

Name: **Dr. Shelly Sinha**

Official Address: Assistant Professor  
Department of Botany,  
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Educational Qualification: M.Sc., M. Phil, Ph.D.

Teaching experience: 16+ years, including 1+1+1 U.G. Course, CBCS and CCFUP (NEP) Course Curriculum.

Courses taught: Botany (Honours) and (General)  
Archegoniate, Plant anatomy, Plant Systematics, Cell Biology, Molecular Biology, Bioinformatics, Genetics and Plant Breeding, Plant Biotechnology, Industrial and Environmental Microbiology etc.

Specialization area of research: Bacterial comparative genomics

Other area of interest: Medical microbiology, Bryology, Plant tissue culture, Cytology, Phytochemistry, Medicinal Botany

Seminars / Workshop / Symposium attended in last 16 years: 14

Publications:

- S.Gupta, **S. Sinha** and A. Bhar, **2024**. Harnessing belowground interaction: Re-analyzing the role of rhizosphere microbiome in plant-pathogen interaction under water stress. *Journal of Plant Growth Regulation*, 44(12), pp.6841-6862.
- **S. Sinha**, A. Singh, P. Mumtaz and Md. S. Noorani, **2024**. Bioremediation: Harnessing nature's cleanup crew with a sustainable approach. *Futuristic Trends in Biotechnology*. ISBN: 978-93-6252-655-7 (Hardcover), ISBN: 978-93-6252-751-6 (eBook). Iterative International Publishers (IIP), Selfpage Developers Pvt Ltd. Vol 3; pp: 112-139. <https://www.doi.org/10.58532/V3BJBT4P1CH8>.
- **S. Sinha**, **2023**. The Biotic Stress Tolerance of Crop Plants: The Role of Plant Tissue Culture in the Modern Age. *Emerging technologies to combat biotic stress in crop plants and food security*. ISBN: 979-8-89113-079-1, Nova Science Publishers, Inc.
- **S. Sinha**, **2023**. Rhizobacterial interactions in crop legumes with relevance to enhancement of biotic stress tolerance imparting food security. *Emerging technologies to combat biotic stress in crop plants and food security*. ISBN: 979-8-89113-079-1, Nova Science Publishers, Inc.

- A. Singh, **S. Sinha** and P. L. Uniyal, **2021**. Insights into the cytological diversity within different members of Bryophytes; an overview. *Phytotaxonomy*. 19 (2019): 117-122.
- A. Singh and **S. Sinha**, **2021**. Ethnobotanical and medicinal importance of Bryophytes. Hand Book of Agriculture & Plant Sciences. ISBN: 9789391002251. pp: 309-333.
- **S. Sinha**, A. Singh, D. Sinha and R. Chatterjee, **2021**. A review on Bryophytes as key bio-indicators to monitor heavy metals in the atmosphere. *International Journal of Plant and Environment*. 7(1): 49-62. DOI: 10.18811/ijpen.v7i01.5
- **S. Sinha**, S. K. Sen and B. Dam, **2017**. Genome analysis to identify virulence-related features present in an emerging enteric pathogen *Escherichia albertii* KF1 as compared to that of the prototypical *Escherichia coli* O127:H6 E2348/69. *Journal of Advanced Microbiology*. 3(3): 110-119.
- **S. Sinha**, **2016**. Exploring diverse conducting elements with habit preference in some acrocarpous and pleurocarpous mosses: a comparative analysis. *International Journal of Research on Social and Natural Sciences*. 1(1): 79-86.
- **S. Sinha**, P. Chattopadhyay and S. K. Sen, **2012**. Chapter- 15, Microbial degradation of recalcitrant PAHs-microbial diversity involving remediation process in Singh S.N. (Eds.) *Microbial Degradation of Xenobiotics, Environmental Science and Engineering*, Springer-Verlag, Berlin Heidelberg, Germany, ISBN: 978-3-642- 23788-1: 395-410.
- **S. Sinha**, **2012**. Developmental plasticity of conducting elements within three species of *Bryum*: a comparative look, ISBN: 978-93-80663-61-6: 136-142.
- **S. Sinha**, **2012**. Article-9, Bryophytes as potential environmental pollution monitoring bio-agents, ISBN: 978-93-80663-60-9: 63-73.
- **S. Sinha**, H. Govindaparyi, S. Suman and P. L. Uniyal, **2009**. Taxonomic implication of conducting elements in the acrocarpous mosses. *Nelumbo (Bulletin of Botanical Survey of India)*, 51:183-190.
- **S. Sinha**, P. Chattopadhyay, I. Pan, S. Chatterjee, P. Chanda, D. Bandyopadhyay, K. Das and S. K. Sen, **2009**. Microbial transformation of xenobiotics for environmental bioremediation. *African Journal of Biotechnology*, 8 (22): 6016-6027.
- **S. Sinha**, I. Pan, P. Chanda and S. K. Sen, **2009**. Nanoparticles fabrication using ambient biological resources. *Journal of Applied Biosciences*, 19: 1115-1132.