Dr. Mamta Sharma has more than 14 years working experience in teaching and research. Dedicated botanist whose chief interests lie in plant conservation and stress physiology with emphasis on impacts of climate change on plants. She has 46 granted and filed patents and many published patents in the field of nano agrotechnology in her credit. She has published around 45 research findings in reputed high impact factor Scopus indexed and Thomson Reuters International journals. To alleviate climate effect and abiotic stress on vegetation, a unique model for cultivation of vegetables has been successfully developed. She has also developed a Solar Energy driven Model for oil extraction from aromatic and medicinal plants from Himalayan Region and patent of model has been granted by IPO India.

She has working as Principal Investigator in Govt Funded project entitled as "Returning Taxas back to Himalaya: A case study of Shimla and Kullu districts" from NMHS, Ministry of Environment GOI with grant of 47 lakhs for three years. Herdeveloped model for Water purification through Phytoremediation was selected by Michigan State University, USA for presentation along with Travel grant. Considered an important achievement in the field of biodiversity she has worked extensively on ethnobotanical aspect in Himalaya.

She has supervised and mentored Phd, M. Phil and M.Sc scholars for their thesis and dissertations. She has guided Five PhD scholars and 9 M.Phil and 40 M.Sc.Dissertations. Currently working in green synthesis of nanoparticles from endangered plants for effective drug delivery and its role in various fields of agriculture.

She has been working as Associate Professor in School of Biological & Environmental Sciences, Shoolini University. She have been awarded with Golden Rudraksh Award for Best Teaching in 2018, Best Researcher for publications High Impact Journal in 2021and Top Patent Filer award at Shoolini University in 2022.

She has served as Head of School of Biological and Environmental Sciences, Faculty of Sciences, Shoolini University along with many administrative positions like Examination Superintendent, Admission and Academic Coordinator, Organizer of INSPIRE Science Camps (Govt. Funded projects) for 11 years.