



Department of Botany

Botany as a subject in the science faculty at UG level was started in the college on 1 July 1983. Mrs. Shailbala Jain has joined this department first as an assistant professor and established the lab also. In the year 1992, Professor Arun Kher replaced her and stayed here for about 13 years. He has built up botanical garden a huge collection of charts, well equipped laboratory and provided all necessary things required by the students. In 2005, he was transferred to Holkar College, Indore and Mrs. Meera Madhuri Mahant took the charge from Dr. Kher. She worked here about 7 years and transferred to other college in 2013. In the session 2014-15 M.Sc. was started in Botany department and the department was run over by the guest faculty members, Dr. Prashant Soni & Dr. Yogendra Singh till December 2019.

In December 2019 two permanent faculties **Mr. Deepak Kumar Saini** and **Smt. Nayantara** joined here. In September 2021, **Dr. Smt. Abha Agrawal** and in November 2021, **Dr. Dinesh Patel** joined as guest faculty member.

Brief Profile of present faculty members:

- **Mr. Deepak Kumar Saini**, M.Sc. Botany (Bareilly College, Bareilly); M.Phil in International Health (University of Bergen, Norway); M.Sc. Biotechnology (Jamia Hamdard, New Delhi), Qualified CSIR-NET (Life Sciences), UGC-NET (Environmental Sciences), ICAR-ASRB NET

(Agricultural Biotechnology) and GATE (Life Sciences). 3 international and 4 national publications.

- **Smt. Nayantara Mishra**, M.Sc. Botany (Delhi University), Qualified CSIR-NET JRF (Life Sciences).
- **Dr. Dinesh Patel**, M.Sc. Applied Microbiology and Biotechnology (Dr. H.S. Gour University, Sagar); PhD (CIMAP-CSIR); Qualified CSIR-NET JRF (Life Sciences). 4 publication in international journals
- **Dr. (Smt.) Abha Agrawal**, M.Sc. (Bio Science), M.Phil. and Ph.D. from Rani Durgawati University, Jabalpur. 3 publication in international journals
- ✚ Two M.Sc. Botany students Astha Jain (2021-22) and Pragati Thakur (2020-21) awarded with the **University Gold Medals**.
- ✚ There is a departmental library for M.Sc. students. UG students easily get books from the central library of the college.

Table: Students strength in every class (2022-23 sessions)

Sr. No.	Class/ Semester	No. of Students
1	B.Sc. I	276 (Major), 141(Minor), 49 (Open elective)
2	B.Sc. II	180 (Major), 171(Minor), 68 (Open elective)
3	B.Sc. III	250
4	M.Sc. II Semester	24
5	M.Sc. IV Semester	21

List of publications by faculty members

- Jenum, Synne, S. Dhanasekaran, Rakesh Lodha, Aparna Mukherjee, **Deepak Kumar Saini**, Sarman Singh, Varinder Singh et al. "Approaching a diagnostic point-of-care test for pediatric tuberculosis through evaluation of immune biomarkers across the clinical disease spectrum." *Scientific reports* 6, no. 1 (2016): 1-11.
- Lodha, R., A. Mukherjee, **D. Saini**, S. Saini, V. Singh, S. Singh, H. M. S. Grewal, S. K. Kabra, and Delhi TB Study Group. "Role of the QuantiFERON®-TB Gold In-Tube test in the diagnosis of intrathoracic childhood tuberculosis." *The International journal of tuberculosis and lung disease* 17, no. 11 (2013): 1383-1388.

- Mukherjee, A., S. Saini, S. K. Kabra, N. Gupta, V. Singh, S. Singh, S. Bhatnagar, **D. Saini**, H. M. S. Grewal, and R. Lodha. "Effect of micronutrient deficiency on QuantiFERON-TB Gold In-Tube test and tuberculin skin test in diagnosis of childhood intrathoracic tuberculosis." *European Journal of Clinical Nutrition* 68, no. 1 (2014): 38-42.
- **Saini, Deepak Kumar**, S. K. Garg, and Mukesh Kumar. "Major air pollutants and their effects on plant and human health: a review." *Plant Arch* 19, no. 2 (2019): 3273-3278.
- **Saini, Deepak Kumar**, Anshuman Gupta, and Mukesh Kumar. "Estimating the response of some plant species to ambient air pollution in industrial city Gajraula for potential green belt development." *Plant Archives* 21, no. 2 (2021): 565-575.
- **Saini, Deepak Kumar**, and Mukesh Kumar. "Respiratory health effect of ambient air pollutants on road-side vendors in industrial city Gajraula, Uttar Pradesh, India." *Plant Arch* 21, no. 2 (2021): 697-703.
- **Saini, Deepak Kumar**, and Mukesh Kumar. "Seasonal changes in respiratory health status of road-side vendors in industrial city Gajraula."
- **Nayantara**. (2021). Economic importance of different classes of plants K Chahal (Ed.). Characteristics features and economic importance of Gymnosperms (pp. 46-60). Krishna publication, Gujrat
- **Nayantara**, and Kavita Chahal. "Comparative In-vitro study of antibacterial and anti fungal activity of Tea Tree (*Melaliuca alternifolia*) essential oil, lemon grass (*Cymbopogon citratus*) essential oil, and peppermint (*Mentha piperitae aetheroleum*) essential oil." *IJIRT*, 4(9), (2022): 106-112.
- **Nayantara**, Study of antibacterial and antifungal of tea tree (*Melaleuca Alternifolia*) essential oil. "IJRSR, 9(13), (2022): 2175-2178.
- **Dinesh K. Patel**, Sandeep Mittal, Nimisha Tiwari, Anil K Maurya, Dharendra Singh, Alok K. Pandey and Anirban Pal. *Plasmodium-Salmonella* co-infection induces intense inflammatory response, Oxidative stress and Liver Damage: A Mice Model Study for Therapeutic Strategy. **SHOCK**, Vol. 50, No. 6, pp. 741–749, 2018.
- Priyanka Gupta, **Dinesh Kumar Patel**, Vivek Kumar Gupta, Anirban Pal, Sudeep Tandon and M P Darokar. Citral, a monoterpenoid aldehyde interacts synergistically with norfloxacin against methicillin resistant *Staphylococcus aureus*. **Phytomedicine** 2017 Oct 15;34:85-96.

- Nidhi Srivastava, **Dinesh Kumar Patel**, Vineet Kumar Rai, Anirban Pal, Narayan Prasad Yadav. Development of emulgel formulation for vaginal candidiasis: Pharmaceutical characterization, *in vitro* and *in vivo* evaluation. **Journal of Drug Delivery Science and Technology**.
- Nimisha Tiwari, Vivek Kumar Gupta , Pallavi Pandey , **Dinesh Kumar Patel** , Suchitra Banerjee, Mahendra Pandurang Darokar , Anirban Pal. Adjuvant effect of Asparagus racemosus Willd. derived saponins in antibody production, allergic response and pro-inflammatory cytokine modulation. **Biomedicine and Pharmacotherapy**,2017 Feb;86:555-561.