

**Department of Botany
(DST-FIST)
Shri Murli Manohar Town P.G. College
Ballia, U.P.**

(Affiliated to Jananayk Chandrashekhar University, Ballia)

1. About

Botany department started with UG course in 1963. PG courses started in 1979. The department got **DST (FIST)** in 2004. The department also run Ph.D. courses for students. All the past and present faculty members are well-qualified from different top universities of India and well- trained in their area of research. Dr. Anil Kumar Srivastava had worked on biodegradation of dyes, pesticides and other hazardous non-degradable compounds by the native microorganisms. He had screened a large number of local microflora and evaluated their hydrolytic enzyme activities. Dr. R.P. Raghava and Dr. Nisha Raghava have worked on flower development of legumes and other plants and the relationship between nodule metabolism and growth of legumes. At present, they are working on new groups of bioregulators such as triazoles and penicillin and have published several papers in different journals of repute and are active members of a number of scientific and academic bodies. Dr. Alok Srivastava has conducted two major projects funded by DST and DBT and currently working as a senior scientist at National Institute of Microbial Science, Mau.



2. List of Faculties

Dr. Nisha Raghava

Qualification M.Sc., M.Phil., Ph.D., CSIR-NET, JRF
Designation Professor
Contact 9415657035
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Specialisation and area of research Plant Physiology and Biochemistry
Research Papers- 36; Seminars/ Conferences- 43; Books/Book Chapters- 02/12

Awards/Recognition/honours 02, Fellow of Indian Society of Plant Physiology,
Other Related Information UGC Minor Project, Convenor BOS (Botany), Member Academic Council, Secretary Women Cell, Coordinator Mission Shakti, Dean Faculty of Ayurveda (JNCU),



Dr. Subhash Chandra

Qualification M.Sc., NET, Ph.D.
Designation Associate Professor
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Specialisation and area of research Mycology and Plant Pathology
Research Papers- 22; Seminars/ Conferences- 15; Books/Book Chapters- 01/03
Awards/Recognition/honours 01



Dr. Akhilesh Kumar Yadav

Qualification M.Sc., M.Phil., Ph.D. (University of Delhi), CSIR-JRF
Designation Assistant Professor
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Specialisation and area of research Genomics, Molecular Biology, Plant Physiology
Research Papers- 15; Seminar/Conferences- 04; Books/Book Chapters- 03



Dr. Rajan Chaurasiya

Qualification M.Sc., CSIR-NET/JRF, GATE, M.Phil.
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Specialisation and area of research Ecology, Microbiology, Anatomy
Research Papers- 10; Seminars/ Conferences- 07; Books/Book Chapters- 01/03



Awards/Recognition/honours Life member, Society for Science of Climate Change & Environment Sustainability;
Commission Member of IUCN CEM Agro-ecosystems Thematic Group; Member of Global Land Program, Global Soil Biodiversity Initiative

Other Related Information Travel Grant from IUBS Paris; Best Performer Award, ACD, BARC;

Dr. Akash Kumar Maurya

Qualification M.Sc. (BHU), Ph.D. (Pursuing, BHU)
Designation Assistant Professor
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Specialisation and area of research Plant Taxonomy and Mycology
Research Papers- 09; Seminars/ Conferences- 06; Books/Book Chapters- 02
Awards/Recognition/honours Life Member of Indian Botanical Society, CSIR-NET



Dr. Akhilesh Kumar

Qualification M.Sc. (BHU), Ph.D. (BHU); CSIR-JRF, GATE
Designation Assistant Professor
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Specialisation and area of research Microbiology, Plant pathology and Mol. Genetics
Research Papers- 15; Seminars/ Conferences- 10; Books/Book Chapters- 04
Awards/Recognition/honours Life member of Indian Botanical Society



3. List of Ex-faculties:

1. Dr. Umesh Kumar Sinha
2. Dr. Shyam Badan Singh
3. Dr. Shiv Sundar Mishra
4. Dr. Harish Chandra Srivastava
5. Dr. Anil Kumar Srivastava
6. Dr. Sunil Kumar Srivastava
7. Dr. Om Prakash Tripathi

8. Dr. Ramesh Chandra Srivastava
9. Dr. Bipin Chandra Srivastava
10. Dr. Ravindra Pratap Raghava
11. Dr. Alok Kumar Srivastava
12. Dr. Prakash Yadav

4. Student Profile:

Though the students who seek admission in this institution come mostly from economically and socially backward segments of the society, yet their performance is appreciable. It is further appreciating that girl students usually constitute about half or sometimes more than half of the total strength. Our students are doing well in different walks of life after completing their studies from this institution. Most of the students come from Hindi medium schools, hence with a poor proficiency in English language. Many students studied from this department are holding senior positions in different arenas of society.

5. Changes in Courses:

In 2003, we have adopted the syllabi recommended by UGC for both UG and PG courses almost in toto. Our head of the department was convener of the Board of Studies that introduced the changes.

6. Success rate and drop-out rate:

The department has showed a good trend in success rate of students. The success rate of UG students is more than 60%. In case of PG students, it is more than 90%. The drop-out rate is almost negligible.

7. Learning Resources of the department:

The department is equipped with following resources for our students-

A. Library: For UG students, there is a central library. But for PG and research students, there is a departmental library with sufficient books and journals.

B. Computers: At present, there are 12 computers in the department.

C. Laboratories: There is a big well-equipped laboratory for UG students. Two laboratories equipped with necessary amenities are there for PG students. There is a separate laboratory for physiology and biochemistry practical. There is a research laboratory with working facility for about ten students and is equipped with all the modern facilities like spectrophotometers, ovens, incubators, BOD incubators, Laminar Air flow, microbial shakers, research microscopes, cooling centrifuge, autoclave, distillation plant, PCR, ultra-sonicator, lyophilizer, deep incubator (-180°C) gel electrophoresis etc.

A. Other Resources: The department has a rich archive of museum and prepared slides for both UG and PG students. We have a good collection of models and charts for easy learning of students.

8. Modern teaching methods: We use overhead, slide and LCD projectors apart from normal blackboard teaching. We also organize students' seminars and group discussion. Many of our faculty uses ICT resources in the process of their teaching

9. Academic and personal Counseling: The staff members take keen interest in providing academic counseling to our students, particularly those pursuing PG courses. We keep them updated regarding various avenues available to them after their post-graduation. We make our maximum efforts for genuine

placements of our research students after they complete their doctoral work. Further, our students do not hesitate to consult us if and when they have some personal problems.

10. Faculty development programmes: All the faculty have completed the required number of orientation and refresher courses.

11. Participation in academic activities:

Teaching- The faculty members are regularly involved in teaching of both UG and PG classes. Each faculty takes about 24 periods per week. Dr Anil K Srivastava is a guest faculty and convener of the department of Biotechnology also.

Research- Four of our faculty members are actively involved in research. Their research profiles are mentioned above.

Other Academic Activities-The head of this department (Dr Anil Kumar Srivastava) has served as convener, RDC (Botany) as well as convener, academic council of VBS Purvanchal University, Jaunpur. Our faculty members are routinely involved in other college activities, like proctorship, paper setting, evaluation, etc.

12. Collaboration with other departments and institutions: The department works in collaboration with NBAIM, Mau, BHU and Department of Zoology of this institution.

13. Priority Areas of Research, Ongoing Projects and Publications of last two years

Dr Anil Kumar Srivastava

Priority areas of research – Biodegradation of dyes and other hazardous compounds.

Ongoing Projects

(i)Major Project- Evaluation of cyanobacterial toxicity on Makhana plant (*Euryale ferox*) and a common carp, *Cyprinus carpio*. Funded by CST, Lucknow, Total outlay-Rs 5,44,000.00

Dr R.P Raghava and Dr Nisha Raghava

Priority areas of research –Bioregulators

Publications (Last 5 years)

1. Gupta SK, **RP Raghava and Nisha Raghava. 2004.** Stomatal studies of Cowpea (*Vigna unguiculata*) cultivars in relation to Bromiconazole. J.Ind. Bot,Soc. 83:116-119
2. Pandey R, **RP Raghava, and Nisha Raghava. 2005.** Parantic angiospermic plants of Ballia District and their medicinal uses. Indian J. Applied & Pure Biol. 20: 267-270
3. Gupta BP, **Nisha Raghava, BP Singh, SP Singh R. Pandey and RP Raghava. 2007.** Chemical Regulation stomatal characteristics regulating physiological processes in two varieties of Cowpea with Putrescine. Ind.J. Bot. Soc.. 86: 170-182.
4. Rai A, **N. Raghav, BP Gupta and RP Raghava. 2007.** Bio-efficacy of Putrescine on Leaf Growth in relation to productivity of tomato (*Lycopersican esculentum*). 4: 239-246

5. Rai A. N. **Raghava**, BP Gupta and **RP raghava**. **2008**. Influence of Polyamine on yield and quality of tomato(*Lycopersican esculentum*). Ind. J. Applied & Pure Biol. 23: 5-8
6. Tillotama, N **Raghava**, **RP Raghava** and AK Singh. **2008** Efficacy of Triaccontanol on Growth and nodulation of Cowpea. 23: 305-310
7. Singh L. **Raghav N. Raghav R.P.** Jayanti..**2008**. Allelopathic effects of *Parthenium* on *Lagenaria siceraria* [Mol] Standl. Indian J. Applied and Pure Biol. 23[2]. 285-294
8. Singh L. **Raghav N. Raghav R.P.****2009**. Allelopathic substances of *Parthenium* weed and interaction of *Solanum melongena*. Bioscience, Biotechnology Research. Asia. 6[2]. 855-862
9. Tillotama, N **Raghava**, **RP Raghava**. **2010**. Effects of Miraculan on seed germination parameters in cowpea under water stress. Biosciences, Biotechnology Research, Asia. 353-358

Dr. Subhas Chandra

Plant cell tissue culture, microbial genetics, biotechnology

14. Placement record- The students passed out from this department are working in different fields of the country and abroad. A list of some of the alumni is given below-

Dr HK Srivastava	- Scientist
Dr GC Srivastava	- Head, Dept of Plant Physiology, IARI
Dr SK Srivastava	- Assoc. Professor, St Louise, USA
Dr BP Verma	-Sr Scientist, Canada
Dr Saukat Ali	- Scientist, New York
Dr Sanjay Misra	-Scientist, Indiana University
Dr VS Pandey	- IAS
Dr VC Srivastava	-IPS

15. Plan of action of the department for the next five years:

A. Teaching: We plan to improve our Post Graduate teaching by further augmenting the facilities in our departmental library and laboratory. We are likely to start a Diploma in Crop Management.

B. Research: We have planned to improve research facilities so that both PG and research students can learn the advanced research techniques.