

BRIEF PROFILE

Name : **Dr. (Mrs.) Ranjana Shrivastava**

Designation : Professor & Head, Department of Botany,
Govt. V.Y.T.PG. Autonomous College, Durg

Academic Qualification : M.Sc., Ph.D.

Department : Botany

Date of Birth : 04-04-1963

Date of First Appointment : 08-12-1984

Date of Regularization : 15-06-1987

Specialization in P.G. : Plant Pathology, antimicrobial activity and medicinal plants.

Ph.D. (Botany) : 14-11-2002

Title : Epidemiology & Management of Rice Blast disease in Northern hills region of Chhattisgarh, {M.P}.

Details of Awards : Gold Medal in M.Sc. {1984}

Office Address : Department of Botany,
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Residential Address : Plot No. - 23 Anand Nagar,
Utai Road, Durg (Chhattisgarh) Pin – 491001

Telephone No.

- **Land Line** : 0788-2333157 (R)
- **Mobile** : 9479227004

E-mail Address : drranjanashrivastava@gmail.com

Teaching Experience

- **Under Graduate** : 31 Years
- **Post Graduate** : 25 Years

Research Experience : 10 Years

Recognized Supervisor for

- **Ph.D. {Botany} Guidance** : Yes, to Pt. R. S. U Raipur (C.G.) from 17/10/09 {4 scholars are working} 1 awarded Ph. D. on 15-1-2016
- **Ph.D. {Microbiology} Guidance** : Yes, to Pt. R. S. Univ. Raipur(C.G.) 24/9/2012

Others:

❖ **Two research scholars are awarded Rajiv Gandhi Fellowship**

❖ **Membership of the Scientific Societies:**

Society of Life Sciences {NJLS & LSB}	:	Life member
Advances in Plant Science	:	Life member
Journal of Basic and Applied Mycology	:	Life member
Journal Lab to Land	:	Editorial Advisory Board

❖ **Honorary Fellowship Award:**

F.S.L.Sc. : Awarded by Society of Life Sciences, India (2009)

Member of Board of Studies (Botany), Pt. Ravishankar Shukla University, Raipur

Ph.D. Produced

S.no	Year	Ph.D. Produced
01	2016	02

Ph.D. Registered

S.no	Year	Ph.D. Registered
01	2014	01
02	2011	01

Detail of Research (In Brief):

Some major field of research work presently undertaken by me and going in our laboratory are as mentioned below :-

- **Studies on Micro flora Associated with Oil Seeds during Long-Term Storage:** Purpose of the study is to determine the presence of phytopathogenic microorganism associated with

oil seeds to reduce the risk of unacceptable levels of disease in plant crops that lead to crop loss or to minimize the risk of introduction of a new disease or pathogen strain in a region or country.

- **Phenological Studies of Weed Species of Chhattisgarh:** One of research scholar is doing work for analyzing the phenological pattern of weeds, along disturbance gradient to understand the response of weed species to climatic factors and the periodicity of seasons.
- **Analysis of Native Medicinal Plants and Their Ecological Status of Chhattisgarh:** Our mission is to evident great diversity of flora of the study area and a variation in seasonal aspects, so for as the medicinal plants are concerned.
- **Evaluation of Medicinal Plants for Antimicrobial Activity against MDR Strains:** We are screening indigenous medicinal plants of District Durg and Rajnandgaon for antimicrobial activity. We have already established some findings. For this study our research scholars are involved in laboratory.
- **Rhizospheric Study of Native Medicinal Plants:** One of research scholar is working on studying the role of secondary metabolites and environmental factors affecting host defences.
- **Biodegradation of Organic Compounds:** Biodegradation of organic compounds provides a review towards better understanding the biodegradation processes for exploitation in bioremediation challenges. Our Research scholars are involved in work.
- **Bacteriocin Production from *Lactobacillus* species:** Our scholars are screening of *Lactobacillus* sp. for Bacteriocin production. Produced Bacteriocin is further studied for their use as bio-preservative.
- **Antimicrobial activity and phycochemical analysis of algae.**
- **Effect of organochlorine pesticides on actinomycetes.**
- **Impact of urea in plant growth promoting Rhizobacteria with reference to rice crop.**
- **Antimicrobial activity of medicinal plant.**

Details of Publications:

❖ **Published Research Paper (National/ International Journals):–**

- **Dr. Ranjana Shrivastava (2006).** Effect of spacing on foliar incidence of blast disease. *Research Link – 27, Vol. – V (2), April-September: 133.*

- **Ranjana Shrivastava** (2006). Effect of seasons & time of sowing crops on foliar incidence of blast disease in rice. *National Journal of Life Sciences* 3 (3): 481- 483.
- **Dr. Ranjana Shrivastava** (2006). Assessment of potentiality of *Nelumbo* cultivation under central plains of Chhattisgarh. *Research Link – 32, Vol. – V (7), September-November: 30.*
- Mrs. Gayatri Pandey, **Dr. Ranjana Shrivastava**, Mrs. Shubha Gupta (2006). Preliminary study of avenue trees of steel city (Bhilai). *Research Link – 32, Vol. –V (7), September-November: 28.*
- **Ranjana Shrivastava**, Deepika Mahobiya & Nishant Meshram (2009). Mycoflora associated with soybean seeds. *Life Science Bulletin* 6 (2): 163-165.
- Komal Jimnani, Nishant Meshram & **Ranjana Shrivastava** (Sep.2009). Hydrocarbon Utilization by Bacteria as a Sole Source of Carbon. *International Research Journal Research Analysis and Evaluation* I (1): 5-11.
- Nishant Meshram, Komal Jimnani & **Ranjana Shrivastava** (2009). Screening of Bacteria for the Biodegradation of Different Hydrocarbons. *Life Science Bulletin* 6 (3): 315-318.
- Nishant Meshram, Komal Jimnani & **Ranjana Shrivastava** (2010). Screening of Fungus for the Biodegradation of Different Hydrocarbons. *Life Science Bulletin* 7 (1): 47-48.
- E.P. Chelak, **Ranjana Shrivastava**, A.K. Shrivastava and A.C. Verma (2010). Characterization of Ground Water for Human Activity Zones of Dongargarh City (Chhattisgarh). *International Research Journal Lab to Land* 2 (7): 354-357.
- E. P. Chelak, **Ranjana Shrivastava** and A.K. Shrivastava(2011). Floristic diversity of Dongargarh hill range, Chhattisgarh. . *International Research Journal Lab to Land* 3 (9).
- E. P. Chelak, **Ranjana Shrivastava**, A.K. Shrivastava and Bhawna Pandey (2011).Water Quality Assessment of Ground Water Resources in Dongargarh City (Chhattisgarh) Based on WQI. *International Research Journal Lab to Land* 3 (9).
- **Ranjana Shrivastava**, Akanchha Singh and Nishant Meshram (2011). Detection of seed Borne Fungi in Soybean by Different Incubation Methods. . *International Research Journal Lab to Land* 3(12), 519-521.
- Yalini Sahu, Nishant Meshram, G. S. Thakur & **Ranjana Shrivastava** (2011). Ecological Status of Medicinal Plants of Durg Nagar Nigam Area; Chhattisgarh. *Advances in Plant Sciences* 24(II) , 621-632.

- Meenakshi Bharadwaj, **Ranjana Shrivastava** and A.K. Shrivastava (2011). Aeromycofloral Diversity of St. Thomas College, Bhilai. Published in Proceedings of National Conference on “Climatic change & its Effect on Biodiversity” held at Bhilai, Chhattisgarh during 5th – 6th Feb; 2011.
- E. P. Chelak, **Ranjana Shrivastava** and A. K. Shrivastava (2011). Physiochemical Characterization in two ponds of Dongargarh City (Chhattisgarh). . Published in Proceedings of National Conference on “Climatic change & its Effect on Biodiversity” held at Bhilai, Chhattisgarh during 5th – 6th Feb; 2011.
- Charulata Philip, **Ranjana Shrivastava**, Bhawana Pandey and A.K. Shrivastava (2011). Biodiversity and Biochemical Properties of Genus *Micromonospora* Recovered From Gelatin Factory. Published in Proceedings of National Conference on “Climatic change & its Effect on Biodiversity” held at Bhilai, Chhattisgarh during 5th – 6th Feb; 2011.
- A.K. Shrivastava, Niharika Dewangan, **Ranjana Shrivastava** and Bhawana Chandrakar (2012). Isolation and Characterization of plant growth promoting Rhizobacteria associated with *Vitex negundo*. *Life Science Bulletin* 9(1):197-199.
- Seema Verma, **Dr. (Mrs.) Ranjana Shrivastava** and Dr. Deepak Karkun. (2012). Ethanomedicinal plants and its effect on public health. *Journal of Pharmaceutical and Biomedical Health Journal of pharmaceutical and Biomedical Sciences* 21 (22):1-4.
- Bhawana Thakur, Seema Verma, **Dr. (Mrs.) Ranjana Shrivastava** and Dr. Deepak Karkun (2013). Ethanobotanical Plant Diversity in Mainpur Block, District Gariaband, Chhattisgarh, India. *International Journal of Innovative Research and Studies June* (2013). 2 (6): 11-24.
- Seema Verma, Bhawana Thakur, **Dr. (Mrs.) Ranjana Shrivastava** and Dr. Deepak Karkun (2013). Studies of Airomycoflora of District and Session Court of Durg, Chhattisgarh. *Journal of Biological Innovation* 2(4):146-151.
- Nishant Meshram, **Dr. (Mrs.) Ranjana Shrivastava** (2013). Scientific validation exploring traditional knowledge of Indian culture. *International Journal of Traditional Knowledge. (Communicated)*.
- Meenakshi Bharadwaj, Awdhesh Kumar Shrivastava, **Ranjana Srivastava**. (2014) Phycochemical Analysis of Two Members of Order – Zygnematales, *International journal of Geology, Agriculture and Environmental Sciences*, Vol. 2(2), 27-30.
- Meenakshi Bharadwaj, Awdhesh Kumar Shrivastava, **Ranjana Srivastava**. (2014) Phycochemical and antimicrobial study of vigorous fresh water alga *Mougeotia*. *Int. J. Curr. Microbiol. App. Sci.* 3(4): 1020-1024

- Niharika Dewangan, **Dr. (Mrs.) Ranjana Shrivastava**, Dr. A.K. Shrivastava and Vibha Sahu. (2014). Isolation and Characterization of PGPR Rice rhizosphere for phosphate solubilization.
- Akanchha Singh, Nishant Mehram, **Ranjana Srivastava**, (2014) Acute Human Lethal Toxicity Effects Of Some Pesticide Families, *Jr. of Industrial Pollution Control*, issue No. (2).
- Awadhesh Kumar Shrivastava, Meenakshi Bharadwaj and **Ranjana Shrivastava** (2014). Algal Biodiversity in Fresh water Reservoir of Durg. *Indian Journal of Scientific Research*. 4(1): 121-126
- Charulata Philip, A.K. Shrivastava and **Ranjana Shrivastava** (2014). Effect of Organochlorine Pesticide on growth of Actinomycetia. *Indian Journal of Scientific Research*. 4(1): 121-126
- Bharadwaj Meenakshi, Shrivastava A. K., **Shrivastava Ranjana** (2014) Antibacterial and Antifungal Activity of Mougeotia. *International Jr. of Basic and Applied Science Research* 1(1) 54-57.
 - Deepika Mahobiya and **Ranjana Shrivastava** (2015). Production, optimization and characterization of broad spectrum bacteriocins from *Lactobacillus plantarum* DP2 and *Lactobacillus casai* DD1. *Research Journal Pharmaceutical Biological and Chemical Sciences* 6(2):738- 747.
 - **Shrivastava, R.** (2015). Diversity of Actinomycetes in parboiled rice mill effluent. *IOSR Journal of Environmental Science, Toxicology and Food Technology*, **9**,
 - **Shrivastava R.**, Dewangan, N. and Shrivastava, A.K. (2015). Comparative study of application of chemical and biofertilizer for better growth of Vitex, a medicinal plant. *Indian Journal of Life Sciences*, **5**, 41-43.
 - **Shrivastava, R.** (2015). Co-inoculation of *Azotobacter* and *Pseudomonas* to improve growth of rice (*Oryza sativum*). *Society for promotion of tropical biodiversity, Jabalpur*, **23** (1) 98-101.
 - **Shrivastava, R.** (2015). Combined application of *Azotobacter* and urea to improve growth of rice (*Oryza sativum*). *Journal of Environmental Science, Toxicology and Food Technology*, 72-77.

❖ **Publication of Books/Articles :-**

- Nishant Meshram, Komal Jimnani & **Ranjana Shrivastava** “Petroleum Hydrocarbon Products Utilization by some Micro-organisms”. **Sustainable Mangement & Conservaion Biodiversity**. Editor: B.N. Pandey, Shivesh P. Singh & Rashmi Singh; Pages: 221 - 230.

❖ **Published/Presented Research Paper/Abstract :- (National/ International Conferences, Seminars & Symposiums)**

- **Dr. Ranjana Shrivastava** (1996). Pollution Due to De-Forestation & Coal Mining in Tribal Area at Bisrampur: Ambikapur M.P. To be presented in National Seminar held at Ambikapur, Madhya Pradesh during 1996.
- **Dr. Ranjana Shrivastava** (2006). Possibility of Nelumbo Cultivation under Central Plans of Chhattisgarh. To be presented in National Conference on “Plant Diversity & its Conservation” held at Bhilai, Chhattisgarh during Nov 11, 2006.
- **Dr. Ranjana Shrivastava**
- **Ranjana Shrivastava & Gayatri Pandey** (2011). Diversity of Seed Borne Mycoflora in Soybean (*Glycine max* (L) Merril) Published in Proceedings of National Seminar on “Biodiversity Conservation and its Socio-Economic Significance” held at Ambikapur, Chhattisgarh during 28th Feb – 1st Mar; 2011.
- **Ranjana Shrivastava, Nishant Meshram & Akanchha Singh** (2011). Effect of Climatic Change on Phenological Studies of Some Weed Species. Published in Proceedings of National Conference on “Climatic change & its Effect on Biodiversity” held at Bhilai, Chhattisgarh during 5th – 6th Feb; 2011.
- Meenakshi Bharadwaj, **Ranjana Shrivastava** and A. K. Shrivastava (2011). Aeromycofloral diversity of St. Thomas College, Bhilai. Published in Proceedings of National Conference on “Climate Change and its Effect on Biodiversity” held at Bhilai, Chhattisgarh during 5th and 6th Feb; 2011.
- E.P. Chelak, **Ranjana Shrivastava**, A.K. Shrivastava and Bhawana Pandey (2011). Floristic Diversity Of Dongargarh Hill Range, Chhattisgarh. Published in Proceedings of National Conference on “Climatic change & its Effect on Biodiversity” held at Bhilai, Chhattisgarh during 5th – 6th Feb; 2011.
- E.P. Chelak, **Ranjana Shrivastava** and A. K. Shrivastava (2011). Physiochemical Characterization in Two Ponds of Dongargarh City under Biotic Stress. Published in Proceedings of National Conference on “Climatic change & its Effect on Biodiversity” held at Bhilai, Chhattisgarh during 5th – 6th Feb; 2011.
- Charulata Philip, **Ranjana Shrivastava**, Bhawana Pandey and A. K. Shrivastava (2011). Biodiversity and biochemical properties of Genus *Micromonospora* Recovered from Gelatin Factory. Published in Proceedings of National Conference on “Climatic change & its Effect on Biodiversity” held at Bhilai, Chhattisgarh during 5th – 6th Feb; 2011.

➤ **Paper Presented**

- Research Seminar on “Pollution due to Deforestation and Coal-mining”, sponsored by Department of Higher Education, M.P. Government organized by Government Post Graduate College, Ambikapur , 14th and 15th February, 1994.
- National Conference on “Plant Diversity and its Conservation” organized by St. Thomas College, Bhilai, 11th and 12th November, 2005.
- National Conference on “Climate Change and its Effect on Biodiversity” sponsored by UGC organized by Bhilai Mahila Mahavidyalaya, Bhilai, 5th and 6th February 2011.
- National Seminar on “Biodiversity Conservation and its Socio-Economic Significance” sponsored by UGC organized by Rajiv Gandhi Govt. P.G.College, Ambikapur, 28th February and 1st March 2011.
- National Seminar on “Biodiversity of Medicinal and Aromatic Plants with respect to it’s Collection, Conservation & Characterization” oral presentation on “Exploration of mycofloral population over field at Vinayakpur, Durg” , organized by GD Rungta College of Science & Technology, Bhilai, 28th & 29th January 2015.
- National Seminar on “Modern Pioneering Trends of Environmental Management with reference to Waste Management” oral presentation on “Biodegradation of Pesticides” sponsored by CGCOST Raipur, organized by GD Rungta College of Science & Technology, Bhilai, 18th & 19th February 2015.
- International Seminar on “Interdisciplinary International Seminar” sponsored by CGCOST Raipur, presented paper on “Combined application of Azotobacter and urea to improve growth of rice (*Oryza sativa*)” organized by Swami Shri Swaroopanand Saraswati Mahavidyalaya, Bhilai, 22nd to 24th September 2015.

➤ **Attended**

- National Science Day 2006 Seminar sponsored by Chhattisgarh Council of Science and Technology, 27th April 2006.
- National seminar on “Environmental Issues and Economic Development” sponsored by UGC organized by Dr. Radha Bai Govt. Navin Kanya Mahavidyalaya, Raipur, 5th January, 2007
- 14th National Conference on Aerobiology organized by School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur, 15th to 17th January 2007.

- National Conference on “Species Diversity: Measurement, Magnitude, gradients, uses and Conservation” sponsored by UGC organized by Govt. Kamala Devi Mahavidyalaya, Rajnandgaon, 26th and 27th February 2008.
- National Seminar on “Botanical Researches: Present Scenario and Future Prospects” organized by Govt. College of Science, Raipur, 29th and 30th January 2008.
- National Seminar on “Physiology and Molecular Biology of Stress in Plants” organized by St. Thomas College, Bhilai, 19th December, 2009.
- National Conference on “Frontiers of New Biology” organized by St. Thomas College, Bhilai, 9th and 10th December, 2010.
- National Seminar on “Medicinal Plants-Utilization and Conservation with special reference to herbal state Chhattisgarh” sponsored by UGC and CG-COST organized by Govt. D.T.College, Utai, Durg, 11th and 12th February 2012.
- National Workshop on “Mushroom Cultivation and Its post Harvest Management” sponsored by UGC and organized by Bhilai Mahila Mahavidyalaya, 2nd to 5th November 2012.
- National Conference on “Biological Sciences in Present Scenario” organized by St. Thomas College, Bhilai, 10th and 11th October, 2012.
- National Seminar on “Conservation of Economically Important Endangered Plant Species of Chhattisgarh Region” organized by Bhilai Mahila Mahavidyalaya, on 25th and 26th October, 2013.
- National Conference on “Prospects of Life Science for Human Welfare with special Reference to Chhattisgarh” Sponsored by UGC and organized by CGCOST Raipur on 7th and 8th February 2015.
- National seminar on “Energy Harvesting materials and Techniques for Sustainable Development” sponsored by SERB – DST, CREDA, ऊर्जा 2015, organized by Govt. V.Y.T.PG. Autonomous College, Durg, 3rd December 2015.

➤ **Workshops and Training Programme**

- Teacher’s Training Programme in Entrepreneurship for Science and Technology sponsored by Department of Science and Technology, Govt. of India organized by Centre for Entrepreneurship Development, Madhya Pradesh, from 17th July to 29th July, 1995.
- Workshop on “Demonstration of DNA Techniques” by School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) on 23rd and 24th November 2005.

- National Workshop on “Quality enhancement through innovations in Teaching, Learning, Evaluation and Implementation of healthy Practices” sponsored by NAAC, Bangaluru, organized by IQAC Govt. V.Y.T.P.G. Autonomous College, Durg, 8th and 9th February 2013.
- National Workshop on “Importance of Statistics in Life Science” sponsored by CGCOST organized by Swami Shri Swaroopanand Saraswati Mahavidyalaya, Bhilai, 24th to 28th February 2015.
- National Workshop on “Isolation and identification of aerobiomolecules” delivered an **invited lecture** entitled “Invisible microorganism present in air” sponsored by UGC, organized by Bhilai Mahila Mahavidyalaya, Bhilai.
- Workshop on “Green Chemistry and its future prospects” sponsored by UGC, organized by Govt. V.Y.T.PG. Autonomous College, Durg, 30th November 2015.
- Workshop on “Mushroom Cultivation and its Prospects” **Convenor** of the workshop, organized by Govt. V.Y.T.PG. Autonomous College, Durg, 28th September to 3rd October 2016.

➤ **Other Achievement**

- National Science Day, “**Judge**” sponsored by CGCOST, Raipur, C.G., organised by Govt. Dr. W.W. Patankar Girl’s College, Durg (C.G.), 28th February 2013.
- International Seminar on “Interdisciplinary International Seminar” sponsored by CGCOST Raipur, **Guest of Honour** organized by Swami Shri Swaroopanand Saraswati Mahavidyalaya, Bhilai, 22nd to 24th September 2015.