

Curriculum vitae

Name: **Dr. Ravi Kumar Yadav**

Name in Hindi: **डॉक्टर रवि कुमार यादव**

Designation: Assistant Professor

Department: Botany, Kashi. Naresh. Govt. Post Graduate College, Gyanpur, Bhadohi, U.P. 221304

Qualification: M.Sc. (Botany), Ph.D., CSIR- NET, JRF, GATE, ARS-NET

Date of Birth: 20/03/1992

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Topic of the thesis: Green synthesis of nanoparticles and their effects on crop plants exposed to abiotic stress

Research interests: Physiology and biochemistry of higher plants under different abiotic stresses and nanotechnology.

Teaching Experience:

- i. Assistant Professor of Botany in Government autonomous Post Graduate College Satna, Madhya Pradesh, 485001 (affiliated to Awadhesh Pratap Singh University. Rewa, Madhya Pradesh).
- ii. Assistant Professor of Botany in Kashi. Naresh. Govt. Post Graduate College, Gyanpur, Bhadohi, U.P. 221304 (affiliated to Mahatma Gandhi Kashi Vidyapeeth , Varansi, U.P.) from 27/08/2021 up till now.

Academic Qualification

| Qualification | Institution | Year | Division | % |
|------------------------------------|-------------------------------------|------|----------|-------|
| Ph.D. | University of Allahabad, Prayagraj. | 2022 | - | - |
| M.Sc. (Botany) | University of Allahabad, Prayagraj. | | First | |
| B.Sc. (Botany, Zoology, Chemistry) | University of Allahabad, Prayagraj. | 2013 | First | 70.59 |
| Intermediate | S.Ranveer Inter college, Amethi | 2010 | First | 71.60 |
| High School | S.Ranveer Inter college, Amethi | 2008 | Second | 58.16 |

Memberships

1. Indian Science Congress Association, Life member. L37876
2. Blue Planet Society, Life member.
3. Life membership of Indian Botanical Society (IBS). 2257.

Academic Achievement/ Scholarship

1. 2011-12 Selected for merit cum means scholarship during graduation.
2. 2015- Qualified and secured AIR 61, CSIR- NET (LS)
3. 2015- Qualified CSIR/UGC-JRF with AIR 99.
4. 2015- Qualified GATE- Life science.
5. 2017- Qualified ARS NET.
6. 2018- Qualified GATE – Life science AIR – 504.
7. 2019- Qualified CSIR-JRF.
8. 2018- Selected as Assistant Professor MPPSC Rank 8.
9. 2017- Selected as Assistant Professor UPPSC Rank.

Research Publications:

1. **Yadav, Ravi Kumar**, N. B. Singh, Ajey Singh, Vijaya Yadav, Chanda Bano, and Shubhra Khare. "Expanding the horizons of nanotechnology in agriculture: recent advances, challenges and future perspectives." *Vegetos* 33, no. 2 (2020): 203-221. 09704078
2. **Yadav, Ravi Kumar**, N. B. Singh, Ajey Singh, Vijaya Yadav, K. M. Niharika, and Shubhra Khare. "Bio-based synthesis of nano silver using *Tridax procumbens* leaf extract and its impacts on germination and metabolic activity of *Solanum lycopersicum* L." *Journal of Plant Biochemistry and Biotechnology* 30, no. 3 (2021): 602-607. ISSN-**0971-7811 / 0974-1275**
3. **Yadav, R.K.**, Singh, N.B., Singh, A. *et al.* Role of Bio-Based Synthesized Nanozinc Oxide in Ameliorating the Deleterious Effects Caused by Lead in *Vigna radiata* L. *Appl Biochem Biotechnol* (2022). <https://doi.org/10.1007/s12010-022-03801-2>, **0273-2289 / 1559-0291**
4. Khare, Shubhra, N. B. Singh, Ajey Singh, Imtiyaz Hussain, Km Niharika, Vijaya Yadav, Chanda Bano, **Ravi Kumar Yadav**, and Nimisha Amist. "Plant secondary metabolites synthesis and their regulations under biotic and abiotic constraints." *Journal of Plant Biology* 63, no. 3 (2020): 203-216., **1226-9239 / 1867-0725**
5. Singh, Narsingh Bahadur, Ajey Singh, Shubhra Khare, Vijaya Yadav, Chanda Bano, and **Ravi Kumar Yadav**. "Mitigating strategies of gibberellins in various environmental cues and their crosstalk with other hormonal pathways in plants: a review." *Plant Molecular Biology Reporter* 39, no. 1 (2021): 34-49., **0735-9640 / 1572-9818**
6. Singh, Narsingh Bahadur, Shubhra Khare, Ajey Singh, Vijaya Yadav, and **Ravi Kumar Yadav**. "Kinetin modulates physiological and biochemical attributes of *Vigna radiata* L. seedlings exposed to 2-benzoxazolinone stress." *Biologia* 76, no. 5 (2021): 1377-1389., **0006-3088 / 1336-9563**
7. Niharika., N. B. Singh, Shubhra Khare, Ajey Singh, Vijaya Yadav, and **Ravi Kumar Yadav**. "Attenuation of vanillic acid toxicity by foliar application with indole-3-acetic acid in tomato seedlings." *International Journal of Vegetable Science* (2021): 1-22., **1447-6959 / 1447-073X**

8. Niharika., N. B. Singh, Shubhra Khare, Ajey Singh, Vijaya Yadav, and **Ravi Kumar Yadav**. Salicylic acid and Indole acetic acid synergistically ameliorates Ferulic acid toxicity in *Brassica juncea* L. seedlings; Plant physiology reports , **2662-253X / 2662-2548**
9. Khare, Shubhra, N. B. Singh, Ajey Singh, Nimisha Amist, Zeba Azim, and Ravi Kumar Yadav. "Phytochemicals mitigation of Brassica napus by IAA grown under Cd and Pb toxicity and its impact on growth responses of *Anagallis arvensis*." *Journal of Biotechnology* 343 (2022): 83-95., **0168-1656 / 1873-4863**
10. Khare, Shubhra, N. B. Singh, Ajey Singh, Nimisha Amist, Zeba Azim, and **Ravi Kumar Yadav** (2022) Salinity-Induced Attenuation in Secondary Metabolites Profile and Herbicidal Potential of *Brassica nigra* L. on *Anagallis arvensis* L.. *Journal of Plant Growth Regulation*. <https://doi.org/10.1007/s00344-022-10607-3>, 0721-7595 / 1435-8107
11. Azim, Zeba, N. B. Singh, Shubhra Khare, Ajey Singh, Nimisha Amist, **Ravi Kumar Yadav**, and Imtiyaz Hussain. "Potential role of biosynthesized zinc oxide nanoparticles in counteracting lead toxicity in *Solanum lycopersicum* L." *Plant Nano Biology* (2022): 100012.
12. Azim, Zeba, N. B. Singh, Shubhra Khare, Ajey Singh, Nimisha Amist, and **Ravi Kumar Yadav**. "Green synthesis of zinc oxide nanoparticles using *Vernonia cinerea* leaf extract and evaluation as nano-nutrient on the growth and development of tomato seedling." *Plant Nano Biology* (2022): 100011.
13. Azim, Zeba, N. B. Singh, Ajey Singh, Nimisha Amist, Shubhra Khare, **Ravi Kumar Yadav**, Chanda Bano, and Vijaya Yadav. "A review summarizing uptake, translocation and accumulation of nanoparticles within the plants: current status and future prospectus." *Journal of Plant Biochemistry and Biotechnology* (2022): 1-14.

Book Chapter Published:

1. Singh, Ajey, N. B. Singh, Vijaya Yadav, Chanda Bano, Shubhra Khare, and **Ravi Kumar Yadav**. "Nod factor signaling in legume-Rhizobium symbiosis: Specificity and molecular genetics of nod factor signaling." In *Abiotic Stress and Legumes*, pp. 33-67. Academic Press, 2021.

2. **Yadav, Ravi Kumar**, Amit Kumar Singh, N. B. Singh, Niharika Singh, Shubhra Khare, and Abhay K. Pandey. "Green Synthesized Nanoparticle-Mediated Wastewater Treatment." In *Emerging Eco-friendly Green Technologies for Wastewater Treatment*, pp. 299-309. Springer, Singapore, 2020.
3. Singh, Amit Kumar, Harvesh Kumar Rana, **Ravi Kumar Yadav**, and Abhay K. Pandey. "Dual role of microalgae: phycoremediation coupled with biomass generation for biofuel production." In *Restoration of wetland ecosystem: a trajectory towards a sustainable environment*, pp. 161-178. Springer, Singapore, 2020.
4. Yadav, Tara Chand, Pallavi Saxena, Amit Kumar Srivastava, Amit Kumar Singh, **Ravi Kumar Yadav**, R. Prasad, and Vikas Pruthi. "Potential applications of chitosan nanocomposites: recent trends and challenges." *Advanced Functional Textiles and Polymers: Fabrication, Processing and Applications* (2019): 365-403.

Training/ workshops/Conferences:

1. Participated in 5th science conclave/ Inspire internship program, congregates of noble laureate organized by Department of science and technology and Indian institute of information technology Allahabad.
2. Attended a national workshop on inspiration for research: you can organize by MNNIT Allahabad.
3. Participated in a national workshop: SURKSHA at MNNIT Allahabad.
4. Participated in a National Seminar on GM Crops: challenge to the environment and health at Department of Botany University of Allahabad.
5. Participated in a workshop, Biodiversity awareness jointly organized by CSIR-NBRI and university of Allahabad.
6. Participated in a National conference on recent trends and advances in biotechnology at Centre of Biotechnology University of Allahabad.
7. Participated in a National Seminar on Science and technology for national development organized by Indian science congress association Allahabad chapter at Department of Botany University of Allahabad.

8. Attended four days National Workshop, 14-17 February 2017 on Computational Tools for Genomics and Proteomics Data Analysis at ICAR-National Bureau of Agriculturally Important Microorganisms Kushmaur, Maunath Bhanjan, 275103, UP.
9. Attended Global Initiative of Academic Network (GIAN) two week course on Genomics, Personalized Medicine and Ethics (161018H01) from 31 July to 11 Aug 2017 at MNNIT Allahabad.
10. Attended Global Initiative of Academic Network (GIAN) one week course on Nanomedicine with nanoparticles based diagnostics and therapy from 6 Nov. to 10 Nov. 2017 at MNNIT Allahabad.
11. Presented poster National seminar on reaching the unreached through science and technology. 24-25, February, 2018 organized by Allahabad Chapter of Indian science Congress Association.
12. Presented poster International symposium on indiscriminate development: Current scenario & socio-environmental challenges (IDCSC 2018). 18-19, March, 2018. Botanical Survey of India (BSI), Allahabad, (U.P.) India.
13. Presented a paper National seminar on Challenge and opportunities in life science Centre for Life science, Central university of Jharkhand.
14. Selected as Campus Ambassador for Red Brick Summit 2017 at IIM Ahmadabad.
15. Participated in a National Seminar on Science and technology for national development organized by Indian science congress association Allahabad chapter at Department of Botany University of Allahabad.
16. Golden Jubilee Celebration, Alumni Meet and Conference on Expanding horizons of Biochemistry. Dec. 01 2018 organized by department of Biochemistry University of Allahabad Prayagraj.
17. 88th Annual Session of NASI and Symposium on 'Science, Technology, and ecosystem for sustainable rural development', (6-8 December 2018) organized by the national academy of sciences, India (NASI),
18. Workshop on best practice in scientific publishing December 20, 2018 organized by J.K Institute of applied physics and technology in association with Department of Biochemistry University of Allahabad Sponsored by society of electronics engineers and IET, Prayagraj centre Allahabad.

19. National seminar on Present scenario of environmental challenges and issues (PSECI) 16December, 2018 organized by Department of Chemistry C.M.P Degree college University of Allahabad 211002.
20. Attended “National seminar on “Future India: Science and Technology” organized by “Indian Science Congress Association, Allahabad Chapter” Department of Chemistry, University of Allahabad. (February 22-24, 2019)
21. One week short term course on “New trends in waste water treatment and its reuse” (NTWT 2019). March 12-16, 2019 organized by MNNIT with the help of Department of Chemical Engineering, Prayagraj.
22. Participated in RTG Big data research Allahabad summer school organized by Allahabad University and interdisciplinary centre for scientific computing (IWR) of Heidelberg University from April 1-5 2019.
23. Presented a paper entitled as Global Conference Our biodiversity, our food and our health “**Effects of green synthesized Silver nanoparticle exposure on early growth and metabolism of *Solanum lycopersicum***”, organized by Botanical Survey of India and Blue planet society Allahabad, Allahabad (May 21-22 , 2019) awarded with best poster presentation.
24. Participated in departmental induction program organized by RCVP Noronha Academy of Administration, Bhopal M.P. From 20/01/2020 to 25/01/2020.
25. Presented poster 6th International Conference on Environment and Ecology 24th to 26th February 2020.
26. Participated in A two-day Workshop on “**Nanotechnology approach for protein based therapy development**” for College Teachers under Scientific Social Responsibility (SSR), organized centre of biotechnology, University of Allahabad, Prayagraj.
27. Participated in the GURU DAKSHTA: 8th Induction Programme (FIP)” from March 23, 2022 to April 21 organized by UGC-HRDC, University of Allahabad, Prayagraj.
28. Participated in the “Basic Training Program in Nano Science and Technology (Online mode)”, supported by Ministry of Education (MoE), Govt. of India and conducted by the Centre for Nano Science and Engineering, Indian Institute of Science, Bangalore, from 20 – 22 June 2022.
29. Innovation Ambassador (Founder level), Institute Innovation Council.

30. Participated in A two-day (29-20 Aug. 2022) Workshop on “Basic techniques of HPLC and Its application in research” organized Department of Biochemistry and centre of biotechnology, University of Allahabad, Prayagraj.
31. Participated in A two-day “Train the Trainers: Workshop for Science Teachers on Advanced Biology and Chemistry Experiments “during September 3-4, 2022 at CSIR-IITR, Lucknow.