




ZAKIR HUSAIN DELHI COLLEGE
(University of Delhi)

Faculty Details

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Title: Dr.	First Name: Ankush	Last Name	Photograph 
Designation	Assistant Professor		
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Educational Qualification			
Degree	Institution	Year	
Ph.D	Central University of Haryana	May 2022	
M.Sc.	Central University of Haryana	June 2017	
B.Sc.	Maharishi Dayanand University	July 2015	
Career Profile			
<ul style="list-style-type: none">✚ Working as Assistant Professor in Department of Botany, Zakir Husain Delhi College, University of Delhi, New Delhi (February 2024 to till date)✚ Worked as Assistant Professor in Department of Botany, Regional Institute of Education, National Council of Educational Research and Training (NCERT), Bhopal. (2023-2024)✚ Worked as Assistant Professor (Guest Faculty), Central University of Haryana, Mahendergarh, India. (2022-2023)			
Administrative Assignments			
<ul style="list-style-type: none">✚ Member, Discipline committee Vikshit Bharat Inaugural Ceremony, Zakir Husain Delhi College, University of Delhi (29 February 2024).✚ Member, Institution Purchase Committee, Regional Institute of Education, (NCERT), Bhopal (November 2023 to February 2024).			

<ul style="list-style-type: none"> ✚ Member, Discipline committee, Adab Student's Union Fest, Zakir Husain Delhi College, University of Delhi (04 May 2024). ✚ Member, Food committee, Science Fest, Zakir Husain Delhi College, University of Delhi (04 & 05 April 2024) ✚ Member, College Time Table committee, Zakir Husain Delhi College, University of Delhi (12 June 2024 to Till date) ✚ Member, Organising committee, International Conference Conference cum Workshop on Making Sense of Omics: Proteomics, Transcriptomics, and Molecular Drug Design organized by Zakir Husain Delhi College, University of Delhi (24 & 25 April 2024).
Areas of Interest / Specialization
✚ Bioremediation; Wastewater treatment (Remediation of emerging pharmaceutical contaminants)
Subjects Taught
✚ Plant Metabolism; Intellectual property rights; Cell and Molecular Biology; Ecosystem and Ecology; Organic farming; Biomolecules etc.
Research Guidance
✚ Not yet
Publications Profile
<p><u>Patents:</u></p> <ol style="list-style-type: none"> 1. Indian Patent on “A Paper Strip based Test for Detection of Aminoglycosides Group of Antibiotics in Water and Wastewater” [Status-Granted] 2. Indian Patent on “A Rapid Method for Detection of Ammonium Sulphate Adulteration in Milk” [Status-Published] 3. Indian Patent on “A Rapid Method for Detection of Urea in Milk and Potable Water” [Status-Granted] 4. Indian Patent on “A Strip based Method for Detection of Urea in Milk” [Status-Published] <p><u>Research/Review article:</u></p> <ol style="list-style-type: none"> 1. Sharma, M., Mahajan, P., Alsubaie, A.S., Khanna, V., Chahal, S., Thakur, A., Yadav, A., Arya, A., Singh, A. and Singh, G. (2024). Next-Generation Nanomaterials-based Biosensors: Real-

time biosensing devices for detecting emerging environmental pollutants. *Materials Today Sustainability*, 101068.

2. **Yadav, A.**, Rene, E. R., Sharma, M., Kumar, V., Mandal, M. K., and Dubey, K. K. (2023). Source, occurrence and risk assessment of antineoplastic medicines in aquatic environments: A comprehensive review. *Current Pollution Report*, 9, 391-409.
3. Dubey, K. K., Rajput, D., Baldia, A., Kumar, A., Kumar, V., **Yadav, A.**, Rao, S., & Mishra, Y. K. (2023). Current scenario and challenges in recycling of human urine generated at source in rail coaches as resource. *Current Opinion in Green and Sustainable Chemistry*, 43, 100854.
4. **Yadav, A.**, Rene, E. R., Mandal, M. K., and Dubey, K. K. (2022). Biodegradation of cyclophosphamide and etoposide by white-rot-fungi and their degradation kinetics *Bioresource Technology*, 346, 126355.
5. Sharma, M., **Yadav, A.**, Dubey, K. K., Tipple, J., and Das, D. B. (2022). Decentralized systems for the treatment of antimicrobial compounds released from hospital aquatic wastes. *Science of The Total Environment*, 840, 156569.
6. **Yadav, A.**, Rene, E.R., Sharma, M., Jatain, I., Mandal M.K., Dubey, K.K. (2022). Valorization of wastewater to recover value-added products: A comprehensive insight and perspective on different technologies. *Environmental Research*, 214, 113957.
7. **Yadav, A.**, Rene, E. R., Mandal, M. K., and Dubey, K. K. (2021). Threat and sustainable technological solution for antineoplastic drugs pollution: Review on a persisting global issue. *Chemosphere*, 263, 128285.
8. Cristóvão, M. B., Janssens, R., **Yadav, A.**, Pandey, S., Luis, P., Van der Bruggen, B., Dubey, K. K., Mandal, M. K., Crespo, J. G., and Pereira, V. J. (2020). Predicted concentrations of anticancer drugs in the aquatic environment: What should we monitor and where should we treat? *Journal of Hazardous materials*, 392, 122330.
9. **Yadav, A.**, Mandal, M. K., and Dubey, K. K. (2020). In Vitro Cytotoxicity Study of Cyclophosphamide, Etoposide and Paclitaxel on Monocyte Macrophage Cell Line Raw 264.7. *Indian Journal of Microbiology*, 60(4), 511-517.
10. Badhwar, P., Kumar, A., **Yadav, A.**, Kumar, P., Siwach, R., Chhabra, D., and Dubey, K. K. (2020). Improved pullulan production and process optimization using novel GA-ANN and GA- ANFIS hybrid statistical tools. *Biomolecules*, 10(1), 124.

11. Sharma, M., **Yadav, A.**, Mandal, M. K. and Dubey, K. K (2022). TiO₂ based photocatalysis: a valuable approach for the removal of pharmaceuticals from aquatic environment. *Int. Environ. Sci. Technol.* 4, 4569-4584.
12. **Yadav, A.**, Rene, E. R., Mandal, M. K., & Dubey, K. K. (2023). In-vitro toxicity of cyclophosphamide and etoposide intermediates/metabolites produced by three white rot fungi. *Environmental Quality Management*, 32(3), 311–316.
13. **Yadav, A.**, Pandey, S., Mandal, M. K., and Dubey, K. K. (2020). Development of cost-effective RP-HPLC methods for detection of cyclophosphamide, etoposide and paclitaxel. *Separation Science Plus*, 3(3), 40-43.
14. Kumar, P., Kumar, V., Pinky., Saini, S., **Yadav, A.** (2022). Monitoring & assessment of water quality of Najafgarh drain & its sub-drains. *International Journal of Science and Research*, 11, 897-905.
15. Goyal, M., Chauhan, S., **Yadav, A.**, Goyal, P., and Prabha, J. (2018). Structural modelling of shikimate pathway enzymes for herbicide and drug development: A review. *Journal of Entomology and Zoology Studies*, 6(2), 785-790.
16. **Journal Front Cover Page: Yadav, A.**, Pandey, S., Mandal, M. K., & Dubey, K. K. (2020). Development of cost-effective RP-HPLC methods for detection of cyclophosphamide, etoposide and paclitaxel. *Separation Science Plus*, 3(3), 40-43.

Book chapter:

1. **Yadav, A.**, Mandal, M. K., Sharma, M., Khushboo., Pandey, S., and Dubey, K. K. (2019). Membrane technologies for the treatment of pharmaceutical industry wastewater. In *Water and Wastewater Treatment Technologies* (pp. 103-116). Springer, Singapore. (ISBN No. 9789811332593)
2. **Yadav, A.**, Khushboo., and Dubey, K. K. (2020). Food industry waste biorefineries: future energy, valuable recovery, and waste treatment. In *Refining Biomass Residues for Sustainable Energy and Bioproducts* (pp. 391-406). Academic Press. (ISBN No. 9780128189979)
3. Sharma, M., **Yadav, A.**, Mandal, M. K., Pandey, S., Pal, S., Chaudhuri, H., Chakrabarti, S., and Dubey, K. K. (2021). Wastewater treatment and sludge management strategies for environmental sustainability. In *Circular Economy and Sustainability* (pp. 97-112).

Elsevier. (ISBN No. 9780128216644)

4. Goyal, M., **Yadav, A.**, Jangra, M. R., Batra, R., and Kumar, P. (2019). Aptamer-Based Biosensors for Detection of Environmental Pollutants. In *Aptamers* (pp. 155-167). Springer, Singapore. (ISBN No. 9789811388354)
5. Indu., **Yadav, A.**, Mandal, M. K., and Dubey, K. K. (2020). Nanomaterial Biosynthesis and Enzyme Immobilization: Methods and Applications. *Green Synthesis of Nanomaterials for Bioenergy Applications* (pp.191-209). John Wiley & Sons. (ISBN No. 9781119576785)
6. Khushboo., **Yadav, A.**, Yadav, K., Mandal, M. K., Pal, S., Chaudhuri, H., and Dubey, K. K. (2020). Bioeconomy of municipal solid waste (MSW) using gas fermentation. In *Current Developments in Biotechnology and Bioengineering* (pp. 289-304). Elsevier. (ISBN No. 9780444643216)
7. Dubey, K. K., Pramanik, A., **Yadav, A.**, Khushboo., and Yadav, J. (2019). Enzyme Engineering. In *Advances in Enzyme Technology* (pp. 325-347). Elsevier. (ISBN No. 9780444641144)
8. Yadav, J., **Yadav, A.**, Khushboo., Thakur, M., Yadav, K., Sharma, M., and Dubey, K. K. (2019). Aptasensor-Possible Design and Strategy for Aptamer Based Sensor. In *Aptamers* (pp. 133-154). Springer, Singapore. (ISBN No. 9789811388354)
9. Kumar, P., Pinky., Naseeb., **Yadav, A.**, and Dubey, K. K. (2024). Microplastics Pollution: A Perspective on the Source, Fate, Impact, Identification and Extraction from the Environment. In *Biodegradation of Toxic and Hazardous Chemicals* (pp. 162-177). CRC Press. (ISBN No. 9781003391487)

Conference Organization/ Presentations (in the last five years)

1. Presented oral paper presentation on “Comparative biodegradation study of cyclophosphamide by white rot fungi *Ganoderma lucidum* and *Trametes versicolor*”, International conference on Innovation in Biotechnology for Sustainability (IBS-2024), JNU, New Delhi (23-25 November 2024).
2. Presented poster on “Genotoxic activity detection of cytostatic compounds cyclophosphamide, etoposide and paclitaxel in hospital wastewater” International conference on NHBT-New Horizons in Biotechnology, CSIR-NIIST, Trivandrum, Kerala (20-24 November 2019)
3. Presented poster on “Cytostatic drugs in aquatic environment and their detection by RP-HPLC

<p>method” 60th Annual Conference of Association of Microbiologists of India (AMI-2019) and International Symposium on “Microbial Technologies in Sustainable Development of Energy, Environment Agriculture and Health”, CUH Mahendergarh, Haryana. (15-18 November 2019).</p>
<p>Research Projects (Major Grants/Research Collaboration)</p>
<p>✚ Not yet</p>
<p>Awards and Distinctions</p>
<ul style="list-style-type: none"> ✚ CSIR-UGC-NET-JRF and SRF (Life Sciences) ✚ UGC-NET-JRF (Environmental Sciences) ✚ Awarded JRF Position in Internationally collaborated DBT project “Treat After Too-Targeting the elimination of antineoplastic compounds in hospital wastewater: Novel frontier in sustainable” with KU Leuven-Belgium and Institute of Experimental Biology and Technology (IBET)- Portugal). ✚ Selected as Programme Associate (Research) in National Anti-Doping Agency, New Delhi in Year 2022. ✚ Selected as Project Associate-II in Translational Health Science and Technology Institute (THSTI), in Year 2022. ✚ Citation - 406 ✚ H-index – 11
<p>Association with Professional Bodies</p>
<ul style="list-style-type: none"> ✚ Life member of Biotech Research Society of India (BRSI), LM-2132
<p>Other Activities</p>
<ul style="list-style-type: none"> ✚ Reviewer in Journal Plant Nano Biology (Elsevier) ✚ Reviewer in Journal PLOS ONE ✚ Reviewer in Journal of Environmental Quality Management (Wiley) ✚ Reviewer in Indian Journal of Microbiology (Springer)