

Contact Info

Dr. Anju

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DR. ANJU

Associate Professor and Chairperson,
Department of Energy and Environmental Sciences,
Faculty of Life Sciences,
Chaudhary Devi Lal University, Sirsa, Haryana, 125055

Academic Qualification

- Ph. D. from School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India in year 2005.
- M. Phil. from School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, India in year 2000.
- M. Sc. from Department of Environmental Science, Guru Jambheshwar University, Hisar, Haryana, India in year 1998.

Professional Recognition/Awards/Scholarships/Achievements

- Qualified UGC Junior Research Fellowship (JRF) + National Eligibility Test (NET) for Lectureship in the subject Environmental Sciences, June 2001.
- Qualified CSIR-UGC NET, in the subject Earth Sciences, December 2001.
- Qualified ASRB NET, in the subject Environmental Sciences, October 2001.
- Specialisation Scholarship in Environmental Sciences awarded by Belgian Government, University of Ghent, Belgium (February 2003-July 2003).
- Senior Research Fellowship (SRF) Awarded by CSIR (2002-2003)

Experience

Teaching Experience

- Associate Professor, Department of Energy and Environmental Sciences, Chaudhary Devi Lal University, Sirsa, Haryana, 2019 - Current
- Assistant Professor, Department of Energy and Environmental Sciences, Chaudhary Devi Lal University, Sirsa, Haryana, 2007 - 2019
- Lecturer, Department of Energy and Environmental Sciences, Chaudhary Devi Lal University, Sirsa, Haryana, 2004 - 2007

Research Experience

- Scientist, Rain Forest Research Institute, Jorhat under Indian Council of Forestry Research and Education, Dehradun 2007.
- Researcher, Department of Analytical Chemistry, University of Gent, Gent, Belgium from Feb. 2003 – July 2003

Administrative Experience

- Chairperson, Department of Energy and Environmental Sciences, Chaudhary Devi Lal University, Sirsa, Haryana, Nov. 2021 - Current
- Incharge, Department of Energy and Environmental Sciences, Chaudhary Devi Lal University, Sirsa, Haryana, time to time

Research Areas

- Trace elemental speciation
- Monitoring and management of Water, Air and Soil systems.
- Environmental Risk Assessment
- Environmental remediation
- Source apportionment of heavy metals and other pollutants in different kind of environmental matrices
- Assessment of the potential mobility and bioavailability of heavy metals under differing environmental conditions.

Professional Affiliation

- Life member of The Indian Science Congress Association, Kolkata, India (2014-2015 onwards)
- Editorial Board Member of *International Journal of Earth Science and Environmental Toxicology*
- Editorial Board Member of *AOP Journal of Environmental Waste Management*.

Publications

Journals

- Malik N., **Malik Anju**, Bishnoi S. (2021). Assessment of groundwater hydro-geochemistry, quality and human health risk in arid area of India using chemometric approach. *Arabian Journal of Geosciences*, 14(15): 1546. <https://doi.org/10.1007/s12517-021-07852-3>. Electronic ISSN 1866-7538 Print ISSN 1866-7511 [**Impact Factor = 1.827**] SCOPUS listed.
- Rani R., Summaiya, **Malik A.**, Garg V.K., Singh L., Dhull S. B. (2021). Optimization of Swiss blue dye removal by cotton boll activated carbon: Response surface methodological approach. *Toxin Reviews*, <https://doi.org/10.1080/15569543.2021.1873386>. Print ISSN: 1556-9543 Online ISSN: 1556-9551 [**Impact factor: 4.266**] SCOPUS and Web of Science listed.
- Jandu A., **Malik A.**, Dhull S. B. (2021). Fluoride and nitrate in groundwater of rural habitations of semi-arid region of northern Rajasthan, India: A Hydrogeochemical, Multivariate statistical and Human health risk assessment perspective. *Environmental Geochemistry and Health*, 43(10): 3997–4026.

<https://doi.org/10.1007/s10653-021-00882-6>. Electronic ISSN: 1573-2983, Print ISSN: 0269-4042
[Impact factor: 4.609], SCOPUS listed.

- Khan N., **Malik A.**, Nehra K. (2021). Groundwater hydro-geochemistry, quality, microbiology and human health risk assessment in semi-arid area of Rajasthan, India: A Chemometric approach. *Environmental Monitoring and Assessment*, 193(4): 234. <https://doi.org/10.1007/s10661-021-08979-2>. Electronic ISSN: 1573-2959, Print ISSN: 0167-6369, [Impact Factor = 2.513] SCOPUS listed
- Kakkar S., **Malik A.**, Dhull S.B. (2021). In-situ utilization of inorganic solid wastes of pulp and paper industry for removal of chemical oxygen demand and color from its alkali extracted effluent. Accepted for Publication, *Indian Journal of Environmental Protection* 41(11): 1210 – 1217. ISSN: 0253 – 7141. SCOPUS listed
- Verma S., **Anju** (2021). Heavy metals uptake by Wheat and Mustard crops grown in surrounding of a Coal-fired Thermal power plant, Bathinda (Punjab) India. *Indian Journal of Environmental Protection*, 41(1): 86-93. ISSN: 0253 – 7141. SCOPUS listed
- Dhull S. B., Sandhu K. S., Punia S., Kaur M., **Anju M.** (2020). Functional, thermal and rheological behavior of fenugreek (*Trigonella foenum-graecum* L.) gums from different cultivars: A comparative study. *International Journal of Biological Macromolecules*, 159: 406-414. <https://doi.org/10.1016/j.ijbiomac.2020.05.094>. ISSN: 0141-8130. [Impact factor: 6.953]
- **Anju M.** (2018). Vertical Distribution and Potential Mobility of Heavy Metals in New and Old Tailings of a Lead/Zinc Sulfide Mine. *Environmental Engineering and Management Journal* 17(7), 1635-1644. Print ISSN: 1582-9596; eISSN:1843-3707. [Impact factor: 1.186]. SCOPUS UGC listed
- Kakkar S, **Malik A.**, Gupta S. (2018). Treatment of pulp and paper mill effluent using low cost adsorbents: An overview. *Journal of Applied and Natural Science*, 10 (2): 695-704. <https://doi.org/10.31018/jans.v10i2.1769>. ISSN : 0974-9411 (Print), 2231-5209 (Online). SCOPUS listed
- Verma S., **Anju** (2018). Assessment of water quality around a coal fired thermal power plant, Bathinda (Punjab), India. *Journal of Applied and Natural Science*, 10 (3): 915-924. <https://doi.org/10.31018/jans.v10i3.1809>. ISSN : 0974-9411 (Print), 2231-5209 (Online). SCOPUS listed
- **Malik A.**, Kakkar S., Gupta S. (2018). Removal of colour from alkali extracted wastewater of Pulp and paper mill using fly ash as adsorbent. *Journal of Applied and Natural Science*, 10(4): 1318-1324. <https://doi.org/10.31018/jans.v10i4.1836>. ISSN : 0974-9411 (Print), 2231-5209 (Online). SCOPUS listed
- Shalu, Sunita Punia, **Anju Malik** (2015). Hydrochemistry and Water Quality Assessment of Groundwater of Bhiwani District, Haryana, India. *Pollution Research*. 34(3): 507-518. ISSN 0257-8050. SCOPUS and NAAS listed.
- **Anju**, Satyawani (2014). Environmental Protection in India - Religious traditions, Constitutional Provisions and Legislations. *Maharishi Dayanand University Research Journal (Arts)*, 13(1): 157-170, ISSN: 0972-706X.
- **Anju** (2014). Feminist Interventions to Environmental Protection and Sustainable Development. *Review of Research Journal*, 3(7): 20-25, ISSN: 2249-894X.

- Savita Verma, **Anju** (2014). Solid Waste Management in a coal fired thermal power plant: An Overview. *International Journal of Management Contemplation's*, 1(7): 67-72, ISSN: 2348-1641.
- Sangeeta, **Anju** Bala, Gita Rani (2013). Assessment of Ground Water Quality of Rohtak District of Haryana. *Environment & Ecology* 31 (2C): 1007—1010, ISSN: 0970-0420, NAAS India rating **4.18**
- **Anju**, Satyawan (2013). Environmental Ethics and Religious Traditions in Environmental Protection: An overview, *International Journal of Environment, Ecology, Family and Urban Studies (IJEEFUS)*, 3(5): 1-10. ISSN: 2250-0065. NAAS India rating **3.58**
- Satyawan, **Anju** (2013). Euthanasia: Dilemma of Life and Death. *Review of Research Journal*, 3(1): 21-24, ISSN: 2249-894X.
- **Anju M.**, Banerjee D.K. (2012). Multivariate Statistical Analysis of Heavy metals in soils of a Pb-Zn Mining Area, India. *Environmental Monitoring and Assessment* 184(7): 4191–4206. DOI 10.1007/s10661-011-2255-8, Electronic ISSN: 1573-2959, Print ISSN: 0167-6369. [Impact Factor = **2.513**] SCOPUS Citations **64** as on 08/01/2022
- **Anju M.**, Banerjee D.K. (2011) Associations of cadmium, zinc, and lead in soils from a lead and zinc mining area as studied by single and sequential extractions. *Environmental Monitoring and Assessment* 176(1): 67-85. DOI 10.1007/s10661-010-1567-4, Electronic ISSN: 1573-2959, Print ISSN: 0167-6369. [Impact Factor = **2.513**] SCOPUS Citations **62** as on 08/01/2022
- **Anju M.**, Banerjee D.K. (2010). Comparison of two sequential extraction procedures for heavy metal partitioning in mine tailings. *Chemosphere* 78(11):1393-1402, ISSN: 0045-6535. <https://doi.org/10.1016/j.chemosphere.2009.12.064>. [Impact Factor = **7.086**] SCOPUS Citations **112** as on 08/01/2022
- Bhatia D., Pareek P., Anjali, **Anju M.**, Singh B., Kumar R., Bishnoi K. (2008). Assessment of ground water quality parameters and correlation analysis of Tehsil Mandi Dabwali, Sirsa, Haryana, India. *Pollution Research*, 27(3): 579-586, ISSN: 0257-8050. (SCOPUS Citations 05 as on 11/06/2021) SCOPUS listed.
- Meenakshi, Garg V.K., Kavita, Renuka, **Anju M.** (2004). Groundwater quality in some villages of Haryana, India: focus on fluoride and fluorosis. *Journal of Hazardous Materials* 106(1): 85-97, ISSN: 0304-3894. DOI: 10.1016/j.jhazmat.2003.09.007. [Impact Factor = **10.588**] SCOPUS Citations **103** as on 08/01/2022
- **Anju**, Banerjee D.K. (2003). Heavy Metal Levels and Solid Phase Speciation in Street Dusts of Delhi, India. *Environmental Pollution* 123(1):95-105, ISSN: 0269-7491. DOI: 10.1016/s0269-7491(02)00337-8. [Impact Factor = **8.071**] SCOPUS Citations **416** as on 08/01/2022
- Garg V.K., Gupta R., **Anju M.**, Pahwa M., Yadava K. (2002). Assessment of water quality of Western Yamuna Canal from Tajewala (Haryana) to Haiderpur Treatment plant (Delhi). *Indian Journal of Environmental Protection* 22(2): 191-196, ISSN: 0253 – 7141, SCOPUS listed.

Book Chapters

- Dhull S.B., Chandak A., Bamal P., **Malik A.**, Kidwai M.K. (2021). Fenugreek (*Trigonella foenum-graecum*): Nutritional, Health Properties and Food Uses. In: Naeem M., Aftab T., Khan M.M.A. (eds) Fenugreek. Springer, Singapore. https://doi.org/10.1007/978-981-16-1197-1_10
- Nehra M., Nain K.B., **Anju Malik**, Mohsin Mohd., Gill A. (2020). *Enrichment of Essential Fatty Acids in Food*, Chapter 9. In Dhull S. B., Punia S., Sandhu K. S. (eds.) *Essential Fatty Acids: Sources, Processing Effects, and Health Benefits*, CRC Press, Boca Raton, p. 157-175. eISSN: 9780429321115
- Dhull S. B., **Anju M.**, Punia S., Kaushik R., Chawla P. (2019) *Application of Gum Arabic in Nanoemulsion for Safe Conveyance of Bioactive Components*, In Prasad et al. (eds.) *Nanobiotechnology in Bioformulations*, Springer, pp 85-95, ISBN: 978-3-030-17060-8; https://doi.org/10.1007/978-3-030-17061-5_3. SCOPUS listed.
- Panghal A., Chhikara N., Anshid V., Sai Charan M. V., Surendran V., **Anju M.**, Dhull S. B. (2019) *Nanoemulsions: A Promising Tool for Dairy Sector*, In Prasad et al. (eds.) *Nanobiotechnology in Bioformulations*, Springer, 2019, pp 99-117, ISBN: 978-3-030-17060-8; https://doi.org/10.1007/978-3-030-17061-5_4. SCOPUS listed.
- **Anju M.** (2017) *Biotechnological Strategies for Remediation of Toxic Metal(loid)s from Environment*. In Gahlawat S.K. et al. (eds), *Plant Biotechnology: Recent Advancements and Developments*, Springer, 2017, pp 315-360, ISBN: 978-981-10-4731-2. SCOPUS listed.
- **Anju** and Geetika Sharma, (2011). *The Indian Biodiversity: Status and challenges*, UGC sponsored National Seminar on Natural Resource Management and Environmental Issues, Organised by Department of Geography, Govt. P. G. College, Churu, 25th September, 2011, pp. 62-64, ISBN 978-81-921231-1-0.
- Satyawar and **Anju** (2009). *Effective management of Drought at district level: An Overview*. In Chahar S.S. (Ed.) *District Administration in India In the Era of Globalization*, Concept Publishing Company, New Delhi, p. 381-396. ISBN 13: 9788180695629, ISBN-10: 81-8069-562-X.
- **Anju** and Banerjee D.K. (2005). *Metal mobility and soil remediation approaches in metalliferous mining and smelting areas*. In O.P. Singh (Edited) *Mining Environment: Problems and Remedies*, Regency Publications, New Delhi, pp. 105-127. ISBN-13: 978-81-89233-16-7, ISBN-10: 81-89233-16-5.
- Dahiya S., Garg V.K., Gupta R., Yadava K., Pahwa M. and **Anju M.** (2001). *Fluoride distribution in groundwater and prevalence of dental fluorosis among school children in some north Indian villages*. Proc. X National Symposium on Environment, B. A. R. C. Mumbai, pp. 172-174.

Article in Magazine

- **Anju**, *Caution!! there are metals in your house*, Article in Chaudhary Devi Lal University magazine *MIMIR* Dec. 2016, Vol. 1(1): 78-80. *Single Author*

E-content

Developed three modules in the subject of Environmental Sciences (Paper: Environmental Microbiology & Biotechnology) for UGC e-PG pathshala (available online (<https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=14>))

- P-15. Environmental Microbiology and Biotechnology, M-01. Pesticide Pollution
- P-15. Environmental Microbiology and Biotechnology, M-02. Carbon Monoxide Toxicity
- P-15. Environmental Microbiology and Biotechnology, M-03. Lead (Pb) Toxicity

Research Guidance

Ph.D. Students

- Pursuing: One
- Completed: Two

M.Phil.:

- Completed: Three

M.Sc. Students

Batch 2004-2006: 18 students awarded

Batch 2005-2007: 3 students awarded

Batch 2008-2010: 3 students awarded.

Batch 2009-2011: 6 students awarded

Batch 2010-2012: 3 students awarded

Batch 2011-2013: 3 students awarded

Batch 2012-2014: 2 students awarded

Batch 2013-2015: 3 students awarded

Batch 2016-2018: 7 students awarded

Batch 2017-2019: 7 students awarded

Batch 2018-2020: 5 students awarded

Batch 2019-2021: 1 student awarded and 5 submitted

Professional Development activities: Orientation Course/ Refresher Course/Training Program etc.

- Participated in three weeks training program on “Remote Sensing & GIS for Natural Resources Management”, Organised by Haryana Space Application Centre (HARSAC), Hisar, 24th Nov. to 15th Dec. 2008.
- Participated in four weeks’ orientation course at Academic Staff College, Jawaharlal Nehru University, New Delhi – 110067 and obtained “A Grade”, 2nd March to 27th March 2009
- Participated in DST sponsored Training Programme on “Climate Change and Carbon Mitigation (CCCM)” conducted by Biodiversity and Climate Change Division, Indian Council of Forestry Research and Education, Dehradun from 4th -8th October, 2010.
- Participated in “Third Science Conclave: A Congregation of Nobel Laureates” organized at Indian Institute of Information Technology, Allahabad, December 08-14, 2010.
- Participated in three weeks Refresher course in Research Methodology at UGC - Academic Staff College, Guru Jambheshwar University of Science and Technology, Hisar, Haryana and obtained “A Grade”, 20th September to 10th October 2011.

- Participated in three weeks Refresher course in Environmental Studies at UGC – Human Resource Development Centre, Panjab University, Chandigarh and obtained “A Grade”, 27th June to 17th July 2015.
- Participated in Short Term Course on Research Methodology at UGC – Human Resource Development Centre, Panjabi University, Patiala from 24th to 30th November, 2017.

Invited Talks/ Resource Person

- **Resource person**, *Sustainable Development* International Seminar on Sustainable Development in 21st Century: A Global Perspective, 19-21st March, 2015, organised by Chaudhary Ranvir Singh University, Jind, Haryana.
- **Keynote Speaker** in National Seminar on "To Make The Earth a More Liveable Planet" 13-14th October, 2015 organised by Chaudhary Ranvir Singh University, Jind, Haryana.
- **Resource Person** "Ecotoxicology of Metals: An Overview" in State Level Seminar on Issues in Environmental Health and Toxicology, organised by CMK National Girls PG College, Sirsa on January 20th, 2016.
- Delivered an **extension lecture** at Mukhtiar Singh Memorial Degree College, Behbalpur on "Environmental Issues" on 17th September, 2018.

Conference/ Workshops/Seminars etc.

- **Paper presented: 34**
- **Attended: 15**

Reviewers for International Scientific Journals

- Journal of Hazardous Materials
- Environmental Geochemistry and Health (EGAH)
- Environmental Monitoring and Assessment
- Environmental Science and Pollution Research
- International Journal of Environmental Analytical Chemistry
- Journal of African Earth Sciences
- Journal of Geochemical Exploration
- Ecotoxicology and Environmental Safety
- Fresenius Environmental Bulletin

Citations

Google Scholar **h-index: 08**; Citations: **1119**

Highest Single Paper SCOPUS citations: 417

Scopus **h-index: 06**; SCOPUS Citations: **790**