

**Dr. ANJU SINGH**

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Department of Chemistry,  
Bundelkhand University  
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**EDUCATION**

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- Ph. D. (2002), M. Sc. (1999) (Organic Chemistry)
- Ph. D. thesis title "*Interaction of DDT, BHC, Endosulfan and 2, 4-D with loam and their mobility into groundwater*"

**RESEARCH INTERESTS**

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Research interest includes analysis of water, solid waste and soil for determination, interaction, removal or recovery of pesticides. Recent research incorporates synthesis and development of chemical and biochemical filters, sorbents, Coagulants, oxidants, ion exchangers, precipitants and others for water and soil decontamination such as bentonite blended or silica based mesoporous materials, carbon from agricultural or industrial wastes, zero-valent iron, micelles for enhanced removal of chemical species from water, polymers etc.

**EXPERIENCE AND SKILLS**

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1. 19-years teaching experience
2. 24 years research experience
3. One student has been awarded with Ph.D. under my supervision in 2019.
4. One student is pursuing.
5. Completed refresher course at ASC- Nainital in 2022.
6. Completed orientation course of 28 days at (ASC) Nainital in 2013.
7. 25 M.Phil. & 10 M.Sc. Students successfully submitted their dissertation work under my supervision.
8. Two students received Rajiv Gandhi Fellowship under my supervision.
9. Research experience from Chemical Laboratory of St. John's College, Agra (UP), India. Skilled in analytical instruments such as pH meter, conductometer, GC, UV/Vis, AAS, FTIR, ISE etc., and computer programs such as Microsoft Word, Microsoft Excel and Power Point from 1999-2003.
10. Working as *Assistant professor* in *Bundelkhand University Jhansi, Department of Chemistry* from February 2005 to till date.

## **ADMINISTRATIVE POSITIONS**

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1. Worked as warden of Samta Girls hostel from (2014-2016).
2. Co-ordinator department of chemistry form (2018-2021).
3. Observer at B. Ed Entrance examination (2021).
4. Member of board of studies committee for chemistry from (2018-2021).
5. Member of RDC committee for chemistry at B.U. from (2018-2021).

## **MEMBERSHIP**

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1. A national environment protection society paryaraksha, Agra.
2. Life member of Indian Society of Analytical Scientists (ISAS) –Delhi chapter, Indian Oil Corporation Limited, Research & Development Center, Sector- 12, Faridabad – 121007

## **EXTRACURRICULAR ACTIVITIES**

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1. Faculty development program certificate, organized by DST (2010).
2. Faculty development program certificate, organizes by B.U. Jhansi (2014).
3. E- Learning and MOOCs in higher education certificate, organized by Guru Angad dev technical learning center of MHRD, SGTB Khalsa college, Uni. of Delhi and Bundelkhand Uni. Jhansi (2019).

## **AWARDS RECEIVED**

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- Got best active member award in Paryaraksha, A national Environment Protection Society, Agra.

## **PUBLICATIONS**

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### **International (in Journals)**

1. Investigation on the adsorption behavior of banana peels for xenobiotic and non-xenobiotic heavy metal. J. of current Research, Vol. 13 (9) pp--- September 2022, ISSN: 0975-833X
2. Removal of Cr (VI) from contaminated water using efficient bioadsorbents, J. of Emerging Technologies and Innovative Research, Vol. 9 (1), p.606-613, (2022).
3. Investigation on the adsorption behavior of Peanut shell for heavy metals in aqueous solution, J of Emerging Technologies and Innovative research, Vol. 9 ((1), p. 260-286 (2022).
4. Toxicity of ionic and non-ionic surfactants to six microbes found in Agra, Bull. of Environment contamination and Toxicology, vol. 69(2), 2002, 265-270.
5. Persistence of Organo-Chlorine pesticides in groundwater of Jhansi City, India. Asian Journal of Chemistry, vol. 21, No. 2 (2009), 1432-1436.
6. Levels in soil and groundwater of Agra, India, Bull. Environment contamination Toxicology, vol.67, 2001, pp.126-132.

7. Interaction of DDT, HCH, Endosulfan and 2,4-D with sandy and silty loams, Inter. Research Journal of Biological Sciences, 2009, vol.15 no. 1, pp.153-158.
8. A study on adsorption of Fly ash for xenobiotic and non-xenobiotic heavy metals, Inter. Journal of New Era Research, 2017, Vol. 4(4), pp. 172-180.
9. Investigation of adsorbent behavior of Carrot peels for xenobiotic and non-xenobiotic heavy metals, 2018, vol. 5 (3), pp. 122-128.

### **Correspondence**

Organochlorine pesticides residues in contaminated soils of Agra city, India. Bull. Environment Contamination. Toxicology. (Communicated)

### **Indian**

1. Mobility of DDT, HCH, Endosulfan and 2, 4-D through loamy TLC. Journal of Economic Environment Monitoring (JEEM), Palani, Rajasthan. 2005, (4)15,327-331.
2. Reducing groundwater contamination by improving pesticide storage and handling. IPHE, Kolkata, 2004, 56-59.

### **Correspondence**

1. Interaction of DDT, HCH, Endosulfan and 2, 4-d with sandy and silty loams. Indian Journal of Environment. Hlth (IJEH) (communicated)
2. Pesticide Management and groundwater protection Journal of Indian Association of Environment Management (IAEM) NEERI (communicated).

### **International Conferences**

1. Virtual international conference. Attend and presented a paper Re (ICASE)2020, organized by department of applied sci. and humanities, R.B.S., Eng. Technical campus Agra.
2. Recent advances in Environmental production (RAEP) held from December 17-19, 2009, organized by Deptt. of Chemistry, St. Johns College, Agra.
3. Attended International Conference on "Better Air Quality" (BAQ) from December 6-8, 2004, Organized by World Bank.

### **Conferences (in India)**

1. National Conference (NCETC) "Emerging trends in Chemical Science", organized from February 24-26, 2010 at Department of Chemistry, Bundelkhand Jhansi.



2. Organochlorine pesticide levels in contamination soils of Agra city, BSHEA, DEI (DU), Dayalbagh, Agra, October 2-4, 2003, 234-237.
3. Removal of Cr(vi) from waste water using activated carbon, fly ash, rice husk, saw dust. Proces. NSE 10, (BARC) Babha atomic research center, Mumbai, June 4-6, 2001, 126-130.
4. Enrichment of surfactants in the surface micro layer of the Yamuna River. Proces. NSE 10 (BARC), Mumbai June 4-6, 2001, 175-181.
5. Sorption of Cr(vi), Ni(ii), Cu(ii) and Zn(ii) from electroplating effluents by carbonized agro waste, process. NSE 11, (BARC), June 5-7, 2002, Udaipur (Rajasthan) 99-103.
6. Depressurization of soil from mitigation of vapor intrusion of 1, 1-D in homes. Process. NSE 12 (BARC), Tehri Garhwal, June 4-6, 2003, 33-334.
7. Quantification of heavy metals mobility through a soil column. Proces. NSE 12, (BARC), Tehri Garhwal, June 4-6, 2003, 462-468.
8. Rates of Cr(vi) sorption on a column of zero-valent iron. Proces. NSE-13, BARC, June 5-7, 2004, Shilong, 300-305.
9. Removal of Cd(ii) from aqueous solution using pyroaurite type sorbent, ceralite, activated carbon, goethite and rice husk. Proces. NSE-13, (BARC), June 5-7, 2004 Shilong, 306-311.
10. Assessment of Groundwater contamination by Interaction of Loamy soil with salts of heavy metals. National Conference on Ground Water Management-Future Challenges and its Impact of Environment, Department of Ecology, Aligarh Muslim University, Aligarh, March 2003, 240-247.
11. De-fluoridation of Groundwater using Bagasse Dust, Aluminum treated Bagasse Flyash, Bone powder and Shell powder. N. C. on G.W. Management-Future Challenges and its Impact on Environment, Department of Ecology, Aligarh Muslim University, Aligarh, March 2003, 257-268.
12. Removal of Arsenate from aqueous solution using Pyroaurite type sorbent, Activated carbon, Goethit and Rice Husk. N. C. on G.W. Management-Future Challenges and its Impact on Environment, Department of Ecology, Aligarh Muslim University, Aligarh, March 2003, 257-268.
13. Roof-Top rain water harvesting to recharge groundwater of a group Houses. N. C. on G.W. Management-Future Challenges and its Impact on Environment, Department of Ecology, Aligarh Muslim University, Aligarh, March 2003, 269-279.

## ABSTRACT

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1. A green adsorbent derived from banana peel of highly effective removal of lead from water. Inter. Conference (RAEP) St. Johns college Agra. 2018, p. 101.
2. Persistence of Organo-Chlorine pesticides in groundwater of Jhansi City. Bhartiya Vigyan Sammelan. in Bhopal from 23-25 Novembrrt 2007. Organizers Vinana Bharati, MPCouncil of Science & Technology, Rajeev Gandhi Teachnological University, p. 473.
3. Remediation technologies for metal through by soil TLC. National Conference on Current issues of plant sciences health & Environmental Aspects, (APSI) Scientist's meet. ST. John'College Agra. Oct. 8&9, 2004, p. 64.
4. Leaching of BHC, DDT, Endosulfan and 2,4-D throuth a column of lomy soil. National Conference on Current issues of plant sciences health & Environmental Aspects, (APSI) Scientist's meet, ST. John'College Agra, Oct. 8&9, 2004, p.65.
5. Isolation and characterization of Organo-Chlorine pesticide residues from landfill sites in Agra city. National Conference on Current issues of plant sciences health & Environmenta66l Aspects. (APSI) Scientist's meet. ST. John'College Agra. Oct. 8&9, 2004, p.66.
6. Seasonal variation and quality of wastewater in Agra city. XI<sup>th</sup> National Symposium on Environment at National Seminar on Energy and Environment, Anand Engineering College, Agra. December 21-22, 2001. Sponsored by UP Technical University, Lucknow.p.28.
7. Recovery of surfactants from Aqueous solutions under laboratory conditions. XI<sup>th</sup> National Symposium on Environment at National Seminar on Energy and Environment. Anand Engineering College, Agra. December 21-22, 2001. Sponsored by UP Technical University, Lucknow.p.29.
8. Fly ash for COD removal from domestic wastewater, National seminar on Emerging on environment on Vijay Raje Govt. P.G. College, Gwalior, Feb. 14-15, 2003.
9. Appropriate remediation for Arsenic contaminated groundwater, National seminar on Emerging on environment on Vijay Raje Govt. P.G. College, Gwalior, Feb. 14-15, 2003.

## ARTICLES

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1. Roof-Top rain water harvesting to recharge ground water reservoir. **Paryaraksha/Enpro**, A national Environment Protection Society, Agra. 2002, p.84-90.
2. Tips on Fuel conservation. **Paryaraksha/Enpro**. A national Environment Protection Society, Agra. 2002, p 91-92.
3. Make You Your community safer before Disaster strikes. **Paryaraksha/Enpro**. A national Environment Protection Society, Agra. 2002, p 95
4. Purification of water for drinking purposes. **Paryaraksha/Enpro**, A national Environment Protection Society, Agra. 2002, p103-106.

5. Mobility of Pesticides into groundwater. **Paryaraksha/Enpro**, A national Environment Protection Society, Agra. 2002, p107-108.
6. Impact and elimination of toxic elements from water. **Paryaraksha/Enpro**, A national Environment Protection Society, Agra. 2002, p111-112.

Date:  
Place: Jhansi

Anju Singh