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1. Name: Dharendra Bahadur Singh

2. Date of Birth: 01.03.1963

3. Current Position and Address: Scientist, Department of Natural Resources and Environment, Section; Environmental Assessment and Remediation, E-mail: [dharendra063@gmail.com](mailto:dharendra063@gmail.com), Mobile No. +91-9430311067, Ext. 4343

4. Educational qualifications: (Graduation and above)

Sl. No.	Degree/Certificate	Year of Passing	University/Institute	Subject
1.	Ph.D	1992	Department of Applied Chemistry, IT, Banaras Hindu University, Varanasi, India.	Water Pollution
2.	M.Sc.	1986	Department of Chemistry, Faculty of Science, Banaras Hindu University, Varanasi, India.	Chemistry (Analytical)
3.	B.Sc.(Hons.)	1984	Faculty of Science, Banaras Hindu University, Varanasi, India.	Zoology, Botany, Chemistry (Hons.)

Topic of Ph.D.: Removal of Heavy Metal ions from water (Removal of Cr (VI), As (III), As (V) and Cd (II) by Adsorption Technique using Hematite and Feldspar).

5. Work experience

- i. Oct.2006 to Current - Scientist 'C' in Water Environment Division of Central Institute of Mining and Fuel Research, Dhanbad – 826 001, Jharkhand, India.
- ii. Feb.2004 to Oct 2006 - Scientist 'C' in Environment Management and Inorganic Chemicals Division of Regional Research Laboratory, Bhubaneswar – 751 013, Orissa, India. This division has been renamed as Biomineral Processing & Environmental Management Division since June 2005.
- iii. Nov. 2000 to Feb. 2004 – Scientist 'C' in Environmental Management Group of Central Mining Research Institute, Dhanbad – 826 001, Jharkhand, India.
- iv. Nov. 1995 to Oct. 2000 – Scientist 'B' in Environmental Management Group of Central Mining Research Institute, Dhanbad – 826 001, Jharkhand, India.

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- v. 1991-92-93 Session – Part time lecturer at Uday Pratap Post Graduate College, Varanasi for Post Graduate Classes of Environmental Science.
- vi. Nov. 1991 (for six months) – Part time lecturer at Anugrah Narayan Smarak Mahavidyalaya, Nabinagar, Aurangabad, Bihar for under Graduate Classes
- vii. July 1986 to Oct. 1995 – Part time lecturer (Chemistry) at Current Center, Sagra, Varanasi, and U.P., India for Higher Secondary Classes of U.P. Board of Education.

#### 6. Area of specialization:

Pollution Assessment and its impact on environment in general. Water pollution and its management. Removal of pollutants in general and arsenic in particular from water. Development and application of the technology for the treatment of Coal Bed Methane (CBM) wells produced water. Prevention of ground water contamination due to Underground Coal Gasification (UCG) process. Environmental impact assessment due to mining and allied industrial sectors.

#### 7. Honors/Awards received:

- i. 2<sup>nd</sup> Prize for an international technical publication - by CMRI on 26<sup>th</sup> Sept. 1998.

#### 8. Fellowships/Scholarships:

- i. Post Doctoral Fellowship for one-year to work on the “Use of Natural products as a Drinking Water Purifier” (but not availed), (1<sup>st</sup> March 2003 to 28<sup>th</sup> Feb. 2004).
- ii. Junior & Senior Research Fellowship (September 1986 – August 1990).
- iii. Research Associate (Nov. 1992 – Oct. 1995).
- iv. National Scholarship – UP Govt. (1978-83).

#### 9. No. of Research Publications:

- Papers in journals: 09
- In conference proceedings: 17 (includes presentation)
- Invited/key-note addresses:  
Invited Lecture on "Arsenic Contamination of Drinking Water and its Management" in the national seminar on "Monitoring and Management of Pollutants in Water Resources" on 9<sup>th</sup> Aug. 2002 Organized by Regional Research Laboratory, Bhubaneshwer, Orissa.
- List of best 05 publications:

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1. **Singh, D.B.**, Prasad, G., Rupainwar, D.C. and Singh, V.N., (1988). As (III) Removal from Aqueous solutions by Adsorption. **Water Air and Soil Pollution**, 42 (3-4); 373-386. Impact Factor: 1.55; Citation: 152.
2. **Singh, D.B.**, Rupainwar, D.C and Prasad, G. (1992). Studies on the Removal of Cr. (IV) from Wastewater by Feldspar. **Journal of Chemical Technology & Biotechnology**, 53(2); 127 - 131. Impact Factor: 2.738; Citation: 49.
3. **Singh D.B.**, Gupta, G.S., Prasad, G. and Rupainwar, D.C. (1993). The use of Hematite for Cr (VI) Removal. **Journal of Environmental Science & Health, Toxic & Hazardous Substance Control**.Part-A, 28(8); 1813 - 1826. Impact Factor: 1.164; Citation: 22.
4. **Singh D.B.**, Prasad, G. and Rupainwar, D.C. (1996). Adsorption Technique for the Treatment of As (V) Rich Effluents. **Colloids and Surfaces**, An International Journal, A: Physico-Chemical and Engineering Aspects, 111; 49-56. Impact Factor: 2.760; Citation: 150.
5. **Singh, D.B.**, Rupainwar, D.C., Prasad, G. and Jayaprakash, K.C. (1998) Studies on the Cd (II) Removal from Water by Adsorption. **Journal of Hazardous Materials**, 60; 20 - 40. Impact Factor: 4.836; Citation: 108.

10. Number of Books authored/edited:

The experimental work published in the Chapter entitled “Removal of Arsenic (V) from Aqueous Systems by Adsorption onto Some Geological Materials” written by Prof. Gur Prasad in the book “**Arsenic in the Environment, Part I: Cycling and Characterisation**”, Edited by Jerome O. Nriagu, John Wiley & Sons, Inc. New York, 1994 has been done by me (acknowledged by the author).

11. (a) No. of Patents granted/applied for: One

(b) Technologies developed, Licensed and/or commercialized:

A composition useful for the Removal of Arsenic from water and Capsules /Tablets made from the said composition (Patent No.188959, dated 19.3.2003).

12. Foreign visits:

San Diego – California – USA to present paper in Fourth International Conference on Arsenic Exposure and Health Effects.

13. Details of Professional memberships:

- i. Indian Network For Soil Contamination (life member).
- ii. Fellow member of International Congress of Chemistry and Environment (FICCE).

14. Major contributions: (Max. 150 words)

30 years in water pollution and its management, starting from the doctoral work and other areas like environmental impact assessment, environmental management plan of industrial and allied sectors, pollution assessment and impact on various life forms as well as its abatement, use of sophisticated analytical instruments, water treatment methods and adsorption studies. A number of projects have also been completed in the said areas. An

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economically viable treatment method for arsenic removal from drinking water has also been developed. Dr. David R. Dixon, Scientist, CSIRO, Molecular Science, Australia has also appreciated it in his Report on Exploratory Visit to CMRI, Dhanbad and has said it as a most appropriate technique.

15. Technologies and Products/ Services

- I. Developed: A composition useful for the Removal of Arsenic from water and Capsules/  
Tablets made from the said composition (Patent No.188959, dated  
19.3.2003).
- II. Licensed:
- III. Commercialized: Nil

16. Designs and Prototype Developed: Nil

17. Honours and awards won for technological contributions or sociological impact of R&D: Nil

Signature