

1. Name: : SANGEET KUMAR JHA  
2. Date of Birth: : 10-12-1959  
3. Current Position and Address: : Sr. Technical Officer (3), GrIII (6)



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4. Educational qualifications: (Graduation and above)

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Sl. No.	Degree/ Certificate	Year of Passing	University/ Institute	Subjects
i.	PG Diploma	2000	Indian Institute of Ecology & Environment, New Delhi	Eco.& Environment
ii	B.Sc	1981	Ranchi Univ. Ranchi	Phy,Chem,Geology
iii	Certificate course	1989	BARC, Mumbai	Radiation Safety

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5. Work experience : 34 years of R&D work in the area of coal science fly ash utilization and reclamation of coal mine refuse

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Designation	Institution/company	From	To	Nature of work
i.Radiation Safety Officer Sr. Technical Officer (3), GrIII (6) , 08.11.2011	CFRI & CSIR -CIMFR			

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6. Area of specialization : Solid waste management of coal based industries

7. Honors/Awards received :

- a. A research paper entitled "Radiolytic degradation of coal by gamma irradiation: a study on the role of coal rank and irradiation dose", Tripathi, P.S.M., Ram, L.C., Jha, S.K., Mishra, K.K. & Singh, G. (1993), Proc. Natl. Sem. on Role and Utility of Coal in Indian industry, MECON, Ranchi, Dec. 1993 (Bagged cash prize in the Rajbhasa Samaroh, CFRI, 1994 for publishing research paper in Hindi)
- b. After an independent peer review by the experts, awarded with CFRI Golden Jubilee Award in R&D Support Category for the year, 1997
- c. After an independent peer review by experts, awarded with CFRI- Golden Jubilee Award in Research Category for the year, 1998 for research paper "Gamma-irradiation of coal and lignite: effect on extractability", Fuel Processing Technology (Netherlands), 53, pp.1-14.
- d. A research paper entitled "Solid Waste Management in TPPs: Environmental Impacts of Abandoned Ash Ponds and Their Biological Reclamation", Singh. G., Tripathi, P.S.M., Tripathi, R.C., Jha, S.K., Gupta, S.K., Roy, R.R.P., Jha, R.K., Ram, L.C., Srivastava, N. K., Yenprediwar, M. and Kumar, Vimal presented at the 14th International Conference on Solid Waste Technology and Management held at Widener University, Philadelphia (USA) in November, 1998, was adjudged to be the best paper (bagged The Journal of Solid Waste management Russell Ackoff Award) by the peer reviewers of the Conference comprising several renowned Scientists from many of the countries.
- e. The paper entitled "Phosphorus adsorption, fixation and fractions in fly ash and ash amended soil". M.K. Mahato, R.E. Masto, V. A. Selvi, L. C. Ram, N.K. Srivastava, R.C. Tripathi, S.K. Jha & A.K. Sinha (2005) was awarded as the best paper at Fly Ash India, 2005, International Congress, 4-7 Dec 2005, FAUP, TIFAC, DST, New Delhi pp.XII 12. 1-8.

8. Fellowships/Scholarships:

9. No. of Research Publications:

- Papers in journals: 50
- In conference proceedings: 35
- Invited/key-note addresses:

List of best 05 publications:

- a) Ram L.C., Srivastava N.K, Tripathi R.C., Jha S.K, Sinha A.K., Singh G. and Manoharan V. (2006) Management of mine spoil for crop productivity with lignite fly ash and biological amendments, *J. of Environmental Management (Elsevier)*, 79 (2):173-187.
- b) Ram L.C., Srivastava N.K, Jha S.K, Sinha A.K., Tripathi R.C., Masto, R. E., Management of lignite fly ash through its bulk use via biological amendments for improving the fertility and crop productivity of soil, *Environmental Management (Springer-Verlag)*, 2007, 438-452.
- c) L. C. Ram, S.K. Jha, R.E Masto, V.A. Selvi, 2008, Remediation of fly ash landfills through plantation, *Remediation (John Wiley, USA)*,18: 71-90.
- d) L.C. Ram, R.E. Masto, Smriti Singh, R.C. Tripathi, S.K. Jha, N.K. Srivastava, A.K. Sinha, V.A. Selvi, A. Sinha, An Appraisal of Coal Fly Ash Soil Amendment Technology (FASAT) of Central Institute of Mining & Fuel Research (CIMFR), 2011,76, World Academy of Science ,Engineering and Technology(Venice, Italy) pp.703-714.
- e) Sangeet K. Jha, Ramesh C. Tripathi and Lal C. Ram (2011). A comparative study on field scale demonstration of fly ash and pond ash for cultivation of maize- groundnut crops in sequence on a wasteland at Ramagundam, AP (India), *Energy Sources, Part A (T&F)* (In press).

10. Number of Books authored/edited:

- i) Radiation-induced Oxidative Desulphurisation of Some Indian Coals, Tripathi, P.S.M., Ram, L.C., Jha, S.K. “Advances in Coal Chemistry”, Editor: N. P. Vasilakos, Published by Theophrastus Publications, Greece, 1988, pp. 333-349.
- (ii) Moessbauer Spectroscopic Investigations on the Transformations during Fluidized Bed Combustion of Iron Bearing minerals present in Low Grade MVB coal and Korba Coal shale, P. S. M. Tripathi, L. C. Ram, S.K.Jha, S. K. Rao, “Advances in Coal Chemistry”, Editor: N. P. Vasilakos, Published by Theophrastus Publications, Greece, 1988 pp. 307-319.
- (iii) Reclamation of wasteland for cultivation of cotton crop through application of pond ash and its leachate, *The Sugar Industry and Cotton Crops* (Ed: Peter Jenkins), Nova Publishers, Inc. NY, USA, 2010, Chapter – 2 p. 35-64 R. C. Tripathi, S. K. Jha, L.C. Ram,
- (iv) Effect of Pretreatment of Lignite on Biosolubilisation, *Coal Extraction*, (Ed: James J. Stewart), Nova Publishers, Inc. NY, USA, 2011, R.C. Tripathi, L.C. Ram, S.K. Jha (In Press)

Editing Proc. National Seminar on Utilization of Fly Ash in Agriculture and for Value-added Products, 15-16 Nov, 1999, Editors: L. C. Ram, R. C. Tripathi, S. K. Jha, N. K. Srivastava, G. Singh (ISBN No. 81-7525-184-O).

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

A Synergistic Fly ash based Soil Conditioner cum Fertilizer composition, G. Singh, L.C. Ram, S.K. Jha, R.C. Tripathi, N.K. Srivastava Patent No 031 NF 2002.

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

12. Foreign visits:

13. Details of Professional memberships:

14. Major contributions: (Max. 150 words)

The fly ash soil amendment technology (FASAT) developed by CIMFR (erstwhile CFRI) was demonstrated in farmers fields (>100 fields) in the vicinity of Koradi, Khaparkhera and Chandrapur TPPs (Maharashtra). The results obtained from the field trials for cultivation of different crops (4 Kharif & 4 Rabi cropping seasons) such as paddy, wheat, gram, maize, soybean, sugarcane, cotton, onion, brinjal, tomato, etc. are promising especially in respect of growth performance and crop yields (10-40% increase over control) with no adverse effect on the characteristics of soil, crop produce, field and ground water particularly in terms of toxic trace/heavy metals, and radionuclides. The results obtained from the field demonstration trails carried out in the FBC ash filled area (8m depth; 8.9 acre), Jamadoba for growing different wood value, oil yielding, fruit bearing, ornamental plants; developing lawn, floriculture and growing various vegetable crops, have shown encouraging growth performance. The demonstration site has shown improvement in its physico chemical and biological properties with progress of the plant and reclamation period. India is having vast amount of crop residues and agricultural wastes which can be sustainably converted into bio-char otherwise unutilized and burnt causing serious soil and atmospheric pollution. This bio-char will not only act as a sink for carbon in soil but also improve soil productivity in terms of water and nutrients retention and boost biological activity of the soil.

Assessment of soil pollution is usually difficult since its impacts vary in view of land use, soil type, climatic conditions, population characteristics, and the contaminant contact or ingestion rate. Assessment of risk for population in industrial area is more complex and needs establishment of human toxicological & eco-toxicological intervention values as well as exposure rates over various periods. Major health problems observed in coal based industrial areas are gastro intestinal disorders, arthritis, asthma, skin disorders and headache.

15. Technologies and Products/ Services

- (i) Developed:
- (ii) Licensed:
- (iii) Commercialized:

16. Designs and Prototype Developed:

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

Signature