

1. Name: Dr. Madan Mohan Singh

2. Date of Birth: 8th July, 1959



3. Current Position and Address: Chief Scientist
(with E-mail & Phone no.) Blasting Department, CSIR-CIMFR Dhanbad
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4. Educational qualifications: (Graduation and above)

Sl. No.	Degree/ Certificate	Year of Passing	University/ Institute	Subjects
i	B. Sc.	1979	BHU, Varanasi	Geology, Botany, Chemistry
ii	M. Sc.	1981	BHU, Varanasi	Geology
li	PhD	1991	BHU, Varanasi	Rock Blasting

5. Work experience

Designation	Institution/company	From	To	Nature of work
i				
ii				

6. Area of specialization: Improvement of fragmentation, optimization of blast design, assessment, prediction & control of vibration, river diversion by controlled blasting, controlled perimeter blast for open and tunnel excavation.

7. Honors/Awards received:

- I. The Crops of Engineers" 1990-91 by the Institution of Engineers, India.
- II. CMRI 'Whitakar' Award, 1996

8. Fellowships/Scholarships: NIL

9. No. of Research Publications: 60

- Papers in journals: 31
- In conference proceedings: 29
- Invited lecture: 05
- List of best 05 publications:
 1. **M. M. Singh**, R. B. Singh and R. N. Gupta, Blast design to improve fragmentation in a mismatch combination of drill diameter and depth in bedded rock, *Mining Science and Technology*, 12 (1991) 179-186.
 2. **M. M. Singh**, R. B. Singh, P. Pal Roy, A. Bagchi and B. B. Dhar: An approach to improve blasting efficiency in an iron ore mine, *International Journal of Surface Mining, Reclamation and Environment* 8 (1994):87-93.
 3. **M. M. Singh**: Compatibility of drill diameter and bench height- A cost –effective approach, *Coal International*, May 1995, pp 118-119.
 4. **M. M. Singh** and S. K. Mandal: Mechanics of rock breakage by blasting and its applications in blasting design, *Journal of Mines, Metals & Fuels*, Vol. 55, Nos. 6&7, June-July 2007, pp 183-190.

5. **M. M. Singh** and N. K. Bhagat: Recent developments in designing of burn-cut method of blasting in tunneling for higher productivity and special emphasis on the prevention of overbreaks, Journal of Mines, Metals & Fuels, Mining Industry Annual Review, October 2011, 332-339.
10. Number of Books authored/edited: 01
11. (a) No. of Patents granted/applied for: NIL
(b) Technologies developed, Licensed and/or commercialized: NIL
12. Foreign visits: South Africa, Slovakia, China, Tibet, Nepal, Afghanistan, Bhutan
13. Details of Professional memberships:
 - a) MGMI
14. Major contributions: (Max. 150 words)
 1. Contributed in rapid and safe construction of hydro-electric projects generating power up to the tune of 14000 MW for our nation. Our dedicated work has increased our demand in the power sector.
 2. I visited China along with joint secretary, Ministry of Home affairs to review the situation of Parechu lake formation and release it quickly to safe life down the valley.
 3. Diverted Subansari river (Asia's largest) for construction of dam. Driven tunnel (7 m dia. & 113 m long) through dam body for diversion of Chenab river.
 4. Stabilized the slopes of Konkan Railway at 50 sites without disrupting train schedules/services and without damaging the tracks.
 5. A tunnel was excavated under very hot condition (temperature 80⁰ – 98⁰C) and successfully crossed it without causing any casualty.
 6. A newly developed blasting technique could allow the movement of the EOT crane over the rock ledge in a power house saving millions of rupees and six months time.
 7. The recently developed centralized segregation of blasted muck in the mines completely stopped flying of fragments, front and back break with a minor heaving.
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