

1. Name: Narayan Kumar Bhagat

2. Date of Birth: 26th February 1975



3. Current Position and Address: Sr. Technical Officer (1)
(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	Degree in Mining Engineering, 2010		IE (I) Kolkata	Mining, Geo-mechanics Advance mining method.
ii	Pursuing PhD	---	ISM, Dhanbad	Rock Blasting

5. Work experience

Designation	Institution/company	From	To	Nature of work
i				
ii				

6. Area of specialization: Controlled Blasting Technique, Advance Vibration Management, Demolition & Barrier Blasting.

7. Honors/Awards received: Four appreciation letters received from Eastern Railway, Konkan Railway, JK Cement & Jaypee Himachal Cement.

8. Fellowships/Scholarships: NIL

9. No. of Research Publications: 21

- Papers in journals: 9
- In conference proceedings: 12
- Invited lecture: 02
- List of best 05 publications:

1. **N. K. Bhagat**, M. M. Singh and A. K. Mishra (2014): Stability enhancement of rock slopes using controlled blasting techniques along Konkan Railway in India-A case study, National Seminar on Surface Mining (6th NSSM), 10-11 January 2014, ISM Dhanbad. ISBN 978-93-5156-186-6.
2. M. M. Singh, **N. K. Bhagat** and S. K. Mandal (2012): Introducing specialized blasting techniques and sequences of excavation in tunneling works under critical conditions, Tunneling in Rock by drilling and Blasting-Spathis & Gupta (Eds), 2013 Taylor & Francis Group, London, ISBN 978-0-415-62141-0.
3. M. M. Singh and **N. K. Bhagat** (2011): A suitable blast design to minimize the magnitude of vibration with the use of existing initiation devices keeping in view of the scheduled production & productivity of the mine – a case study. Proc. of All India Seminar on “Advances in Mine Production and Safety” August 26-27, 2011, CIMFR (Dhanbad).

4. C. Sawmliana, R. K. Singh, **N. K. Bhagat** and P. Pal Roy (2010): Development of an angle-cut pattern of blasting for higher productivity from underground coal mines using Pentadyne-HP explosive, Procs. 3rd Asian Mining Congress (MGMI; ISBN: 978-81-8211069-4), January 22-25, Kolkata, India, pp. 11-23.
5. P. Pal Roy, C. Sawmliana, **N. K. Bhagat** and M. Madhu: Induced caving by Blasting: Innovative experiments in blasting gallery panels of underground coal mines of India, Mining technology (Trans. Inst. Min. Metall. A) U. K., April 2003. Vol. 112, pp. A1-A7.

10. Number of Books authored/edited: NIL

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

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

12. Foreign visits: Bhutan

13. Details of Professional memberships:

- | | |
|--|-------------------|
| a) The Institution of Engineers(I) | AM-141051-5 |
| b) The Indian Mining & Engineering Journal | Life Member (531) |

14 . Major contributions: (Max. 150 words)

- a) Our sincere efforts at Konkan Railway (KR) slope stabilization work using control blasting technique resulted into successful at 50 vulnerable cuttings & uplifted the safety standard against slope failure/boulder fall over KR track which ultimately facilitate uninterrupted movement of trains on this very important section between Mumbai & Mangalore.
- b) We have worked at various hydro-electric projects viz. Tala, Karchham-Wangtoo, Tehri, Vishnuprayag, Chuzachen, Tista, Baglihar, Parbati, Shontong & Sawra-Kuddu for excavation of rock using controlled blasting techniques.
- c) We have designed a modified solid blasting pattern to achieve 2.2 m pull and 40 tons coal in underground coal mine.
- d) I have worked for management of hard hanging roof using Induced blasting as a team member.
- e) I have designed a blast pattern to achieve lower magnitude of vibration using advance vibration management technique at several limestone mines.
- f) I have successfully completed two S&T projects and 96 & 4 consultancy projects as team member & Project leader respectively.

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