Bio-data of Dr. H. K. Verma

1	**Name**	:	**Dr. Harsh Kumar Verma**
2	**Age as on 1.1.2016**	:	38 Years
3	**Current Position and Address**	:	Sr. Scientist CIMFR Regional Centre CBRI Campus Roorkee - 247667, Uttarakhand Email: drharsh77@gmail.com; Telefax: +91-1332-275998 (O) Mobile :+91-9412978538

4. Educational Qualifications:

Sr. No.	Degree	Year	University	Subject
i	B. Tech	1999	GEC, Bilaspur	Mining Engg.
ii	M. Tech	2007	VNIT, Nagpur	Mining Engg.
iii	Ph.D.	2015	IIT Roorkee	Rock Mechanics

5. Work Experience:

Sr. No.	Designation	Institution/ Company	from	To	Nature of Work
i	Research Fellow	NIRM, Kolar Gold Field (KGF), Karnataka	Nov. 1999	Dec. 2001	Engg. Rock Blasting for civil and mining industry
ii	Scientist	CSIR-CIMFR Barwa Road, Dhanbad	Dec. 2001	March 2004	Development and testing of new explosive formulations at Explosive & Explosion Laboratory, CIMFR, Dhanbad
iii	Sr. Scientist	CIMFR Roorkee Centre	March. 2004	Contd.	Application of blasting techniques for improving safety, quality and productivity of underground excavation for civil and mining projects

6 Area of Specialisation : Engineering Rock Blasting

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7 Honors/ Awards : **<u>Best Paper Award</u>** by Indian Society of Rock Mechanics and Tunneling Technology (ISRMTT) for a paper on ***"Excavation of turbine pits for a hydraulic project - a case study***" published in the Journal of Rock Mechanics and Tunneling Technology, Vol. 8, No. 2, pp 127-139.

8 Fellowship/ Scholarship :

9 No. of Research Publications

Papers in journals : 16

In conference proceedings : 37

Invited lectures : 08

List of best 05 publications :

i. Verma, H. K., Samadhiya, N.K., Singh, M., Prasad, V.V.R., and Goel, R.K. (2011). Quality Assurance in Construction Blasting, J of Engineering Geology, Vol. 37, Nos. 1-4, pp. 373-381.
ii. Verma, H. K., Goel, R. K., and Prasad, V. V. R. (2013). Assessment and Mitigation of Blast Induced Vibration and Overbreak in Kol Dam Hydroelectric Power Project, India – A Case Study, J. of Rock Mechanics and Tunnelling Tech. Vol. 19 No. 1, pp. 47-59.
iii. Verma, H. K. and Thote, N. R. (2013). Investigation of Delay Time Precision in Pyrotechnic Detonators, J. of Rock Mechanics and Tunnelling Tech. Vol. 19 No. 1,, pp. 19-29.
iv. Verma, H. K., Samadhiya, N. K., Singh, M. and Prasad, V. V. R., (2014) Blast Induced Damage to Surrounding Rockmass in an Underground Excavation, Intl. J. of Geological Resource and Engineering, Vol. 2, No. 1, pp. 13-19.
v. Verma, H. K. (2014). Controlled Blasting Techniques for Development of Road Infrastructures in Hilly Region. J. of Hydro-Tech, Vol. 4, No. 1, pp. 43-50.

10 Number of Books authored/edited: : Two (Proceeding/Book)

i Editor: Third Indian Rock Conference-INDOROCK-2013 organised jointly by ISRMTT, CIMFR and Civil Engg. Deptt. IIT Roorkee during 13-15 October at IIT Roorkee, Roorkee, India

ii International Society of Explosive Engineers, ISEE, USA, has published Final Project Report of an S&T project on "Evaluation of explosive performance through-in-the-hole detonation velocity measurement" (Project No. MT/96), funded by the Ministry of Mines, Govt. of India, as reference book in Blaster's Library. ISEE Report No. 04795.

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11 i **No. of Patents granted/applied for:**

Title of invention : A method for solid blasting in underground coal mines
Patent Number : 263217
Application Number : 1538/DEL/2005
Issue Date : 2014-10-14
File Date : 2005-06-14
International Classification: E21C 37/14

ii Technologies developed, Licensed and/or commercialized:

12 Foreign visits: New Orleans, (USA), Singapore, Malaysia, Langkawi

13 Details of Professional memberships:

- International Society of Explosive Engineers, USA
- Mining, Geological & Metallurgical Institute of India
- The Institution of Engineers (India)
- Mining Engineering Association of India, (MEAI)
- Indian Geotechnical Society (IGS)
- Indian Society of Rock Mechanics and Tunneling Technology (ISRMTT)

14 Major contributions : My major contribution has been in the field of rock mechanics and engineering rock blasting, in particular. I have contributed in in application of controlled blasting techniques for safe underground and pen excavation at various national hydro projects such as Sardar Sarovar Project, Kol Dam HEP, Loharinagpala HEP, Tapovan Vishnugaad HEP, Kishanganga HEP, Maneri Bhali HEP etc.

Apart from the contribution in research projects involving new techniques of blasting, I have worked for augmentation of knowledge amongst site engineers by imparting training as faculty of AcSIR in BEDM program of CBRI Roorkee, delivered invited lectures in IIT Roorkee, lecture to Military personnel's in defence sector etc. Third Indian Rock Conference INDOROCK-2013 and a workshop on Underground Engineering jointly with Institution of Engineers in year 2010 have been two successful programs well received by the academicians and engineers from the industry.

Date: 1.1.2016, Roorkee (**Dr. H.K. Verma**)