1. Name: Jitendra Kumar Singh



# 2. Date of Birth: 08-11-1963

3. Current Position and Address: (with E-mail & Phone no.)

Designation: Chief Scientist, CSIR-CIMFR, Dhanbad Address: Flat No. D4, Sushila Apartment, Pandit Clinic Road, Bartand, Dhanbad-826001 E-mail: <u>iksingh.cimfr@gmail.com</u> Phone: 9431723909

#### 4. Educational qualifications: (Graduation and above)

SI. No.	Degree/ Certificate	•		sity/ Subjects e
I	B.Tech. (Hons.) Mining Engineering	1985	01	ur Mining Engineering
5. Work experience				
	Institution/compa ineer (T) TATA STEEI	any F	rom To	Nature of work
iiAsst Engini			986 to 04-10-1987	-
iii Scientist	B CMRS, Dhanb	oad 05-10-		92 U/G Coal Mining and other Strata Control Studies
iv Scientist	C CMRI, Dhanbad	05-10-1992	to 04-10-1997	O/C Mining (Slope Stability)
v Scientist E	E-I CMRI, Dhanbad	05-10-1997	to 04-10-2001	O/C Mining (Slope Stability)
vi Scientist E-II CIMFR, Dhanbad 05-10-2001 to 04-10-2006 O/C Mining (Slope Stability), I.T.Application in Mining & 3D Mine Surface Modeling				
vii Sr. Pr. Scientist CIMFR, Dhanbad 05-10-2006 to 04-10-2012 O/C Mining (Slope Stability), I.T.Application in Mining, 3D Mine Surface Modeling and Precise Excavation Volume Computation for mines.				
Viii Scientist	G CIMFR, Dhanbad		3D Mi	ining (Slope Stability), ne Surface Modeling and Computation for mines.

## 6. Areas of specialization:

- (a) Underground Coal Mining and Rock Mechanics Application.
- (b) Opencast Mining (Slope Stability)
- (c) Mine Surface Modeling & Precise Excavation Volume Computation for mines.
- (d) Software Development and Application in Mines.

### Format for Bio-Data

# 7. Honors/Awards received:

(a) I was offered J.C.Ghosh Memorial Scholarship in the final year for being the **BEST STUDENT (ACADEMICALLY)** in the Department of Mining Engineering, IIT, Kharagpur

(b) I received the honor of delivering invited lectures at Indian Institute of Coal Management IICM), Ranchi on more than 10 occasions.

(c) I received the honour of delivering lecture as keynote speaker at BIT Sindri.

(d) I received the honor of being external examiner for university examinations.

## 8. Fellowships/Scholarships:

(a) Merit Scholarship during the year 1979 for securing securing 9<sup>th</sup> rank within list of top 10 students of science in the whole university.

(b) MCM Scholarship during 1981 to 1985 at Indian Institute of Technology (IIT) Kharagpur.

(c) I was offered J C Ghosh Memorial Scholarship for being the Best Student (Academically) in the Department of Mining Engineering, IIT Kharagpur.

# 9. No. of Research Publications:

- Papers in journals: 5
- In conference proceedings: 20
- Invited/key-note addresses: 12
- List of best 05 publications:

(i) "A computer model for optimal exploitation of thick coal seam under developed surface feature", J K Singh , A Kushwaha, V K Singh and Raghwendra Singh, Journal of Mining Research, Vol. 3, No.4, March 1995.

(ii) Optimisation of Productivity of Shovel-Dumper System in a Large Openpit Mine – A Case Study", J.K.Singh, V.K.Singh & Ajit Kumar, National Conference in Mining Engineering-Survival Codes for the Future, 1997, Calcutta

(iii) "Cuttability Assessment of Hard Coal Seams", R Singh, J K Singh, T N Singh and B B Dhar, Geotechnical and Geological Engineering, 1995, 13, 63-78.

(iv) "Investigation into Cutting Characteristics of Indian Coal Seams", T N Singh, R Singh and J K Singh, 11<sup>th</sup> International Conference on Ground Control in Mining, The University of Wollongong, N.S.W., July 1992

(v) "Surveying, 3D Mine Modeling and Excavation Volume Computation of a Hilly Mine.", J.K.Singh and M. Kumar, Journal of Mines, Metals and Fuels", 2009

## 10. Number of Books authored/edited: Nil

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

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

A large number of softwares developed and used successfully for solving real life problems of mining.

- 12. Foreign visits: NIL
- 13. Details of Professional memberships: NIL
- 14 . Major contributions: (Max. 150 words)

(i) Computerised some of the routine computational activities of the department of slope stability.

(ii) Established IT Centre of CMRI and worked as Head (IT) during 2001-2004.

(iii) Developed the following software packages for the application in mines:

(a) SURVOL- A surveying and 3D mine modeling software package.

(b) MAPGEN – A mine map generation software package. It generates SVG (Scalable Vector Graphics) map for taking output on paper size up to A0 size large plotter.

(c) VRMine- A Virtual Reality Mine Modeling Package for developing 3D Mine Mode. It has been developed using Virtual Reality Modeling Language and has been used for 3D Visualisation of mine.

(d) JSPLOT – Rock mass joint set data plotting system.

(e) BHPLOT – A borehole information plotting software package.

## 15. Technologies and Products/ Services

- (i) Developed: 5 software packages developed as mentioned above.
- (ii) Licensed: NIL
- (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