Brief Bio-data

1. Name: SURAJ KUMAR

2. Date of Birth: 19/01/1990

3. Current Position and Address (Include Email ID and Contact Number)

Technical Officer,
Address: Type III/34, CSIR-CIMFR Colony, Barwa Road, Dhanbad, Jharkhand-826001,
Email: suraj.cimfr@nic.in
Contact: Office: 0326-2296027/28/29; Extn. 4453,
Mobile No: 9431309568

4. Educational qualifications: (Graduation and above)

Sl. No.	Degree	Year of Passing	University/Institute	Subject
1.	B. Tech	2014	B. I. T. Sindri	Mining Engineering

5. Work experience:

Designation	Institute/company	From	To	Nature of Work
Technical Officer	CSIR-CIMFR, Barwa Road, Dhanbad	09/05/2017	Present	Rock Excavation Engineering

6. Work Area(s)/ Specialization: Rock Blasting

7. Major contributions: (Max. 100 words):
The outcomes of the R&D project successfully implemented at various mining and civil construction sites across the country. Provided technical input in the successful implementation of controlled blast technique in flattening at Ulwe Hill using drilling and blasting as a part of the land development works for construction of Navi Mumbai International Airport (NMIA). As a team member, technically contributed in design and supervision of foundation blasting work (controlled blast techniques) at various railway bridge construction site, also contributed to the successful implementation of optimized blast design parameters at various underground as well as opencast mine.

8. No. of Research Publications:
- Papers in Journals: 05
- In conference proceedings: 06
- Invited lectures delivered:
- List of best 05 publications

Singh, P. K.; Roy, M. P.; Paswan R K; Md. Sarim; **Kumar Suraj**; Jha, R. R. (2016). Rock Fragmentation control in Opencast Blasting. Journal of Rock

Mechanics and Geotechnical Engineering. April 2016, Vol. 8 (2): 225-237. ISSN 1674-7755.

Roy, M. P.; Paswan, R. K.; Sarim, Md.; **Kumar, Suraj**; Jha, R. R.; Singh, P. K. (2016). Rock Fragmentation by Blasting – a review. Journal of Mines Metals & Fuels. Vol. 64(9): 424-431.

Singh, P. K.; Roy, M. P.; Paswan R K; Sarim Md. and **Kumar Suraj** (2015). Blast design and fragmentation control - key to productivity. Journal of Mines Metals & Fuels vol. 63(7): 182-189.

Paswan R. K.; Sarim, Md., Roy, M. P. and **Kumar Suraj** (2017). Blast induced damage and role of discontinuities on pre-split blasting at Rampura-Agucha Pb-Zn open pit mine. NexGen Technologies for Mining and Fuel Industries, NxGnMiFu-2017, New Delhi, India. 1, pp. 281-290.

Roy, M. P.; Sarim, Md.; **Kumar Suraj**; Paswan R. K.; Singh, V. K. and Singh, P. K (2017). Evaluation of the effect of ground vibration due to dragline bench blasting on adjacent structure. NexGen Technologies for Mining and Fuel Industries, NxGnMiFu-2017, New Delhi, India, 1, pp. 375-386.

- Books/Chapters authored/edited

9. List of 5 Major Contract R&D Projects:

10. (a) Name of Patents/Copyrights applied /granted/commercialized: 01
Method for excavation of slot raise and rings simultaneously in underground stope using drilling and blasting [Patent application No. 0033NF2021]

(b) Technologies/Products /knowhow/Services developed:

11. Honors/Awards/Recognitions/Fellowships/Scholarships/Professional Memberships received:

12. Societal Contributions

As a team member, technically contributed to the completion of Ulwe river diversion work at Navi Mumbai International Airport (NMIA), Maharashtra. Among the land development works for the airport, diversion of Ulwe river was comparatively a major and the most challenging one. To avoid a flood-like situation around the surrounding villages near the NMIA site, M/s CIDCO recommended diverting the flow of Ulwe river before the monsoon. Accordingly, the work of diversion of the Ulwe river was undertaken by CSIR-CIMFR. The process involved flattening the 96 m of hills using control blasting techniques. high mountain in the core area to zero levels and a channel of 3.2 km was carved out through that place to divert the flow of Ulwe river. The work of diversion of the river being completed within a stipulated time.