

Brief Bio-data

1. Name: Nilabjendu Ghosh

2. Date of Birth: 23.11.1988

3. Current Position and Address (Include Email ID and Contact Number) Scientist; 4/27, CSIR-CIMFR Colony, Barwa Road, Dhanbad-826001; Email - nilabjendu.ghosh@cimfr.nic.in; Mob - 7044669778

4. Educational qualifications: (Graduation and above)

Sl. No.	Degree	Year of Passing	University/Institute	Subject
1	B. Tech	2011	National Institute of Technology Rourkela	Mining Engineering
2	M. Tech	2014	Academy of Scientific and Innovative Research	Mine Safety Engineering

5. Work experience:

Designation	Institute/company	From	To	Nature of Work
Graduate Engineering Trainee	Hindustan Copper Limited	August 2011	September 2012	Supervisory work at underground copper mine
Probationary Officer	State Bank of India	December 2014	April 2016	Day-to-day activities at various branches
Scientist	CSIR-Central Institute of Mining and Fuel Research	May 2016	Present	Research on rock mechanics aspects of underground coal mining methods

6. Work Area(s)/ Specialization: Underground coal mining, Longwall mining, Mechanised coal mining, Rock mechanics, Numerical modelling

7. Major contributions: (Max. 100 words):

- Design of pillars, barriers, roadways, support system and extraction methodology in underground coal mines - including the deepest operational coal mine in India
- Design of workings under massive competent strata and at geologically disturbed areas in underground coal mines
- Evaluation of the stability of railway tracks overlying underground workings
- Determination of powered support capacity for longwall faces
- Determination of elastic properties of coal mine goaf for different types of roof rocks through numerical modelling
- Evaluation of the stability of parting between contiguous coal seams
- Design of extraction spans and barrier pillars for application of Underground Coal Gasification technology

8. No. of Research Publications:

- Papers in Journals: 2
- In conference proceedings: 5
- Invited lectures delivered: Nil

- List of best 05 publications:
 - Ghosh N, Agrawal H, Singh SK, Banerjee G (2020). Optimum Chain Pillar Design at the Deepest Multi-Seam Longwall Workings in India. Mining, Metallurgy & Exploration. 37:651-664 doi:<https://doi.org/10.1007/s42461-019-00138-z>
 - Banerjee G, Ghosh N, Kumbhakar D, Yadava KP (2015). A method for simulation of longwall goaf. In: 49th US Rock mechanics/geomechanics symposium, San Francisco.
 - Banerjee G, Kumbhakar D, Ghosh N, Yadava KP (2016). Assessment of cavability and categorization of coal measure roof rocks by parting plane approach. In: International Conference on Recent Advances in Rock Engineering, Bengaluru.
 - Kumar R, Ghosh N, Yadava KP, Banerjee G (2019). Geotechnical Instrumentation and Monitoring for Effective Strata Control in Deep Longwall Workings: A Case Study. In: International Conference and Exhibition on Energy & Environment: Challenges & Opportunities, New Delhi.
 - Ghosh N, Banerjee G (2014). Numerical modelling based study on the effect of an overburden dump on the stability of barrier pillars. Indian Mining & Engineering Journal. 53(3):19-26.
- Books/Chapters authored/edited: Nil

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

- i. Advice for finding the effect of subsidence due to coal extraction in XV seam at Moonidih and design the workings in XV(T) and XV(B) sections with no subsidence impact on surface.
- ii. Advice on adequacy of barrier to be left against water and TG1 of LWP of ALP for drivage of inspection route, its stability and support design.
- iii. Advice on the feasibility of development and depillaring of RVI and RIV seams using Continuous Miner (CM) at Kumardihi "B" Mine, ECL for the CM Project of Gainwell Commosales Private Limited.
- iv. Advice on estimation of the cavability of Seam-III and Seam-I and required support capacity for longwalling in Seam-III at Muraidih u/g mine, Barora Area, BCCL.
- v. Advice on scientific study to negotiate disturbed/fall zone in the Bottom Gate of proposed D-16 Panel at XVI Top Seam of Moonidih Project, BCCL.

10. (a) Name of Patents/Copyrights applied /granted/commercialized: Nil

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

11. Honors/ Awards/ Recognitions/ Fellowships/ Scholarships/ Professional Memberships received: Received Best Poster Presentation Award at the 2nd India International Science Festival (IISF), 2016 from Honorable Union Minister of Science and Technology.

12. Societal Contributions: Guided engineering students from various prestigious institutes undergoing training at CSIR-CIMFR.