

BIBHUTI BHUSAN MANDAL, Ph.D.

Associate Professor

Department of Mining Engineering
Indian Institute of Technology Kharagpur
Kharagpur - 721302

Cell: +91 9423638180 Email: bbmandal@gmail.com

1. EDUCATION

Ph.D. (2014)	Environmental Science and Engineering (Topic- “Development of a protocol for evaluation of human vibration hazard potential of mining and processing equipment used in Indian mines”) from Indian Institute of Technology (ISM), Dhanbad
M. Tech. (2008)	Mining Engineering from Visvesvaraya National Institute of Technology (VNIT), Nagpur
Mine Manager's First Class Certificate of Competency (unrestricted) (1995)	Directorate General of Mines Safety (DGMS)
B.E. (1982)	Mining Engineering from Bengal Engineering College (Calcutta University)

2. INDUSTRIAL EXPERIENCE (22 years)

Post / Location	Duration	Responsibilities
As Deputy General Manager (Tech) : Sikkim Mining Corporation. (A Govt. of Sikkim & Govt. of India Joint undertaking)	2 Years 4 Months	In charge of operation of all underground mines and mineral beneficiation of complex Cu-Pb-Zn Sulphide ores including Column Flotation technology and Research and Development cell of the Corporation. <ul style="list-style-type: none">• Prepared Mining Plan for Bhotang Mine of the Corporation.• Designed and commissioned Ventilation system for Pacheykhani Mine of the Corporation.• Installed and commissioned Stone Crusher plants as a diversification option for the Corporation.

<p>As Manager (Mines)</p> <p>Hindustan Copper Limited.(A Govt. of India Enterprise)</p>	19 Years 7 Months	<p>Employed in large mechanized underground metalliferous mines in various capacities from underground manager to Mines Manager and HOD of Mine Planning, Safety & Training.</p> <p>Gained technical expertise in mine development, stoping operations (Room & Pillar, Horizontal Cut & Fill, Post Pillar Stopping), sand stowing plant management etc.</p> <p>In-charge of production and Safety in Mosaboni Mines (South Top) and Kendadih Mines of Indian Copper Complex (Ghatsila, Jharkhand).</p> <p>As Planning Engineer experienced in :</p> <ul style="list-style-type: none"> • Mine Layout • Short / long term planning. • Various tendering actions. • Cost-benefit analysis. • Project report preparations. • Human resources planning.
---	----------------------	---

3. RESEARCH EXPERIENCE & CONTRIBUTION

Science and Technology Projects

Sl. No.	Project title	Role	Funding agency	Value (Rs. Lakhs)	Period
1.	Development of a protocol for evaluation of vibration hazard potential of mining equipment”	Principal Investigator (PI)	Ministry of Mines, Govt. of India	23.00	2010-2013 (Completed)
2.	Development of Standard Framework and Guidelines for Noise Mapping in Mines and Surrounding Community	Principal Investigator (PI)	Ministry of Mines, Govt. of India	78.00	2012-2015 (Completed)
3.	Systematic study of potential biomarkers of occupational diseases in miners	Co-Principal Investigator (Co-PI)	Ministry of Mines, Govt. of India	21.33	2010-2013 (Completed)
4.	Evaluation of biomarkers for early	Co-Principal Investigator	Ministry of Mines, Govt.	90.86	2013-2016 (Completed)

	detection of noise induced hearing loss in mine workers	(Co-PI)	of India		
5.	Possible implication of Bio-available Iron in coal mine dust on coal workers' Lung Disease	Co-Investigator	CMPDI (Coal India Limited)	96.54	2016-2018 (Ongoing)
6.	Development of standard protocol of field audiometry for notifying noise induced hearing loss	Co-Investigator	Ministry of Mines, Govt. of India	40.00	2016-2018 (Ongoing)

He has participated/coordinated more than 60 clientele sponsored workplace monitoring and risk assessment projects in both coal and metalliferous mines. He was Principal Investigator of S&T Projects titled “Development of a protocol for evaluation of vibration hazard potential of mining equipment” and “Development of standard framework and guidelines for noise mapping in mines and surrounding community”– sponsored by the Ministry of Mines (GOI). Apart from being an experienced mining engineer, he has expertise in Risk analysis of occupational exposure to Vibration, Noise mapping and Occupational Hazards in Mining. He has 14 publications in journals with three book chapters in his credit.

4. RESEARCH GUIDANCE (Ph.D.)

Topic	Name	Institute	Status
Study of noise propagation and distribution in a surface mining complex through noise mapping	Veena D Manwar	IIT-(ISM), Dhanbad (Co-supervisor with Prof. Asim K Pal)	Awarded
Copper Processing Plant Tailing Water: Characterisation and Treatment by Nano-composites	Priyanka Padole	IIT-(ISM), Dhanbad (Co-supervisor with Prof. S. Bhattacharya)	Ongoing
Possible Implications of Bio-available Iron In Coal Mine Dust On Coal Workers	Ruchika Jain	IIT-(ISM), Dhanbad (Co-supervisor with Prof. Anshumali)	Ongoing