

Rajib Pal, Ph.D

HGML Chair Professor

National Institute of Technology Karnataka, Surathkal

Phone: +91-9871782121

Email: adj.rajibpal.mn@nitk.edu.in/ rajibpaldgms@gmail.com

Education

National Institute of Technology Karnataka, Surathkal 1986-1990

Bachelor of Engineering: *Mining Engineering*

National Institute of Technology Durgapur 1996-1998

Master of Technology: *Operation Research and Industrial Management*

National Institute of Technology Karnataka, Surathkal 2020- 2025

Pursuing Ph.D: *Mining Engineering* (Thesis evaluation report received)

Certification

First Class Mine Managers Competency Certificate (Coal) 2001

Directorate General of Mines Safety (DGMS), Ministry of Labour and Employment

First Class Mine Managers Competency Certificate (Metal) 2014

Directorate General of Mines Safety (DGMS), Ministry of Labour and Employment

Career Objectives

- With 35 years of experience in the mining sector, I aspire to transition into academia, where I can effectively use my industrial exposure to contribute to the academic and professional growth of future mining engineers.
- By integrating my extensive experience into an academic setting, I aim to create an environment where students can gain practical insights and develop a deeper understanding of real-world challenges in the mining sector.
- I look forward to contributing to the growth of the educational institution by initiating research collaborations with industry leaders and promoting industry-academia partnerships.
- As an interdisciplinary and industry-focused project leader, I aim to guide students in addressing the challenges of the future mining industry, with an emphasis on safety, sustainability, and the adoption or development of advanced technologies.
- As a professional deeply connected to the mining sector, I hope to give back to the field by empowering the next generation of mining professionals, advancing academic excellence, and driving research that bridges the gap between industry and academia.

Experience

NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA 2025-Present

HGML Chair Professor

- Leading initiatives to strengthen industry–academia partnerships and drive collaborative research with leading mining organizations.

SEROS ENERGY PRIVATE LIMITED (A subsidiary of Essar Oil and Gas) 2025

Advisor- Safety & Labor Compliance

- Supervising all activities of Installation, Maintenance and Operation of Drilling Rig used in Oil and Gas field.

DIRECTORATE GENERAL OF MINES SAFETY (DGMS) 2007- 2025

Ministry of Labour and Employment

Deputy Director of Mines Safety

DGMS Headquarters, Dhandbad 2022-2025

- Administrative jobs and work associated with Ministry of Labour and Employment.

Deputy Director of Mines Safety

Delhi 2016-2022

- Posted at Ministry of Labour and Employment to look after all operations for DGMS at Ministry level and coordination with various ministries (Ministry of Coal, Ministry of Law and Justice, Ministry of Petroleum and Natural Gas, Ministry of Mines).
- Engaged in formulation of Coal Mines Regulation 2017.
- Member of committee involved in drafting Oil Mines Regulation 2018.

Deputy Director of Mines Safety

Sitarampur, Dhanbad, Ajmer, Gaziabad 2007-2015

- Carried out a rescue operation at Kunustoria Colliery, ECL, in 2008, which saved the lives of several miners and rescue-trained personnel.
- Inspection of Mines to assess compliance of Mines Act, 1952, Rules and Regulations framed there under.
- Completed statutory training at Hindustan Zinc Ltd. and Hindustan Copper Ltd. as part of the eligibility criteria for appearing in the First Class Mines Manager Competency Certificate (Metal) examination.
- Expertise in Underground Metal mines. Collaboration for new technology adaption at Hindusthan Zinc Ltd, Hindusthan Coper Ltd, CAIRN India, specifically dealing with permission cases, safety of installations, statutory compliance's etc.
- CBM (Coal Bed Methane): Dealt with permission cases first time in India for CMB Projects in GEECL.
- Conducting statutory Examinations.

COAL INDIA LIMITED

1990-2007

PSU under GoI

Junior Executive Trainee

ECL: Kunustoria Area

1990-1991

- Responsibilities: Surface mine surveying, underground mine surveying, mine safety, mine ventilation, underground mining, underground planning, mine plan preparation.

Astt. Manager (Min) and Dy. Manager (Min)

ECL: Kunustoria Area

1991-2001

- Responsibilities: Coal production, mine development, mine safety, mine depillaring, mine sand stowing, mine ventilation, mine strata control support, mine transport, machine maintenance.

Mine Safety Officer (1st Class)

ECL: Kendra Area

2001-2003

- Responsibilities: Maintaining safety status, safety awareness, safety propaganda, formulation and implementation of safe operating procedure, safe practice in mine, mine ventilation, strata control and mine support, mine and stowing, mine gas management.

Statutory Mine Manager and Sr. Manager (Min)

ECL: Kenda Area

2003-2005

- Responsibilities: Overall management, control, supervision of the mine, maintaining statutory provision of laws, coal production, ventilation, strata control, coal dispatch sale, maintaining internal relations, public relations with workers' union.

Area Estate Manager

ECL: Kenda Area

2005-2006

- Responsibilities: Land acquisition by direct purchase mode, land inventory record preparation, rehabilitation resettlement, project planning, drafting project report preparation, open cast project planning.

Area Manager (Planning and Construction)

ECL: Kenda Area

2006-2007

- Responsibilities: All kinds job of green field coal project, Bombay survey, HFL survey, demarcation, drilling and exploration work for 63 Nos core bore hole, logging, hydro geology bore hole, environment jobs, public hearing, social impact assessment, land acquisition, village liaison, liaison with State Govt. official, panchayets and any other job related to new coal block, site mobilization, establishment of container office and store of

company and contractors, preparatory job of shaft sinking, incline drivage, establishment of electric power and 11kv line and all other related job.

Significant Projects

Greenfield Project in Eastern Coalfield Limited (ECL)

- Spearheaded the development of a greenfield coal project, encompassing geological surveys, environmental assessments, land acquisition, and preparatory infrastructure work.

Women Empowerment in Mines (Ministry of Labor and Employment, 2018)

- Recommended and formulated comprehensive guidelines for women's employment in mining (belowground and aboveground).
- Contributed to policy initiatives that expanded opportunities for women in the mining workforce while ensuring workplace safety and inclusivity.

Expert Committee Member for Joint Pilot Projects (Ministry of Electronics & Information Technology, GoI, and Central Institute of Mine and Fuel Research)

- **Driverless Vehicles:** The project focused on developing autonomous vehicle technology for mining operations.
- **Vision Enhancement System for Foggy Weather:** The project created advanced sensor-based systems for operating mining equipment in adverse weather conditions.
- **Information and Facilitation Center (Jharkhand):** The project established a center to enhance accessibility and support for the people of the state.
- **Feasibility Assessment Model for Underground Coal Gasification:** The project assessed the feasibility of implementing underground coal gasification technology in the North-East region of India.

Professional Achievement

- Part of Indian Delegation to Denver school of mines USA for exchange of technology (Mining) from Govt. of India.
- Received accreditation for Accident Prevention in Kunusturia Coal field.

Professional Achievement

- Pal, R., Vardhan, H., Tikader, M., & Shanmugam, B. K. (2024, November). Investigation on impact of dust emission in work and buffer zones of iron ore processing plant and its management. Journal of China University of Mining and Technology.
- Pal, R., Vardhan, H., ByraReddy, R. R., Shanmugam, B. K., Harish Hanumanthapa, P. A., & Senapati, A. Investigation of dust emission in limestone mines and its statistical prediction using supervised machine learning (regression) modelling. Journal of Disaster Advances.

- Pal, R., Vardhan, H., ByraReddy, R. R., Shanmugam, B. K., Harish Hanumanthapa, P. A., & Senapati, A. Investigation of dust emission in iron ore mines and its statistical prediction using supervised machine learning (regression) modelling. Journal of Disaster Advances.
- Pal Roy, P., & Pal, R. (2025). Impact of surface blasting on underground structures including water bodies. Paper presented at the 11th AMC 2025 Conference.

Personal Details

- Nationality: Indian
- Languages known: English, Hindi, Bengali
- Date of Birth: 17th January, 1968
- Marital Status: Married
- Spouse: Mrs. Sandipa Pal
- Child: Mr. Rahul Pal
- Permanent Address:
North Bank of Dhanisagar, P.O.- R.K. Pur, Udaipur, Dist- Gomati, Tripura