

Brief Bio-data

1. Name: LAL BABU ROY

2. Date of Birth: 09-10-1968

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

Sr. Technical Officer (1),
Natural Resource Management, CSIR-CIMFR, Barwa Road
Dhanbad- 826001, lbroy68@gmail.com, lbroy@cimfr.nic.in
9431513010 (M), 4428 (Ext.)

4. Educational qualifications: (Graduation and above)

Sl. No.	Degree	Year of Passing	University/Institute	Subject
1.	Matric	1984	Bihar School Education Board	Maths, Physics, Chem, Biology, Hindi, English, Sanskrit, History, Geography, etc.
2.	Intermediate (Science)	1986	Intermediate Council Bihar	Physics, Chemistry, Maths, English, etc.
3.	Diploma in Automobile Engg.	1991	Board of Technical Education, Tamil Nadu	Automobile Engg.

5. Work experience:

Designation	Institute/company	From	To	Nature of Work
Sr. Technical Officer (1)	CSIR-CIMFR	27-10-2012	Till Date	Material Testing, Mining, Environment, Flame Proof Equipment Testing, Security Head of CSIR-CIMFR, Barwa Road
Technical Officer	CSIR-CIMFR	27-10-2007	27-10-2012	Combustion of coal, Coal sampling, Material Testing
Technical Assistant (2)	CSIR-CIMFR	27-10-2002	27-10-2007	Combustion of coal, Coal sampling, etc.
Technical Assistant (1)	CSIR-CIMFR	27-10-1997	27-10-2002	Transport, Air Conditioning, Combustion of coal, etc.

6. Work Area(s)/ Specialization:

Automobile Engineering, Air Quality Monitoring, Flame Proof Equipment Safety, Mining, Material Testing, Security Head

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

Contributed significantly in air conditioning, transport, operation and maintenance of coal combustion facilities such as DTF, FETF, Ball Mill, Jaw Crusher & Fluidized Bed Combustion plant, operation and maintenance of different environmental equipments such as Aethalometer, High Volume Sampler (PM_{2.5} & PM₁₀) & Aerosol Spectrometer, Testing of flame proof equipments and preparation of test reports, Coal quality assessment at different coal loading sites, Mining related works such as installation and monitoring of different geo-mining instruments in underground mining and evaluation of roof rock behavior for safe de-pillaring, Material Testing (Destructive and Non-Destructive), Supervision of security of CIMFR premises.

8. No. of Research Publications:

- Papers in Journals: 04 (Details provided in list of best 05 publications given below)
- In conference proceedings: 02

(i) "Seasonal & Diurnal variations of black carbon aerosols in Dhanbad city, India" published in 5th Asian Air Pollution Workshop- Dr. S. Singh, Dr. B. Pandey, **Mr. L. B. Roy**, Mr. Sameer Shekhar. (2020)

(ii) "Design of extraction methodology for semi-mechanized depillaring of an inclined coal seam" published in 6th Mining Congress, 23-27 February, Kolkata, India: 131-142- P.K Mandal, A.J Das, P.K Mishra, **Lal Babu Roy**. (2016)

- Invited lectures delivered: NIL
- List of best 05 publications:

(i) "Evaluation of stability of underground workings for exploitation of an inclined coal seam by ubiquitous joint model"- International Journal of Rock Mechanics and Mining Sciences (UK, 93 (2017):101-114- A. J. Das, P.K. Mandal, R. Bhattacharjee, S. Tewari, A. Kushwaha, **L. B. Roy**.

(ii) "Underground extraction methodology of contiguous coal seams ensuring the safety of the parting and the surface structures"- A.J. Das, P.K. Mandal, Amar Prakash, **L. B. Roy**, Subhashish Tewari- Safety Science 121(2020) 215-230 Elsevier.

(iii) "Tree responses to foliar dust deposition and gradient of air pollution around opencast coal mines of Jharia coalfield, India: gas exchange, antioxidative potential and

tolerance level”- Siddharth Singh, Bhanu Pandey, **Lal Babu Roy**, Sameer Shekhar, Ranjeet Kumar Singh (2021). Environmental Science and Pollution Research, 28(7), 8637-8651

(iv) “Phytostabilization of coal mine overburden waste, exploiting the phytoremedial efficacy of lemongrass under varying level of cow dung manure”- Bhanu Pandey, Siddharth Singh, **Lal Babu Roy**, Sameer Shekhar, Ranjeet Kumar Singh, Bably Prasad, Krishna Kant Kumar Singh, Published. 2020. Ecotoxicology and Environmental Safety.

- Books/Chapters authored/edited- NIL

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

(i) Development of a technology for optimal extraction of locked-up coal from underground mines using artificial pillars (ESC-0105-DeCoalArt)

(ii) Evaluation of roof rock behaviour for de-pillaring T9 panel at Tandsi 3,4 incline, Kanhan Area WCL- (CNP/3853/2013-14)

(iii) Scientific study for determination of size of split and slice gallery during depillaring with deployment of SDL at EF incline of JRD new seam (10') of Sawang colliery, Kathara Area, CCL- (CNP/4046/2014-15)

(iv) Feasibility study for extraction of pillar in contiguous IV and V seam of 23/8 incline Bhowra (N) underground mine North Colliery, BCCL- (CNP/4047/2014-15)

(v) EIA study and preparation of EMP of Chasnalla colliery for grant of Environmental Clearance from MoEF&CC- (SSP-473/2020-21)

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: NIL

12. Societal Contributions:

- Imparting on-site training to industrial personnel.
- Providing vocational training to students of different colleges.