

Bio data of Rana Bhattacharjee



1. Name: RANA BHATTACHARJEE
2. Date of Birth: 22/11/1970
3. Current Position and Address: Sr. Technical Officer(1)
Mining Methods Section/ Mining Methods and Design Simulation
Research Group
CSIR-Central Institute of Mining and Fuel Research
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4. Educational Qualifications:

Sl. No	Degree/ Diploma/ Certificate	Subject(s)	Year	University/Institute
i)	Diploma in Mining and Mine Surveying	Mining Technology- II, III, IV; Engineering, Mine Surveying, Mine Safety, Management & Legislation	1995	State Board of Technical Education, Bihar
ii)	Honours Diploma in Network Centered Computing	Computer Overview, DOS, Windows, LAN, MS Office, Internet, UNIX, Sybase, C++	1998	NIIT, Dhanbad

5. Work experience:

Designation	Institution/company	From	To	Nature of work
Gr.III (1), JSA	CSIR-CIMFR, Dhanbad	1999	2004	R&D work
Gr.III (2), SSA	CSIR-CIMFR, Dhanbad	2004	2009	R&D work
Gr.III (3), Technical Officer	CSIR-CIMFR, Dhanbad	2009	2014	R&D work
Gr.III (4), Sr. Technical Officer	CSIR-CIMFR, Dhanbad	2014	Cont.	R&D work

6. Area of specialization: Rock Mechanics, Ground Control, Underground Mining Methods and Numerical Modelling.

7. Honors/ Awards received: Received citation and cash prize from "Indian Society for Rock Mechanics and Tunneling Technology" (ISRMTT) for best paper award to the paper titled "Extraction of Locked-Up Coal in Standing Pillars in Indian Underground Coal Mines" published in Journal of Rock Mechanics and Tunneling Technology (JRMTT) under the category "Case History in Mining" for the year 2015

8. Fellows/ Scholarships: NIL

9. No. of Research Publications:

- Papers in journals: 09 papers
- In conference proceedings: 16 papers
- Invited/ key-note addresses: NIL
- List of best 05 publications:

i)	A.J.Das, P.K. Mandal, R. Bhattacharjee, S. Tewari, A Kushwaha and L.B. Roy "Evaluation of stability of underground workings for exploitation of an inclined coal seam by the ubiquitous joint model" , International Journal of Rock Mechanics and Mining Sciences, 93 (2017), pp.101-114. http://dx.doi.org/10.1016/j.ijrmms.2017.01.012
ii)	S. Tewari, A. Kushwaha, R. Bhattacharjee, and John Loui Porathur, "Crown pillar design in highly dipping coal seam" , International Journal of Rock Mechanics and Mining Sciences 103 (2018), pp. 12-19, https://doi.org/10.1016/j.ijrmms.2018.01.012
iii)	John Loui Porathur, Minnie Jose, Rana Bhattacharjee and Subashish Tewari, "Numerical modelling approach for design of water-retaining dams in underground hard rock mines - a

case example ", Arabian Journal of Geosciences, December 2018, https://doi.org/10.1007/s12517-018-4097-y
iv) Arka Jyoti Das, Prabhat Kumar Mandal, Satya Prakash Sahu, Angad Kushwaha, Rana Bhattacharjee and Subhashish Tewari, " Evaluation of the Effect of Fault on the Stability of Underground Workings of Coal Mine through DEM and Statistical Analysis ", Journal of Geological Society of India, December 2018, pp.732-742
v) Kushwaha, R. Bhattacharjee, S. Tewari and A. Sinha, " Extraction of Locked-Up Coal in Standing Pillars in Indian Underground Coal Mines ", Journal of Rock Mechanics & Tunnelling Technology (JRMTT) Volume 21 Number 2, July 2015, pp 115-129

10. Number of Books authored/ edited: NIL

11. (a) No. of Patents granted/ applied for: 02 Numbers

Patent Granted			
Sl. No.	Name of the item	Inventor(s)	Number
i)	A device for measuring roof convergence in mechanised underground coal mine workings	A. Kushwaha S.K.Kashyap S.K.Singh S.Tewari R.Bhattacharjee	Patent No. IN266305
Patent filed in India			
i)	A device for measuring roof convergence in mechanized coal mine workings/tunnels/caverns	A. Kushwaha S.Tewari R.Bhattacharjee	0174NF2011

(b) Technologies developed, Licensed and/or commercialized: NIL

12. Foreign visits: NIL

13. Details of Professional memberships: Mining Engineers Association of India
Life Member (LM 5296/DNB)

14. Major Contributions: (Max. 150 words):

- Associated with 5 completed Grant-in-aid projects and 1 completed Network Project. Presently working in 2 ongoing Grant-in-aid projects.
- Worked in more than 100 industry sponsored projects as a team member and presently working as joint project leader in 5 such projects.
- Actively involved in Ground Control in Bord and Pillar Mining, Underground Mining Methods, Continuous Miner Technology and Mine Design & Simulation.
- Two patents as co-patentee and 25 publications in national / international journals and conference proceedings as co-author.
- Team member in developing sandwich pillar strength equations for coal seam workings.

15. Technologies and Products/ Services: NIL

(i) Developed:

(ii) Licensed:

(iii) Commercialized:

16. Designs and Prototype Developed: NIL

17. Honours and awards won for technological contributions or sociological impact of R&D: NIL

Signature