

PUBLICATIONS

- **Book:** “Underground Metal Mining”. *Authors:* Prof. S.C. Bhowmik, Prof. Patitapaban Sahu, & Prof. P.K. Behera, *Publisher:* SUBELA PUBLISHERS, Naradari, Byabattarhat, Purba Medinipur, *Year:* 2023.

The research papers published are available in the following link:
“<https://scholar.google.co.in/citations?user=mqmT4rEAAAAJ&hl=en>”

➤ **International refereed journals**

1. **Sahu, P.**, Mishra, D.P., Panigrahi, D.C., Jha, V.N., Patnaik, R.L., 2013. Radon emanation from low-grade uranium ore. *Journal of Environmental Radioactivity*, Vol. 126, pp. 104 - 114. (*Elsevier, Thomson Reuter, I.F. 2.655, Q1*)
2. Mishra, D.P., **Sahu, P.**, Panigrahi, D.C., Jha, V.N., Patnaik, R.L., 2014. Assessment of ^{222}Rn emanation from ore body and backfill tailings in low-grade underground uranium mine. *Environmental Science and Pollution Research*, Vol. 21(3), pp. 2305 – 2312. (*Springer, Thomson Reuter, I.F. 5.190, Q2*)
3. **Sahu, P.**, Mishra, D.P., Panigrahi, D.C., Jha, V.N., Patnaik, R.L., Sethy, N.K., 2014. Radon emanation from backfilled mill tailings in underground uranium mine. *Journal of Environmental Radioactivity*, Vol. 130, pp. 15 – 21. (*Elsevier, Thomson Reuter, I.F. 2.655, Q1*)
4. Panigrahi, D.C., **Sahu, P.**, Mishra, D.P., Jha, V.N., Patnaik, R.L., 2014. Assessment of inhalation exposure potential of broken uranium ore piles in low-grade uranium mine. *Journal of Radioanalytical and Nuclear Chemistry*, Vol. 302 (1), pp. 433 - 439. (*Springer, Thomson Reuter, I.F. 1.754, Q3*)
5. **Sahu, P.**, Panigrahi, D.C., Mishra, D.P., 2014. Sources of radon and its measurement techniques in underground uranium mines – an overview. *Journal of Sustainable Mining*, Vol. 13 (3), pp. 11- 18. (*Scopus*)
6. **Sahu, P.**, Panigrahi, D.C., Mishra, D.P., 2015. Evaluation of effect of ventilation on radon concentration and occupational exposure to radon daughters in low ore grade underground uranium mine. *Journal of Radioanalytical and Nuclear Chemistry*, Vol. 303, pp. 1933-1941. (*Springer, Thomson Reuter, I.F. 1.754, Q3*)
7. Panigrahi, D.C., **Sahu, P.**, Mishra, D.P., 2015. An improved mathematical model for prediction of air quantity to minimize radiation levels in underground uranium mines. *Journal of Environmental Radioactivity*, Vol. 140, pp. 95 – 104. (*Elsevier, Thomson Reuter, I.F. 2.655, Q1*)

8. Panigrahi, D.C., Mishra, D.P., **Sahu, P.**, 2015. Evaluation of inhalation exposure contributed by backfill mill tailings in underground uranium mine. *Environmental Earth Sciences*, Vol. 74, pp. 4327-4334. (**Springer, Thomson Reuter, I.F. 3.119, Q1**)
9. Panigrahi, D.C., Mishra, D.P., **Sahu, P.**, Bhowmik, S.C., 2015. Assessment of radiological parameters and radiation dose received by the miners in Jaduguda uranium mine, India. *Annals of Nuclear Energy*, Vol. 78, pp. 33 – 39. (**Elsevier, Thomson Reuter, I.F. 1.312, Q1**)
10. **Sahu, P.**, Panigrahi, D.C., Mishra, D.P., 2016. A comprehensive review on sources of radon and factors affecting radon concentration in underground uranium mines. *Environmental Earth Sciences*, Vol. 75: 617, pp. 1-19. (**Springer, Thomson Reuter, I.F. 3.119, Q1**)
11. Panigrahi, D.C., **Sahu, P.**, Banerjee, M., 2018. Assessment to ^{222}Rn and gamma exposure of the miners in Narwaphar underground uranium mine, India. *Radiation Physics and Chemistry*, Vol. 151C, pp.225-231. (**Elsevier, SCI, I.F.2.776, Q1**)
12. Beg, I.A., **Sahu, P.**, Panigrahi, D.C., 2021. ^{222}Rn dose of mine water in different underground uranium mines. *Radiation Physics and Chemistry*, Vol. 184, pp. 109468 (1-6). (**Elsevier, SCI, I.F.2.776, Q1**)
13. Beg, I.A., **Sahu, P.**, Panigrahi, D.C., 2021. Multivariate regression analysis to assess the ^{222}Rn exhalation rates from uranium ores and their relative contributions to the ^{222}Rn concentration in the underground uranium mine atmosphere. *Radiation Physics and Chemistry*, Vol. 184, pp. 109484 (1-7). (**Elsevier, SCI, I.F.2.776, Q1**)
14. **Sahu, P.**, Beg, I.A., Panigrahi, D.C., 2023. An investigation of ^{222}Rn exhalation rates from backfill mill tailings influenced by the different parameters in underground uranium mines. *Radiation Physics and Chemistry*, Vol. 203, 110648 (1-11). (**Elsevier, SCI, I.F.2.776, Q1**)
15. **Sahu, P.**, Beg, I.A., Panigrahi, D.C., 2023. Comparative study of radon sources and associated health risk in four underground uranium mines. *Environmental Monitoring and Assessment*, Vol. 195, 400. (**Springer, Thomson Reuter, I.F. 3.307, Q3**)
16. Mishra, D.P., Verma, S.K., Bhattacharjee, R.M., Upadhyay, R., **Sahu, P.**, 2023. Geological and microstructural characterisation of coal seams for methane drainage from underground coal mines. *Bulletin of Engineering Geology and the Environment*, Vol. 82, 343. (**Springer, Thomson Reuter, I.F. 4.2, Q2**)

17. Beg, I.A., **Sahu, P.**, 2024. Contribution of mine water and uranium ore rocks to the ^{222}Rn -induced radiation dose received by the mine workers in a low-ore grade underground uranium mine, India. Journal of Sustainable Mining, Vol. 23, Issue 2, pp. 177-184. <https://doi.org/10.46873/2300-3960.1412>. (Journal Impact Factor – 1, Q4)
18. **Sahu, P.**, Beg, I.A., Bhowmik, S.C., Panigrahi, D.C., 2024. Evaluation of radiation dose associated with underground uranium mining activities in East Singhbhum, Jharkhand, India. Radiation Physics and Chemistry, Vol. 223, 111977 (1-7).

➤ **National refereed journal**

19. **Sahu, P.**, Mishra, D.P., Panigrahi, D.C., 2015. Emanation of radon in underground uranium mines - an overview. Journal of Mines, Metals and fuels, Vol. 63 (3), pp. 45 – 49. (**Scopus**)
20. Kumar, P., Mishra, D.P., Panigrahi, D.C., **Sahu, P.**, 2017. Numerical investigation of ventilation effect on methane layering behavior in underground coal mines. Current Science, Vol. 112, pp. 1873-1881. (**Scopus, I.F. 1**)
21. **Sahu, P.**, Beg, I.A., Panigrahi, D.C., 2020. Mathematical modelling of radon (^{222}Rn) exposure of underground mine workers: a comprehensive review. Journal of Mines, Metals and fuels, Vol. 68 (11&12), pp. 349 – 353, 371. (**Scopus**)

➤ **International conferences**

22. **Sahu, P.**, Mishra, D.P., Panigrahi, D.C., 2014. Studies on ^{222}Rn emanation from uranium ore and effect of ventilation on ^{222}Rn concentration in mine air. In: Glehn, F.v. & Biffi, M., Proceedings of 10th International Mine Ventilation Congress (IMVC), Published by the Mine Ventilation Society of South Africa, ISBN 978-0-620-61487-0, 2-8 August, pp. 625 – 632.
23. **Sahu, P.**, Mishra, D.P., Panigrahi, D.C., 2014. Monitoring of radon gas and its progeny in underground uranium mines. In: Jamal A., Kumar A., Sharma S.K., Singh R.P. & Karmakar N.C. (Eds.), Environmental Impact and Management in Mining & Mineral Based Industries, Proceedings of International Symposium on Environmental Management and Current Practices in Mining & Allied Industries (EMPM-2014), Organized by Department of Mining Engineering,

Indian Institute of Technology (Banaras Hindu University), Varanasi, India, ISBN: 978-81-87760-20-7, 13-15 February, pp. 529 - 541.

24. Beg, I.A., **Sahu, P.**, Banerjee, M., Panigrahi, D.C., 2019. A review on ^{222}Rn exposure of the miners in underground mines. International Conference and Exhibition on Energy & Environment: Challenges & Opportunities (ENCO-2019), 20-22 February, pp. 272-278.
25. **Sahu, P.**, Jayanti, L.M., Gangavarapu, A., Mehta, C., Vitthal, R. A., Moyal, C., 2023. Prediction of Airborne Particulate Matter in an Opencast Coal Mine Using Machine Learning. In: Choudhary B.S. & Sahu P. (Eds.), International Conference on “Safe, Smart, and Sustainable Mining (3SM)”, 16-18 December, Organized by Department of Mining Engineering, Indian Institute of Technology (ISM), Dhanbad, India.
26. **Sahu, P.**, Panigrahi, D.C., Kumar, A., 2024. Spontaneous combustion and mine fires in Indian coal mines – characterization, detection and control measures. In: Belle, B. & Si, G., Proceedings of 12th International Mine Ventilation Congress (IMVC), Published by the Australasian Institute of Mining and Metallurgy, Sidney, Australia, ISBN 978-1-922395-29-0, 11-15 August, Volume-1, pp. 505 – 513.
27. **Sahu, P.**, Sahoo, A., Rungta, Kunal, 2024. Monitoring and Measurement of Airborne Respirable Dust in Opencast Coal Mines: A Case study. In: Mishra, D.P., Sahu, P. & Behera, B.(Eds.), International Conference on “Mine Ventilation and Environment for Green Mining (MVEGM-2024)”, 20-22 December, Organized by Department of Mining Engineering, Indian Institute of Technology (ISM), Dhanbad, India.

➤ **National conferences**

28. **Sahu, P.**, Panigrahi, D.C., Mishra, D.P., 2013. Radiation hazards in underground uranium mining. In: Singh S.K., Bhattacharjee R.M., Sinha V.P., Mishra D.P. (Eds.), Proceedings of National Seminar on Mining Industry: Challenges & Opportunities (MICO’13), Organized by Indian Mines Managers’ Association (IMMA) and Indian School of Mines (ISM), Dhanbad – 826004, India, 28-29 September, pp. 51 - 58.

29. **Sahu, P.**, Mishra, D.P., Panigrahi, D.C., 2015. Radiation in underground uranium mines and its associated hazards – a review. In: Malick S.R. (Ed.), Proceedings of National Seminar on Challenges in Mining & Mineral Industries (CMMI-2015), Organized by Government College of Engineering, Keonjhar, India, 26 September, pp. 35-48.
30. Baishya, A., Verma, S.K., Mishra, D.P., Panigrahi, D.C., Bhattacharjee, R.M., Sahu, P., Upadhyay, R., 2019. Methane drainage prior to mining-an overview. Proceedings of National Conference on Recent Advances in Mining Technology (RAMT-2019), Organised by Acharya Institute of Technology, Bengaluru, India, 23-24 May,
31. Beg, I.A., **Sahu, P.**, Panigrahi, D.C., 2020. Assessment of the radon dose received by the miners in underground workplaces- A critical review. Proceedings of National Conference on Advances in Mining (AIM-2020), organised by CSIR-CIMFR, Dhanbad & IEI, Dhanbad Local Centre, 14-15 February, pp. 61 – 67.
32. Sahoo, A.C., Sahu, P., 2022. Characterization of airborne respirable dust particles emitted from an opencast coal mine. Proceedings of Conference on Challenges in Safety and Environmental Management in Mines, organised by NIT Rourkela, 17-19 June, 2022