

CURRICULUM VITAE



Dr. ASHISH KUMAR DASH

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Address for Communication

Dr. Ashish Kumar Dash
Assistant Professor
Department of Mining Engineering
National Institute of Technology,
Raipur-492001, Chhattisgarh, India

Permanent Address

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Personal Information

Father's Name: Shri Dhableswar Dash
Mother's Name : Smt. Ariti Dash
Date of Birth: July- 05-1991
Sex: Male
Nationality: Indian
Marital Status: Single
Languages: English, Hindi & Oriya

Academic Qualification

Ph.D. (Mining Engineering)

Area of research: Mine Safety Engineering

Ph.D. thesis submitted: "Development of an Accident Investigation Methodology for Indian Coal Mines"

Year - 2017

Department of Mining Engineering

Indian Institute of Technology (Indian School of Mines), Dhanbad
Jharkhand, 826004, India

B.Tech. (Mining Engineering)

Orissa School of Mining Engineering, Keonjhar, Odisha

Biju Patnaik University of Technology

Branch- Mining Engineering

Year - 2009-2013

Area of Specialization

- Mine Safety Engineering
- Risk Based Accident / Incident Management System
- Accident / Incident Investigation System
- Disaster Management
- Mine Legislation and General Safety

Research Interest

- Occupational Health and Safety Management Systems
- Role of Human Factors in Accident Causation
- Mine Ergonomics
- Mine Environment, Mine Fire and Explosion
- Underground Coal Mining Technology

Work Experience

Position	Organization	Period
Assistant professor	National Institute of Technology, Raipur, CG, India	From 25/06/2018 to till date
Assistant Manager	Moonidih Longwall Project, Moonidih Colliery, Bharat Coking Coal Limited (BCCL), Dhanbad	From 07/02/2018 to 14/06/2018

Computer Skills

- Languages C, C++, Java
- Relational Database Management System, Data Structure, HTML etc.
- STRAND7 for mine Planning & Designing
- SPSS Software for Statistical Data Analysis

Major Assignments

- Gas testing Certificate from the Board of Examination, DGMS, India
- All the three level of FIRST AID certificates from St. John Ambulance Association
- One day training at Jhanjra MIC coal mine , ECL
- 16 weeks Vocational Training at Dera U/G Coal mine, Talcher, M.C.L.
- 4 weeks Vocational Training at Sail Balani Mine

Extra Responsibilities

- Faculty In-charge – General Mining Laboratory

Courses Taught

Undergraduate

- Introduction to Mining Engineering
- Mine Legislation and General Safety
- Strata Control
- Rock Mechanics Laboratory
- General Mining Laboratory

Courses/Workshops/Short Term Courses Attended

- Participated & presented research paper entitled “**Review of Indian Inundation Disasters using Root Cause Analysis Techniques**” in the 7th Asian Mining Congress, organized by The Mining Geological and Metallurgical Institute of India (MGMI) at Kolkata during 8th –11th November, 2017, Kolkata.
- Participated in technical workshop on “**Latest Trends in Strata Control in Longwall Mining with Special Reference to Strata Monitoring Techniques**” organized by DGMS, Dhanbad on date 20.01.2017.
- Participated & presented research paper in 16th Annual Geomintech International Symposium on “**New Equipment New Technology Management and Safety in Mines and Mineral Based Industries./Coal/Metal/OIL**” at Bhubaneswar during 11-12 May 2016.
- Participated in “**Fifty Hours Interactive Course on Development of Risk Based Safety and Health Management Plan in Indian Mines**” at ISM, Dhanbad, from 06.07.2015 to 15.07.2015
- Participated in one day work shop “**One-day Workshop on Principles & Applications of CRF Instruments**” on 13-07-2015 at ISM, Dhanbad.
- Participated & presented research paper in 15th Annual Geomintech International Symposium on “**New Equipment New Technology Management and Safety in Mines and Mineral Based Industries./Coal/Metal/OIL**” at Bhubaneswar during 11-12 May 2015.
- Participated & presented research paper in International Conference on “**Global Challenges, Policy Framework & Sustainable Development for Mining of Mineral and Fossil Energy Resources**” (GCPF2015) organized by the Department of

Mining Engineering National Institute of Technology Karnataka, Surathkal, India.

- Participated in International Conference on **Safety & Health Management in Mining Industry**, Jan 29th-31st 2015, organized by Indian School of Mines Alumni Association, Kolkata Chapter, India.
- Participated in the 2nd Workshop on **The Principles of Modern Safety and Performance Improvement in Mines**, June 27th - 29th 2017, organized by Indian School of Mines Alumni Association, Kolkata Chapter, India.
- Participated & presented research paper in 14th Annual Geominetech International Symposium on “**New Equipment New Technology Management and Safety in Mines and Mineral Based Industries./Coal/Metal/OIL**” at Bhubaneswar during 11-12 May 2014.
- Participated in the 2nd Executive Development Programme on “**Safety Engineering and Management in Coal Mine**” at ISM, Dhanbad, from 20.07.2014 to 24.07.2014
- Participated in one day work shop on “**Intellectual property Rights**” (Under TEQIP-II Initiative) at ISM, Dhanbad
- Participated in National Seminar on **Mining Industry: Challenges and Opportunities**, 28 & 29 September 2013.

List of publications

International Journals

1. **Dash, A. K., Bhattacharjee, R. M. and Paul, P. S., (2018). “Application of Root Cause Analysis Techniques for Investigation of a Coal Mine Disaster - an Accident Prevention Approach”, International Journal of Hazardous Materials, Elsevier Science, (Under Review) [SCI Thomson Reuters Index Journal].**
2. **Dash, A. K., Bhattacharjee, R. M., (2017). "A Decision can be a Disaster: A Descriptive Analysis of a Case Study" International Journal of Applied Environmental Science (IJAES), Volume 12, Number 10, pp. 1803-1820. [SCI Scopus Index Journal]**
3. **Dash, A. K., Bhattacharjee, R. M. and Paul, P. S., (2016). “Lessons Learned from Indian Inundation Disasters: An Analysis of Case Studies”, International Journal of Disaster Risk Reduction, Elsevier Science, UK, vol. 20, pp. 93-102. [SCI Thomson Reuters Index Journal].**
4. **Dash, A. K., Bhattacharjee, R. M. and Ahmad A., (2016). “Case Study of Accidents Related to Fall from Height in Indian Coal Mining Industry: An Analysis” International Journal of Scientific & Engineering Research, Volume 7, Issue 9, September 2016, ISSN 2229-5518, pp. 387-392.**
5. **Dash, A. K., Bhattacharjee, R. M. and Paul, P. S., (2015). “Gap Analysis of Accident Investigation Methodology in the Indian Mining Industry - an Application of Swiss Cheese Model and 5-Why Model”, IAMURE International Journal of Ecology and Conservation, Philippines, Vol. 15, No. 1, pp. 1-27. [SCI Thomson Reuters Index Journal].**

6. **Dash, A. K., Bhattacharjee, R. M. and Paul, P. S., (2015). "Study and Analysis of Accidents Due to Wheeled Trackless Transportation Machinery in Indian Coal Mines – Identification of Gap in Current Investigation System",** Procedia Earth and Planetary Science, Elsevier Science, USA, vol. 11, pp. 539-547. [SCI Scopus Index Journal]

National Journals

7. Sagesh, K. M. R., **Dash A. K.,** Bhattacharjee R. M., Panigrahi, D. C., (2018). "**A Comprehensive Review on Exposure of Diesel Particulate Matter in Indian Underground Mines: Its Health Impact and Control Measures**" Journal of Mines Metals and Fuels, (Scopus Indexed) (Accepted)
8. Ahmad, A., **Dash, A. K.,** Bhattacharjee, R. M., (2017). "**Emergency Response Experts: Suggestions for Effecting a Qualitative Improvement in the Existing Scenario**" Journal of Mines Metals and Fuels, (Scopus Indexed) (Accepted)
9. Patra, S., Gupta, A. K., Nagle, S., Aditya, K. S., **Dash, A. K.,** Rayasam, V., (2018). "**Variation of physical parameters for obtaining optimum green ball properties of iron ore pellets using Guar Gum and Bentonite**" Journal of Mines Metals and Fuels (Scopus Indexed) (Accepted)
10. **Dash, A. K.,** Bhattacharjee, R. M., Ahmad, A., K M R, Sagesh, Singh, C. S., (2017). "**Mine Accident Investigation in India: A Systems Approach**" Journal of Mines Metals and Fuels, (Scopus Indexed) (Accepted)
11. Sagesh, K. M. R., **Dash A. K.,** Bhattacharjee R. M., Panigrahi, D. C., (2018). "**Occupational Exposure to Diesel Exhaust & Diesel Particulate Matter (DPM) in Indian Underground Mines**" Journal of Mines Metals and Fuels, (Scopus Indexed) (Accepted)
12. **Dash, A. K.,** Paul, P. S. and Bhattacharjee, R. M., (2015). "**A Step Towards Accident Prevention: A pre-warning Signals Analysis**" Journal of Mines Metals and Fuels, (Scopus Indexed) (Accepted) (September Issue 2018)
13. Ahmad, A., Sinha, A. K., Bhattacharjee, R. M., **Dash, A. K.,** (2018). "**Critical review of present rescue practices in Indian mines: suggestions for effecting a qualitative improvement in the existing scenario**" Journal of Mines Metals and Fuels, (Scopus Indexed) (Accepted) (September Issue 2018)
14. Patra, S., **Dash, A. K.,** Venugopal, R., (2017). "**Mineralogical Characterization of Barsua Iron Ore Slimes and its Beneficiation through Gravity and 2-Stage Magnetic Separation Techniques**" Journal of Mines Metals and Fuels, Vol 65 (06), pp. 362-366. (Scopus Indexed)

15. **Dash, A. K.,** Bhattacharjee, R. M., (2017). **“Zero Accident Vision in Indian Coal Mining Sector – Major Challenges and Path Forward”** The Indian Mineral Industry Journal, Vol 04 (02), pp. 17-22.
16. Harichandan B., Venugopal, R., **Dash, A. K.,** (2017). **"Implementation of Mineral Processing Techniques to Minimize Waste Generated in Steel Plant"** The Indian Mineral Industry Journal, Vol 04 (02), pp. 12-17.
17. **Dash, A. K.,** Bhattacharjee, R. M., (2016). **“Mine Workers’ fall from Height: A Data Analysis of Fatal Versus Serious Accident”** The Indian Mineral Industry Journal. Vol- 03 (02), pp.119-124.
18. Ahmad A., **Dash, A. K.,** Bhattacharjee, R. M., (2016). **“Review of Present Emergency Management Practices in Indian Mines: Suggestions for Effecting a Qualitative Improvement in the Existing Scenario”**, The Indian Mineral Industry Journal, Vol- 03 (02), pp.101-104.
19. Mangal, A., Paul, P. S., **Dash, A. K.,** Bhattacharjee, R. M., (2016). **“Role of Convergence Behavior for Superior Recovery of Thick Coal Seams in Underground Mines by Blasting Gallery”**, Journal of Mines, Metals and Fuels, Vol. 64, No. 4, pp. 63-73. [Scopus Index Journal]
20. **Dash A. K.,** Paul, P. S., Bhattacharjee, R. M., (2015). **“Need of an Accident Investigation Model for Indian Mines - An Approach”** The Indian Mineral Industry Journal, Vol. 3, No.2, pp. 93-98.
21. **Dash A. K.,** Paul, P. S., Bhattacharjee, R. M., (2014). **“Accident Analysis of Indian Non-coal Mines- Need for Change in Focus of Accident Investigation”**. The Indian Mineral Industry Journal, Vol. II, No.2/Q₂, pp.47-51.

Chapter Contributed in Books

22. Bhattacharjee, R. M., **Dash, A. K.,** and Paul, P. S., (2014). **“Changing Philosophy of Accident Investigation In Indian Mines – Need for Shifting Focus from Human Error to System Error”**, Surface Mining, Pages: 321-333. ISBN No. 978-93-5156-1866.
23. Bhattacharjee, R. M., **Dash, A. K.,** (2018). **"Disaster Prevention Strategies for Indian Mines: an Approach"** Elsevier Publication. (Accepted)

International and National Conferences / Symposium Published

International Conferences / Symposium

24. Bhattacharjee, R. M., **Dash, A. K.,** Panigrahi D. C., (2018). **“Lessons Learnt from Bhatdee Coal Mine Explosion Disaster in India using Root Cause Analysis Technique”**, Accepted for 11th International Mine Ventilation Congress (11th IMVC), Xi' an, China. (Accepted)

25. Ahmad A., **Dash, A. K.**, Sinha A. K., Bhattacharjee, R. M., (2018). “**Review of Present Emergency Management Practices in Indian Mines: Suggestions for Effecting a Qualitative Improvement in the Existing Scenario**”, Accepted for 11th International Mine Ventilation Congress (11th IMVC), Xi' an, China. (Accepted)
26. Sagesh, Kumar M. R., **Dash, A. K.**, Bhattacharjee, R. M., Panigrahi, D. C., (2018). “**Diesel Exhaust & Diesel Particulate Matter (DPM) in Underground Mines of India**”, Accepted for 11th International Mine Ventilation Congress (11th IMVC), Xi' an, China. (Accepted)
27. Bhattacharjee, R. M., **Dash, A. K.**, (2018). "**Disaster Prevention Strategies for Indian Mines: an Approach**" Proceedings of the International Seminar & Exhibition on “Exploration of Oil, Gas, Coal, Minerals and Ground Water: Modern Techniques & Appliances”, on February 7-9, 2018 at Kolkata, India, organized by Indian School of Mines Alumni Association, Kolkata Chapter, India.
28. Bhattacharjee, R. M., **Dash, A. K.**, (2017). “**Review of Indian Inundation Disasters using Root Cause Analysis Techniques**” Proceedings of the 7th Asian Mining Congress, 8th – 11th November, 2017, Kolkata, Organized by The Mining Geological and Metallurgical Institute of India (MGMI), pp. 431-442.
29. Patra, S., **Dash, A. K.**, Singh, D. R., (2017). “**Application of microwave roasting for beneficiation of BHJ ores in Eastern India**” Proceedings of The XVI International Conference on Mineral Processing Technology, MPT – 2017, 1-3, Feb 2017 at Chennai, organized by Indian Institute of Mineral Engineers (IIME) Tamil Nadu Chapter pp. 321-326.
30. Singh C. S., Bhattacharjee, R. M., **Dash, A. K.**, (2016). “**Emergency Mine Evacuation & Re-Entry in Coal Mines: Need For Decision Support System**” Proceeding of the 24th World Mining Congress, Mining in a world of Innovation, 18-21October 2016, Rio de Janeiro /RJ, Brazil, pp. 205-212.
31. Sagesh, Kumar M. R., Bhattacharjee, R. M., Panigrahi, D. C., **Dash, A. K.**, (2016). “**Health and Safety Issues of Exhaust Gases and Diesel Particulate Matter from Diesel Powered Equipment Operation in Indian Underground Mines**” presented in the 6th Asian Mining Congress, 23–26 February 2016, Kolkata, Organized by The Mining Geological and Metallurgical Institute of India (MGMI), pp. 441-450.

National Conferences / Symposium

32. Vinay, L. S., Budi, G., **Dash, A. K.**, (2018) “**An Overview on Importance of Coal and Necessity to Increase Underground Coal Production**”. Proceedings of the National Conference on Recent Challenges in Mining Industry (RCMI 2018) held on April 28, 2018 at CSIR-Central Institute of Mining and Fuel Research, Dhanbad, India,

organized by Mining Engineers' Association of India, Dhanbad Chapter in association with CSIR, Dhanbad-826015, and Jharkhand, India, pp. 1-4.

33. Bhattcharjee, R. M., **Dash, A. K.**, (2017). “**Application of Root Cause Analysis Technique for Accident Investigation in Indian Mining Industry**” Proceedings of The Principles of Modern Safety and Performance Improvement in Mines, 27th - 29th June 2017, organized by Indian School of Mines Alumni Association, Kolkata Chapter, India, pp. 161-169.
34. Bhattcharjee, R. M., **Dash, A. K.**, (2016). “**Zero Harm: A Novel Mission towards Accident Prevention**” Proceedings of the National Seminar on Eco Friendly Surface Mining-Technology, Challenges & Way forward at Neyveli during 12th & 13th November-2016, Organized by Neyveli Lignite Corporation Limited, pp. 80-86.
35. Singh, D. R., **Dash, A. K.**, Mishra, A. K., Bhattcharjee, R. M., Paul, P. S., (2015). “**An overview of slope monitoring radar system for averting slope failures**” Proceeding of National Seminar on Mining Industry: Challenges and Opportunities (MICO’15), 21–22 Dec 2015, Organized by Indian Mines Managers’ Association (IMMA), pp. 45-54.
36. **Dash, A. K.**, Bhattcharjee, R. M., Paul P. S., (2015). “**A New Approach in Accident Investigation Methodology for Indian Coal Mines**” Proceedings of the National Seminar on Challenges in Mining & Mineral Industries (CMMI-2015), 26 September 2015, Organized by Department of Mining & Mineral Engineering, GCE, Keonjhar, pp. 119-124.
37. **Dash, A. K.**, Bhattcharjee, R. M., Paul, P. S., (2014). “**Development of Accident Investigation Methodologies for Indian Coal Mines-An Approach**” Proceeding of National Seminar on Mining Industry: Challenges & Opportunities (MICO’ 14), 12–13 Dec 2014, Organized by Indian Mines Managers’ Association, pp 45-49.
38. Bhattcharjee, R. M., **Dash, A. K.**, Paul, P. S., (2014). “**Changing Philosophy of Accident Investigation In Indian Mines – Need for Shifting Focus from Human Error to System Error**”. Proceeding of National Seminar on Surface Mining (NSSM) Organized by Department of Mining Engineering, I.S.M., Dhanbad, pp.321-333.

Poster presentation

39. Singh, D. R., **Dash A. K.**, Mishra, A. K., Bhattcharjee R. M., Paul P. S. (2015). “**Slope monitoring radar system: An effective tool for averting slope failures**”, presented in the All India Seminar on Slope Stability Issues in Opencast Mining and Civil Engineering (SSIOCM15) July 25-26 2015, Organized by Department of Mining Engineering, National Institute of Technology, Rourkela.

Research Guidance

Undergraduate Projects Guided

Sl. no.	Adm. no.	Name of the student	Year	Present status of the research work
1.	15121049	Rajini Kant Kumar	2018	Ongoing
2.	15121051	Raushan Kumar	2018	Ongoing
3.	15121002	Aditya Kumar	2018	Ongoing
4.	15121058	Satyam Ku. Sarvottam	2018	Ongoing
5.	15121056	Sagar Sharma	2018	Ongoing
6.	15121055	Rupesh Chaurasia	2018	Ongoing
7.	15121022	Fanish Khutiyare	2018	Ongoing
8.	151210	Prabhat	2018	Ongoing
9.	14121033	Kamal Kishor	2018	Ongoing


Academic Recognition

- Reviewer, Process Safety and Environmental Protection, Elsevier
- Reviewer, The Indian Mineral Industry Journal

Professional Membership

1. The Indian Mineral Industry
2. Life time Member of Mining Engineer's Association of India
3. Life time Member of Indian School of Mines Alumni Association, India.

Date: 27/07/2018
Place: Raipur, India



(DR. ASHISH KUMAR DASH)