

Dr. B. M. Kunar, Assistant Professor

B.E. (Mining), M.E. (Mining, IEST), Ph.D. (Mining, IIT KGP), Member of SGAT and IEI
Second Class Manager Certificate of Competency (Restricted), DGMS Dhanbad
Former Scientist NIRM, Ministry of Mines, Govt of India.



Dr. B. M. Kunar has joined in the Department of Mining Engineering NITK Surathkal on 23rd September 2013. Prior to join NITK Surathkal, he worked as an **Assistant Professor in the Department of Mining Engineering Indian School of Mines (ISM), Dhanbad & Scientist at National Institute of Rock Mechanics (NIRM), Bangalore**. He joined Dungri Limestone Quarry of M/s ACCLimited in March 2003 and worked there for the period of one and half year. He obtained **Second Class Manager Certificate of Competency (Restricted)** from the Govt. of India in 2004. He completed his B.E (Mining) from Odisha School of Mining Engineering, Keonjhar (now GCE Keonjhar), M.E. (Mining) from Bengal Engineering and Science University Shibpur (now IEST Shibpur) and Ph.D. in Mining Engineering (Mine Safety) from Indian Institute of Technology Kharagpur. His area of specialization is **Mine Safety Engineering and Management, Occupational Health and Safety, Mine Surveying and Geomatics, and Rock Mechanics**. He has published more than 40 technical research papers in various reputed International Journal having high impact factor, National Journal and Seminar proceedings. He was associated with the French National Institute for Health and Medical Research (INSERM, France) on an epidemiological study to assess the relationships between job, lifestyle, age and occupational injuries of coal miners. Dr. Kunar also worked as a Research Assistant in the Department of Mining Engineering IIT Kharagpur from July 2008 to September 2008 in a Project entitled “Investigation of Ensemble Modelling of Multiple Networks Using Negative Correlation Learning for Ore body Modelling” sponsored by ISIRD. He has successfully completed two sponsored projects as an investigator. He has also awarded CORE RESEARCH GRANT (CRG) from DST-SERB in the year 2020. He has authored a book titled “Risk analysis of coal miners injuries: An Epidemiological Approach” by LAP Lambert Academic publishing AG & Co.KG, Germany. He is having wide experience in working funded research projects, preparation of proposals and technical reports. He is actively involved in teaching and research for more than 10 years in research lab and academic institute. While he was working as a faculty in the Department of Mining Engineering Indian School of Mines Dhanbad during the period (2009-2013) he was associated with teaching undergraduate and postgraduate students. He has guided several B.Tech and M.Tech dissertation work. Apart from teaching he was associated with different Executive Development programs (EDP), R&D (Research & Development) and consultancy projects. He was also handled different administrative responsibility such as faculty in-charge mining engineering society, faculty in-charge CLMM Lab, faculty adviser of final year students and other administrative responsibility successfully. He is a recipient of various awards, prizes and other honors for his contribution to mining engineering.

Name	Dr. Bijay Mihir Kunar
Date of Birth	15th March 1976
Correspondence	Department of Mining Engineering National Institute of Technology Karnataka, Surathkal, Mangalore Phone No: +91 + 824 + 2473377 (O) Fax: +91 + 824 + 2474033, 2474039 Email: bkunar@nitk.edu.in bkunar@gmail.com web: www.nitk.ac.in
Marital Status	Married
Present Employment	Presently working as Assistant professor, Dept. of Mining Engineering, National Institute of Technology, Karnataka, Surathkal, Mangalore
Research Areas	Mine Safety Engineering and Management, Occupational Health and Safety, Mine Surveying and Geomatics, IT Applications in Mining, & Rock Mechanics
Research Interest	GIS and Remote Sensing, Safety Data Analytics.

Academic Performance Details

Degree/Examination	University/Institution	Year	Discipline	% of Marks	Division/ Class
Ph.D. (Mining Engineering)	I.I.T Kharagpur	2009	Mining Engineering	-	-
M.Tech./M.E.	IEST, Shibpur. (Formerly BESU, Shibpur)	2003	Mining Engineering	75.78	1st
B.Tech./B.E.	GCE, Keonjhar, Odisha (Formerly OSME, Keonjhar)	2001	Mining Engineering	72.69	1st
H.S. or Equivalent (+2 Science)	S.V.M College, Jagatsinghpur C.H.S.E, Odisha	1994	+2 Science	70.55	1st
Madhyamik /Matric or Equivalent	S.K. Academy Jagatsinghpur B.O.S.E, Odisha	1992	-	72.13	1st
BSc (Physics)	S.V.M College, Jagatsinghpur Utkal, University Odisha	1997	+3 Science (Phy Hons)	Completed Pedigreed Exam	-

Awards / Prizes/Honors Won

- ❖ **Core Research Grant** Awardee from DST-SERB in 2020 (PI: B.M Kunar Co- Pi Dr M. Aruna).
- ❖ **Outstanding reviewer** award from **Journal of Safety Science** (Elsevier Publisher).
- ❖ **Best reviewer** award from **Journal of safety science** (Elsevier Publisher).
- ❖ **NIRM Silver Jubilee Medal** for distinguish service as scientist to the Institute (Ministry of Mines, Govt of India)
- ❖ **Second Class Managers' Certificate of Competency (Restricted)** from **Directorate General of Mines Safety**, Govt. of India.
- ❖ Recipient of the "**Hindustan Zinc Limited Prize**" by the Institution of Engineers (INDIA) for best technical research paper.

- ❖ Awarded **SRF Fellowship** from MHRD Govt. of India to carry out Ph.D. at IIT Kharagpur.
- ❖ Recipient of NRTS and National Merit Scholarships.

Teaching and Research Experience

ORGANIZATION	DESIGNATION	DURATION
NITK Surathkal	Assistant Professor	23.09.2013 to till Date (with AGP-8000/-)
ISM Dhanbad	Assistant Professor	From 22.06.2010 – 13.09.2013 (with AGP-8000/-)
ISM Dhanbad	Assistant Professor	15.06.2009 -22.06.2010 (with AGP-7000/-)
National Institute of Rock Mechanics (NIRM), Under Ministry of Mines Govt. of India	Scientist-I	October 2008 to June 2009. (with AGP-5400/-)
IIT Kharagpur	Research Assistant	July 2008 to September 2008 (With award of fellowship)

Working and Training Experience

ORGANIZATION	DESIGNATION	DURATION
Dungri Limestone Quarry of Baragarh Cement LTD (A subsidiary of M/S Associate Cement Company Limited)	Mining Engineer	March 2003-June 2004
Central Mining Research Institute Dhanbad (An Unit of Council of Scientific and Industrial Research, India).	Project Trainee	September'02 – January'03
Joda East Iron Mines of M/S Tisco Ltd.	Trainee	One month
Deulibera Colliery of M.C.L(A Subsidiary Of Coal India Ltd)	Trainee	One month
Gurpahar Mines of M/S B.S.L Co. Ltd	Trainee	One month

Academic Administrative Responsibility

Administrative Post	Title	DURATION
Faculty Advisor/First Year/Second Year/Fourth Year	First Year Faculty Advisor	July 2021-Continuing June 2020 - May 2021
	Second Year Faculty Advisor	2018 – 2020 (For 2 Years)
Secretary DUGC/DPGC/DRPC	DUGC	2018 – 2020 (For 2 Years)
	DPGC	June 2020 - May 2021
	DRPC	2015-2017 (For 2 Years)
Faculty-In-Charge Mine Surveying Lab//Mine Planning and Design Lab	LAB In-charge	July 2021-Continuing 2019 – 2021(For Two Years) <u>Mine Planning and Design Lab</u> 2019 – 2020 (For 1year)
		2015-2017 (For 2 Years)
Faculty-In-Charge Rock Mechanics Lab	Lab In-charge	2015-2017 (For 2 Years)

Institute Level Committee Member	Rajbhasha Adhikari	July 2021-Continuing 2018 – 2021 (For Three Years)
Institute Level Committee Member	Library Advisory Committee	2015 – 2021 (For 6Years)
Institute Level Committee Member	Web Content Management	July 2021-Continuing 2019 – 2021 (For 2 Years)
Institute Level Committee Member	Faculty-In-Charge Career Advance Cell/Startup cell	July 2021-Continuing <u>Startup Cell</u> 2018 – 2019 (For 1 Year)
Institute Level Committee Member	Mining Engineering NIRF Coordinator/NBA Coordinator	2018 – 2019 (For NIRF Coordinator) <u>For NBA</u> July 2021-Continuing 2019 – 2021 (For 2 Years)

Peer Reviewer of Referred Journals

- Reviewer of Journal of Safety Science (Elsevier)
- Reviewer Journal of Global Public Health (Taylor & Francis)
- Arabian Journal of Geosciences (Springer Nature)
- Journal of Geological Society of India (Springer Nature)
- Sadhana-Academy proceedings (Springer Nature)

Member of Professional Bodies

- Life member of Society of Geoscientists and Allied Technologists(MSGAT)
- Life member Institute of Engineers India (IEI)

Organizing Seminar/Symposium/ Workshop

- Organizing and Technical Committee member of the International mine ventilation congress held in the year 2009 (9thIMVC) at ISM Dhanbad.
- Technical Committee member of 34th International conference of safety in mines research institutes (34th ICSMRI) held in the year 2011 at IIT Kharagpur.
- Two days' workshop on "Recent Trends in Environment, Health, and Safety Management in Mining and other Core Industries" during January 27-28, 2017.
- Five days "GIAN" course on "*Computer Application and Data analysis in Mining and other Core Industries*" during March 12-16, 2018.

Books Authored

Bhattacharjee A, **Kunar, B.M.** 2010 "Risk analysis of coal miners injuries: An Epidemiological Approach" LAP Lambert Academic Publishing AG & Co. KG, Germany, ISBN: 978-3-8383-4263-4.

Personal Details

Father's Name: Late Sri. Jogendranath Kunar

Passport number: G1145913

Permanent Address:

Dr. Bijay Mihir Kunar

C/o: Late Sri. Jogendranath Kunar

At: Jogadhari (Near District Circuit House)Po/Dist:

Jagatsinghpur, Odisha, Pin-754103

DECLARATION:

I hereby affirm that the information furnished in this resume is true and correct.

Date: 21 May 2022

Place: NITK Surathkal

(Bijay Mihir Kunar)

Publication List
JOURNALS

Google Scholar		
h-index	8	8
i10-index	7	7

Scopus ID (Author ID: 16425697000) *h-index*: 8

1. Kunar, B.M, Aruna, M., Bekalkar M. (2021). Postural Analysis of Dumper Operators and Construction Workers- A Case Study. *Journal of Mines Metals and Fuels*, 69(6), 180- 185. <https://doi.org/10.18311/jmmf/2021/28525>
2. Khale, B. R., **Kunar, B. M.**, & Murthy, C. S. (2021). A Comparative Study and Regression Analysis on Physico-Thermal Properties using Pongamia Pinnata-Waste Cooking Oil Methyl Ester Mixture. **Energy Sources, Part A: Recovery, Utilization, and Environmental Effects**, 1-12. <https://doi.org/10.1080/15567036.2021.1918289>
3. Vijay Kumar. S., **Kunar, B. M.**, Murthy Ch. S. N. (2019), “ANN model for prediction of bit-rock interface temperature during rotary drilling of limestone using embedded thermocouple technique” **Journal of Thermal Analysis and calorimetry**, <https://doi.org/10.1007/s10973-019-08646-2>.
4. Shankar, V. K., Kunar, B. M., Murthy, C. S., & Ramesh, M. R. (2020). Measurement of bit-rock interface temperature and wear rate of the tungsten carbide drill bit during rotary drilling. *Friction*, 8(6), 1073-1082.
5. Vijay Kumar. S., **Kunar, B. M.**, Murthy Ch. S. N. (2018), “Experimental investigation and statistical analysis of operational parameters on temperature rise in rock drilling” **International Journal of Heat and Technology**, Vol.36 (4), pp. 1174-1180. <https://www.researchgate.net/publication/330158994> Experimental investigation and statistical analysis of operational parameters on temperature rise in rock drilling
6. Vijay Kumar S, Ch. S. N. Murthy, **Kunar B.M.** , (2018) “Effect of thermal response on physical properties during drilling operations-A case study”, **Materials Today**, Vol. 5 (2) 2018, pp. 7404-7409. <https://www.sciencedirect.com/science/article/pii/S2214785317326810>
7. Reddy K.Sandip., **Kunar, B. M.**, Murthy Ch. S. N, (2017) “Impact of various factor on roof stability in underground coal mines”, **International Journal of Earth Science and Engineering**, Vol. 10(3), pp.626-632. <https://www.researchgate.net/publication/318989677> Impact of Various Factors on Roof Stability in Underground Coal Mines
8. Bhattacharjee, A., **Kunar, B.M.** (2016),” Miners’ return to work following injuries in coal mines, **Medycyna Pracy**, Vol. 67 (6),2016, pp. 729-742. <http://medpr.imp.lodz.pl/Miners-return-to-work-following-injuries-in-coal-mines,64056,0,2.html>

9. **Kunar B.M.,** Bhattacharjee A., Samanta B., Mitra A. (2014). "Relationships of Individual and work related factors with obstructive type lung function disorder of underground coal miners-A Spirometry study" **Journal of Geology and Mining Research** 2014, Vol.6(5), pp.57-63.
<https://academicjournals.org/journal/JGMR/article-abstract/99251CC47354>
10. Bhattacharjee A., **Kunar B.M.,** Baumann Michele, Chau N, Lorhandicap group (2013). "The role of occupational activities and work environment in occupational injury and interplay of personal factors in various age groups among Indian and French coal miners" **International Journal of Occupational Medicine and Environmental Health** 2013; Vol. 26(6), pp.1-20.
<http://ijomeh.eu/The-role-of-occupational-activities-and-work-environment-in-occupational-injury-and-interplay-of-personal-factors-in-various-age-groups-among-indian-and-french-coalminers.2139.0.2.html>
11. Bhattacharjee A. **Kunar B.M.** (2011). "Epidemiology: A tool for risk analysis of mine injuries" *Transactions of the Society of Mining, Metallurgy, and Engineering (SME)* USA, 2011, Vol. 328, pp.490-500.
https://www.researchgate.net/publication/236949456_Epidemiology_a_tool_for_risk_analysis_of_mine_injuries
12. **Kunar B.M.,** Bhattacharjee A., Chau N. (2010). "A matched case-control study of occupational injury in underground coalmine workers" *The Journal of the South African Institute of Mining and Metallurgy (SAIMM Journal)*, Vol. 110, pp. 1-9.
http://www.scielo.org.za/scielo.php?script=sci_abstract&pid=S222562532010000100004&lng=es&nrm=iso
13. Chau N., Bhattacharjee A., **Kunar B.M.,** Lorhandicap group (2009). "Relationship between job, lifestyle, age and occupational injuries" *Occupational Medicine*, London, 2009, Vol. 59, pp.114 -119.
<https://www.ncbi.nlm.nih.gov/pubmed/19233831>
14. **Kunar, B.M.,** Bhattacharjee, A., Chau N. (2008). "Relationships of job hazards, lack of knowledge, alcohol use, health status and risk taking behaviour to work injuries of underground coal miners: A case-control study in India" *Journal of Occupational Health, Japan* 2008, Vol. 50 (3), pp.236-244.
<https://www.ncbi.nlm.nih.gov/pubmed/18431033>
15. **Kunar, B.M.,** Bhattacharjee, A (2006) "Study of some occupational and individual factors in coal miners injuries" *Journal of Mines, Metals and Fuels*, 2006, Vol. 54, No.12. pp. 356-360.
https://www.researchgate.net/publication/286863087_Study_of_Some_Occupational_and_Individual_Factors_in_Coal_miners_Injuries
16. **Kunar B.M.,** Maiti J., Mandal P.K. (2007) "Numerical modeling – A Prerequisite for Support Design in Mines" *Journal of Mine Tech*, January-March, 2007, Vol. 28 (1), pp. 19-28.
https://www.researchgate.net/publication/286924093_Numerical_Modeling_Based_Study_In_Bord_and_Pillar_Working-A_Prerequisite_for_Support_Design_in_Mines
17. Maiti, J., Mandal, P.K., Singh, R., **Kunar B.M.** (2006) "Impact of Stress Redistribution on Stability of Workings during Depillaring" *Journal of the Institution of Engineers (India)*, Mining Engineering Division, 2006, Vol. 87, PP. 10-22.
https://www.researchgate.net/publication/283724079_Impact_of_stress_redistribution_on_stability_of_workings_during_depillaring

Springer Book Series

1. Vijay Kumar S, **B. M. Kunar**, Ch. S. N. Murthy, “Temperature measurement during rotary drilling of rocks- A statistical approach”, Learning and Analytics in intelligent systems. Volume 2, pp 303-308 (**SCOPUS**). <https://www.springer.com/gp/book/9783030243135#>
2. Tejaswaran K. M, Ch. S. N. Murthy, **B. M. Kunar** “Numerical Investigation on Factors Affecting the Behaviors of Roof Bolts for Continuous Miner Working”, Learning and Analytics in intelligent systems. Volume-2, pp 383-389 (**SCOPUS**). <https://www.springer.com/gp/book/9783030243135#>

Book Chapters

1. Bhattacharjee A, **Kunar BM**, Chau N: Contributions of physical hazards and health-related factors in occupational injuries of coal miners: A matched case-control study (Book of proceedings, complete paper). State Administration of Work Safety, State Administration of Coal Mine Safety - The 32nd Conference of Safety in Mines Research Institutes, Edited by National Center for International Exchange & Cooperation on Work Safety, SAWS, 01/2007: chapter Contributions of physical hazards and health-related factors in occupational injuries of coal miners: A matched case-control study; **National Center for International Exchange & Cooperation on Work Safety, SAWS, China**.
2. Bhattacharjee A, **Kunar BM**, Chau N: Role of working condition, behavioural, lifestyle and health related factors in underground coal miners injuries: A case-control study (Book of proceedings, complete paper). 33rd international conference of safety in mines research institute, Edited by Lipowczan A, 09/2009: chapter Role of working condition, behavioural, lifestyle and health related factors in underground coal miners injuries: A case-control study; **Central Mining Institute, Katowice, Wisla, Poland**.
3. Bhattacharjee A, **Kunar BM**, Baumann M, Chau N: Associations between occupational factors and occupational injury and the interplay of personal factors in Indian and French coal miners (Book of proceedings, complete paper). The 34th International Conference of Safety in Mines Research Institutes (34th ICSMRI), Edited by Bhattacharjee A, 01/2012: chapter Associations between occupational factors and occupational injury and the interplay of personal factors in Indian and French coal miners; **Macmillan Publishers India Ltd, New Delhi**.

Conferences/Seminar/Symposia/workshop

1. Balaji Rao K, B. M. Kunar, Ch. S. N. Murthy (2022) “A Comparative Assessment and Statistical analysis of Ethanol and Acetone Emulsification in Methyl Esters of Pongamia Pinnata Blends” Proceedings of the International Conference on Advances in Energy, Environment for Sustainable Development, 7th to 8th January 2022.
2. Bekalkar M. Kunar, B.M, (2021). Postural analysis of road construction workers-a case study, Road Safety workshop, organized by GI Council (GENERAL INSURANCE COUNCIL) on 13.02.2021, National Insurance Building, 5th floor, J. Tata Road, Churchgate, Mumbai 400 020.
3. Ch. S. N. Murthy, Kunar B M, (2020) “Recent Advancements in Rock drilling for Improving Safety and Performance” international Webinar on Safe Mining and Advanced Resources Technology-2020, organized by IIT-KGP from 23rd to 16th to 18th Dec 2020.
4. Tejeswaran K M, Ch. S. N. Murthy, B.M.Kunar presented & published a research paper “ Numerical Simulation and Evaluation of Roof Bolts in Continuous Miner Panel” in Recent Advances in Mining Technology (RAMT 2019) organized by Acharya institute of technology, Bengaluru from 23rd to 24th May 2019.
5. B. M. Kunar presented & published a research paper “Safety analysis of Occupational Accidents in Coal Mines- An ANAOVA Approach” in Recent Advances in Mining Technology (RAMT 2019) organized by Acharya institute of technology, Bengaluru from 23rd to 24th May 2019.

6. Vijay Kumar S, B. M. Kunar, Ch. S. N. Murthy, presented & published a research paper “Temperature Measurement Methods During Rotary Drilling Operations - A Review” in International Conference on Recent Trends in Technology, Engineering and Applied Science (ICRTTEAS 2019), organised by Dr. T. Thimmaiah Institute of Technology, KGF from 12th to 13th April 2019.
7. Tejeswaran K M, Ch. S. N. Murthy, B.M.Kunar presented & published a research paper “Numerical Investigation on Grout Stress of Roof Bolts for Continuous Miner Working” in International Conference on Recent Trends in Technology, Engineering and Applied Science (ICRTTEAS 2019), organised by Dr. T. Thimmaiah Institute of Technology, KGF from 12th to 13th April 2019.
8. B. M. Kunar, Ch. S. N. Murthy, Balaji Rao K : “Comparison of the Particle Size Distribution in Marble and Granite Rock Samples Subjected to Ball Milling Process”, Smart Mining, SME Annual Conference and Expo, CMA 121st National Western Mining Conference, February 24-27, 2019, Denver, Colorado.
9. Balaji Rao K, B. M. Kunar, Ch. S. N. Murthy presented & published a research paper “A Critical Review on Different Biodiesel Blends and their Application in Underground Mining Machineries” in International Conference on Recent Trends in Technology, Engineering and Applied Science (ICRTTEAS 2019), organised by Dr. T. Thimmaiah Institute of Technology, KGF from 12th to 13th April 2019.
10. Vijay Kumar S, **B. M. Kunar**, Ch. S. N. Murthy presented & published a research paper entitled “Temperature measurement during rotary drilling of rocks- A statistical approach”, in the International Conference on Emerging Trends in Engineering (ICETE19), organised by University college of Engineering, Osmania University, from 22th to 23th March 2019.0
11. Vijay Kumar S, Ch. S. N. Murthy, **B. M. Kunar**, presented & published a research paper entitled “Effect of thermal response on physical properties during drilling operations - a review”, in the International Conference on Deep Excavation, Energy Resources and Production (DEEP16), organised by Department of Mining Engineering at IIT Kharagpur, from 24th to 26th January 2017.
12. Vijay Kumar S, Ch. S. N. Murthy, **B. M. Kunar** , presented & published a research paper entitled “Effect of thermal response on physical properties during drilling operations-A case study ”, in International conference on emerging trends in Materials and Manufacturing Engineering (IMME-17) organised by Department of Metallurgical and Materials Engineering, National Institute of Technology, Tiruchirappalli, from 10th to 12th March 2017.
13. Vijay Kumar S, Ch. S. N. Murthy, **B. M. Kunar**, presented & published a research paper entitled “Prediction and Measurement Methods of Thermal properties in rock drilling process- A Review”, in the National Conference on Futuristic Advancements in Mechanical Engineering (FAME2K16), organised by Department of Mechanical Engineering at College of Engineering, Thallasery, Kerala, from 8th to 9th August 2016.
14. **Kunar B.M.**, MudgalKeshav, Gupta Neel, Kumar S., (2012):“Development of a GIS based 3-dimensional spatial information system-A case study”, Proceedings of the 2nd National Seminar on “Indian Conference on Mine Surveying (ICMS-2012)” hosted by Indian School of Mines, 29-30 October, 2012, Dhanbad,pp.101-109.
15. D. Kumar, V. Agarwal, **Kunar B.M.**, (2012):“Study of opencast coal mines for land reclamation using Remote sensing and GIS technique”, Proceedings of the 2nd National Seminar on “Indian Conference on Mine Surveying (ICMS-2012)” hosted by Indian School of Mines, 29-30 October, 2012, Dhanbad, pp.71-77.
16. **Kunar, B.M.**, Bhattacharjee, A., Samanta B, Shahid M., (2011): “Relationships of some individual and work related factors to lung function disorder of underground coal miners- A Spirometry study” In:Bhattacharjee et al, (Ed.), “Safety in Mines (34th ICSMRI)”, Macmillan, New Delhi, India, pp.785-795.
17. Bhattacharjee, A.,**Kunar, B.M.**, Baumann, M., Chau, N., Lorhandicap group (2011): “Associations between

Occupational factors and occupational injury and the interplay of personal factors in India and French coal miners” In: Bhattacharjee et al, (Ed.), “Safety in Mines (34th ICSMRI)”, Macmillan, New Delhi, India, pp.481-493.

18. **Kuniar, B.M.,** Kumar, P.P., (2011): “Risk assessment and safety evaluation in underground metal mines” Proceedings of the 2nd National Seminar on “Underground Metal Mining: Status and Prospects” hosted by Indian School of Mines, 13-15 October, 2011, Puri, pp.329-335.
19. **Kuniar, B.M.,** Shukla G., Bahuguna P.P (2010) “Gradual Development of Total Station into Complete Mine Surveying Instruments” Proceedings of the Tenth Geo-minetech Symposium on “ New Equipment New Technology Management and Safety in Mines and Mineral Based Industries” 11-12 May, 2010, Bhubaneswar, The Indian Mining Engineering Journal, pp.136-140.
20. Bhattacharjee, A.,**Kuniar, B.M. (2010):**“Risk Analysis of Injuries of Coal Miners Using an Epidemiological Approach: A Case-Control Study” Proceedings of the 5th China International Forum on Work Safety, hosted by State Administration of Work Safety (SAWS), P. R. Chin, 1-3 September, 2010, pp.20-27.
21. Bhattacharjee A.,**Kuniar B.M.,** Chau N., (2009):“Role of working condition, behavioural, lifestyle and health related factors in underground coal miners injuries: A case-control study” Proc 33rd IntConf on Safety in Mines Research Institutes, organized by Central Mining Research Institute, Poland on 15-18 September 2009, Poland, pp.19-27.
22. **Kuniar B.M.,** Bhattacharjee A., (2008):“Role of job hazards, overtime work, and individual habits to underground coal miners injuries-A case study” Proceedings of the National Seminar on “Environmental Management in Mining and Allied Industries (EMMA-2008)” 7-8 Nov, 2008, Varanasi, ITBHU, pp.35-38.
23. **Kuniar B.M., (2008):**“Numerical modeling based study on development of support plan in depillaring operation of bord and pillar working” Proceedings of the Eighth Geo-minetech Symposium on “ New Equipment New Technology Management and Safety in Mines and Mineral Based Industries” 11-12 May, 2008, Bhubaneswar, The Indian Mining Engineering Journal, pp.132-135.
24. **Kuniar, B.M.,** Shahid M., Bhattacharjee, A., Samanta B (2008): “A spirometry study of lung disorder for underground coal miners” Proceedings of the Indo-Korean joint International Symposium on “Geo-Science and Technology and Utilization of Geo-Space as Solution for Energy and Environment” , 12-14 February, 2008, Kharagpur, Indian Institute of Technology, pp. 70-74.
25. Bhattacharjee, A.,**Kuniar, B.M.,** Chau N (2007):“Contribution of physical hazards and health-related factors in occupational injuries of underground coal miners: A matched case-control study”, Proceedings of the 32nd International Conference of Safety in Mines Research Institutes (SIMRI), Beijing, China, September 28-29, 2007, SAWS, China, pp.423-430.
26. Bhattacharjee, A.,**Kuniar, B.M (2006):**“Analysis of occupational injuries and health disorder of workers in mines: A case study”, Proceedings of the 41st Annual Safety Week Souvenir, 2006, Singareni Coal Company limited and Directorate General of Mines Safety, pp. 46-53.
27. Bhattacharjee, A.,**Kuniar, B.M. (2007):** “Application of injury epidemiology in coal mines safety” Proceedings of the Emerging trends in mineral industry, 13-15July, 2007, Mining Engineers’ Association of India, Udaipur, Rajasthan, pp. 228-233.
28. Bhattacharjee, A.,**Kuniar, B.M.,** Sharan, M.B (2006): “An epidemiological study of coal miners injuries” Proceedings of the First Asian Mining Congress on “Asian Mining –towards a new resurgence, January 16-18, 2006, MGMI, Kolkata, India pp. 473-477.
29. Samanta B, Devulapally P, Bhattacharjee A,**Kuniar B.M (2008):**Work related musculo-skeletal disorder study on drilling operations in an underground coal mine through human factors approach, Proceedings of the National Seminar

on “Environmental Management in Mining and Allied Industries (EMMA-2008)” 7-8 Nov, 2008, Varanasi, ITBHU, pp.40-44.

Research Guidance at the PhD level (Completed)

SI No.	PhD Thesis	Name of the Student	Name of the Guide	Year
1	EXPERIMENTAL INVESTIGATION ON ASSESMENT AND PREDICTION OF TEMPERATURE DURING ROTARY DRILLING	VIJAY KUMAR S	Dr. B. M. Kunar & Dr. Ch. S. N. Murthy	Sep, 2020

Research Guidance at the PhD level (Ongoing)

SI No	PhD Title	Name of the student	Name of the Guide
1	Design and Development of a Novel Inverter with Photovoltaic System for Drilling Operations in Mines	N. V. V. PRUTHVI KRISHNA (Part Time Without Fellow Ship)	Dr. B. M. Kunar & Dr. Ch. S. N. Murthy
2	Safety Mine Safety Management	Pradeep D (Internal Candidate)	Dr. Ch. S. N. Murthy & Dr. B. M. Kunar
3	Assessment and Prediction of Pongamia Pinnata Oil as an Alternative Fuel indifferent Forms for Mining Industry	Balaji Rao K	Dr. B. M. Kunar & Dr. Ch. S. N. Murthy
4	Prediction of rock properties using grinding characteristics of Ball Mill	Sahas V	Dr. B. M. Kunar & Dr. K. Ramachandra
5	Performance Evaluation of a Bi-Facial Photovoltaic (PV) system Integrated with a Mineral Processing Unit	Shiva Kumar Bojja	Dr. B. M. Kunar & Dr. Ch. S. N. Murthy
6	Waste management in mines	Vijay Praveen PM (Part Time Without Fellow Ship)	Dr. B. M. Kunar
7	Predictive Assessment of Postural Risk and Biomechanical Analysis of Musculoskeletal Disorder (MSD) Related Problems of Dump Truck Operators in Indian Open Cast Metal Mines	Mohith Bekal Kar (JRF DST-SERB)	Dr. B. M. Kunar & Dr. M Aruna

MTech Research Thesis Guidance

Sl No.	MTech Thesis	Name of the Student	Under Guidance	Year
1	ASSESSMENT AND PREDICTION OF ROOF FALL IN UNDERGROUND COAL MINES	KANDI SANDEEP REDDY	Dr. B. M. Kunar & Dr. Ch. S. N. Murthy	2017
2	NUMERICAL SIMULATION AND EVALUATION OF ROOF BOLTS IN BORD AND PILLAR PANEL WORKING WITH CONTINUOUS MINER TECHNOLOGY	TEJESWARAN K. M.	Dr. Ch. S. N. Murthy & Dr. B. M. Kunar	2019

MHRD sponsored GIAN course conducted

Sl. No.	Title	Year	Coordinator	Amount Allotted
1	COMPUTER APPLICATION AND DATA ANALYSIS IN MINING AND OTHER CORE INDUSTRIES	2018	Dr. B. M. Kunar	Rs. 5.44 Lakh

**R& D Projects
(On Going)**

Sl. No.	Title	Year	Coordinator	Amount Allotted
1	Predictive Assesment of Postural and Biomechanical Analysis of Musculo Skeletal Disorders(MSD) Related Problems of dump truck operators in Indian Open Cast Mines	2020	Dr. B. M. Kunar & Dr. M. Aruna	Rs. 18.85 Lakhs

MTech Thesis Guidance at ISM Dhanbad

Sl No	M Tech Thesis	Name of the Student	Under guidance	Year
1	COMPARATIVE STUDY OF EVALUATION OF VOLUMETRIC CALCULATION OF EARTHWORK	NAVEEN SOREN	Dr.B.M.Kunar	MAY,2011
2	A STUDY ON TUNNEL BEHAVIOUR UNDER HIGH STRESS CONDITION USING NUMERICAL MODELING	ARVIND KUMAR	Dr.B.M.Kunar	MAY,2011
3	DESIGN OF SUPPORT SYSTEM OF A TUNNEL USING ROCK MASS CLASSIFICATION APPROACH	SUBODH KUMAR	Dr.B.M.Kunar	MAY,2012
4	MAPPING OF GROUNDWATER PROSPECTIVE ZONES OF DHANBAD DISTRICT USING REMOTE SENSING TECHNIQUES AND GIS	ALOK SINGH	Dr.B.M.Kunar & Dr.V.K.SINGH	MAY,2013
5	STUDY AND ANALYSIS OF OPEN PIT SLOPES OF COAL MINES	UTPAL KANT	Dr.B.M.Kunar	MAY,2011
6	IDENTIFICATION AND STUDY OF LAND USE PATTERN IN JHARIA COAL FIELD REGION	MANAMOHAN ROUT	Dr.B.M.Kunar & Dr.P.P.Bahuguna	MAY,2010
7	DEVELOPMENT OF A GEOSPATIAL INFORMATION SYSTEM OF RESIDENTIAL AREA OF ISM CAMPUS DHANBAD	SATISH CHANDRA	Dr.B.M.Kunar & Dr.Dheeraj Kumar	MAY,2011
8	DEVELOPMENT OF GIS BASED SPATIAL INFORMATION SYSTEM OF ACADEMIC AND SERVICE AREA OF CAMPUS	RAJESH KUMAR SINGH	Dr.B.M.Kunar & Dr.M.Shashi	MAY,2011
9	IDENTIFICATION AND STUDY OF LAND USE PATTERN IN JHARIA COAL FIELD REGION	MANMOHAN ROUT	Dr.B.M.Kunar & Prof. P.P. Bahuguna	MAY,2011