

Research Publications (80)

International Journals (7)

1. G.S.P.Singh, U.K.Singh and **V.M.S.R.Murthy** (2010), Applications of numerical modeling for strata control in mines, *Geotechnical and Geological Engineering*, Springer, April.
2. C.Sawmliana, P.Pal Roy and **V.M.S.R.Murthy** (2003), Model tests and field experiments for fragmentation assessment during ring hole blasting in BG panels, *Fragblast*, Volume 7, Issue 4, December, pp 257 - 267.
3. **V.M.S.R.Murthy**, Kaushik Dey and Rajesh Raitani , (2003), Prediction of overbreak in underground tunnel blasting - A case study, *Journal of Canadian Tunnelling*, A journal of The Tunnelling Association of Canada, pp 109-115.
4. **V.M.S.R.Murthy**, Kaushik Dey, (2003), Predicting overbreak from blast vibration monitoring in lake tap tunnel - A success story, *Fragblast*, Issue 3, Volume 7, September.
5. **V.M.S.R.Murthy** and Santosh Kumar Ray (2002), Productivity optimization in weak sedimentary formations for improved coal production and roof stability - an approach, *Geotechnical and Geological Engineering*, 20: 273-290,2002.
6. A.K. Chakraborty, **V.M.S.R.Murthy** and J. L. Jethwa (1996), Innovative cautious blasting technique for excavation close to a running hydro-electric power house- a case study, *Geotechnical Engineering*, January, pp 57-63.
7. A.K. Chakraborty, **V.M.S.R.Murthy** and J. L. Jethwa (1995), Blasting problems in underground constructions through Deccan trap formation-Some experiences at Koyna hydro electric project-stage IV, *Tunneling and Underground Space Technology*, Vol. II, No.3, July-Sept., pp 311-324.

National Journals (17)

1. **V.M.S.R.Murthy** and Kaushik Dey (2009), Rock damage due to blasting and its control in underground drivages, *The Indian Mining & Engineering Journal*, Volume 48, Number 12, December, pp 34-40.
2. **V.M.S.R.Murthy** and Anshu Agarwal (2009), Continuous miner technology for mass production of coal - A global perspective, *Mining Engineer's Journal*, Vol.11, No.4, November, pp 21 - 29.
3. Kaushik Dey, and **V. M. S. R. Murthy** (2006), Development of a tunnel blast design software (ITBlade-1.0) - an aid for efficient blasting, *Journal of Mines, Metals & Fuels*, 2006.
4. **V.M.S.R.Murthy**, K.Dey and R.R.Chimankar(2006), Tunnel Blast Design using Artificial Neural Network - A Case Study, *Journal of Institution of Engineers(India)*, Vol. 86, February
5. C.Sawmliana, P.Pal Roy and **V.M.S.R.Murthy** (2005), Investigations into ringhole blasting and development of a design methodology for thick coal seam extraction in blasting gallery method, *Minetech*, Vol.26, No.4, pp 42-56
6. Sharad Kumar, Rajeev Ranjan, Abhineet Sharma and **V.M.S.R.Murthy** (2004), Performance analysis of bulk explosives in different geomining conditions, *IMEJ*, December, Vol.43, No.12.
7. P.Balamadeswaran and **V.M.S.R.Murthy** (2004), Some aspects of mine closure planning, *Journal of Institution of Public Health Engineers (JIPHE)*, Kolkata, March, pp 302-309.

8. **V.M.S.R.Murthy** and Kaushik Dey (2004), Development of predictive model for controlling blast-induced overbreak in tunnels, **Journal of Rock Mechanics and Tunneling Technology**, Volume 10, Number 1, January, pp 31-47.
9. **V.M.S.R.Murthy** and Kaushik Dey, (2001), Roof damage prediction in solid blasting - An approach, **Minetech**, Volume 22, No.5&6, September-December, pp 43-53.
10. Rakesh Kumar and **V.M.S.R.Murthy**, (2000), "Improving blast efficiency and reducing boulder generation in limestone mines, **Indian Mining and Engineering Journal**, Spl. Issue on Explosives and Blasting, October, pp 16-20.
11. **V.M.S.R.Murthy** (2000), "Dynamic load assessment in small scale blasting and design of a muffling system, **Journal of Rock Mechanics and Tunneling Technology**, Vol.6, No.1, May, pp.25-40.
12. **V.M.S.R.Murthy** (1999), "Road headers - A viable and safe underground coal mine development technology in longwall and bord and pillar mining. **Minetech Journal**, July-October, Vol.20.No.4 & 5, pp 3-24.
13. Santosh Kumar Ray and **V.M.S.R.Murthy** (1999), "Improving pull on coal mine development faces under fragile roof conditions" - A case study, **Minetech Journal**, March-April, Vol.20, No.2, pp.17-29.
14. **V.M.S.R.Murthy**, A.K.Chakraborty, J.L.Jethwa and Raja Sekhar (1998), "Higher pull for higher production in mechanized development faces - A success story, **Minetech Journal**, May-August, Vol.19, No.3 & 4, pp 27-35.
15. **V.M.S.R.Murthy**, (1997), Mechanized coal mining roadway development in India, **Minerals and Metals Review**, Focus on mining machinery and metallurgical equipment, Vol. XXIII, No.11, November, pp 57-62.
16. **V.M.S.R. Murthy**, A. K. Ghose and J. L. Jethwa (1997), Improving roadheader performance in Indian coal mines - A system development approach and field investigations, **Journal of Mines, Metals and Fuels**, Vol. XLV, No.3, March, pp 66-80.
17. **V. M. S. R. Murthy**, and A. K. Ghose, (1992), "Abrasivity of Indian Coals - An Assessment", **The Indian Mining & Engg. Journal**, Aug., Vol. 31, No.8, pp 21-31.

International Conferences (14)

1. **V.M.S.R.Murthy**, Dheeraj Kumar, Prasanna Jain and Ashis Kumar Dash (2009), Development of a cuttability index of surface miner for performance prediction in different geomining conditions, **International Symposium on Rock Mechanics and Geo-environment in Mining and Allied Industries (RGMA-09)**, 12-14 February, Org. by IT-BHU, Varanasi, pp.156-171.
2. **V.M.S.R.Murthy** and Anshu Agarwal (2009), Continuous miner technology for mass production of coal - A global perspective, International conference on advanced technology in exploration and exploitation of minerals, 14-16 February, Jodhpur, Org. by MEA of India, pp 169-177.
3. Kaushik Dey and **V.M.S.R.Murthy** (2008), Controlling overbreak through vibration monitoring, **34th Annual conference on Explosive and Blasting Technique**, January 27-30, pp 85-96, New Orleans, LA, USA.
4. Prasanna Jain, Pushpendra Meena and **V. M. S. R. Murthy**, (2007), Mass Production of Coal Using Continuous Surface Miner - An Eco-friendly Technology of Future, **1st International Conference on Managing The Social and Environmental Consequences of Coal mining In India**, November 19 - 21, pp 681 - 690, (New Delhi).

5. **V.M.S.R. Murthy**, D. Kumar and A. Agrawal. (2007), Ground vibration and air over pressure study during deep hole blasting for safeguarding chrome ore plant and dwellings - an Indian case study, **European Federation of Explosives Engineers, Vienna Conference Proceedings**, September, 2007, (UK).
6. R. Sundar Singh, V. M. S. R. Murthy, Gurdeep Singh and R. Natesan, (2006) Planning for Mine Closure - Insights and Strategies, **Proceedings of International Symposium, 2006 Environmental Issues of Mineral Industry**.
7. V.M.S.R. Murthy, Kaushik Dey, P.R. Mohanty (2004), Predicting tunnel overbreak from acceleration measurement - An Indian case study, **30th Annual conference on Explosive and Blasting Technique**, February 1 -4, **New Orleans, USA**.
8. V.M.S.R.Murthy, Kaushik Dey and Rajesh Raitani, (2002), Prediction of overbreak in underground tunnel blasting - A case study, **Proc. of 5th North American Symposium and the 17th Tunnelling Association of Canada Conference, NARMS-TAC 2002, Toronto, Ontario, Canada, 7-10 July**, pp 1499-1505.
9. V.Vinod Kumar and V.M.S.R.Murthy, (2001), Stability assessment and support design for Longwall gate road development in destressed zone, **Tenth International Symposium on Mine Planning and Equipment Selection**, 19-21, November, **New Delhi**.
10. V.M.S.R.Murthy and Santosh Prasad (2000), Controlled blasting, methodology and assessment of blast induced rock damage (BIRD) in a hard rock tunnel, **Intl. Conference on Tunneling Technology present and future trends**, Org.by I.E. (India), **Goa**, 28-30 September, pp 195-205.
11. V.M.S.R. Murthy, J. L. Jethwa and A. K. Ghose (1997), Planning for faster drivage rate with roadheaders in Indian Longwall mines: A field investigation, **Proc. Of the Sixth Intl. Symposium on Mine Planning and Equipment Selection, Ostrava, Czech Republic**, 3-6, September, pp 461-467.
12. A.K. Chakraborty, V.M.S.R. Murthy, J. C. Jhanwar and J. L. Jethwa (1997), "Underground blasting problems in deccan trap formations - Typical experiences at Koyna Hydro-electric project", Stage IV, **Tunneling Asia**, 20-24, January, **New Delhi**.
13. V.M.S.R. Murthy, A. K. Ghose and J. L. Jethwa (1995), "Performance Analysis of Road headers in Indian Coal Industry - A Quantitative Approach", **Int. Seminar on Rock Excavation Engineering - Present and Future Trends**", Org. by IE (India), **Panaji, GOA** September 25-27, 95, pp C-IV-1 to14.
14. V. M. S. R. Murthy, A. K. Chakraborty, J. L. Jethwa (1994), "Surface excavation close to a fully operational power house complex at Upper Kolab Project (India) - A case history", **IV South American Congress on Rock Mechanics, Santiago, Chile** from May 10-14.

National Conferences (42)

1. R. Sundar Singh, **V.M.S.R.Murthy**, G.Singh and P.Natesan (2008), Policy requirements for closure of (abandoned) mines, **National Seminar on Policies, Statutes & Legislation in Mines(POSTALE 2008)**, 20-21 December, Org. by CIMFR, Dhanbad, pp 127-130.
2. **V.M.S.R.Murthy** and Dheeraj Kumar (2008), Optimum blast fragmentation - An aid for enhancing crusher output in quarrying, **National Seminar on Crushing, Screening and Conveying(CS&C-2008)**, 11-12 September, Org. by ISM University, Dhanbad, pp 107-123.
3. A.K.Varma, Atanu Banerjee, V.K.Saxena and **V.M.S.R.Murthy** (2008), Geological and petrographic investigations of rider seams in Damoda Colliery-Implications for roof/side fall, **National Seminar on Environmental Issues on Geotechnics & Mineral Industry**, BIT, Sindri, April, **Dhanbad**, pp 216-220.

4. **V.M.S.R.Murthy**, B.Munshi and Kumar Ramnikant (2008), Predicting Roadheader Performance from Intact Rock and Rock Mass Properties - A Case Study, **National Seminar on Rock-Machine Interaction in Excavations**, March 07-08, 2008, CAS, Department of Mining Engineering, Institute of Technology, Banaras Hindu University, **Varanasi**.
5. **V.M.S.R.Murthy**, U. K. Singh and M. Jawed (2008), Design of Support System for Coal Mine Development Headings through Fragile and Water Bearing Roof A Case Study, **Proceedings on 19th National Convention of Mining Engineers & National Seminar on Disaster in Mines**, March 10 - 11, ISMU, **Dhanbad**, pp. 123 - 134.
6. P.Meena, Manish Kumar, Prasanna Jain and **V.M.S.R.Murthy** (2008), Performance analysis of surface miner in Indian coal mines- A case study, **Conference on Emerging Trends in Mining and Allied Industries**, NIT, Rourkela, February, pp57-65.
7. Kaushik Dey and **V.M.S.R.Murthy** (2008), Blast-induced rock damage in drivage excavation - A review of assessment and prediction methods, **Conference on Emerging Trends in Mining and Allied Industries**, NIT, Rourkela, February, pp57-65.
8. Subhrakanta Samal, Ashish Das, **V.M.S.R.Murthy** and P.R.Mohanty (2007), Ripping-An excavation technique of future promise, **National Seminar on Modern Trends in Geophysical Sciences and Techniques**, November, ISM University, **Dhanbad**, pp 232-236.
9. Kaushik Dey and **V.M.S.R.Murthy** (2007), Estimating Threshold Level of Peak Particle Velocity for overbreak - An Approach, **Indian Mining Congress on Emerging Trends in mineral Industry**, July 13 - 15, 2007 at **Udaipur**, pp. 177 - 186.
10. R.Sundar Singh, **V.M.S.R.Murthy**, Gurdeep Singh and R. Subramanian (2007), Mine Closure - Strategic approaches, **Golden Jubilee Seminar on Present Status of Mining and Future Prospects**, April 6 - 8 2007 at **Hyderabad**, pp 305 - 309.
11. C. Sawmliana, R. K. Singh, P. Pal Roy, **V.M.S.R.Murthy** and S. S. Prasad, Controlled Caving of Massive and Difficult Roof by Induced Blasting in Bord and Pillar Method of Underground Coal Mining A Case Study, **National Seminar on Underground Coal Mining**, Department of Mining Engg. ISMU (UCM-2006), **Dhanbad**, pp. 173 - 186.
12. Kaushik Dey and **V.M.S.R.Murthy** (2006), Predicting the ground vibration threshold levels for overbreak in underground metal mine development drivages, **Frontier Areas in Geological and Technological Aspects of Fossil Fuel and Mineral Resources (GTFM-2006)**, November 2 - 4, 2006. ISMU, **Dhanbad**, pp.271 - 278.
13. U.K.Deshmukh, **V.M.S.R.Murthy** (2006), Computer Aided Ultimate Pit Configuration Design for a Surface Limestone Mine - A Case study, **Proceedings of Indian Conference on Mine Surveying (ICMS-2006)**, September 8 - 9, 2006, ISMU, **Dhanbad**, pp.185 - 192.
14. R.Sundar Singh, **V.M.S.R.Murthy**, Gurdeep Singh and P.Natesan, (2006), Planning for mine closure - Insights and Strategies, **National seminar on Underground metal mining-status and prospects(UMMSP-2006)** during February 13-14, September, ISM, **Dhanbad**, 2006.
15. **V.M.S.R.Murthy** and Kaushik Dey (2006), Underground Mine Development via-a-vis blast-induced overbreak assessment - An Approach, **National Seminar on Underground Metal Mining: Status and Prospects (UMMSP-2006)**, February 13-14, ISM, **Dhanbad**, pp 125-134.
16. Sawmliana, C., Pal Roy, P. and **V.M.S.R.Murthy** (2006), Longhole blasting in underground metal mines - A review, **National Seminar on Underground Metal Mining: Status and Prospects(UMMSP-2006)**, February 13-14., ISM, **Dhanbad**,.
17. P.Balamadeswaran, **V.M.S.R.Murthy** and Sree Kumar(2005), Mine and Mill sizing - A challenge to the mining engineer, **National Seminar on Mineral Exploration, Mining and Mineral Beneficiation - A Road Map to Vision 2020**, May 20-21, **Chennai**.

18. R. Suresh and **V.M.S.R.Murthy**, (2005), Seismic Characterization of Coalmine Roof for Rock Load assessment, First Indian Mineral Congress, Showcasing Mineral Industry in 21st Century, February, ISM, **Dhanbad**.
19. R.Suresh and **V.M.S.R.Murthy** (2005), Seismic characterization of coal mine roof for rock load assessment, First Indian Mineral Congress, February, ISM, **Dhanbad**.
20. M.Murukute, A.K.Sinha and **V.M.S.R.Murthy** (2005), A review of rock mass classification systems for support design in Indian coal mine development roadways - A strategy for improvement, First Indian Mineral Congress, February, ISM, **Dhanbad**.
21. **V.M.S.R.Murthy**, P. Balamadeswaran and P. Sen (2003), Mine closure planning for surface mines - An approach, **National Seminar on strategies for mine closure**, 11-12 October, Organised by CMRI, **Dhanbad**.
22. **V.M.S.R.Murthy** (2003), Roadheaders and continuous miners - The two promising options for future coal production from underground mines, **National seminar on Indian Mining - Past, Present and Future**, 11 October, Organised by IE(India), **Nagpur**.
23. **V.M.S.R.Murthy** (2003), Tunnel overbreak assessment and control, **Seminar on Productivity and Speed in Tunnelling**, 26-27, June, **Dehradun**, Organised by CBIP, pp 180-193.
24. **V.M.S.R.Murthy**, Kaushik Dey, B.Munshi and Sunil Kumar(2003), Predicting blast-induced rock damage(BIRD) in burn cuts using acceleration measurements, **Second National Seminar on Rock Excavation Technique(ROCKEX2003)**, April 7-8, **Bhubaneshwar**, pp 13-19.
25. **V.M.S.R.Murthy** (2003), Closure Planning - A Global Perspective, **National Seminar on Status of Environmental Management in Mining Industry**, IT-BHU, **Varanasi**, 17-18, January, pp 315-326.
26. Kaushik Dey and **V.M.S.R.Murthy** (2001), Blast induced damage assessment for increased roadway stability in underground drivages, **National seminar on ventilation, safety and environment VSE 2001**, **Dhanbad**, M.L.Gupta et. al. (Eds.), 29-30, November, pp 387-399.
27. **V.M.S.R.Murthy** and B.Munshi (2001), Designing bench blasts in environmentally fragile and high altitude locations - A case study, **National Seminar on New Trends in Cost-Effective Iron Ore Mining**, 6-7, April, **Noamundi**, Organised by MEA.
28. Rakesh Kumar and **V.M.S.R.Murthy** (2001), "Cost optimization through improved fragmentation in limestone mines - A case study, Proc. Of **National Seminar on Rock fragmentation (ROCKFRAG-01)**, IT-BHU, **Varanasi**, February 14-15, pp 23-32.
29. V.Vinod Kumar and **V.M.S.R.Murthy** (2001), Longwall gate road development in distressed zone using road headers for extraction of thick seams - A case study, Proc.of **First National Seminar on Underground Mine Mechanization**, ISM, **Dhanbad**, 19-20 January, pp 50-57.
30. Apurna Kumar Ghosh and **V.M.S.R.Murthy** (2000), Higher pull in solid blasting - Problems and remedies, Proc. Of **National Seminar on Drilling and Blasting for the next millennium**, **Bhubaneshwar**, 17-18, January, pp 79-83.
31. **V.M.S.R.Murthy** (1999), Longwall gate road drivage with road headers - Some critical performance issues, Proc. Of **National Seminar on Mining Machinery; Present status and future development**, ISM, **Dhanbad**, 26-27, November, pp 100-106.
32. **V.M.S.R.Murthy** and B.K.Kejriwal (1999), Field investigations for improving productivity of SDL development faces with solid blasting, Proc. Of **Platinum Jubilee Symp. O Productivity Improvement in Mining Industry**, 29-30 January, IT-BHU, **Varanasi**, pp 130-141.

33. Apurna Kumar Ghosh and **V.M.S.R.Murthy** (1999), Design aspects of solid blasting in coal development headings - Some safety and productivity considerations, Proc. Of **National Seminar on Practices and Prospects of Mining Industry in Central India**, R.K.N.E.College, January 2, Nagpur, pp 63-76.
34. J.C. Jhanwar, A. K. Chakraborty, **V.M.S.R.Murthy**, G. S. Saini, and H. R. Anireddy and J. L. Jethwa (1996), Application of air decking in production blasting - a case study, **Drill & Blast Conf.**, Bhubaneshwar, Sept. 20 - 21.
35. A.K. Chakraborty, **V.M.S.R.Murthy**, J.C. Jhanwar, J. L. Jethwa (1995), A feasibility study on air-deck blasting, **8th National Convention of Mining Engineers**, Inst. Engrs (India), Udaipur, November 24-26, pp 68-74.
36. A.K. Chakraborty, **V.M.S.R.Murthy** and J. L.Jethwa (1995), "Blast Technique for Niche Construction in Underground Cavern - A case Study", **Conf. on Design and Construction of U/G Structures**, February 23-25, New Delhi, pp 409-417.
37. **V.M.S.R.Murthy**, J. L. Jethwa and A. K. Ghose (1995), "Priorities in Roadway Development with Road headers - A Systems Study and Evaluation", **Conf. on Design and Construction of U/G Structures**, 3-25, February, New Delhi, pp 419 - 428.
38. **V.M.S.R.Murthy**, A. K. Chakraborty, J. L. Jethwa and M. Bhaskara Rao (1994), "A Novel Concept to Control Fly Rock - A case Study", **International Conference on Environmental Issues in Minerals and Energy Industry**, New Delhi, October 24-26, pp 332-338.
39. **V.M.S.R.Murthy**, A. K. Chakraborty and J. L. Jethwa (1994), "Design of a Fool-proof Muffling System - An Approach", **Workshop on blasting in opencast mining**, HRD, WCL-CMRI, Nagpur, 28 February, pp 67-75.
40. **V.M.S.R.Murthy**, A. K. Chakraborty and J. L. Jethwa (1993), : Control of Throw and Fragmentation - A Case History", **National Symp. On Advances in Drilling and Blasting**", October 15 - 16, Kudremukh, Karnataka, pp 259 - 266.
41. **V.M.S.R.Murthy**, A. K. Chakraborty, R. P. Singh and J. L. Jethwa (1992), "Muffle Blasting at Upper Kolab Power House - A Case History", **Workshop on Blasting Technology for Civil Engineering Projects**", CSMRS, November 15-17, New Delhi, Vol. II, pp 133-144.
42. Ghose, A. K. and **V.M.S.R.Murthy** (1989), "Power Rating of Shearers - A Micro Computer Model", **First Indian Conference on Computer Applications in Mineral Industry**, MGMI, January 6 - 7, Calcutta, pp 41 - 62.