

## BRIEF BIO-DATA

**Name** : **Dr. KARRA RAM CHANDAR**  
**Sex** : Male  
**Date of Birth** : 5<sup>th</sup> December, 1976  
**Nationality** : Indian  
**Present Position** : Associate Professor & Former Head  
**Address** : Department of Mining Engineering  
National Institute of Technology Karnataka, Surathkal,  
(Govt. of India)  
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<http://kramchandar.tripod.com/>

Educational Qualification: B.E., M.Tech., Ph.D., MBA., PDF

Total Experience: 21 years +

No. of Publications: 94 (41 in Journals and 53 in conferences)

R&D Projects: 08

Industry Sponsored Consultancy Projects: 125

Ph.D Guidance: 04 completed and 7 on going

M.Tech Guidance: 20 (Civil Engineering Students)

M.Tech (By Research): 1 completed , two on going

No. of Awards: 07

No. of invited Lectures delivered in India and abroad: 50

No. of books published: 02

Countries Visited: USA, Australia, Japan, Malaysia, Singapore,  
Hongkong, UAE and Nepal

## FULL BIO-DATA

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**Sex** : Male  
**Date of Birth** : 5<sup>th</sup> December, 1976  
**Nationality** : Indian  
**Present position** : Associate Professor & Former Head  
**Address** Department of Mining Engineering  
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P.O. Srinivasnagar, MANGALORE- 575025  
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*Email:* krc\_karra@yahoo.com, krc@nitk.edu.in  
*Webpage:* <http://mining.nitk.ac.in/faculty/k-ram-chandar>  
<http://kramchandar.tripod.com/>

### **Academic Details:**

- Bachelor of Engineering in Mining Engineering, from University College of Engineering, Kakatiya University (**formerly known as Kothagudem School of Mines**), Kothagudem, Andhra Pradesh, India, First class with Distinction (1999)
- Master of Technology in Mining Engineering with specialization in Rock Mechanics from **Institute of Technology, Banaras Hindu University** (Formerly: IIT-BHU), India, First Class (2001).
- Ph.D. in Mining Engineering from **National Institute of Technology Karnataka, Surathkal** (2011), India.
- MBA in HR from IGNOU, New Delhi (2011).
- **Post Doctoral Fellowship from University of Illinois at Chicago, USA (2018-2019)**

### **Experience**

- 31st Aug-2000 to 23rd Dec. 2000, 09th Aug. 2001 to 07th Dec. 2000 & 15th Jan- 2002 to 11th May. 2002 (Total 3 semesters) Asst. Lecturer (Temporary), Department of Mining Engineering, Karnataka Regional Engineering College (KREC), Surathkal, India.
- 01st Aug-2002 to 31st July-2007- Lecturer, Department of Mining Engineering, National Institute of Technology Karnataka, Surathkal, India.
- 01st Aug-2007 to 19th Dec. 2011, Assistant Professor (Rs. 7, 000 AGP), Department of Mining Engineering, National Institute of Technology Karnataka, Surathkal, India.

- 20th Dec-2011 to 15<sup>th</sup> May 2018, Assistant Professor (Rs. 8, 000 AGP), Department of Mining Engineering, National Institute of Technology Karnataka, Surathkal, India.
- 16th May -2018 to till date, Associate Professor (Rs. 9, 500 AGP), Department of Mining Engineering, National Institute of Technology Karnataka, Surathkal, India.

#### Awards Received:

1. **“SRG IT Award- 2008-09”** from Mining Engineers Association of India (received in July-2010).
2. **“Outstanding Young Person Award”** from Junior Chamber International, Mangalore (2011).
3. **“ISTE- SGSITS” National Award** for the best research work done by Young Teachers of Engineering Colleges in India (2012).
4. **“IE-India Young Engineer Award”** from Institution of Engineers (India) 2012.
5. **“MEAI- Smt. Kiran Devi Singhal Memorial Award- 2014”** from Mining Engineers Association of India (received in July- 2015).
6. **“National Design Award- 2017 in Mining Engineering’** for Outstanding Contribution in the field of Engineering Design by National Design Research Forum (NDRF) of Institution of Engineers.
7. **“Engineering Gold Medal-2018’** from MGMI for outstanding contribution in earth science (awarded on 8<sup>th</sup> Nov. 2019)

#### Recognitions:

1. Selected by *Department of Science & Technology, Govt. of India* for **“Interactive Meet of Indian Research Scholars with European and Indian Science Icons”**. Attended the meet on February, 8, 2007 at New Delhi and had an opportunity to interact with European Noble Prize winners and also the then President of India Dr. **A.P.J. Abdul Kalam**.
2. **“Certificate of Appreciation”** from MentorNet, the *E-Mentoring Network for Diversity in Engineering and Sciences, USA (2008)*.
3. **Member, Editorial Board, Goematerial**, an International Journal published by Scientific Research Publishing, USA (2012-2013).

4. **Member, Editorial Board**, Frontiers in Geotechnical Engineering- An International Journal.
5. **Reviewer**, International Journal of Environmental Monitoring and Analysis. Science Publishing Group, USA.
6. **Member, Editorial Board**, International Journal of Earth Sciences & Engineering.
7. **Member** of Project Review and Supervisory Group of the Project- Development of e-content for Slope Engineering to IIT-BHU (Appointed by MHRD, Govt. of India).
8. **Member**, Auditing Committee, Keleth Energies Limited - Vishwasnagar, Karnataka (2012).
9. **Member**, Technical Committee under **KTPP** (Karnataka Transparency in Public Procurement) Act, 1999 under Sec-4(b), Mysore Minerals Limited (A Government of Karnataka Undertaking) - 2014.
10. **Consulting Editor**, The Indian Mining & Engineering Journal, form Jan-2016.
11. **Chief Editor**, International Journal of Mining and Geosciences.
12. **Member-** Editorial Board- Mining Engineers Journal.
13. **Co-Opted Member** - Mining Engineers Association of India (2021-2023)

### **Subjects Teaching / Taught:**

#### **For B.Tech (Mining Engineering) students**

- Mine Surveying
- Drilling & Blasting Engineering
- Rock Mechanics
- Ground Control Engineering
- Mine Systems Engineering (Operations Research)
- Mineral Processing
- Rock Mechanics Laboratory
- Mineral Processing Laboratory

#### **For M.Tech (Geotechnical Engineering) students of Civil Engineering Department**

- Rock Mechanics

#### **For M.Tech (Construction Technology & Management) students of Civil Engineering Department**

- Rock Mechanics
- Organizational Behaviour

**Ph. D Guidance:**

Sl. No	Roll No.	Name of the Student	Area of Research	Co-Guide	Status
1	MN13P01	P. Ravi Kiran	Influence Of Enhanced Production and Pit Dimensions of Opencast Coal Mines on Particulate Emissions	-	On going
2	MN13F01	K.V. Nagesha	Prediction of Dust Dispersion From Drilling Operation in Surface Mines	Prof.V.R. Sastry	Completed in Oct-2016
3	MN14F03	Kumar Dorthi	Wireless Sensor Networks Based Monitoring of Slope Stability Over Old Underground Coal Workings	-	Completed In May 2019
4	MN15F03	Gayana B.C	Utilization of Iron Ore Waste and Tailings in Concrete Pavement	-	Completed in Oct-2020
5	MN16P01	Shubhananda Rao P	Development of Thermal Efficient-Non Fired Bricks Using IOT and Perlite	-	Completed in March 2021
6	177MN501	Naveen G C	Study on Prediction of Crack Initiation and Propagation in Structures Due to Blast Induced Ground Vibrations Using Digital Image Processing	Prof.V.R. Sastry	On going
7	MN18P01	Santosh Pawar	Rock Blasting	Prof.V.R. Sastry	On going
8	197MN002	P. Harish	Effect of Old Underground Coal Mine Workings on Stability of Over Burden Dumps		On going
9	197MN003	Sahas	Prediction of Rock Properties Using Grinding Characteristics of Ball Mill		On going
10	207MN502	M. Sathish Kumar	Advanced Slope Monitoring System to Develop Trigger Action Response Plan (TARP) in Opencast Coal Mines using Internet of Things (IoT)'		On going
11	207MN500	K. Sandeep Reddy	Slope Stability		On going

**M.Tech(Research) Guidance:**

Sl. No	Roll No.	Name of the Student	Area of Research	Co-Guide	Status
1	183RT001	M. Sasi Kiran	Influence of Delay Timing on Blast performance	Prof.V.R. Sastry	Completed in Feb 2021
2	213RT001	Harivarsh Kotian	Rock Blasting	Prof.V.R. Sastry	Ongoing

3	213RT500	Mr. Anand Ganpatrao Sangode	Role of in-situ Rockmass Block Size on Blast Fragmentation in Limestone Mines	Dr. A.K. Raina	Ongoing
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### **M.Tech Projects Guided:**

Sl. No	Roll No.	Name of the Student	Title of the Project	Remarks
1	07GT09F	Soujanya. S	Effect of Underground Openings on Stability of Slopes	Additional Guide
2	08CM06F	Jyothi M.P	Behavior of Marine Structures Subjected to Vibrations due to Under Water Blasting	Additional Guide
3	09EN15F	S.R. Rashmi	Study of Impact of Rock Blasting Operations on Surrounding Structures – A Case Study	Additional Guide
4	09EN12F	Outhay Singdala	Dust Dispersion Modelling for Opencast Coal Mine: A Case Study of Manuguru Mining Area, SCCL	Additional Guide
5	10GT05F	B. Gowtham Kumar	Assessment of Highwall Stability during Highwall Mining	Sole Guide
6	11GT09F	Chennabasamma	Influence of Structural Discontinuities on Stability of Multiple Caverns- A Numerical Modelling Approach	Main Guide
7	12EN04F	G. Vikas Chaitanya	A Study to Enhance The Fertile Characteristics Of Mine Overburden	Sole Guide
8	13CM10F	Manjunath. B	Experimental Investigations on the Use of Laterite Waste as Partial Replacement for Fine Aggregates in GGBS Blended Concrete	Sole Guide
9	13CM23F	Vanakuri Sainath	Utilization of Coal Mining Overburden Waste as Construction Material	Sole Guide
10	14CM21F	Sharath S	Experimental Investigations on Performance of Concrete Incorporating Precious Slag Balls (Ps Balls) as Fine Aggregates	Sole Guide
11	15CM07F	Chaitanya V Sastri	Mechanical properties of Concrete Incorporating Precious Slag Balls and Sintered Fly Ash Aggregates	Sole Guide
12	15CMT09F	Ragini Nikumbh	Stress Analysis of Slopes Adjacent to Multiple Openings: A Numerical Modelling Approach	Sole Guide
13	15GT09F	Ragini Krishna Nikumbh	Stress analysis of slopes adjacent to multiple openings: A numerical modelling approach	Sole Guide
	16GT	Ravi Kumar	Stress Analysis of Slope Adjacent to Tunnel Under Different geological Conditions	Sole Guide
14	172GT013	Suganthi T	Influence of rock properties on the	Additional

			stability of large caverns	Guide
15	172GT006	K M Amrutha	Assessment of blast performance	Additional Guide
16	172CM017	Francis P Mathew	Utilization of iron ore tailings(IOT) and alccofine in concrete	Sole Guide
17	172CM034	Prince	Development of geo polymer bricks using iron ore tailings and suitable additives	Sole Guide
18	17GT002	Ansu Maria Joji	Utilization of Iron Ore Tailings stabilized by repolymerisation as subgrade	Sole Guide
19	192EN021	P G Joshna	Environmental effects of abandoned mines	Sole Guide
20	192GT022	Rahul	Assessment of Stability of Slopes in Coal Mines	Sole Guide

**B. Tech Projects Guided:** 65 Projects (130 students in last 20 years)

**Research Projects Handled:**

1. Co- coordinator in the Staff Research Project “ Impact of Non-Conventional Initiation Systems on Environmental Effects of Blasting”, sponsored by KREC, Surathkal, Rs. 0.10Lakh, (2002).
2. Co-coordinator in the Research Project on “Influence of NONELs on Rock Fragmentation in Bench Blasting”, Sponsored by IDL, Industries, Hyderabad, Rs. 1.0 Lakh, (2002-2003).
3. Co-Coordinator: Modernization of Rock Blasting Laboratory, sponsored by The Ministry of HRD, Rs. 20.0 Lakhs, (2004-2006).
4. Co-Coordinator in R&D Project on “Assessment of Blast Performance Based on Explosive Energy Distribution”, sponsored by Coal India Limited, Rs. 123.4 Lakhs (2010-2013).
5. Co-Coordinator in R&D Project on “Modelling of Airborne Dust in Opencast Coal Mines”, sponsored by Coal India Limited, Rs. 77.04 Lakhs (2011-2014).
6. Coordinator –R&D Project on ‘Development of Crushing & Grinding Characteristic Curves using Insmart Crushers and Mills for Different Rocks’, sponsored by M/S. Insmart Systems-Hyderabad, Rs. 4.31 Lakhs (2015-2016).
7. Principal Investigator - R&D Project on “Impact of Work Conditions and Personal Attributes on Performance of Coal Miners: An Empirical Investigation”, Sponsored by NITK-Surathkal under TEQIP-II, Rs. 3.00Lakhs (2016-2017).
8. Principal Investigator - R&D Project on “Definition of delay sequencing in blast designs using advance analytical techniques for optimization of blast fragmentation and improving mine economics in non-coal mines”, Ministry of Mines – Govt of India, Rs. 42lakhs9 Jointly with CIMFR-Nagpur & Anna University).

## **Consultancy Projects Handled as PI:**

1. Monitoring of blasting operations of railway tunnel at Kulshekara, Mangalore, Southern Railway, Mangalore (2019).
2. Assessment of intensity of ground vibrations from blasting operations in Quarry (Survey No. 172, Lease no. DKD/66 (1) Pane Mangalore Village, Bantwal Taluk, DK Dist, Jyothi Prakash Shetty (2019).
3. Assessment of Intensity of Blasting Operations in Stone Quarry- Lease No. Dkd-344, Survey No. 26/1a3p1 in Kabaka Village, Puttur Taluk, DK-Dist, Karnataka, (2019).
4. Scientific study for stability analysis of benches of Vyasanakere Iron Ore Mine of M/S. MSPL Limited, Hospet, (2019).
5. Stability analysis of benches of Iyli Gurunath Iron Ore Mine of M/S. RMML Limited, Hospet, (2019).
6. Determination of Compressive Strength of Iron Ore Samples, Vedanta Limited, Chitradurga, (2019).
7. Assessment of Impact of Blasting Operations in Bharathi Limestone Mine on Surrounding Structures, Bharathi Cements, Kadapa, AP, (2019).
8. Scientific study for OB dump stability and pit slope stability at Kistaram OCP, Kothagudem Area, SCCL, (2019).
9. Scientific study for the stability of structures falling within 45m (upto 3m) of proposed working of inland Mining at Manavalakurichi Limestone Mine, IREL Limited Co-PI- Dr. Harsha Vardhan, (2019).
10. Scientific study for slope stability, OB dumps and highwalls at KTK OC III of BHPL Area, SCCL, (2019).
11. Scientific study for design of ultimate pit slope, OB dump slope and monitoring of stability of pit and dump at KTK OC-II project, Bhupalpalli Area, SCCL, (2019).
12. Scientific study for stability of highwalls at (in-crop) south side quarry for the proposed quarry top edge excavation shifting of around 67m out by to liquidate the locked up coal reserves beneath the existing in-crop benches of MOCP- RG I Area, SCCL, (2019).
13. Scientific study for slope stability highwall benches and dump yards at Indaram OC, SRP Area, SCCL, (2019).
14. Scientific study for blast vibrations and air over pressure within 500m of surface



- structures not belonging to SCCL at Indaram OC, SRP Area, SCCL, (2019).
15. Determination Of Physico Mechanical Properties And Elemental Analysis of Granite Samples Trinity Ventures, Bangalore, (2019).
  16. Assessment of ground vibrations generated due to excavation activity at JC Road, Bangalore, TJN Construction Pvt Ltd- Bangalore, (2019).
  17. Assessment of ground vibrations generated due to Blasting in Palakkal Quarry in Kozhikode District of Kerala, (2019).
  18. Assessment of ground vibrations generated due to Blasting in U T Raveendran Quarry' in Kozhikode District of Kerala, (2019).
  19. Assessment of ground vibrations generated due to Blasting in the Quarry of Kenneth Industries, Malappuram District of Kerala, (2019).
  20. Assessment of ground vibrations generated due to Blasting in Kalinakod granite quarry, Malappuram District of Kerala, (2020).
  21. Scientific study for blast vibrations and air over pressure within 500m of surface structures not belonging to SCCL at KTK OC-III, Bhupalpalli Area, SCCL, (2020).
  22. Scientific Study of Slopes and Dumps Stability of JVR OC Project, Kothagudem Area”, The Singareni Collieries Company Limited, Telangana State (2020), (2020).
  23. Scientific Study on ground vibrations while working the proposed Venkatapur OC Project, Bhupalpalli Area, SCCL near Ramappa Temple for obtaining NOC from Archaeological Survey of India and DGMS permission, SCCL, (2020).
  24. Scientific study for Design the method of Working, Ultimate pit Slope, Dump Slopes Including Monitoring of Final Highwall benches, OB Dumps Slopes of RGOC-V OCP, Ramagundam area, SCCL, (2020).
  25. Scientific Study for designing the method of working, ultimate pit slope, dump slope and monitoring of Slope stability for the life of the mine at RG OC-III, RG-II Area, SCCL, (2020).
  26. Scientific study for OB Dumps and Highwalls at VKOC of Kothagudem area, SCCL, (2020).
  27. Assessment of ground vibrations generated due to Blasting in Nalakath granite quarry, Malappuram District of Kerala, (2020).
  28. Scientific study for stability analysis of benches of RIOM of M/S. VESCO Limited, Sandur, Karnataka, (2020).
  29. Determination of Physico mechanical properties of granite samples, M/S. Zinc,

- Mangalore, (2020).
30. Scientific study for OB Dump stability and pit slope stability at SRP OCP- II, SCCL, (2020).
  31. Scientific Study for designing controlled blasting to protect ‘Goripeta vagu bund and KPUG underground mine workings and structures’ due to induced vibrations and air over pressure with blasting at PKOC (PKOC-II Section), SCCL, (2020).
  32. Assessment of intensity of ground vibrations generated due to blasting operations in stone quarry in Kavalapadooru village, Bantwal taluk, DK-Dist, (2020).
  33. Assessment of ground vibrations generated due to Blasting in the granite quarry of Sanidhya Crusher, Nellingeri, Andinje- Village, Belthangady -taluk, DK- Dist. Karnataka, (2021).
  34. Assessment of intensity of ground vibrations generated due to blasting operations in stone quarry of Sri. Saji Jose in Koodathal village, Kozhikode District, Kerala, (2021).
  35. Assessment of intensity of ground vibrations generated due to blasting operations in stone quarry of M/S. Padmambika Granites in Kavalamuduru Village, Bantwal taluk, DK- Dist, Karnataka, (2021).
  36. Assessment of Intensity of Ground Vibrations due to Quarry Blasting in the quarry of PMR Granites India Private Limited, Melmuri, Malappuram-Dist, Kerala, (2021).
  37. Assessment of Intensity of Ground Vibrations due to Quarry Blasting in M/S. Star Quarries Dompalthadka, Kinni Nagar, Kasargod- Dist, Kerala, (2021).
  38. Assessment of Intensity of Ground Vibrations during Controlled Blasting in Deepening of Well Shri Sadashiva Mahaganapathi Temple, Surathkal, DK- Dist, Karnataka, (2021).
  39. Assessment of Intensity of Ground Vibrations due to Blasting Operations in Quarry of M/S. St. George Granites, Kalathukadavu, Erttupette, Kottayam-Dist, Kerala, (2021).
  40. Assessment of Stability Analysis of Slopes in Quarry of M/S. St. George Granites, Kalathukadavu, Erttupette, Kottayam-Dist, Kerala, (2021).
  41. Assessment of Intensity of Ground Vibrations due to Blasting Operations in Quarry of M/s. Sera Granites India Private Limited, Kannur-Dist, Kerala, (2021).
  42. Scientific study for OB dump stability and pit slope stability at PK OC Project, Manuguru Area, SCCL, (2021).
  43. Scientific study for OB Dumps (including Slopes and Highwalls) at Khairagura OCP of Bellampalli area, SCCL, (2021).
  44. Design of method of working, ultimate pit slope, dump slopes including monitoring of highwall benches, OB dumps and slopes for ensuing stability for the life of the mine at RKPOCP, Mandamarri Area, SCCL, (2021).
  45. Assessment of ground vibrations generated due to Blasting in the granite quarry of Sanidhya Crusher, Nellingeri, Andinje- Village, Belthangady -taluk, DK- Dist. Dy. Director- Dept. of

- Mines & Geology- Govt. of Karnataka, (2021).
46. Assessment of Intensity of Ground Vibrations due to Blasting Operations in Quarry of M/s. Pynadath Granites Private Limited, Thrissur-Dist, Kerala, (2021).
  47. Assessment of Intensity of Ground Vibrations due to Blasting Operations in Quarry of M/s. Vismay Rock Private Limited, Kollam-Dist, Kerala, (2021).
  48. Assessment of Intensity of Ground Vibrations due to Blasting Operations in Quarry of M/s. Thumson Sands Private Limited, Kottayam-Dist, Kerala, (2021).
  49. Assessment of Intensity of Ground Vibrations due to Blasting Operations in Quarry of M/s. Mubarak Granites Private Limited, Malappuram-Dist, Kerala, (2021).
  50. Assessment of Intensity of Ground Vibrations due to Blasting Operations in Quarry of M/s. Malabar Bricks & Metals Private Limited, Malappuram-Dist, Kerala, (2021).
  51. Scientific Study for Controlled Blasting in Tummalpenta Limestone Mine to apply for permission for blasting upto 100/50m from 132KV Power Line, M/s. Ultratech Cements Private Limited, Ananthapur, AP, (2021).
  52. Assessment of Intensity of Ground Vibrations due to Blasting Operations in Quarry of M/s. Alakode Granites, Kannur- Dist, Kerala, (2021).
  53. Assessment of Stability Analysis of Slopes in Quarry of M/S. Alakode Granites, Kannur- Dist, Kerala, (2021).
  54. Design of method of working, ultimate pit slope, dump slopes including monitoring of highwall benches, OB dumps and slopes of Naini coal mine, SCCL, Odisha, (2021).
  55. Determination of physico-mechanical Properties of granite Samples. M/s. Aastraa Resources Pvt. Limited. Goa, (2021).
  56. Scientific Study for Controlled Blasting in Kallur Limestone Mine (Block-B) to apply for permission for blasting upto 200m from 132KV Power Line & Road, M/s. Chettinad Cement Corporation Limited, Gulbarga, Karnataka, (2021).
  57. Scientific Study for Controlled Blasting in Kallur Limestone Mine (Block-A) to protect the structures of surrounding village, M/s. Chettinad Cement Corporation Limited, Gulbarga, Karnataka, (2021).
  58. Scientific Study Slope stability analysis of Kallur Limestone Mine, M/s. Chettinad Cement Corporation Limited, Gulbarga, Karnataka, (2021).
  59. Assessment of Intensity of Ground Vibrations due to Blasting Operations in M/s. Bismi Granites, Ernakulam Dist, Kerala, (2021).
  60. Design of Blasting Operations in the Quarry of Mr. Najeeb Hassan to Protect Water Tank & Assessment of Environmental Effects of Blasting, Palakkad Dist, Kerala, (2022).
  61. Assessment of Intensity of Ground Vibrations due to Blasting Operations in M/s. PPK Crushers &

- Granites Limited, Palakkad Dist, Kerala, (2022).
62. Scientific Study for Slope & Dump Stability as per Reg. No 106(2) of CMR -2017 for Utkal-‘D’ Coal Mine of M/s. NALCO - Odisha, M/s. Utkal Coal Mining India Private Limited (2022).
  63. Collection, Preparation and Determination of Rock Properties of Utkal Mine-D, M/s. Mythri Infrastructure and Mining India Private Limited (2022).
  64. Scientific Study on Slope Stability Analysis of Highwall Benches & OB Dumps at Proposed JK Coal Mine, Yellandu Area- SCCL (2022).
  65. Scientific Study for Controlled Blasting in Guruvanipalli Limestone Mine Limestone Mine to apply for permission for blasting upto 100m from 132KV Power Line, M/s. Ultratech Cements Private Limited, Ananthapur, AP, (2022).
  66. Slope Stability Study of Proposed Rough Stone Quarry of M/s. SRC Projects Private Limited, Tiruvannamalai Dist, Tamil Nādu, (2022).
  67. Study for Controlled Blasting (large dia) in Rough Stone Quarry of M/s. SRC Projects Private Limited, Salem, Dist- Tamil Nadu, (2022).
  68. Assessment of Intensity of Ground Vibrations Generated Due to Tunnel Blasting on Surrounding Structures, Hindustan Petroleum Corporation Limited- Mangalore (2022).
  69. Assessment of Impact of Ground Vibrations Generated Due to Quarry Blasting on Surrounding Structures, M/s. St.Martin Granites, Idukki District, Kerala.
  70. Assessment of Impact of Ground Vibrations Generated Due Quarry Blasting on Surrounding Structures. M/s. Maliackal Metal Crusher, Kottayam, Kerala (2022).

#### **Consultancy Projects Handled as Co-PI:**

71. Design of Controlled Blasting for Hydel Power House at Toe of Almatti Dam”, Sponsored by Karnataka Power Corporation Limited, Karnataka (2002).
72. “Rippability Assessment of Limestone” Dalmia Cements Limited, Tamilnadu (2003).
73. “Influence of Blasting Operations on Flora and Fauna”, Kudremukh Iron Ore Company Limited., Kudremukh, Karnataka.(2003).
74. “Design of Controlled Blasting Operations for Jackwell pit Excavation”, Karnataka Urban Infrastructure Development & Finance Corporation, Udupi, Karnataka (2004).
75. “Study of Effect of Blasting Operations in Kalawar Quarry on MRPL Structures”, Mangalore, Karnataka (2005).
76. “Study of Effect of Blasting Operations in Santhur Quarries on Surrounding Human Habitats”, Belman, Mangalore (2005).
77. “Assessment of Intensity of Ground Vibrations due to Blasting Operations in Method Limestone mines”, Madras Cements limited, Karnataka (2005).

78. "Protection of Bund due to Blasting Operations around PK OC- III, Manuguru" M/S. SCCL, Kothagudem, Andhra Pradesh (2006).
79. "Assessment of Intensity of Ground Vibrations at Madaram Dolomite Mine" Visakapatnam Steel Plant Limited, Andhra Pradesh (2006).
80. "Assessment of Influence of Blasting Operations of Granite Quarry on Surrounding Structures / Human Habitats" M/S. POABS, Tiruvella, Kerala (2006).
81. "Blast Design for a Newly Proposed Mine Site Adjacent to COC, Manuguru" M/S. SCCL, Kothagudem, Andhra Pradesh (2006).
82. "Study of Effect of Ground Vibration Produced in Panyam Cements Limestone Mine on Nearby Temple and Railway Track vis – a vis Suggesting a Safe Blast Design", Panyam Cements Limited, Andhra Pradesh (2007).
83. "Assessment of SMS/SME System of Explosives in OB Benches of JVR OC, Sattupalli", M/S. Singareni Collieries Company Limited, Kothagudem, Andhra Pradesh (2007).
84. "Performance Evaluation of SME Bulk System of Explosives w.r.t. Fragmentation and Environmental Effects, JK OC Project, Yellandu, Singareni Collieries Company Limited, Andhra Pradesh (2007).
85. "Assessment of the Performance of Site Mixed Emulsion (SME) Explosives in SRP OC-1 Project, Srirampur, Singareni Collieries Company Limited, Andhra Pradesh (2007).
86. "Suitability of Site Mixed Emulsion explosives in BPA OC-I Project, Singareni Collieries Company Limited, Andhra Pradesh (2007).
87. "Assessment of Influence of Blasting Operations of Granite Quarry on Surrounding Structures / Human Habitats" M/S. Shivgiri Associates, Vaddarahalli, Dist: Mandya, Karnataka (2008).
88. "Investigation into the Effect of Ground Vibrations Generated Due to Blasting Operations Carried Out In Stone Quarry" M/S V.V.S. R. Chowdary Crusher, Hospet, Karnataka (2008).
89. "Investigation into the Effect of Ground Vibrations Generated Due to Blasting Operations Carried Out in Stone Quarry", Nagesh S.Naval Gatti Quarry, Belgaum, Karnataka (2008).
90. "Investigation into the Effect of Ground Vibrations Generated Due to Blasting Operations Carried Out in Stone Quarry", M/S. S.T Kodachawad Quarry, Belgaum, Karnataka (2008).
91. "Investigation into the Effect of Ground Vibrations Generated Due to Blasting Operations Carried Out in Stone Quarry", M/S. Prashant Stone Crushing Industries, Belgaum, Karnataka (2008).

92. "Investigation into the Effect of Ground Vibrations Generated Due to Blasting Operations Carried Out in Jaggayyapeta Limestone Mine", M/S. Visakhapatnam Steel Plant Limited, Andhra Pradesh (2008).
93. "Slope Stability Analysis of Dhramapuri and Ramanmalai Iron Ore mines- A Numerical model Approach", Veerabhadrapa & Seenappa & Co., Sandur, Karnataka (2009).
94. "Techno-Economic Evaluation of the Conversion of Byrapura Underground Chromite Mine into a Surface Mine", Mysore Minerals Limited, Govt. of Karnataka (2009).
95. "Slope Stability Analysis of SMIOR Mines," MS. SMOIR, Sandur, Karnataka (2009).
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42. Gayana, B.C., Sharath, S., and **Ram Chandar, K.**, 2017. Mechanical and Durability Properties of Concrete with Precious Slag Balls as Replacement for Fine Aggregates, Proc. 6<sup>th</sup> Int. Engineering Symposium-IES 2017, Kumamoto University, Japan, March 1-3, 2017, C1-5.
43. Ragini, N., and **Ram Chandar, K.**, 2017. Analysis of Stresses Around a Tunnel Opening, Proc. 6<sup>th</sup> Int. Engineering Symposium-IES 2017, Kumamoto University, Japan, March 1-3, 2017, C2-3.
44. Gayana, B.C., and **Ram Chandar, K.**, 2018. A Study on Suitability of Iron Ore Overburden Waste Rock for Partial Replacement of Coarse Aggregates in Concrete Pavements". 14th International Conference on Concrete Engineering and Technology (CONCET 2018). Kuala Lumpur, Malaysia, August 7-10, 2018.
45. Gayana, B.C., Shashanka, M., Avinash Rao., and **Ram Chandar, K.**, 2019. An Experiment Investigation on Physical and Mechanical Properties of High Strength Concrete with Suitable Admixture". ICBMC-2019: 4<sup>th</sup> International Conference on Building Materials and Construction, National University of Singapore, February 25-28, 2019. (**Best Presentation Award**)



46. Gayana, B.C., Shashanka, M., Avinash, N, Rao., and **Ram Chandar, K.**, 2019. Physico-Mechanical Properties of Concrete with Industrial Waste - A Case Study”. ICSECT-2019: 4<sup>th</sup> International Conference on Structural Engineering and Concrete Technology, Italy, Rome. April 7<sup>th</sup> – 9<sup>th</sup>, 2019.
47. Gayana. B.C., **Ram Chandar, K.**, and Krishna, R, Reddy., 2019. Influence of laterite and sandstone on the mechanical properties of concrete. EGRWSE-2019: Second International Conference on Environmental Geotechnology, Recycled Waste Materials and Sustainable Engineering, UIC, Chicago, June 16-20, 2019. (**Scopus**).
48. Shubhananda Rao P., Gayana B. C., and **Ram Chandar K.**, 2020, “Sustainable Use of Iron Ore Tailings as a Construction Material” *International Conference on Advances in Material Science*. (**Scopus, SCIE**). (published in special issue of Journal of Advances in Material Science)
49. Shubhananda Rao P. and **Ram Chandar K.**, 2020. “Development of Green Building Materials Utilizing Mine Waste and Perlite” *Global Conference on Advanced Smart and Sustainable Technologies in Engineering MITE, Moodabidri (GCASTE 2020), 29-30 Jan-2020*.
50. **Ram Chandar, K.**, and Madhusudhana, K., 2022. Slope Stability Analysis of An Iron Ore Mine, Proc. Of National Mining Conclave-2022, held at IISc- Bangalored, 12-13 Aug. 2022.
51. **Ram Chandar, K.**, Umesh, M,S, and Gyaneswar, K., 2022. Protection of Structures from Blasting Operations of A Limestone Mine Vis- A Vis Assessment of Blast Performance. Proc. Of National Mining Conclave-2022, held at IISc- Bangalore, 12-13 Aug. 2022.

### **Books Published**

1. Influence of Initiation System on Blast performance; Lambert Publishers- Germany
2. Mine Waste Utilization: Taylor & Fancies- USA/UK

### **Book Chapter**

1. Gayana B C, **Ram Chandar K** and Krishna R Reddy (2020). “Influence of laterite and sandstone on the mechanical properties of concrete”. Sustainable Environment and Infrastructure, Part of Lecture notes in Civil Engineering- Springer, 90. pp. 117-128. (**Scopus**).
2. Naveen, G.C. and **Ram Chandar K.**, 2021. Assessment of Structural Damage Due to Blasting in Hydro Power Tunnel. Proceedings of Geotechnical Challenges in Mining, Tunneling and Underground Infrastructures: ICGMTU, 20-21, December 2021. 229-240,

DOI: 10.1007/978-981-16-9770-8\_13 (Published by Springer: Scopus), Part of Lecture notes in Civil Engineering Book- Springer,

3. Ravi Kiran P and **Ram Chandar K.**, 2021. Impact of Enhanced Production from Opencast Coal Mines on Ambient Particulate Emissions. Proceedings of Geotechnical Challenges in Mining, Tunneling and Underground Infrastructures: ICGMTU, 20-21 December 2021, 551–561 (Published by Springer: Scopus), Part of Lecture notes in Civil Engineering Book- Springer.

### General Articles:

1. “Crack IIT-JEE nut with vigour, zeal”, Vijaya Times News Paper, 08<sup>th</sup> April. 2006 (Co-author: B. Neelima).
2. “Catch hold of your dreams with AIEEE” Vijaya Times News Paper, 26<sup>th</sup> April. 2006 (Co-author: B. Neelima).
3. “Education System in USA” International Journal of Engineering Students, Oct- 2008, 32-33.

### Membership in Professional Bodies

1. Life Member, Mining Engineers Association of India (No: 2188).
2. Life Member, Indian Society for Rock Mechanics & Tunnelling Technology.
3. Life Member, Indian Society for Technical Education (No: LM 54763).
4. Life Member, The Institution of Engineers (India) (No: M-141459-8).
5. Fellow, The Institution of Engineers (India) (No: F-125404-5/MN).
6. Life Member, The Indian Mining & Engineering Journal Readers Forum (No: 567).
7. Life Member, The Mining, Geological & Metallurgical Institute of India (No:9429-LM, 2008-09).
8. Life Member, International Society for Rock Mechanics.
9. Life Member, International Association of Engineers (No. 104124).
10. Life Member, Society for Geoscientists and Allied Technologists.
11. Life Member, Society of Mining Engineers, USA

### Lectures Delivered:

1. “Initiating Devices and Different Blasthole Charging Patterns” at a workshop on recent trends in blasting organized by Quarry owners association of Dakshina Kannada and Udupi Districts, Karnataka, 12<sup>th</sup> Sept, 2002.
2. “Recent Trends in Explosives and Initiation Devices” at Karnataka Engineering Staff

- College, Mysore for The Executive Engineers, Asst. Engineers of PWD and Irrigation Depts. of Govt. of Karnataka, 20<sup>th</sup> Sept, 2003.
3. “Recent Trends in Assessment of Blast Performance” for the Executives of M/S. The Singareni Collieries Company Limited, at Yellandu, Andhra Pradesh, on 20<sup>th</sup> April. 2007.
  4. “Role of Initiation System on Blast Performance” for the Executives of M/S. The Singareni Collieries Company Limited, at Bellam Palli, Andhra Pradesh, on 10<sup>th</sup> May. 2007.
  5. “Evaluation of Coal Washability: Washability Curves” for the AICTE-MHRD, STTP workshop on “Clean Coal Technology”, on 25<sup>th</sup> Jan. 2009 at NITK, Surathkal, Karnataka.
  6. “Design & Stability Analysis of Slopes” for the AICTE-MHRD, STTP workshop on “Recent Trends in Rock Excavation Technology” on 20<sup>th</sup> July. 2009 at NITK, Surathkal, Karnataka.
  7. “Introduction to Analytical Modelling Softwares in Mining” for the Participants of Engineer-2010, a National Level Technical Festival of National Institute of Technology Karnataka, Surathkal.
  8. “New Trends in Assessment of Blast Performance” for the Executives of The Singareni Collieries Company Limited, on 08<sup>th</sup> Dec. 2012 at MVTC, RG-II, Ramagundam, AP.
  9. “Analysis of Effect of Delay Timing on Blast Performance using High Speed Video Recordings” for the Executives of The Singareni Collieries Company Limited, on 23<sup>rd</sup> March. 2013 at Goleti, Bellam Palli, AP.
  10. “Controlled Blasting in Sensitive Areas: Case Studies of Mining & Civil Engineering Projects in India” for the Faculty, Research Scholars and Graduate Students of Division of Civil Engineering, on 12<sup>th</sup> July, 2013 at **Monash University, Clayton, Australia**.
  11. “Basics of Explosives, Initiating Devices and Patterns in Surface Mines”, for the Participants of TEQIP-II Sponsored National Workshop on ‘Recent Developments in Rock Mechanics & Ground Control’ 2<sup>nd</sup> Oct. 2013 at NITK, Surathkal.
  12. Delivered lectures for the II year B.Tech (Mining Engineering) students of **Dr. B R Ambedkar National Institute of Technology- Jalandhar** during 26-28 Sept & 3-5 Nov. 2014.
  13. ‘Rock Blasting in Civil Engineering Projects’ for the Students & Faculty members of Civil Engineering Department of **Monash University- Malaysia** on 13<sup>th</sup> May. 2015.
  14. “Rock Blasting in Construction Projects” for the Members of **Institution of Engineers (Malaysia)** on 19<sup>th</sup> May. 2015.
  15. “Role of Rock properties on Stability of Slopes” Faculty Development Program on Slope and Dump Stability in Open Pit Mines, Organised by Mallareddy Engineering College,

Hyderabad on 03<sup>rd</sup> Aug. 2020.

16. "Slope Stability Monitoring using Wireless Sensor Networks" Faculty Development Program on Slope and Dump Stability in Open Pit Mines, Organised by Mallareddy Engineering College, Hyderabad on 06<sup>th</sup> Aug. 2020.
17. "Slope Stability Monitoring using Wireless Sensor Networks" for the Executives of NLC India Limited, on 17<sup>th</sup> Dec. 2020.
18. "Stability of Openpit Slopes Over Old Underground Workings" during the workshop on 'Slope Stability and Stabilization Methods in Openpit Mines' Organised by NITK, Surathkal, on 9<sup>th</sup> Feb. 2021.
19. "Selection of Explosives, Initiation Systems and Patterns in Surface Mine" during the workshop on 'Design and Optimization of Blasting in Opencast Mines' Organised by Engineering Staff College of India- Hyderabad, on 29<sup>th</sup> June. 2021.
20. "Slope Stability Monitoring using Wireless Sensor Networks" during the workshop on 'Application of IoT and Smart Sensors in Mining' Organised by Engineering Staff College of India- Hyderabad, on 16<sup>th</sup> July. 2021.
21. "Utilization of Mine Waste in Infra Projects" Workshop on -Optimization of resources in opencast projects' Organised by Engineering Staff College of India- Hyderabad, on 9<sup>th</sup> Feb. 2022.
22. "Field and Laboratory Investigations for Slope Stability Assessment" Faculty Development Program on Rock Mechanics Applications in Mining and Allied Industries, Organised by Dr. T. Thimmaiah Institute of Technology, Kolar Gold Fields, Karnataka, on 23<sup>rd</sup> March. 2022.
23. "Slope Stability Monitoring using Wireless Sensor Networks" Faculty Development Program on Rock mechanics Applications in Mining and Allied Industries, Organised by Dr. T. Thimmaiah Institute of Technology, Kolar Gold Fields, Karnataka, on 25<sup>th</sup> March. 2022.
24. "Controlled Blasting in Quarries and Infra Projects", 3-days Mining Managers Development Program, May 23-25, 2022 at L&T Leadership Development Academy (LDA), Lonavala on 23<sup>rd</sup> May. 2022.
25. Importance of Slope Stability Analysis for Optimum Extraction of Mineral Deposits- 1<sup>st</sup> Lecture of MEAI Monthly lecture series, 16<sup>th</sup> July. 2022 (online mode).

**Short Term Courses / Training Programmes attended:**

1. *Advanced and Latest Trends in Engineering Geology and Geo-technology*, at NITK, Surathkal sponsored by AICTE-ISTE, 31-12-2002 to 12-01-2003.

2. *Self-Development Through Neuro Linguistic Programme*, at NITK, Surathkal, 23-24<sup>th</sup> Aug. 2003.
3. *Applications of FEM in Engineering Problems*, at NITK, Surathkal sponsored by AICTE-ISTE, 06-18<sup>th</sup> Dec. 2004.
4. *MATLAB Applications in Engineering Problems*, at Bangalore by Xillinx, on 8<sup>th</sup> June. 2005.
5. *Executive Development Programme for Mining Engineers and Mining Geologists*, at MEAI, Hyderabad, 10-11<sup>th</sup> Sept. 2005.
6. *Short Term Course on Mine Management*, at Indian Institute of Technology, Kharagpur, 25-28<sup>th</sup> July, 2006.
7. *Signal, Image and Speech Processing*, at NITK, Surathkal, AICTE/MHRD Short Term Training Programme, from 8 - 13<sup>th</sup> Sept. 2008.
8. *IUCEE Workshop on Effective Teaching*, at Infosys, Mysore, 29<sup>th</sup> June- 1<sup>st</sup> July, 2009.

#### **Contribution to Department / Institute:**

1. Member Editorial Board of U.S. Mallya Centenary Celebrations, at NITK, Surathkal (2002).
2. Member, Web Committee, NITK, Surathkal (2004- 2012).
3. **Associate NCC Officer**, NITK, Surathkal (2004-2005 & 2007-2008).
4. Secretary, Dept. Post Graduate Program Committee, NITK, Surathkal (2003-2006 & 2007-2013).
5. Convenor, Society of Mining Engineers, NITK, Surathkal (2004-2006).
6. Faculty Advisor, Photography Club, NITK, Surathkal (2006-2007).
7. **Chief Editor**, Mining Magazine, NITK, Surathkal (2006-2007).
8. **Warden**, NITK- Hostels (July-2010- Aug- 2014).
9. Secretary / Member, Department Under Graduate Program Committee, NITK, Surathkal (2003- 2018).
10. Secretary, Department Post Graduate Program Committee, NITK, Surathkal (2003-2011)
11. Secretary, Department Research Program Committee (2017-2018).
12. Faculty Incharge, Rock Mechanics Laboratory.
13. Faculty Incharge, Mineral Processing Laboratory.
14. Faculty Incharge- Students Practical Training.
15. Member, Organizing Committee of NITK Convocation

16. Member, Organizing Committee of **Engineer**- National level Tech Fest of NITK- Surathkal.
17. Member, Organizing Committee of Incident- National level Cultural Fest of NITK- Surathkal.
18. Developed Rock Mechanics Laboratory manual.
19. Developed Mineral Processing Laboratory manual.
20. Instrumental in establishing state of the art Mineral Processing Laboratory under Plan Fund (**Rs. 1.6 Cr equipment was purchased from M/S. Insmart Systems- Hyderabad with 40% concession**).
21. **Member**, Purchase Committees of various equipment.
22. **Head**- Dept of Mining Engineering, NITK-Surathkal, March-2019 to April-2022.

### **Other Information:**

1. Presented a research paper in 42<sup>nd</sup> *American Rock Mechanics Association Conference in San Francisco on 02<sup>nd</sup> July- 2008*.
2. Visited *South Dakota School of Mines, Rapidcity, USA* and *Southern Illinois University, Carbondale, USA in July- 2008* under TEQIP sponsored Faculty Development Programme.
3. Treasurer, for National Seminar on Energy in Mineral Sector for Sustainable Development Vision- 2020, Organized by Department of Mining Engineering, NITK-Surathkal, on 4-5<sup>th</sup> Oct. 2008.
4. Co-Chairman for a Technical Session for National Seminar on Energy in Mineral Sector for Sustainable Development Vision- 2020, Organized by Department of Mining Engineering, NITK-Surathkal, on 4-5<sup>th</sup> Oct. 2008.
5. Co-Chairman Technical Committee for the International workshop on ‘Winning Strategies to Revitalize the Mineral/ Coal Sector (WSRMS-2009), Organized by Department of Mining Engineering, NITK-Surathkal, on 8-9<sup>th</sup> Aug. 2009.
6. Member, Organizing Committee, 24<sup>th</sup> Indian Engineering Congress (Dec- 2009).
7. Member, Organizing Committee, 39<sup>th</sup> ISTE Annual Convention (Dec- 2009).
8. **Joint Convener**, International Symposium on Environment, Health and Safety in Mining and Mineral Based Sectors, held at NITK, Surathkal on 21-22 Aug. 2010.
9. Co-Chairman for a Technical Session for the International Symposium on Environment, Health and Safety in Mining and Mineral Based Sectors, held at NITK, Surathkal on 21-22 Aug. 2010.

- 10.* Presented a research paper at the International Conference of Mining Engineering organized by WASET on 27 Jan. 2011 in Dubai.
- 11. Co-Convenor*, National Seminar on Explosives & Blasting Techniques for Mining, Quarrying and Infrastructure Industry, held at NITK, Surathkal on 18-19 Feb. 2011.
- 12.* Visited **Monash University- Clayton, Australia** for research interaction from 19<sup>th</sup> May to 4<sup>th</sup> June- 2013.
- 13. Convenor*, National Seminar on Explosives & Blasting Techniques for Mining, Quarrying and Infrastructure Industry, held at NITK, Surathkal on 27-28 Sept. 2013.
- 14.* Visited **University of Arizona, Tucson- USA** for research interaction from 21<sup>st</sup> May to 6<sup>th</sup> June- 2014.
- 15. Member*, Advisory Committee – National Seminar on ‘Recent Trends on Mechanized Mining’ held during 27-28 Dec- 2014 by Dept. of Mining Engineering, Univ. College of Engineering (KU), Kothagudem.
- 16.* Visited **Monash University- Malaysia** for research interaction from 8<sup>th</sup> May to 20<sup>th</sup> May- 2015.
- 17.* Visited the Department of Earth Sciences, The University of Hong Kong, during 8<sup>th</sup> to 15<sup>th</sup> June-2016 for research interaction.
- 18.* Member, International Advisory Committee, 3<sup>rd</sup> International Conference on Earth Science and Engineering (ICEE 2016), 17-18 June-2016, held at Nehru Institute of Technology, Coimbatore, India.
- 19.* Co-Chairman, Technical Session-1, ISRM Sponsored Int. Conf., on Recent Advances in Rock Engineering, NIRM-Bangalore, 16 Nov-2016.
- 20.* Coordinator, One Week National E- Workshop on ‘Slope Stability and Stabilization Methods in Open Pit Mines’ 8-12 Feb. 2021, sponsored by TEQIP-III, NITK -Surathkal.