

## Curriculum Vitae

### Personal Details:

Name : **Dr. Bhanwar Singh Choudhary**  
Present Address: Professor,  
Department of Mining Engineering,  
Indian Institute of Technology (Indian School of Mines), **Dhanbad**  
Jharkhand, India, PIN: 826004,  
Tele: +91-326-2235735 (O), +91-9471191374 (M)  
Fax: +91-326-2296563  
E-mail: bhanwarschoudhary@iitism.ac.in

### Academic Performance Details:

Examination Passed	University/ Board	Year	Subjects/Discipline	% of Marks/CGPA	Div.
Ph.D.	IIT(B.H.U.), Varanasi	2011	Rock Blasting, Mining Engineering		
PGDIM	IGNOU, New Delhi	2011	Management	60	1 <sup>st</sup>
M.Tech	IT-B.H.U. Varanasi	2001	Mine Planning	8.45	1 <sup>st</sup>
B.E	J.N.V. University, Jodhpur	1998	Mining Engineering	66.3	1 <sup>st</sup>
XII	R.B.S.E., Ajmer	1993	Physics, Chemistry, Maths	78.5*	1 <sup>st</sup>
X	R.B.S.E., Ajmer	1991	Science, Hindi, English	81.5**	1 <sup>st</sup>

\***45<sup>th</sup> Rank** in Rajasthan Board Senior Secondary Exam-1993 (Science Faculty),

\*\***49<sup>th</sup> Rank** in Rajasthan Board Secondary Exam-1991

### Professional Experience:

Organisation	Designation	From	To	Total Period	Nature of Experience
<b>IIT(ISM), Dhanbad</b>	<b>Professor</b>	<b>12-07-24</b>	<b>Cont.</b>		Teaching, Research and Consultancy
IIT(ISM), Dhanbad	Associate Professor	06-06-19	11-7-24	5years 01month	
IIT(ISM), Dhanbad	Assistant Professor	05-05-10	05-06-19	9years 01month	
India Resources Ltd, Surda Project	Assistant Manager (U/G Metal Mines)	18-07-07	03-05-10	2 years and 10 months	Mine Planning, Ventilation, Operation and Backfilling
IT BHU- Varanasi	Research Fellow (JRF/SRF)	01-09-04	17-07-07	2 years and 10months	Research
United Group, Beawar	Mining Engineer	01-01-01	31-12-03	3 years	Mining operations

### Research Interests & Contributions:

Mine planning, Underground metal mining, Surface mining, Drilling and Blasting technology, Tunneling and Underground Space Technology

## Summary of Skills and Experience:

### A. Teaching Experience/Courses Taught

#### Under Graduate Level:

- Drilling and blasting, Mine development, Underground metal mining, Mine planning, Rock Mechanics practical

#### Post graduate Level:

- Blasting Technology in rock excavation, Computer aided mine planning, Tunnel engineering

### B. Mining Field Skills

- Blast design for surface and underground mine for improved blast results.
- Use of blast design and analysis software such JKsim, Fragalyst, WIPfrag, Blastware etc.
- 2<sup>nd</sup> Class Manager's Certificate of Competency (Unrestricted) from DGMS Dhanbad.
- Working with SURPAC Software and Total Station in survey, making DTM, getting volume and plotting the plan and section.
- Underground metal mine Planning (Monthly production plan, Planning for new Stopes and Development work,), Backfilling & Production.
- Analysis and resolution of operational problems in Underground Mines.
- Supervision and ensuring of safety and environment compliance in Underground mine.

## Academic Reports

Ph.D	Assessment of Fragmentation In Limestone Quarry Blasts
M.Tech.	Evaluation of Explosive Performance In an Opencast Mine – A case study
B.E.	Environmental Management Plan of Small Limestone Mines around Gotan Area

## Research Supervision

	Number completed	Number in progress
a. Guidance at doctoral level	14	3
b. Guidance at masters level	40	2
c. Guidance at undergraduate level	50	

## Research Publications :Please refer to Annexure I for details

a. Publications in journals (international& National)	82
b. Publications in international and National proceedings of seminars /conferences/symposia/workshop	44

## Research & Consultancy Projects:

- Development of environmental blasting technology, multi-layer blasting techniques and development of low density emulsion explosive.
- Designing of controlled blasting parameters for deep hole blasting.
- Development of rock characterization and simulation facilities for dimension stone cutting using diamond wire saw technology
- Blasting and tunneling technologies.
- Underground and Surface Mine Planning.

**Membership In Professional Societies:**

Mining Engineers Association of India (MEAI)  
Mining Geological and Metallurgical Institute of India (MGMI)  
Indian Mine Managers Association (IMMA)  
International Society of Explosive Engineers (ISEE)  
Institution of Engineers India  
Tunneling Association of India (TAI)

**Visits Abroad:**

- **Visited the Philippines** to conduct field studies in regard to Ph.D. work, for improved blasting performance in a limestone quarry.

**Other Information:**

- MoU with O-PITBLAST, Lda., company, Portugal for 05 years from April 2019
- Hostel warden: from 2013 to 2017.
- Secretary, Research Task Force, IIT(ISM) from 2013 to 2017.
- Coordinator and faculty advisor M.Tech. (TUST) Programme, Department of Mining Engg
- 2nd Class Manager's Certificate of Competency (Unrestricted) from Director General of Mines Safety, Dhanbad
- Co-coordinator and treasurer for organizing the seminar UMMSP-2011 during 13-15 Oct., 2011 at Puri, Orissa.
- Co-coordinator for organizing the seminar NSSM-2014 during 10-11 January, 2014, at ISM, Dhanbad
- Faculty in-charge for organizing the Local Excursions and Singhbhum metal mining Excursion from 2010 to 2013.
- In-charge CAMPAD Laboratory and Rock fragmentation and simulation laboratory
- Faculty advisor for III sem session-2011-12, session-2012-13
- Member Convocation invitation Committee: 2012 to still
- Departmental Coordinator Tech-Fest: 2012, 2015
- Treasurer Tech-Fest: 2014
- Treasurer Basant: 2015
- Books/Book Chapters

S.No.	Author/Co-authors	Year of Publication	Title of Book(s)/ Book Chapters	Details of Publisher
1	Editor (U.K. Singh, VMSR Murthy & B.S. Choudhary)	2011	Underground Metal Mining	Power print, Dhanbad, ISBN 978-81-8465-863-7
2	Editor (P. Sen & B.S. Choudhary )	2014	Surface Mining	Power print, Dhanbad, ISBN 978-93-5156-186-6

**Declaration:**

I do hereby admit that all the information mentioned above is true and best of my knowledge.

Place: Dhanbad (01/02/2025)

[Dr. B.S. Choudhary]

**Thesis (PhD. Degrees) Supervision**

- Completed**

Sl. No.	Name of Scholar	Year of submission & Responsibility	Title of the Thesis
1	<b>Rajesh Arora (2014DR1144)</b>	2017, Guide	Investigations into the Role of Front Row Burden, Stemming Column and Row Delay Timing on Blast Performance in Surface Mines
2	<b>Sanjeev Kr. Sinha (2014 DR 1113)</b>	2018, Guide	Planning Strategies for Enhancing Mine Life vis-à-vis NPV for an Heterogeneous Iron Ore Deposit
3	<b>Mr. Sandeep Prasad (2013DR0250)</b>	2018, Co-Guide	A Study to Investigate the Influence of In-Situ Block Size and Blast Design Parameters on Blast Performance in Surface Mines
4	<b>Mr. Akhil Avchar (2016 DR 1054)</b>	2019, Guide	An Investigation into the Influence of Laterite Rock Properties on The Performance of Rippers in Geo-Mining Conditions of Goa
5	<b>Mr. K K. Rao (2014DR1175)</b>	2020, Guide	Assessment into the design of burn Cut Pattern and stability of drives for Faster Development in Underground Hard Rock Mine
6	<b>Mr. Manbodh Kr Das ((2013DR0208)</b>	2022, Co-Guide	Finite element simulations of surface mine cutting tools and wear prediction
7	<b>Mr. Shanker Kumar (16DR000283)</b>	2022, Co-Guide	Investigations into the effect of Low-density emulsion explosive On blast performance
8	<b>Mr. Abhisek Sharma (16DP000123)</b>	2022, Co-Guide	Influence of blasting on performance of excavators in Indian stone quarries
9	<b>Mr. Manas Kumar Mallick (16DR1048)</b>	2022, Guide	An ore clustering strategy vis-a-vis decisive site algorithm for long term production scheduling of limestone mine
10	<b>Mr. Mukul Sharma (17DP000289)</b>	2023, Guide	Effect of explosive quantity, row delay timing and stemming materials on blast results in opencast coal mines and predicting the same using artificial intelligence techniques
11	<b>Mr. N. Sri Chandrahas (17DP000264)</b>	2023, Guide	Evaluation of rock fragmentation and ground vibration with geo-blast design parameters in surface mines using modern face mapping tools and artificial intelligence techniques
12	<b>Mr. Anurag Agarwal (17DR000541)</b>	2023, Guide	Assessment of seismic energy and blast-induced ground vibration attenuation through sedimentary formations during bench blasting and their control using blast design interventions
13	<b>Mr. Romil Mishra (17DR000448)</b>	2024, Co-Guide	Optimization of surface mine blast designs using predictive modelling approach based on analysis of dynamic response of rockmass
14	<b>Mr. Naresh Kumar Katariya (2016DR1080)</b>	2024, Guide	Harmonizing Iron Ore Mining with Ecology: An Investigation of Air Quality, Slope Stability and Restoration for Sustainable Mining

- **Ongoing**

S.No.	Name of Research scholar	Title of Research	Role	Date of joining
<b>Regular, JRF/SRF</b>				
1	Mr. M Manohar (19DR0093)	An Investigation in to the Performance of Synthetic Lightweight Aggregates as Backfilling Material using Hydraulic Stowing Method	Guide	2019
2	Mr. Rajeev Verma (22DR0185)	Development of blasting methodology for virgin rock mass	Guide	2022
3	Mr. Gellela (22DR0276)	Optimal design of surface mine bench parameters--	Guide	2022

### **Thesis (M.Tech. Degrees) Supervision**

S.No.	Name	Year	Title of Thesis
1	Amit Kumar Raut	2011	Influence of drilling and firing pattern on blast pull in tunneling
2	Pramod Kumar	2012	Performance analysis of road header in soft rock drivages
3	Pawan Kumar	2012	Assessment of effect of fragmentation on excavator cycle time
4	Indrajit Patidar	2012	Computer aided coal-seam modeling and design of a mine
5	Asheervad V Jena	2013	Influence of joint direction and firing pattern on fragmentation
6	SomNath Saha	2013	Assessment of rock bolting system for roadheader development face
7	Mithun Kumar	2013	Assessment of effect of relief hole size and delay sequencing on blast pull in burn cut pattern
8	Prasun Roy Chaudhuri	2013	A study on progress of TBM in various soil conditions with references to Kolkata metro
9	Syed Hali Manzoor	2014	Techno-economic analysis of electric and no-electric detonator in tunnel blast
10	Avishrant Mishra	2014	A study to assess the effect of some blast design parameters on fragmentation
11	Vivek Kumar Tiwari	2014	Influence of joint spacing and joint direction on rock fragmentation
12	Vishal BabuGiri	2015	Effect of powder factor and inter row delay on fragmentation
13	Asfer Mobin Khan	2015	Performance analysis of road header in soft rock driveage
14	Uttarwar Sanket P	2015	Volume calculation and 3D modelling of underground inaccessible voids using -CALS
15	Neel Gupta	2015	A study to analyses the behavior of wave propagation during blasting at surface mines, underground mines and underwater
16	Ashutosh Tiwari	2015	Optimization of blast design parameters
17	Sandeep Kumar	2015	Performance analysis of drill machine in surface mines
18	Tonmoy Ghosh	2016	Effect of blast fragmentation and muckpile angle on excavator performance in surface mines
19	Shankar Kumar	2016	A study to investigate the effect of blast design parameters on blast induced ground vibration

20	P. Laxmi Chandra	2016	Evaluation of LHD performance in Underground coal mines
21	Anurag Agarwal	2017	The effect of back rows delay timing and size of blast on fragmentation and muckpile shaper parameters
22	N. Sri Chandrahas	2017	Identification of most influencing blast design parameters on muckpile, mean fragmentation size by principle component analysis
23	Deepak Kumar Sharma	2017	An investigation into the effect of rock properties on bit wear of Roadheader
24	Karan Bhatia	2017	Artificial Intelligence modelling to predict ground vibrations
25	Suraj Rajak	2017	Effect of powder factor and inter row delay timing on fragmentation
26	Ujjwal Kumar	2018	To study the effect of nonelectric and electronic initiation system on fragmentation and muckpile shape parameters
27	Abhiram Kumar	2018	A study to investigate the effect of in-situ block size on rock fragmentation
28	Vinoy Tandon	2018	A study on applicability of highwall mining in Indian coal deposits
29	Udai Raj Meena	2018	Evaluation of technical parameters for faster drive development in underground mines
30	Varun Jauhri	2018	A study on blast design simulations for improved blast results
31	Ujjawal Kumar Garg	2018	Effects of powder factor and inter-row delay timing on fragmentation in surface coal mines
32	Karn Singh	2019	Investigation into the drill bit wear rate for drilling holes in tunnel face blast
33	Jai Jain	2020	Blast design parameter's effect on ground vibration in surface excavation and simulation
34	Mudit Jain	2020	Investigation into the effect of Stemming Length and Bench Height on Ground Vibration
35	Manash Das	2020	Investigation into the Effect of Burden and Spacing on Ground Vibration
36	Ankit Srivastava	2021	Blast induced ground vibration analysis in surface mine due to multi hole blasting
37	Bhukya Naveen Kumar	2021	Effects of blast design parameters on Ground vibration in tunnel face
38	Anshul Choudhary	2021	Investigations into the effect of line drilling & solid decking on back break
39	Mayank Thakur	2022	Wear rate prediction of button bit drill using geotechnical rock properties
40	M. Ajay Kumar	2022	Simulation on effect of blast induced ground vibrations for overburden dump stability
41	Kundan Rai	2023	Investigating roadheader performance in medium hard rock
42	Devanshu Verma	2023	Effect of blast design parameters on pull in tunnel face
43	Mandeep Singh Gill	2023	3D Modelling and Reserve estimation of a copper deposit
44	Iddi R. Bulushi	2024	Evaluation of dynamic responses of twin tunnel under blasting load

## **R& D, EDP and Industry sponsored projects**

### • **R&D Projects**

Start	Sponsoring Organisation	Title of Project	Amount of Grant	Remarks
2023	Coal S&T	Development of Synthetic Lightweight Aggregates as Backfilling Material Using Hydraulic Stowing Method	37 lakhs	PI
2019	BCCL & NALCO	Scientific study regarding blast induced ground vibration at Coal and Bauxite mine	11.34 Lakhs	PI
2019	BCCL	Scientific study regarding blast induced ground vibration at Coal mine	10.89 Lakhs	PI
2017	MOM	Development of Environment Friendly Blasting Techniques	29.04 lakhs	PI
2016	Coal S&T	Multiple layer trial blasting for better recovery with less diluted coal	4.32 Crore	Co-PI
2014	MOM	Development of low density explosives for energy efficient blasting in environmentally sensitive areas	29.32 Lakhs	Co-PI
2013	ISM	Optimization of stemming column of a blast hole in surface mines to reduce the collar generated boulders	7.3 lakhs	PI
2012	DST	FIST Project	256 Lakhs	member
2008-10	DST, GOI & MAE, Italy	Indo-Italian Executive Programme of S&T Co-operation on rock characterization and simulation for dimension stone cutting by diamond wire saw with special reference to marble	4.0 Lakhs	Associated as member

### • **Industry Sponsored Professional Development Programs**

S. No.	Period	Sponsoring Agency & Amount	Title of the program	Remarks
1.	Sept, 2024	NHPC, 9L	Introduction of the Latest Tunneling Technique	CI
2.	Feb, 2024	BRO, GOI, 6L	Field demonstration for controlled blasting and off campus training	CI
3.	Jan, 2024	BRO, GOI, 9L	Controlled Blasting Management and Safety for Road Construction in Himalayan Territory	CI
4.	August 21-25, 2023	NHPC, 14,5L	Modern Techniques for Hydro construction projects	CI
5.	Feb 10-14, 2020	NHPC, 10L	Drilling & blasting techniques for surface & underground excavations	CI
6.	Nov 19-30, 2019	BRO, 17L	Controlled Blasting Management and Safety for Road Construction in Himalayan Territory	Co-CI
7.	Aug 19-31, 2019	TATA STEEL, 25L	Management and advances in Underground and surface mining technology	CI
8.	Jan 28-Feb 02, 2019	BRO, site Tezpur, 7L	Field demonstration for controlled blasting and off campus training	Co-CI
9.	Jan, 7- Jan 19, 2019	BRO, 17L	Controlled Blasting Management and Safety for Road Construction in Himalayan Territory	Co-CI
10.	Nov. 26-Dec8, 2018	BRO, 17L	Controlled Blasting Management and Safety for Road Construction in Himalayan Territory	Co-CI

11.	July 09 – 11, 2018	SAIL, MTI, 1.5L	Advance Drilling & Blasting Techniques for Opencast Mines	CI
12.	May 15-19, 2018	NMDC Ltd, 12 lakhs	Advanced surface mining practices for iron ore mines	Co-CI
13.	Dec. 4-16, 2017	BRO, 12L	Controlled Blasting Management and Safety for Road Construction in Himalayan Territory	Co-CI
14.	Nov. 2-5, 2017	Infosys Bangalore, 8L	Surface and Underground Metal Mining – Some Advanced Aspects	Co-CI
15.	Sept. 25-30, 2017	NHPC, 8L	Drilling & blasting techniques For surface & underground excavations	Co-CI
16.	Aug.17-19, 2017	SAIL, MTI, 2.7L	Blasting techniques for reduction of fines in iron ore mines	Co-CI
17.	July 2-8, 2017	BRO, site Joshimath, 5L	Field demonstration for controlled blasting and off campus training	Co-CI
18.	Jan. 11-13, 2017	NHPC, 5L	Drilling & blasting techniques For surface & underground excavations	Co-CI
19.	Jan. 9-21, 2017	BRO, 12L	Controlled Blasting Management and Safety for Road Construction in Himalayan Territory	Co-CI
20.	Jan.23-Feb 03, 2017	SECL, 19L	Best Blasting Practices for Improved Safety and Productivity in Coal Mines	Co-CI
21.	Dec. 5-16, 2016	BRO, 12L	Controlled Blasting Management and Safety for Road Construction in Himalayan Territory	Co-CI
22.	Sept 13-24, 2016	BRO, 12L	Controlled Blasting Management and Safety for Road Construction in Himalayan Territory	Co-CI
23.	Sept. 18-Oct.9, 2015	BRO, 12L	Controlled Blasting Management for Road Construction in Mountainous Area	Co-CI
24.	Sept. 21-Oct.9, 2015	SECL, 19L	Advances in drilling, blasting and mechanical excavation techniques for improved safety and productivity in coal mines	Co-CI
25.	Dec.8-10, 2014	NHPC, 4L	Drilling & blasting technologies	Co-CI
26.	June 27-28, 2013	MTI, SAIL, Ranchi	2-days Learning Each Other Workshop (LEO) workshop on Reduction of fine generation in Iron ore Mines	Co-CI
27.	Jan. 18-31, 2013	DRDO, 12L	2-Weeks executive development program for Executives of DRDO on Rock Engineering For Tunnelling	Co-CI
28.	Jan.14-17, 2013	NHPC Ltd., 3.5L	4-days executive development program for Executives of NHPC Ltd on Drilling and Blasting Technology	Co-CI
29.	Jan. 9-13, 2012	NHPC Ltd.	5-days executive development program for Executives of NHPC Ltd on Blasting & Tunnelling Technologies	Co-CI
30.	Sept., 26-28, 2011	IBP division, IOCL, 3.5L	3-days executive development program for IBP division, IOCL, on Best blasting practices for improved productivity in open cut & U/G mines	Co-CI
31.	Sept, 01-03, 2011	NHPC Ltd., 3.5L	Executive development program for Executives of NHPC Ltd on Applied Drilling Technology	Co-CI

• **Industry Sponsored consultancy projects**

S. No.	Period	Organisation and Amount	Title of the project	Remarks
1.	2025	M/S SAIL, 17L	Scientific study for Reduction in Lump Recovery at Bolani Mines,	CI



2.	2025	ITD Cem India Ltd, 54L	Monitoring of Controlled blasting methodology during rock dredging in the inner harbor channel near ORI, ORII, ORIII and fertilizer berths	CI
3.	2025	M/S Resurgent Mining Pvt. Limited, 6.5L	Scientific Study for controlled deep hole blasting and assessment of blast induced ground vibrations as per regulation 196(3) of CMR-2017 for Narayankuri Highwall Mining Project	CI
4.	2024	M/S Prism Johnson Limited	Scientific Study for controlled deep hole blasting to establish optimum blast design parameters, maximum charge per delay and safe blasting practice in and around at PCL Limestone Mines, Satna of	CI
5.	2024	MP Birla	A Scientific Study on the Assessment of Impact of Mine Blasting Operations on Environmental Pollution and Important Structures of Chittorgarh Fort for Suggesting Suitable Remedial Measures	Co-CI
6.	2024	S.P Mines Area M/S ECL	Scientific study in designing deep hole controlled blasting as per regulation-194 and 196 (3) of the CMR-2017 for chitra mines	CI
7.	2024	Kedla Opencast Project (KOC), Hazaribagh Area M/S CCL	Scientific Study as per the regulation 196 (2), (3) and (4) of CMR-2017 for controlled deep hole blasting	CI
8.	2024	Bokaro Colliery, B&K Area, M/S CCL	Scientific Study for designing of deep hole controlled blast pattern using SMS/SME explosive as per the regulation 196 (3) of CMR-2017	CI
9.		M/S Gainwell Commosales Pvt Ltd	Designing blasting pattern and study the effect of blast vibration during shaft sinking at Parasea-Belbaid Colliery, Kunustoria Area, ECL of	CI
10.	2023	M/S Prism Johnson Limited, 11.80	Scientific study for optimization of blast design parameters for PCL Limestone Mines SATNA, Madhya Pradesh	CI
11.	2023	M/s Himalaya Construction Company Pvt. Ltd., 17.62	Scientific study for blast design to control blast induced ground vibration & monitoring for tunnel work at Son Nagar- Garhwa Railway Tunnel Project	CI
12.	2023	M/S Orissa Metallurgical Industry Private Limited	Scientific study for designing deep hole drilling and blasting for controlling vibrations and fly rock within safe limits for kagra joydev coal mine	CI
13.	2023	M/S BCCL, 5.08 lakhs	Scientific study as per the regulation 196 (3) of CMR-2017 for blasting to optimize maximum charge per delay, maximum charge per round and blast pattern to minimize ground vibration, noise and fly rock within 500m but beyond 100m from residential structure at Amalgamated Joyrampur Colliery, Hired Patch-D, Lodna Area, BCCL	CI
14.	2023	M/S Swastik Mineral Agency, Sahibganj, 4.72 lakhs	Powder factor & rock blast induced ground vibration study At Roro(4.86 Ha) & Kariguniya (14.985 Ha) Taljhari Stone Mine	CI
15.	2023	M/S Swastik Mineral Agency, Sahibganj, 4.72 lakhs	Powder factor & rock blast induced ground vibration study At Gadaitungi & Chalpahar Stone mine (2.63 Ha)	CI

16.	2023	M/S M.G. Mohanty, 7.08	Scientific Study for controlled deep hole blasting for Patabeda Iron and Mn. Mine in Koira tehsil of Sundargarh district, Odisha	CI
17.	2022	CCL, 6.49	Scientific Study as per the regulation 196 (2), (3), and (4) of CMR-2017 for controlled deep hole blasting at different patches of Selected Dhori Opencast Mines (SDOCM), Dhori Area, Central Coalfields Limited	CI
18.	2022	M/S CCL, 5.42laks	Scientific Study for controlled deep hole blasting and assessment of blast induced ground vibrations as per regulation 194 and 196(3) of CMR-2017 at Jarangdih OCP, Kathara Area,	CI
19.	2022	M/S CCL, 5.42 laks	Scientific Study for designing of deep hole blast pattern using SMS/SME explosive as per the regulation 196 (3) of CMR-2017 at Bokaro Colliery, B&K Area,	CI
20.	2022	M/S HCL, KCC, 34.3lakhs	Detailed feasibility study for mining of Chandmari Intervening Block (CIB) deposit, Hindustan Copper Limited (HCL), Khetri Copper Complex (KCC)	CI
21.	2021	M/S Ganga Stones, UP, 3.3lakhs	Scientific study regarding blast induced ground vibration, control of flying fragment and blasting in the vicinity of inhabited area of stone mine	CI
22.	2021	CCL, Ranchi, 11.3 lakhs	Scientific Study for controlled blasting at East and West Patch of Birsa Project	CI
23.	2020	BCCL.Dhanbad, 5.42 lakhs	Scientific Study for controlled blasting on developed galleries at Bhowra (South) colliery O/C (both coal and OB)	CI
24.	2019	M/s Balmiki Prasad, 5.9lakhs	Scientific Study for Establishing controlled Blasting practice at Bhadhokhara Stone Mine Located in Block 2	CI
25.	2019	M/s Vibharaj Construction Pvt. Ltd, 5.9lakhs	Scientific Study for Establishing controlled Blasting practice at Bhadhokhara Stone Mine Located in Block	Co-CI
26.	2019	Ramiya Constructions Pvt. Ltd., 3.3lakhs	Scientific Study Regarding Blast Induced Ground Vibration, Control of Flying Fragment and Blasting in the Vicinity of Inhabited Area Stone Quarries.	CI
27.	2019	M/S Rajendra Singh, Gaya, Bihar, 5.4lakhs	scientific study regarding blast induced ground vibration, control of flying fragment and blasting in the vicinity of inhabited area of Jagarnathpur Stone Quarry of M/S Rajendra Singh	CI
28.	2018	M/s Sharad Sharma, UP, 3.3lakhs	Scientific study regarding blast induced ground vibration, control of flying fragment and blasting in the vicinity of inhabited area of Khamhawajamti Stone Quarry	CI
29.	2018	M/S Ram Krit Singh Stone Quarry, Sonbhadra, UP	Scientific Study Regarding Blast Induced Ground Vibration, Control Of Flying Fragment And Blasting In The Vicinity Of Inhabited Area BilliMakundi mine	CI
30.	2018	CV Area BCCL, 12 lakhs	Scientific study to design a blasting methodology considering the stability of the developed pillars/stooks beneath Borira village during deep hole blasting at Damagoria colliery,	CI
31.	2018	UCIL, 5.4 lakhs	Scientific study to establish controlled blast design parameters vis-à-vis safety within 100m of occupied buildings at Banduhurang open cast mine,	Co-CI

32.	2018	M/S Maa Vindhya Stone Crushing Company, UP, 3.45lakhs	Scientific Study Regarding Blast Induced Ground Vibration, Control Of Flying Fragment And Blasting In The Vicinity Of Inhabited Area Of Dolo Stone Mine	CI
33.	2018	M/S Sone Stone, UP, 3.45lakhs	Scientific Study Regarding Blast Induced Ground Vibration, Control Of Flying Fragment And Blasting In The Vicinity Of Inhabited Area	CI
34.	2018	M/S Anil Kumar Maurya, UP, 3.45lakhs	Scientific Study Regarding Blast Induced Ground Vibration, Control Of Flying Fragment And Blasting In The Vicinity Of Inhabited Area	CI
35.	2018	M/S Hansraj Enterprises, UP, 3.45lakhs	Scientific Study Regarding Blast Induced Ground Vibration, Control Of Flying Fragment And Blasting In The Vicinity Of Inhabited Area	CI
36.	2018	UCIL, 16L	Preparation of mining scheme to produce 500 tpd ore on sustainable manner from existing Bagjata Mine of UCIL	Co-CI
37.	2018	Kayden Investment Pvt Ltd. Hissar, Haryana, 5L	Blast Design For Conducting Controlled Blasting With Regard To Blast Induced Vibration, Control Of Flying Fragments While Working On The Faces At Manakwas Plot No 1 Stone Mine	Co-CI
38.	2017	NEC Ltd., 4L	Scientific Study For Establishing Best Blasting Practice At Gere (Gaya) Block No-3 Stone Quarry Of M/S Nec Limited	Co-CI
39.	2017	Dharti Dredging & Infrastructure Limited	Scientific study for designing blast round to produce required size of rock for Marine and onshore facilities works and planning for Yield analysis at Jafrabad project, Gujarat	Co-CI
40.	2017	M/S Vijay Stone, 4L	Scientific Study For Controlled Blasting In Bagaiya Stone Mine At Palamu District, Jharkhand	Co-CI
41.	2017	MP Govt.	Detailed Project Report For Proposed College Of Engineering At Singrauli, Madhya Pradesh	Member
42.	2017	UCIL, 24L	Preperation of mining scheme to produce 3000tpd ore from existing Tummalapalle Mine of UCIL and enhance the production by 1500tpd ore - submission of offer regarding	Co-CI
43.	2017	UCIL, 6L	Validation of Rohil Exploratory Mining	Member
44.	2017	UCIL, 8L	Examination of the Reasons for Delay in Getting Stopping Permission from DGMS at Tummalapalle Mine	Member
45.	2016	Deeptec, 7L	Detailed Blasting Scheme for Controlled Rock Blasting	CI
46.	2016	BCCL	Scientific study for blast induced ground vibration due to surface blast in underground working at Kuya Colliery, BCCL	Co-CI
47.	2016	BCCL	Design of controlled blasting with regard to blast induced vibration, air overpressure, control of flying fragments and blasting in the vicinity of inhabited area at hired HEMM COCP patch in Amalgamated SudamdihPatherdih Colliery, BCCL	Co-CI
48.	2016	BCCL	Design of controlled blasting with regard to blast induced vibration, air overpressure, control of flying fragments and blasting in the vicinity of inhabited area at hired HEMM X-Patch in Amalgamated SudamdihPatherdih Colliery, BCCL	Co-CI
49.	2015	BCCL	Scientific study on blast induced ground vibration, control of flying fragments and blasting in the vicinity of inhabited area at Muraidih Colliery, Barora Area	Co-CI
50.	2015	IL&FS	Scientific study to design controlled blasting pattern for your GERE Stone Mines at Gaya District, Bihar	Co-CI

51.	2015	BRO	Auditing drilling and blasting practices at Dharchula, BRO	Co-CI
52.	2015	BCCL	Study of Blast Vibration (PPV) At Amalgamated AngarpathraRamkanali colliery, BCCL	CI
53.	2015	BCCL	Study of Blast Vibration (PPV) At Rajapur Opencast Project, Bastacolla Area, BCCL	Co-CI
54.	2015	BCCL	Study of Blast Vibration (PPV) At Kenduwadih colliery, BCCL	Co-CI
55.	2015	BCCL	Study of Blast Vibration (PPV) At Gaslitand colliery, BCCL	Co-CI
56.	2015	BCCL	Study of Blast Vibration (PPV) At Choitodih colliery, BCCL	Co-CI
57.	2014	SECL	Scientific study for blast induced ground vibration near surface feature for development of 'C' seam of Somna Colliery	CI
58.	2014	AFCON	Scientific Study For Blast Induced Ground Vibration At IrconAdit Tunnel T-74r(A) In Dharam-Banihal Section Of Udhampur- Srinagar-Baramula Rail Link Project	Co-CI
59.	2014	ISDL, Vizag	Development of an underwater drilling and controlled blasting methodology for hard rock dredging between container berth and ore berth, port of Visakhapatnam	Member
60.	2013-15	VPT, Vizag	Monitoring of underwater drilling and controlled blasting methodology at Port Of Visakhapatnam	Member
61.	2014	JSPL, Jajpur	Scientific study on ground and air vibration due to blasting in an open pit mine of Jindal Chomite Mines, Sukinda Chrome Valley	Co-CI
62.	2014	BCCL	Scientific Study on Blast Induced Ground Vibration During Trial Blasting With Sms/Sme In Opencast Working At New Akashkinaree Colliery, Govindpur Area, BCCL	Co-CI
63.	2014	SCTE &VT, Govt. of Odisha	Mining Technician 8 weeks training program under the skill development training program	Co-CI
64.	2013	BCCL	Conducting a study on blast design for safe blasting and determination of safe maximum charge at Maheshpur colliery,	Co-CI
65.	2013	MOM, GOI	Study to evaluate scheme: Science and Technology Projects of Ministry of Mines	Secretary
66.	2012	BCCL	Conducting a study on blast design for safe blasting and determination of safe maximum charge at GondudihKhasKusunda colliery,	Co-CI
67.	2011	BCCL	Conducting a study for fixing controlled blasting parameters during deep hole blasting in East Bassuria colliery, kusunda area,	Member

**(B. S. Choudhary)**  
 Professor  
 Department of Mining Engineering, IIT(ISM)