

1. Name: **PROF.(DR.) SUDHIR KUMAR KASHYAP**

2. Date of Birth: 15th January, 1964

3. Current Position and Address:

(with E-mail & Phone no.): **SENIOR PRINCIPAL SCIENTIST & HOS**



ROOF SUPPORT TESTING LABORATORY

CSIR - CENTRAL INSTITUTE OF MINING & FUEL RESEARCH

BARWA ROAD, DHANBAD – 826015 (JHARKHAND)

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0326-2296074 (R)

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E-mail: sudhirnutan@yahoo.com

4. Educational qualifications:(Graduation and above)

Sl. No.	Degree/ Certificate	Year of Passing	University/ Institute	Subjects
I	PhD	2012	NIT Rourkela	Mechanical Engineering
II	B.Sc. (Engg.)	1987	BIT Sindri	Mechanical Engineering

5. Work experience

Designation	Institution/ Company	From	To	Nature of work
Scientist 'B'	C.M.R.I Dhanbad	20.04.1990	to 20.04.1995	R & D Work, Testing & Evaluation of Material

Scientist 'C'	---do---	20.04.1995 to 20.04.2000	--- do --- Implementation of Quality Management System
Scientist 'E1'	---- do ---	20.04.2000 to 20.04.2006	--- do --- Design and Development of new equipment
Principal Scientist	CIMFR, Dhanbad (Erstwhile CMRI, Dhanbad)	20.04.2006 to 20.04.2011	---- do ---- Artificial Intelligence Techniques in Mining Looking after Support Development & Test- ing division.
Senior Principal Scientist	CIMFR, Dhanbad	20.04.2011 to Contd.	---- do ---- Artificial Intelligence Techniques in Mining Looking after Support Development & Test- ing division.
Part Time Lecturer	B.I.T.Sindri	July 1987 to May 1990	Teaching & Laboratory Work (Material Testing)
Vocational Trainees	F.C.I.Sindri	25.10.85 to 23.11.85	Power House
---- do ----	H.E.C.Ranchi	10.06.86 to 08.07.86	HMTF & FFP
Delegate	B.I.T.Sindri	28.01.87 to 31.01.87	Entrepreneurship Development camp

Trainee	CMRI Dhanbad	18.02.92 to 21.02.92	Computer Application Programme
Level – II Training (ASNT,SNT-TC-1A)	E.E.C.Bombay	27.04.92 to 02.05.92	Ultrasonic in metal Including welds
Trainee	CMRI Dhanbad	20.05.99 to 21.05.99	Management for Non MBA's
Trainee	CMRI Dhanbad	25.05.00 to 26.05.00	Executive Mgt Development
Trainee	M/s Asset International	18.09.00 to 22.09.00	Computer Fundamental and Windows Application
Training on Prote Maintenance Welding Techniques	Larsen & Toubro, Bombay	05.03.01 to 08.03.01	Advanced Maintenance Welding
Trainee	M/s Vivacious Infotech (I) Pvt. Ltd. Kolkata	08.01.07 to 18.01.07	AutoCAD(2D & 3D)
Delegate	SAIL , Kolkata	09.02.2007	Usages of SAIL steel
Delegate	HRDC (CSIR), Ghaziabad	10.12.07 to 12.12.07	Patent related issue on Mechanical, Elect etc.Focus on U.S European, Japanease&Indian scen
Delegate	Indian Institute of technology, Delhi	07.03.08 to 08.03.08	Health Monitoring, Non-destructive Evaluation and

			Retrofitting of Structures
Trainee	National Institute of Training for Standardisation, Bureau of Indian Standard, New Delhi Organized at CIMFR Dhanbad	27.05.08 to 30.05.08	Laboratory Quality System & Internal Audit (NABL)
Trainee	National Institute of Training for Standardisation, Bureau of Indian Standard, New Delhi Organized at CIMFR Dhanbad	08.12.08 to 12.12.08	Proficiency Testing, Inter- Laboratory Comp & Evaluation of Z-Score, En-ratio and Measurement Uncertainty on Electrical, Mechanical & Chemical Parameters.
Trainee	DNV(Netherland), Kolkata	10.09.09 to 11.09.09	Internal Quality Audit and Documentation as per ISO:9001:2008 QMS
Delegate	HRDC (CSIR) Ghaziabad	01.02.10 to 04.02.10	Advanced Workshop on Patent Strategies
Trainee	GT Technical & Management	11.10.10 to 13.10.10	W/s on modern welding tech., welding

	Institute Pvt. Ltd. (Global Training), Chennai		fabrication & inspection (AWS,ASME & API codes)
Delegate	IIT Delhi	17.02.12 to 18.02.12	Artificial Neural Network in seismic control
Delegate/Trainee	CSIR-URDIP, Pune	19.03.12to22.03.12	Patent informatics (Patinformatics) for Research and Business Planning
Trainee	DNV(Netherland), Kolkata at Country Roads Resorts,Howrah	17.08.12 to 18.08.12	Internal Quality Audit and Documentation as per ISO:9001:2008 QMS
Delegate	ISM Dhanbad	27.06.2014 to 02.07.2014	MATLAB based soft computing techniques
Trainees	HRDC (CSIR) Ghaziabad	23.02.2015 to 27.02.2015	Advanced Leadership Development Programme

6. Area of specialization:

- I. Design & Development of Mine Support Equipment and other Allied Engg. Components
- II. Study of Mechanical Integrity of Mining and Allied Components
- III. Destructive and Non-Destructive Investigation of Mining and Allied Equipment
- IV. Failure Investigation of Mining and Mechanical Components
- V. Design and Optimisation study of Engineering System by Artificial Intelligent Techniques like ANN, Fuzzy Logic Etc.
- VI. Mechanical Fabrication Under 'Make In India' Project
- VII. Innovation in Mining Components and Intellectual Property Right (IPR) Generation
- VIII. Technology Transfer for Newly Designed & Developed and Patented Equipment
- IX. Quality Assessment of Support Equipment e.g. Steel Cog, Telescopic Prop, Pit Prop,

- Hydraulics Prop and Other Standing Mine Support Under High Compressive Load
 X. Internal Quality Audit for ISO-9000 Quality Management System and NABL System

7. Honors/Awardsreceived:

CSIR GOLDEN JUBILEE – CMRI WHITAKER ANNUAL AWARD for R & D work in the field of mining and cognate subject
CITATION AWARD for rendering valuable services in successful implementation of ISO-9001:1994 QMS towards achievement of ISO-9001 documentation of CMRI
Selection of biographical sketch for inclusion in the 18th edition of Marquis Who’s who in the world published by USA
Selection of biographical sketch for inclusion in the 57th edition of Marquis Who’s who in America published by USA
NATIONAL FILING OF PATENT AWARD for contribution in patent filing at CMRI (2003-04)
NATIONAL FILING OF PATENT AWARD for contribution in patent filing at CMRI (2004-05)
NATIONAL FILING OF PATENT AWARD for contribution in patent filing at CMRI (2005-06)
NATIONAL FILING OF PATENT AWARD for contribution in patent filing at CMRI (2006-07)
Selection as a LEADING ENGINEERS OF THE WORLD,2007 by the International Biographical Centre (IBC), U.K.
Authorisation to use “CHARTERED ENGINEER” by Institution of Engineers
Selection in the panel of Judges for judgement of scientific models on different subject in Sir Jagdish Chandra Bose District Science Fair organized by SARASWATI SHISHU VIDYA MANDIR, BAGHMARA
Awarded First prize in HINDI PAKHWARA from 1-14 September 2012 under Dhara 3(3).
Nominated as a Judge in district level 40th Jawaharlal Nehru Children Science Exhibition on the subject ‘Science & Society’ organized by NCERT New Delhi and District Education Officer, Dhanbad held on 06.11.2012 in S.S.L.N.TGirlsHigh School, Dhanbad
Appointed as a Judge in school level Science Fair organized by SARASWATI VIDYA MANDIR, Bhuli Nagar Dhanbad on 30th August,2013
Appointed as a Judge in State level Science Fair organized by SARASWATI VIDYA MANDIR, Bhuli Nagar Dhanbad on 1-2nd October2013
Appointed as a Judge in 42ndJ.L.NehruBalVigyan Exhibition(District Level) organized by District Education Officer, Dhanbad on 10.01.2015

Appointed as a Jury Member (Judge) under Innovation in Science Pursuit for Inspired Research (INSPIRED), Department of Science & Technology, Ministry of Science & Technology, Govt. of India Award Scheme 2015 (District Level Science Exhibition) organized by District Education Officer, Dhanbad on 29.10.2015 & 30.10.2015
Invited as Chief Guest by Modern Youth Club, Sindri on 62 nd Republic Day On 26.01.2011 in prize distribution ceremony.
Invited as Chief Guest by All India Seminar on 'Recent Advances in Mechanical Engineering' organized by The Institution of Engineers (India), Odisha State Centre, Bhubaneswar on 16-17 March, 2013.
The Chairman, The Indus Foundation who organized a Indo-Global Education Summit 2011 at Mumbai on 11-12 Nov. 2011 has invited me as a Member of Panel Discussion for research collaboration.
Departmental Promotion Committee (Technical – II) at Indian School of Mines, Dhanbad on 08.05.2001
Departmental Promotion Committee (Technical – II) at Indian School of Mines ,Dhanbad from 07.04.2003 to 03.03.2004
Departmental Promotion Committee (Technical – I & Technical – II) at Indian School of Mines ,Dhanbad from 21.06.2004 to 31.12.2004
Departmental Promotion Committee (Technical – II) at Indian School of Mines, Dhanbad 22.07.2004
Departmental Promotion Committee (Technical – I & Technical – II) at Indian School of Mines ,Dhanbad from 09.06.2005 and 10.06.2005
Departmental Promotion Committee (Technical – I I) for the technical (group 'C' and 'D') at Indian School of Mines ,Dhanbad .02.06.2006
Departmental Promotion Committee (Technical – I I) at Indian School of Mines ,Dhanbad. 07.11.2006
Departmental Promotion Committee (Technical – I) at Indian School of Mines ,Dhanbad upto 10.04.2007
Principal , Mining Institute (Govt. of Bihar), Dhanbad has selected to prepare the contents of the subject Mine Transport System with a view to develop the syllabi of Open-Cast Mines and machinery (Dated: 05.07.1995)
Nomination for the Assessment Committee of CIMFR, Digwadih campus for assessing

Staff to Gr. I,II & III (I) on 14 th March, 2008
Selection in the Selection Committee (Mechanical discipline) for selection of Management Trainees (Mechanical) by Coal India Ltd. Through campus interview at Indian School of Mines University, Dhanbad on 13 th September,2008.
Selection in Campus Interview Committee by M/s Mining and Allied Machinery Enterprises ,Sanctoria, Dishergarh (Burdwan) for recruitment of Mining engineering diploma from Mining Institute, Koderma, (Govt. of Jharkhand) on 11.11.2009.
Selection as an External Expert member for the interview board for selection of Project Fellow for the UGC MRP by Department Mechanical Engineering and Mining Machinery Engineering, ISMU, Dhanbad on 24.05.2010
Selection as an External Expert member for the interview board for selection of Project Fellow for the UGC MRP by Department Mechanical Engineering and Mining Machinery Engineering, ISMU, Dhanbad . on 22.09.2010
Selection as an External Expert member for the interview board for selection of Project Fellow Level-1 by M/s Pranay Enterprises, Hyderabad for a GAP project of Ministry of Coal, Govt. of India. (CP/46)on 28.02.2012
Selection as a TAC member by the Director, ISM, Dhanbad for purchase of 'High Energy Falling Weight Impact Tester Machine'. (18.03.2014)
Selection as an External Examiner for the Dissertation & Viva-Voce Examination of final year M.Tech (Mining Machinery Engg.) students(17 Nos.) of Mining Machinery Engineering, ISMU, Dhanbad . on 27.04.2015
Selection as an External member of the Screening Committee to determine the eligibility of the candidates to be called for test/interview for the post of Scientist/Sr.Scientist for the Post Code 150501 under Advt.No.05/2015 of the CSIR_CMERI, Durgapur. (Dt: 24.11.2015 to 26.11.2015)
Selection as an External Expert member for the interview board for selection of Project Fellow for the DRDO sponsored project by Department Mechanical Engineering , ISM Dhanbad on 18.01.2016
Selection as an External member of the Screening Committee to determine the eligibility of the candidates to be called for test/interview for the post of Scientist/Sr.Scientist for the Post Code 150501 under Advt.No.05/2015 of the CSIR_CMERI, Durgapur. (04.02.2016)
Selection as an External member of the Screening Committee to determine the eligibility of the candidates to be called for test/interview for the post of Scientist/Sr.Scientist for the Post Code 150501 under Advt.No.05/2015 of the

CSIR_CMERI, Durgapur. (10.02.2016)
Selection as the external member of purchase committee (for DPAC & TAC) by the competent authority of ISM, Dhanbad for purchase of 'Various sensors and DAQ' for the DRDO sponsored project. (10.02.2016)
Selection as an External member of the Screening Committee to determine the eligibility of the candidates to be called for test/interview for the post of Scientist/Sr.Scientist for the Post Code 150501 under Advt.No.05/2015 of the CSIR_CMERI, Durgapur. (29.04.2016)
Selection as a Member 'Research Advisory Committee'(RAC) for establishing a Multidisciplinary Research Unit (MRU) at Patliputra Medical College & Hospital , Dhanbad (PMCH) by the Principal , PMCH Dhanbad. (Ref. No. Memo No. 695/P.M.C Dt: 09.05.2016 &Memo No. 689/PMC DT: 07.05.2016) (11.05.2016)
** Selection as a Member 'Research Advisory Committee'(RAC) for establishing a Multidisciplinary Research Unit (MRU) at Patliputra Medical College & Hospital , Dhanbad (PMCH) by the Principal , PMCH Dhanbad. (Ref. No. 5/P-(New project)-03/13-246(5)/Health DT: 06.11.2013 & Vide V25011/570(i)2010-HR DT: 03.10.2013 of Ministry of health and family welfare , Govt. of India) (20.11.2013)

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Awarded First prize in HINDI PAKHWARA from 1-14 September 2012 under Dhara 3(3).
Awarded First prize in HINDI PAKHWARA from 1-14 September 2015 under Dhara 3(3) for "Inspection of the work done in Hindi throughout the year 2015"(06.05.2016)

**** Recognition accorded**

Sl. No.	RECOGNITION
1	Looking after additionally the Engineering Workshop of CMRI as Head and contributed in development of prototype experimental model /equipments/tools and mechanical maintenance. (1999-2002)
2	Got appreciation letter from General Manager, Sodepur Area, ECL for successfully execution of the objective of the project entitled" Study of behaviour& support system and proposal for suitable support design in LW panel , Chinakuri – 1 Mine, ECL.
3	Selected by Bureau of Indian Standards a member of working group for Preparation of draft revisions to IS: 7587 (Parts 2, 3, 4, 5, 6) cage

	Suspension gear for winding in mines.
4	Contributed as a Chairman , Catering Committee in 37 th SSBMT in 2004 at CMRI
5	Contributed as member of Catering Committee, National Seminar VSE-2001 at CMRI held on 29-30, November, 2001
6	Contributed as a Convenor , Transport Committee, National Seminar, GGC 2003 at CMRI held on 24-25 September, 2003
7	Contributed in Registration Committee in RIT – 2003 (National Seminar)
8	International Journal of Materials Product Technology (IJMPT), published from INDERSCIENCE PUBLISHERS SLOVENIA has selected me as one of the Reviewer of a technical paper (NDT & FPT – 06)
9	Geominetech Symposium, 2005 held on 11-12 May, 2005 at Bhubaneswar has selected me as Chairman/Co-Chairman .
10	Selection as a Member of Editorial Board of ‘ International Journal of Applied Artificial Intelligence in Engineering System (IJAAIES) published by Serial Publication ,New Delhi (Bi-annual) ISSN – 0975-3176(March 2008)
11	Selection as a Reviewer of the technical papers to be presented at 12 th IACMAG International Conference at Goa on 1-6 , Oct.’2008
12	Nomination CIMFR representative as a Alternate Member of BIS Committee ME 08 on 19 th September, 2008.
13	Selection as a Reviewer of the manuscript of a technical paper published by International Journal of Systems Sciences, Editorial office ,Taylor & Francis group U.K . Manuscript ID: TSYS-2008-0440 (05.06.2009)
14	Invitation by the Examination Board of the Indian School of Mines University to act as the paper setter for the subject Applied Thermodynamics of B.Tech. – III Semester (Environmental Sciences & Engineering) for the session 2009-2010.
15	Selection as a MEMBER of Editorial Board of ‘International Journal of Artificial Intelligence and Computational Research (IJAICR)’ published by Serial Publication , New Delhi (Bi-annual) ISSN – 0975-3974(October,2010)
16	Invited as Chief Guest by Modern Youth Club, Sindri on 62 nd Republic Day On 26.01.2011 in prize distribution ceremony.

17	Recommendation for financial grant under International Travel Support Scheme by Department of Sciences and technology , Govt. of India to Attend and technical paper presentation at the 13 th IACMAG at Melbourne, AUSTRALIA.(9-11, May 2011)
18	Contributed as a Convenor, Technical Committee in AMPS 2011 at CIMFR Dhanbad held on 26-27 August, 2011.
19	Invited as Chief Guest by All India Seminar on 'Recent Advances in Mechanical Engineering' organized by The Institution of Engineers (India),Odisha State Centre, Bhubaneswar on 16-17 March,2013.
20	Nomination for CIMFR representative as a Alternate Member of BIS Committee WRD 16 (Hydraulic Structures Instrumentation Sectional Committee) on 21 st October,2013.
21	Selection as a Reviewer of the manuscript of a technical paper published by the Editor in-chief, International Journal of Acoustics and Vibration affiliated to <i>International Union of Theoretical and Applied Mechanics, USA</i> (ISSN 1027-5851).Paper reference No.772 (10.03.2014)
22	Selection as a Reviewer of the manuscript of a technical paper published by the Associate Editor , <i>International Journal of Experimental & Theoretical Artificial Intelligence</i> under Taylor & Francis publication .(28.04.2014)
23	Contributed as Rapporteur in technical session -6 (Mines Safety & Environment-2) in DTEX-2014 held on Nov.7-9,2014 at Science City, Kolkata
24	Selection as a Reviewer of the manuscript of a technical paper Published by the Editor in-chief, Springer, USA 'International Journal of Advanced Structural Journal Engineering' (ISSN:2008-3556; 2008- 6695)Journal No. 40091; Manuscript No. IJAS-D-14-00068 (14.11.2014)
25	Selection as a Reviewer of the manuscript of a technical paper Published by the Editor in-chief, Springer, USA 'International Journal of Automation & Computing' (ISSN:1476-8186); Manuscript ID. IJAC-2014-09-251 (14.11.2014)
26	Selection as MEMBER of a committee to publish the in-house journal In HINDI Based consisting of technical & administrative subject. (09.01.15)
27	Selection as MEMBER of a committee for organizing scientific & technological conference in Rajbhasa Hindi.(01.04.15)

28	Selection as MEMBER of a Organizing Committee for organizing one day workshop on coal based gas to be held on 11.05.2015 at CSIR-CIMFR, Dhanbad
29	Selection as MEMBER of Editorial Committee for organizing one day workshop on coal based gas to be held on 11.05.2015 at CSIR-CIMFR, Dhanbad
30	Nomination for CIMFR representative as a Principal Member of BIS Committee WRD 16 (Hydraulic Structures Instrumentation Sectional Committee) on 25 th August,2015
31	Selection of Internal Quality Auditor to audit first time the EMG group in view of implementation of QMS of EMG labs related with air, water and soil analysis by NABET team. (22.09.2015)
32	Selection as MEMBER of Organizing Committee for organizing two days All India Seminar on Advances in Mine Transport System (AMTS 2015) to be held on 20-21, January.2016 at BCCL Community Hall , Koyla Nagar, Dhanbad
33	Selection as MEMBER of Food Sub-Committee for organizing two days All India Seminar on Advances in Mine Transport System (AMTS 2015) to be held on 20-21, January.2016 at BCCL Community Hall , Koyla Nagar, Dhanbad
34	Selection as a Reviewer of the manuscript of a technical paper Published by the Institution of Mechanical Engineers, U.K “ Journal of Risk & Reliability” (Manuscript ID: JRR-15-0118) (ISSN:1748-006X), SAGE(25.01.2016)
35	Selection as a Reviewer of the manuscript of a technical paper Published by the “ Journal of Process Mechanical Engineering” (Manuscript ID: JPME-16-0008) , SAGE(10.02.2016)
36	Contributed in preparation of Annual Report (2013-14) in Hindi for two division as endorsed by Director’CIMFR and Hindi Officer, CIMFR.(21.03.2016)
37	Selection as a Reviewer of the manuscript of a technical paper Published by the “ Journal of Risk & Reliability” (Manuscript ID: JRR-16-0011) , SAGE(02.06.2016)

**** Contribution in HRD:**

Sl. No.	CONTRIBUTIONS IN HRD
1	Organization of HRD course on 'Advanced method of support design for development & depillaring in underground mines' on 09-13 th December,2002 at CMRI
2	<p>Project Guide of B.Tech. Students:</p> <ul style="list-style-type: none"> ✓ Birla Institute of Technology, Mesra, Ranchi ✓ BansallInstitute of Sciences and Technology, Bhopal ✓ AnandEngineeringCollege, Agra ✓ Hindustan Institute of Engineering & Technology, Dhanbad ✓ AsansolEngineeringCollege, Asansol UniversityCollege of Engineering & Technology, Hazaribagh ✓ Birla Institute of Technology ,Mesra, Ranchi ✓ KIITUniversity, Bhubaneswar (28.05.2013) ✓ Gokul Institute of Technology & Science, Vizianagaram (A.P) (17.05.2013) ✓ PriyadarshniEngineeringCollege, Nagpur (02.06.2015) ShahidBhagatSinghStateTechnicalUniversity, Firozpur. (11.06.2015)
3	Working as a faculty for the subject 'Mining Machinery and its Applications' subject code ENG(CIMFR):1-315 under "Merhods of Mining" for ongoing M.Tech under AcSIR. Dt: 06.11.2012(I Semester)
4	Working as a faculty for the subject 'Intelligent Techniques for Mining and its Applications' subject code ENG(CIMFR):1-317 under "Merhods of Mining" for ongoing M.Tech under IMP-MSE, AcSIR-CIMFR. (II Semester)(2012-13)
5	Nominated as M.Tech supervisor for the M.Tech project title " To study the various parameters of standing Mine Support and its Optimization using Fuzzy Logic ".under IMP-MSE of AcSIR-CIMFR (2012-14)
6	Selection as an External Examiner for the Dissertation & Viva-Voce Examination of final year M.Tech (Mining Machinery Engg.) students(17 Nos.) of Mining Machinery Engineering, ISMU, Dhanbad . on 27.04.2015
7	Selection as Co-supervisor for the M.Tech project from Department of Production Engg. BIT Sindri, Dhanbad (31.08.2015)
8	Selection as Co-supervisor for the M.Tech project for two students from Department of Production Engg. BIT Sindri, Dhanbad (20.11.2015)
9	Selection as an Examiner for PhD thesis titled' VIBRATION ANALYSIS AND FAULT DIAGNOSIS OF BEAM USING FUZZY-GAUSSIAN

	INFERENCE, GENETIC ALGORITHMS AND RULE BASED TECHNIQUES' in Mechanical Engineering by UTKAL UNIVERSITY, Odisha (22.12.2015)
10	Selection as an External Examiner for the Dissertation Examination (Viva-Voce and Seminar) of 2nd year M.Tech. (Mechanical Engg.) students (36 Nos.) of Department of Mechanical Engineering, ISM, Dhanbad . on 23.04.2016

8. Fellowships/Scholarships:

Awarded fellowship from Institution of Engineers (INDIA) (NO. F-113664/6)
Awarded Science & Engineering Research Board (SERB) (DST, Govt. of India) Visiting Fellowship 2004 for Canada
Awarded SERB (DST, Govt. of India) Visiting Fellowship 2011 for Melbourne, Australia Vide SR/ITS/0321/2011-12 Dt: 04.04.2011
Awarded travel Fellowship 2012 by Centre for International Cooperation in Science (CICS) (CCSTDS) promoted by Indian National Science Academy (INSA) in association with Scientific agencies and Departments ,Chennai for Bangkok,Thailand Vide DO/Lr/TF-1/12-13 Dt:08.05.2012

9. No. of Research Publications:

- Papers in journals:13
- In conference proceedings: 59
- Invited/key-note addresses:

BCCL (Coal India Ltd.) has invited me for Invited Lecture in 'Workshop on Roof Bolting for Managers and Safety Officers'from 06.04.2006 to 07.04.2006
IIM , Ahmedabad has selected me for Invited Lecture in workshop on " Inventors of India" from 26.10.2006 to 28.10.2006.
Institute For Miner's And Metalworkers' Education (IMME) Rajendra Path Dhanbad has invited me for Invited Lecture for an orientation Training Course for Workmen'sInspectors (Mining) BCCL from 11 th to 23 rd January 2010
**The Chairman, The Indus Foundation who organized a Indo-Global Education Summit 2011 at Mumbai on 11-12 Nov.2011 has invited me as a Member of Panel Discussion for research collaboration.

- List of best 05 publications:

1	Parhi D.R; S.K.Kashyap & Sinha A	Prediction of Setting Load in Standing Support in Underground Mine Using ANN.	International Journal of Applied Artificial Intelligence in Engineering System. 2(1), 2010;27-37
2	Parhi D.R ; S.K.Kashyap & Sinha A	Analysis of rule based neuro-Fuzzy technique used for prediction of setting load in standing support in underground mines	International Journal of Applied Artificial Intelligence in Engineering System, 2(2)2010;119-122
3	Parhi D.R; S.K.Kashyap & Sinha A	Analysis of soft computing techniques for mine support”	International Journal of Artificial Intelligence and Computational Research, 3(2),2011;135-139
4	Parhi D.R ; S.K.Kashyap & Sinha A.	’Neuro-fuzzy controller for prediction of setting load for standing support in underground mine	International Journal of Artificial Intelligence and Computational Research ,3(1),2011;39-41
5	Md. Anis Raza; S.K.Kashyap & Rakesh	The Effect of Welding on Mechanical and Microstructural Properties of Materials- A Critical Review	ELK’s International Journal of Manufacturing, Industrial and Production Engineering,(ELK Asia Pacific Journals of Manufacturing Science & Engineering, EAPJMSE) published by ELK Asia Pacific Journals. Vol.1; Issue-2 (2016)ISSN Print: 2454-3020, ISSN Online:2394-0425. Article ID EAPJMSE-2016-V-1-2-1 (03.06.2016)

10. Number of Books authored/edited: NIL

11. (a) No. of Patents granted/applied for: (**National**) : 16

****Patents Filed / Accepted (International)**

Sl. No.	Patent	Period
1	A device for roof support of underground mine /tunnel	(PCT Filing)(19.02.2010),WIPO Patent Application No. WO/2011/101716
2	A device for roof support of underground mine /tunnel	Patent Application No. 0117NF2009_WO_1055, filed successfully in USA (Dt: 07.09.2012)(Vide application No. 13/579631) Publication No. US2013/0039704A1
3	A device for roof support of underground mine /tunnel	Patent Application No. 0117NF2009_WO_1055, filed in CHINA(Dt: 13.08.2012)
4	A device for roof support of underground mine /tunnel	Patent Application No. 0117NF2009_WO_1055, filed in AUSTRALIA(Dt: 13.08.2012)
5	A device for roof support of underground mine /tunnel	Patent Application No. 0117NF2009_WO_1055, filed in Poland (Dt: 13.08.2012)
6	A device for roof support of underground mine /tunnel	Application No. /Patent No. 11708315.4-2315 filed in European Patent Countries (EPC) under rule 19(3) (Date of Filing :31.01.2011). Filed Countries names are: Albania, Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Germany, Finland, France, Great Britain, Greece, Hungary, Iceland, Monaco, Netherland, Norway, Poland,

		Portugal, Slovakia, Romania, Slovenia, Turkey, Italy, Lithuania, Luxembourg, Ireland, Latvia, Sweden and other countries codes CH,DK,EE,ES,HR, LI, MK,MT,RS,SM.
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International : 01 (PCT Filing in 39 countries)

(b) Technologies developed, Licensed and/or commercialized:

Sl. No.	Designed & Developed Device	Patent Details & License Fee	Name of Licensee
1	Development of roof drilling /bolting machine	(Patent file No. 2304DEL1995) Rs. 3,00,000/-	M/s Indian Drilling & Mining Co. Calcutta
2	An improved roof bolt useful for supporting mine /tunnel roof instantly And compactly	(Patent file No. 2382DEL1998) Rs. 50,000)	M/s Dhanbad Engineering, Dhanbad
3	Development of 40T yielding type steel prop for underground working	(Patent file No. 1026DEL2004) Rs. 1, 50,000/-	M/s Mining and Allied Machinery Enterprises, Dishergarh
4	An improved cog useful for supporting underground mine roof /tunnel	(Patent file No. 1867DEL1997)Patent (addition in modification, Patent File No. 0046DEL2004) Rs. 3, 00,000/-	M/s Sidheshwari Engineering Works Pvt. Ltd. Mumbai
5	High roof support steel cog	(Patent file No. 0010DEL2004) Rs. 2, 00,000/-	M/s Diesel Pump Engineers, Asansol
6	A device for collecting air borne dust generated by moving vehicle	(Patent file No. 1099DEL2004) Rs. 50,000/-	M/s Sakshi Export (P) Ltd. Kolkata

7	An equipment for collecting an unbiased coal sample from open railway Wagons for quality analysis (Coal Sampler)	(Patent file No. 1733DEL2004) Rs. 1, 50,000/-	M/s Pranay Enterprises, Hyderabad
8	Adjustable Steel Prop with Yielding & Releasing System (35T Capacity)	(Patent file No. 131/NF/2008) (Dt: 27.08.2008 & 26.10.2012), Rs. 3,00,000/-	M/s Anjali Enterprises, Dhanbad

12. Foreign visits:

Visited Melbourne, Australia to present a technical paper in 13 th IACMAG,2011 organized by University of New South Wales, Sydney, Australia on 09-11 May,2011.
Visited Bangkok, Thailand to present paper in World Tunnel Congress 2012, (WTC2012) organized by Thailand Underground and Tunneling Group, Bangkok on 18-23 May,2012
Visited Kyoto, Japan to present a technical paper in 14 th IACMAG,2014 organized by University of Kyoto, Kyoto, Japan on 22-25, September,2014

13. Details of Professional memberships:

Name of Society	Grade of Membership	Membership No.	Date of Election
ASME International, USA	Member	03250719	1992-93
Institution of Engineers	Fellow	F/113664/6	2008-09
MGMI	Member	6520-M	1994-95
Indian Society of Mech. Engg.	Life Member	L-219	1993-94
Indian Society of Non-destructive testing(ISNT)	Member	M 4283 OT	1996-97

Indian Society for Advancement of Materials and Process Engineering (ISAMPE)	Executive Member	L-1281	2010-11
Association of Machines and Mechanisms (AMM)	Life Member	A20110002	2010-11

**** Professional Qualification:**

Qualification	Organization	Period	Subject
Certified Quality Engineer (CQE)	I.I.Q.M Jaipur, STQC Directorate DOE, Govt. of India	06.09.99 to 24.09.99	ISO:9001:1994 Quality Management System (QMS)
Level-II Qualification (Non-Destructive Testing) (SNT-TC-1A;ISO-9712;IS-13805)	M/s B.H.P.V Visakhapatnam	26.11.01 to 04.12.01	Magnetic Particle Testing
Internal Quality Auditor	By DNV Netherland At CMRI, Dhanbad	16.04.02 to 17.04.02	ISO:9001:2000 QMS
Graduate Course	Society for Technology Management, Hyderabad (organized at Ooty)	13.04.08 to 16.04.08	Intellectual Property Management and Technology Transfer

14. Major contributions: (Max. 150 words):

Designed, developed and commercialized Hydro-mechanical steel cog & Yielding props and royalty were received thereof. In addition to that other mining and allied components were conceptually designed and got patented for 17 Nos. Some of there were licensed. Further, a nuclear technique was developed to assess instantly the ash, moisture content and GCV of the coal under the project sponsored by Ministry of Coal, Govt. of India. Associated with the 08 Nos.

of Technology Transfer. A project has been sanctioned on 'Bharat Swachch Mission' launched by PM titled " Design & Development of Wheel Controlled Sewage Discharge System in Trains" .

15. Technologies and Products/ Services : As mentioned in 11(b) above

(xxxix) Developed:
(xl) Licensed:
(xli) Commercialized:

16. Designs and Prototype Developed: Conceptual Design and prototype were developed at in-house level for the 16 devices that has been patented.

17. Honours and awards won for technological contributions or sociological impact of R&D: As stated in 7.0

Signature