



BIO-DATA

1. **Name:** DR. BHARAT BHUSHAN JHA
2. **Date of Birth:** 31.10.1959
3. **Current Position, Position Held & Address for communication:**
- Professor of Practice, MANIT Bhopal**
Former Professor Emeritus, M.S. Ramaiah Institute of Technology, Bangalore
Visiting Faculty, Department of Metallurgy and Materials Engineering, NIT Jamshedpur
Former Chief Scientist and Director (Acting), Head, Business Development and Standardization Division, Advanced Mechanical and Materials Characterization Division and Glass Division & FOPD Division
FAA on RTI matters; Management Representative (MR), ISO & Advisor (Management), CSIR-CGCRI Kolkata
Founder HOD, Surface Engineering Department, CSIR-IMMT Bhubaneswar
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4. Area of Specialization:

Mechanical Metallurgy: Mechanical behaviour of materials at ambient, high and low temperature under slow and nominal strain rate. Effect of material chemistry, microstructure, cold work, temperature, prior deformation etc. on the mechanical behaviour of metals, alloys, composites (metal-matrix and ceramic matrix composites). Mg & Al based alloys and composites developments.

Physical Metallurgy: Structure-Property relationship of metals and alloys, characterization of degraded microstructure using SEM, XRD, TEM, EPMA etc. Residual life estimation by measuring the degraded properties of materials including non-destructive characterization of material properties.

Chemical Metallurgy: High temperature oxidation of metals and alloys, effect of rare earth element additions, use of oxide scale thickness in residual life assessment of materials operating at high temperatures. Hot corrosion under boiler operating conditions and erosion studies of high temperature materials.

Tribology: Thermal Barrier coatings development for high temperature alloys and facilitation in commercialization of coating technologies. Friction and wear properties of metals, alloys, ceramics and composites.

5. Educational Qualifications:

Sl. No.	Degree	Institute/University	Year	% of Marks/CGPA	Main subject/Discipline
1.	Secondary 10+	BSEB Patna	1974	61.56 out of 100	Science, English, Hindi
2.	Higher Secondary (plus 2)	Ranchi University	1976	70.44 out of 100	Physics, Chemistry, Math, English, Hindi
1.	B.Sc. Engg. (Metallurgy)	Ranchi University	1982 (Rank II in University)	79.44 out of 100	Physical Met., Mechanical Met., Failure Analysis, Materials Characterization etc. (Total 32 Subjects)
2.	M.S. (Metallurgy)	Indian Institute of Technology (IIT), Madras	1989	--	Nondestructive testing, Corrosion science, Failure analysis, Oxidation of Metals etc. (Total 6 Subjects)
3.	Diploma in Management (DIM)	Indira Gandhi National Open University (IGNOU), New Delhi	1994	3.58 out of 10	Principles of Management, Managerial economics etc. (Total 6 Subjects)
4.	Post Graduate Diploma in Management (PGDIM)	IGNOU, New Delhi	1995	3.51 out of 10	Leadership theory, Industrial management etc. (Total 7 Subjects)
5.	Post Graduate Diploma in Marketing Management (PGDMM)	IGNOU, New Delhi	1996	3.73 out of 10	Marketing Principles, Product marketing, Product development etc. (Total 16 Subjects)
6.	Ph.D (Metallurgy)	Institute of Technology, Banaras Hindu University, Varanasi, India	2008	--	Title "Investigation on Oxidation Behavior and Microstructural Degradation in 2.25Cr-1Mo steel"

6. Academic / Research & Professional Experience / Employment

Sl. No	Organization/Institute	Grade/Post	Duration	Nature of duties
1.	Bhabha Atomic Research Centre, (BARC), Mumbai	Trainee for "one year orientation course in Nuclear Engineering"	01.08.1982 to 01.08.1983	Courses in Basics of Nuclear Metallurgy, Nuclear Engg., Fuel fabrication, inspection and reprocessing etc. (Total 22 Subjects)
2.	Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam	Scientific officer 'C'	01.08.1983 to 01.08.1986	R&D in Non-destructive characterization and evaluation of metals and alloys. Use of SEM/TEM for materials characterization.
3.	Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam	Scientific officer 'SD'	01.08.1986 to 29.05.1991	R&D in Acoustic emission during corrosion, plastic deformation of metals and alloys. Operation of universal testing machine.
4.	Central Mechanical Engg. Research Institute (CMERI), Durgapur, WB	Scientist 'E-I'	30.05.1991 to 29.05.1996	R&D in use of NDT for evaluating the materials degradation as a result of service exposure.

5.	Central Mechanical Engg. Research Institute (CMERI), Durgapur, WB	Scientist 'E-II'	30.05.1996 to 29.05.2002	Residual life assessment of high temperature components using non-destructive evaluation and use of SEM/TEM/ EPMA for characterization of microstructures.
6.	Institute of Minerals and Materials Technology (IMMT), Bhubaneswar	Scientist 'F'	30.05.2002 -29.05.2008	R&D in structure-property correlation ship of high temperature materials using universal testing machine, SEM/XRD/TEM/EPMA etc. including characterization of degraded microstructures due to high temperature creep, corrosion and erosion.
7.	Institute of Minerals and Materials Technology (IMMT), Bhubaneswar	Scientist 'G'/ Chief Scientist and Founder Head, Surface Engineering Division	30.05.2008 – 04.12.2016	R&D in structure-property correlation ship of high temperature materials using universal testing machine, SEM/XRD/TEM/EPMA etc. including characterization of degraded microstructures due to high temperature creep and superplasticity study of Ti alloys including corrosion and erosion studies. Thermal Barrier coatings development for high temperature alloys
8.	Central Glass and Ceramic Research Institute, Kolkata	Chief Scientist and Director (Acting), Head, Business Development & Standardisation Division, Advanced Mechanical and Materials Characterisation Division and Glass Division ,FOPD Division FAA on RTI matters; Management Representative (MR), ISO & Advisor(Man (Management),	5.12.2016-31.10.2019	Materials characterization of degraded microstructures due to high temperature creep of Ti alloys including corrosion and erosion studies. Thermal Barrier coatings development for high temperature alloys and facilitation in commercialization of coating technologies
9.	National Institute of Technology(NIT), Jamshedpur	Visiting Faculty	13.11.2019-13.01.2023	Taking courses for UG and PG program of the institute and mentoring research fellows and facilitating research activities in the department through fostering collaborative programs. Organizing seminars, symposia, conclaves, industry meet including invited talk single handedly and taking initiatives in establishing centers of excellence in relevant areas of pedagogy.

10.	Ramaiah Institute of Technology (RIT), Bengaluru, India	Professor Emeritus	21.06.2023-20.06.2025	Guiding faculty to prepare research proposals and value addition to target specific funding agencies. Enhance institute, industry and R&D organization collaborations. Delivering lectures to students towards improving their placement abilities. Inculcating the research culture in the department by helping faculties to bring more numbers of funded projects.
11.	MANIT Bhopal	Professor of Practice	22.10.2025-continuing	Taking courses for UG and PG program of the institute and mentoring research fellows and facilitating research activities in the department through fostering collaborative programs. Guiding faculty to prepare research proposals and value addition to target specific funding agencies. Enhance institute, industry and R&D organization collaborations. Delivering lectures to students towards improving their placement abilities. Inculcating the research culture in the department by helping faculties to bring more numbers of funded projects.

7. Administrative Positions held:

Sl No.	Position	Organisation	From	To	Duration
1	Head, Glass & FOPD Division	CSIR-CGCRI Kolkata	01-04-2018	31-10-2019	1 y, 6 m
2	First Appellate Authority	CSIR-CGCRI Kolkata	01-04-2017	31-10-2019	2 y, 6 m
3	Head, Hindi Cell	CSIR-CGCRI Kolkata	01-04-2017	31-10-2019	2 y, 6 m
4	Advisor, Management	CSIR-CGCRI Kolkata	01-04-2017	31-10-2019	2 y, 6 m
5	Head, Legal Cell of the Institute	CSIR-CGCRI Kolkata	01-04-2017	31-10-2019	2 y, 6 m
6	Head, Advanced Mechanical and Materials Characterisation Division	CSIR-CGCRI Kolkata	01-04-2017	31-10-2019	2 y, 6 m
7	Head, Business Development And Standardisation Division	CSIR-CGCRI Kolkata	15-12-2016	31-10-2019	2 y, 10 m
8	Head, Surface Engineering Department	CSIR- IMMT Bhubaneswar	30-05-2011	04-12-2016	5 y, 6 m
9	Head, HRD	CSIR-IMMT Bhubaneswar	13-12-2013	04-12-2016	2 y, 11 m

10	Chairman, Stores, Purchase &	CSIR- IMMT	01-04-	31-03-	3 y, 11 m	
	Various technical committees for the procurement of Equipment	Bhubaneswar	2011	2015		

8. Teaching Positions held:

Sl. NO.	Position	Organisation	From	To	Duration
1	Professor	Academy of Scientific and innovative Research (ACSIR)	22-04-2014	31-10-2019	5 y, 6 m
2	Faculty	Post graduate program of CSIR-IMMT Bhubaneswar	01-06-2009	01-06-2011	2 y, 0 m
3	Visiting Professor	NIT Jamshedpur	13-11-2019	13-01-2023	3 yrs, 15 days
4.	Professor Emeritus	Ramaiah Institute of Technology (RIT), Bengaluru	21-06-2023	20.06 2025	2 years
5.	Professor of Practice	MANIT Bhopal	22.10 2025	continui ng	

9. Participation and contribution in relevant areas in higher education:

SI No	Post	Organisation	Area of specialisation
1	Resource Person	East Coast Railway Bhubaneswar	Trained the Railway Engineers towards service suitability Assessment of rotating components
2	Resource Person	Coal India Limited ,India	Trained the Engineers working in Coal Industry to assess the health of Mining components
3	Resource Person	Indian Oil Corporation, Paradip Refinery, Paradip	Trained the engineers of Indian Oil corporation towards corrosion mitigation of engineering components

4	Resource person	Ib Thermal Power Plant, Orrisa	Trained the Engineers to assess the Residual Life of power plant components
5	Resource Person	National Institute of Technology, Jamshedpur	Research conclave 2021 for Research scholars

10. Involvement with formulation of academic programmes

#	Nomenclature of Innovative Academic Programmes formulated	Date of approval by Academic Council	Year of Introduction
1	Syllabus of Mechanical Metallurgy for ACSIR program	01.01.2009	2009
2	Syllabus of Manufacturing Technology course of NIT Rourkela	01.04.2012	2013

11. Important MoUs formulated for academic collaborations:

Sl. No.	MoUs Formulated	Name of Agencies / Departments involved	Year of MoU
1	CSIR-CGCRI Kolkata and BIT Sindri	All the Departments of both the Institute	2019
2	CSIR-CGCRI Kolkata and IEST Shibpur, Kolkata	All the Departments of both the Institute	2019
3	CSIR-CGCRI Kolkata and Institute of Technology (IT) BHU, Varanasi	All the Departments of both the Institute	2019
4	NIT Rourkela and CSIR-CGCRI Kolkata	All the Departments of both the Institute	2019
5.	NIT Jamshedpur and ITDR Jamshedpur	All the departments of both the institutes	2020
6.	NIT Jamshedpur and CSIR-CGCRI Kolkata	All the Departments of both the Institute	2019

12. Scholarly Achievements

Contribution to Journals and Books	Details
Editorships	Life Prediction and Extension Techniques for Thermal Power Plants (LPET - 2003),2003
Editorships	Proceeding International Conference on Emerging Materials and Processes (ICEMP-2014)ISBN: 978-819285521-9.,2014
Editorships	International Conference on Coating Research, CSIR-IMMT Bhubaneswar, 2019
Editorships	National Seminar on futuristic materials NSFM 2004

13. Number of Research Scholars successfully guided

Sl.No.	Name of Programme	Awarded (Number)
1	Ph.D	2 (awarded), 1 (continuing)
2	Post Graduate	12 completed
3	Under Graduate	3 completed

14. Honours/Awards received:

Sl. No	Name of Awards, Honors	Year	Contributions for which awarded
1.	Best Metallurgist Award, Durgapur Chapter of Indian Institute of Metals	1993	Residual life assessment of power plant components
2.	Second best paper Award in ferrous group of 56 th Annual Technical Meeting of Indian Institute of Metals held at Baroda	2002	Residual life estimation of super heater and reheater tubes based on oxide scale thickness measurement
3.	INSA fellowship under INSA-DFG exchange scientist program	2012	Mechanical characterisation of composites through miniature specimen techniques
4.	CSIR-DAAD fellowship (Senior)	2010	Oxide scale adherence study of low alloy steel under thermal cyclic condition

5.	2nd Berger Award for Excellence in Coating Research and Promotion by The Society for Surface Protective Coatings, India	2015	Contribution in the Development of Surface Engineering and its Research and Promotion.
6.	NACE International Gateway India Section (NIGIS) Corrosion Awareness Award -2016	2016	For significant contributions in the field of Surface Science and Engineering through high temperature oxidation of metals, alloys, ceramics and composites including Thermal Barrier Coatings development for aerospace applications.

15. Professional Affiliations:

Sl. No	Professional bodies	Membership
1.	Indian Institute of Metals (IIM), Kolkata	Life Member (LM-6779)
2.	Indian Institute of Welding (IIW), Kolkata	Life Member
3.	Indian society for Non-destructive testing (ISNT)	Member (LM8343HO)
4.	Acoustic Emission Working Group (India), AEWG(I)	Member
5.	Society For Failure Analysis (SFA), India	Member, Executive Committee
6.	Society for Surface Protective Coatings(SSPC), India	Member, Executive Committee (M-ML46)
7.	Powder Metallurgy Association of India	Life Member
8.	Electron Microscope Society of India	Life Member (LM-1350)
9.	Materials Research Society of India (MRSI)	Life Member (LMB2822)
10.	Indian Ceramic Society Kolkata	Life Member (EL-720)

16. International Exposures:

Sl. No	Place of Visit	Duration	Period	Purpose
1.	MPA, Stuttgart, Germany	15.08.1986 to 14.12.1986	Four months	Trainee, for reprocessing of Nuclear Fuel
2.	IEF-2, Juelich, Germany	15.01.2010 to 31.01.2010	15 days	Visiting scientist for R&D on High Temperature Oxidation and Residual Life Assessment of T22 Steel
3.	Institute of Mechanics, Lomonosov Moscow State University, Russia, Moscow	15.06.2010 to 29.06.2010	15 days	Experimental and Theoretical Investigations of the Mechanical Behavior and the Evolution of Structure for the Alloys under Non-stationary Process of Superplastic Deformation

4.	IEF-2, Juelich, Germany	24.07.2010 to 24.09.2010	2 months	Visiting scientist for R&D on High Temperature Oxidation of heat resistant alloys
5.	University of Leeds, UK	06.09.2010 to 10.09.2010	Five days	Visiting scientist
6.	Institute of Complex Materials (IKM), Dresden, Germany	20.10. 2011 to 05.11.2011	15 days	Visiting scientist
7.	IEK-2, Juelich, Germany	10.01. 2012 to 28.02.2012	50 days	Visiting scientist for R&D on High Temperature Oxidation of heat resistant alloys
8.	OVGU Magdeburg, Magdeburg, Germany	01.06.2012 to 31.07.2012	60 days	Visiting scientist for R&D on Mechanical behavior of polymer matrix composites
9.	IEK-2, Juelich, Germany	18.03. 2013 to 18.04.2013	30 days	Visiting scientist for R&D on High Temperature Oxidation of heat resistant alloys

17. Conferences/seminars/workshop organised:

Sl.No.	Conf./Seminar/WS organised (Title)	Event Type	Sponsoring Agency	Duration	Role
1.	Life Prediction and Extension Techniques for Thermal Power Plants (LPET - 2003)	National Workshop	CSIR and NPTI, Durgapur	16 - 17 Jan 2003	Convener
2.	Futuristic Materials" (NSFM-2004)	National Conf.	CSIR & IIM India	21-22 April 2004	Organising Secretary
3.	International Conference on Emerging Materials and Processes (ICEMP-2014)	International Conf.	CSIR and IIM India	26 -27 Feb 2014	Organising Secretary
4.	Workshop on Safety of Mining Equipment and their corrosion control	National Workshop	CSIR and NCCI India	16-17 April 2018	Convener
5.	Research Conclave 2021	National Conference	NIT Jamshedpur	25-27 Feb 2021	Technical Advisor
6.	Inculcation of Research Culture in Academic Institutions (IRCAI-2020)	National Webinar	NIT Jamshedpur	05-06 September 2020	Technical Advisor
7.	Use of Indian Languages in science and technical subjects in higher education and research institutions	National Workshop	NIT Jamshedpur	July 3, 2021	Chairman

8.	Ancient Indian Science & Technology (AIST-2021)	National Webinar	NIT Jamshedpur	05-10 July 2021	Technical Advisor
9.	Importance of Online Education System in Pedagogy (IOESP-2021)	National Workshop	NIT Jamshedpur	03-04 September 2021	Technical Advisor

18. (a) Number of Research Publications:

86 (Attached as Annexure – I)

(b) List of presentations (133), invited talks (30) and projects carried out as leader (36):

Attached as Annexure – II

(d) Highlights of significant contributions:

Enclosed as Annexure –III

19. Number of Books / proceedings authored/edited:

1. B.B. Jha and S.K. Srivastava (Editors)

Proceeding Conference on “**Life Prediction and Extension Techniques for Thermal Power Plants (LPET – 2003)**”, January 16-17, 2003, National Power Training Institute (NPTI), Durgapur, India

2. B.B. Jha, R.K. Galgali and V.N. Misra (Editors)

Proceeding Conference on **National Seminar on “ Futuristic Materials” (NSFM-2004)**, April 21-22, 2004, held at RRL, Bhubaneswar, Allied publishers Pvt. Ltd., New Delhi, April 2004.

3. B.B.Jha, A.K. Chaubey, U.Balaji and B.K.Mishra (Editors)

Proceeding International Conference on Emerging Materials and Processes (ICEMP-2014) held at CSIR-IMMT, Bhubaneswar on 26-27th February 2014, CSIR- Institute of Minerals and Materials Technology Bhubaneswar-751013, Odisha, India, ISBN: 978-81-928552-1-9.

23. Other publication except Journals, Conferences, Book, Book Chapters:

- i. CSIR-CGCRI Annual Report 2016-17
- ii. CSIR-CGCRI Annual Report 2017-18
- iii. CSIR-CGCRI Annual Report 2018-19
- iv. Technical Brochures of CSIR-CGCRI for Business Development
- v. Contributed in preparing NIT Jamshedpur Annual Report 2019-20
- vi. Contributed in preparing NIT Jamshedpur Annual Report 2020-21

24. Laboratory Established:

As a Chief Scientist in CSIR-IMMT Bhubaneswar, a team **under my leadership** established a Surface Engineering Laboratory **worth 25 Crores investment** starting from construction of Building to procurement and installation of state of the art equipment viz. UTM with high, ambient and low temperature facility, Tribotester with high temp facility, Thermal conductivity measurement system, HIP, Steam Oxidation measurement system, Plasma spray system, FESEM with EDS and EBSD, Nano-indentation system, Scratch Tester and other related instrument used for surface engineering research.

25. Any other relevant information:

1. Attended and completed leadership development program conducted by CSIR-HRDC Ghaziabad and tutored by South African Team (**Led by Mr. Ian dean**)
2. Receive regular invitation to Chair a technical session, judge of the oral presentation of various national Event taking place throughout the country.
3. Receive regular invitation to be the member of selection committee for promotion and recruitment of scientists and technical staff in laboratories of CSIR.
4. Receive regular invitation to be the external examiner of Masters and Doctoral thesis Evaluation at IITs, NITs and other technical institutions of National Importance.

LIST OF PUBLICATIONS : National/International (86):

1. A.S. Khanna, **B.B. Jha** and Baldev Raj: “Detection of breakaway oxidation and spalling in the oxide scale of 2.25 Cr 1Mo steel using AE technique”, **Oxidation of Metals**, Vol. 23, No.3/4, pp. 159-176, 1985.
2. **B.B Jha**, Baldev Raj and A.S Khanna: “Frequency analysis of AE signal obtained during breakaway oxidation and internal cracking of 2.25 Cr 1Mo steel at 900 °C”, **Oxidation of Metals**, Vol. 26, No. 3/4, pp. 263-273, 1986.
3. **B.B Jha**, Baldev Raj and A.S Khanna: “Characterization of frequency spectrum of Acoustic Emission signals obtained during oxidation of a ferritic steel”, **Trans. of The Indian Institute of Metals**, Vol.40, No.2, pp. 176-178, 1987.
4. A.S. Khanna, **B.B. Jha** and Baldev Raj: “Application of Acoustic Emission to study the scale integrity during high temperature oxidation of metals”, **Quality Evaluation**, pp. 11-12, July-Sep. 1987.
5. A.S. Khanna, **B.B. Jha** and Baldev Raj: “Acoustic Emission Technique – An alternate method to study the brittle oxide scale formed on copper”, **Oxidation of Metals**, Vol. 27, No.1/2, pp. 97-104, 1987.
6. **B.B Jha**, A.S Khanna and Baldev Raj: “Study of the oxidation behavior of 9Cr-1Mo using acoustic emission technique”, **Journal of Mat. Sci.** Vol. 22, No. 8, pp. 2823-2827, 1987.
7. A.S. Khanna, **B.B. Jha** and Baldev Raj: “The application of Acoustic Emission technique in high temperature oxidation studies”, **Journal of Acoustic Emission**, Vol. 6, No. 4, pp. 209-214, 1987.
8. A.S. Khanna, **B.B. Jha** and Baldev Raj: “Application of Acoustic Emission Technique in High temperature oxidation Studies”, **Proc. Tenth International congress on Metallic Corrosion**, pp. 3443-3451, 7-11 Nov. 1987, Madras, India.
9. Baldev Raj, T. Jaykumar, P. Kalynasundaram, P. Barat, **B.B. Jha**, D.K. Bhattacharya and P. Rodriguez: “Comparative studies on Acoustic emission generated during Luder’s Deformation in mild steel and Portevin – Le chatelier effect in Austenitic stainless steel”, **Journal of Acoustic Emission**, Vol. 8, No.1/2, pp. s149-s153, 1989.
10. Baldev Raj, **B.B. Jha** and P. Rodriguez: “Frequency spectrum analysis of Acoustic Emission signal obtained during tensile deformation and fracture of an AISI 316 type stainless steel”, **Acta Metallurgica**, Vol. 37, No. 8, pp. 2211-2215, 1989.

11. **B.B. Jha**, Baldev Raj, A.S. Khanna, D.K. Bhattacharya and K.J.L. Iyer: “Correlation of Acoustic Emission events with parabolic oxidation behavior of 2.25 Cr-1Mo steel”, **Journal of Materials Science letters**, Vol. 10, No. 2, pp. 64-66, 1990.
12. Baldev Raj, **B.B. Jha**, A.S. Khanna, and D.K. Bhattacharya: “Acoustic Emission studies towards better understanding of high temperature oxidation in Cr-Mo steels”, **The International Journal of Pressure Vessels and Piping** , Vol. 45, No. 3, pp. 301-326, 1991.
13. **B.B. Jha**, Baldev Raj, A.S. Khanna, D.K. Bhattacharya and K.J.L. Iyer: “Acoustic Emission as a technique to study breakaway oxidation and spalling behavior of 2.25 Cr-1Mo steel”, **Journal of Materials Science**, Vol. 26, No.16, pp. 4455-4460, 1991.
14. Baldev Raj and **B.B. Jha**: “Acoustic Emission–I: Fundamentals of Acoustic Emission”, **Journal of Non-destructive Evaluation**, Vol. 12, No. 1, pp. 37-47, 1992.
15. Baldev Raj and **B.B. Jha**: “Application of Acoustic Emission in Materials Research”, **Journal of Non-destructive Evaluation**, Vol. 12, No. 2, pp. 29-46, 1992.
16. Baldev Raj and **B.B. Jha**: “Fundamentals of Acoustic Emission”, **British Journal of NDT**, Vol. 36, No. 1, pp. 16-23, 1994.
17. **B.B. Jha**, A.S. Khanna and Baldev Raj: “Study of spallation characteristics of oxide plate in 2.25Cr-1 Mo ferritic steel by acoustic emission technique”, **Proc. of 14th world conf. on non-destructive techniques (14th WCN DT) edited by Baldev Raj et al, New Delhi, India, Dec. 8-13, pp. 2519-2523, 1996.**
18. **B.B. Jha** and Baldev Raj: “Acoustic emission generated during tensile plastic deformation in mild steel”, **Proc. of 14th world conf. on non-destructive techniques (14th WCN DT) edited by Baldev Raj et al, New Delhi, India, Dec. 8-13, pp. 2355-2359, 1996.**
19. **B.B. Jha**: “Amplitude distribution analysis of AE signals obtained during high temperature oxidation of Zircaloy”, **Mechanical Engg. Bulletin**, Vol. 36, No. 1&2, pp. 13-17, June 1995.
20. **B.B. Jha**, A.B. Mondal and B.K. Sinha: “Role of Larson Miller parameter in assessing remaining life of 2.25 Cr-1Mo steel for Boiler applications”, **Mechanical Engg. Bulletin**, Vol. 25, No. 1&2, pp. 6-11, 1994.
21. **B.B. Jha** and Baldev Raj: “Study of spalling characteristics of oxide scale in 2.25 Cr - 1Mo ferritic steel by Acoustic Emission Technique”, **Mechanical Engg. Bulletin**, Vol. 26, No. 3&4, pp. 15-21, 1995.

22. **B.B. Jha** and S. Roy: "A practical approach to residual life assessment of power plant components", **Proc. of International symposium on "Materials aging and life management"** Oct. 3-6, 2000, Kalpakkam, India Eds Baldev Raj, K.B.S. Rao, T. Jayakumar and R.K. Dayal, pp. 1188-1193, Allied Publishers Ltd., Chennai(2000).
23. **B.B. Jha**: "Parmanu Shakti; Urja Ka Ek Mahatwapurna shroth (In Hindi)", **Durgapur Bharti, Issue-2, pp. 24, 2002.**
24. **B.B. Jha**, Sunita Routray and V.N. Misra: "Prospectus of power sector refurbishment in Orissa-Challenges and opportunities", **Steel and Metallurgy, Vol. 7, No-5, pp. 35-42, March 2005.**
25. V.N. Misra and **B.B. Jha**: "Challenges and opportunities in Mineral Processing", **Steel and Metallurgy, Vol. 7, No-5, pp. 43-47, May 2005.**
26. **B.B. Jha** and V.N. Misra: "A practical approach to access the damage process of heat resitant matrerials for power engineering", **Steel and Metallurgy, Vol. 7, No-11, pp 49-53, Sept. 2005.**
27. **B.B. Jha**, Sunita Routray and V.N. Misra: "Prospects for growth of sponge iron industries in Orissa", **Steel and Metallurgy, Vol. 7, No-10, pp 34-40, Aug. 2005.**
28. **B.B. Jha** and V.N. Misra: "Role of hardness measurement in remaining life prediction of high temperature components", **Minerals and Metals Review, Vol-31, No-7, pp. 66- 70, July 2005.**
- 29.**B.B. Jha** and V.N. Misra: "Recent trends in residual life assessment of high temperature tubing", **Proc. of Int. Conf on Emerging trends in Extractive Metallurgy and Mineral Processing, (ICME-2005) edited by T.Subaiah et al, RRI, Bubaneswar, India, June 13-14, pp. 465-473, 2005.**
- 30.**B.B. Jha** and V.N. Misra: "Assessment of present state of health and service suitability of coach wheel discs", **Proc. of Int. Conf on Emerging trends in Extractive Metallurgy and Mineral Processing, (ICME-2005) edited by T.Subaiah et al, RRI, Bubaneswar, India, June 13-14, pp. 22-34, 2005.**
31. **B.B.Jha**: "An investigation towards service suitability assessment of coach wheel discs", **Steel and Metallurgy, Vol. 9, No-10, pp. 44-52, August 2007.**

32. **B.B.Jha, B.K.Mishra, B. Satpati and S.N.Ojha**, “Effect of Thermal Ageing on the Microstructure and Mechanical Properties of 2.25Cr-1Mo Steel”, **Material Science – Poland**, Vol. 28, No. 1 , pp. 335-346, 2010.
33. **B.B. Jha, B.K. Mishra, B. K. Mohapatra and S.N. Ojha**, “Acoustic Emission studies during high temperature oxidation of 2.25Cr-1Mo Steel at 1173 K”, **Materials at high temperature**, Vol. 27, No. 4, pp. 301-311, 2010.
34. **B.B.Jha, B.K.Mishra and S.N.Ojha**, “Effect of Microstructural Variation on Hardness Degradation of 2.25Cr-1Mo Steel and its Impact on Residual Life Assessment”, **Canadian Metallurgical Quarterly**, Vol. 49, No. 3, pp. 293-300, 2010.
35. **B.B.Jha**: “Non-destructive inspection techniques for pipeline corrosion monitoring – A review”, **Steel and Metallurgy**, Vol. 11, No-4, pp. 30-40, February 2009.
36. **B.B.Jha, B.K.Mishra and S.N.Ojha**, “Spectrum analysis of Acoustic emission signal obtained during breakaway oxidation of 2.25Cr-1Mo steel”, **Defect and Diffusion Forum**, Vol. 293, pp. 27, 2009.
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53. **K.Bhaskaran, B.B.Jha, B.K.Mishra, O.I.Bylya and M.K.Sarangi, P.V.Chystyakov, A.V. Muravlev, R.A.Vasin** “Development of a variant of scalar constitutive equations suitable for description of the near super-plastic regimes of deforming” in **International Conference on Mechanical and Aerospace Engineering (CMAE 2011), March 19-20, 2011, New Delhi, India.**
54. **B.B.Jha, T.K.Sahoo, D. Tripathy and B.K.Mishra**, “Assessment of Microstructural Degradation in 2.25Cr-1Mo Steel Using Miniature Specimen Technique” in **International Conference on Advances in Analytical Techniques and Characterization of Materials, RDCIS, Ranchi, India between July 5-7, 2011.**
55. **B.B. Jha, B.K. Mishra and S.N. Ojha**, “Oxidation behavior of 2.25Cr-1Mo steel and its microstructural degradation” in **International Conference on Advances in Analytical Techniques and Characterization of Materials, RDCIS, Ranchi, India between July 5-7, 2011.**
56. **Payodhar Padhi, Vyjanto K Roy, B.B.Jha and T.K. Sahoo**, “Dry sliding wear behavior of aluminium and Al₂O₃ nano particles” (Metal Matrix Nanocomposites), **International conference on Advanced Materials (ICAM - 2011), Department of Physics, Coimbatore, Tamilnadu, India from December 12-16, 2011.**

57. **R.K.Sahoo, B.B.Jha, T.K.Sahoo, B.K.Mishra**, “A study on microstructural variation in near alpha Ti alloys under non-stationary process of superplastic deformation ” in **National conference on Processing and characterization of Materials** held at NIT, Rourkela, Dec-2nd -3rd, 2011.
58. **B.B.Jha, T.K.Sahoo, D.Tripathy, B.K.Mishra**, “Use of Miniature Specimen Technique for the assessment of Microstructural Degradation in 2.25Cr-1Mo Steel” in **National conference on Processing and characterization of Materials** held at NIT, Rourkela, Dec-2nd -3rd, 2011.
59. S.Mantry, **B.B.Jha**, D.Behera, B.K.Mishra, A.Satapathy “Evaluation and Characterization of Plasma Sprayed Composite Coating on Metal Substrates” Proceedings of 4th International conference on recent advances in composite materials, February, 2013, Goa.
60. **B.B.Jha**, M.Scheffler, S.Rannabauer, S.Mantry, R.Sahoo , B.K.Mishra “Structure Property Co-relationship of Glass–Epoxy Composites Filled with Copper Slag under the Influence of Tensile Loading” Proceedings of 4th International conference on recent advances in composite materials, February, 2013, Goa.
61. Sisir Mantry , Alok Satapathy, **B.B. Jha**, B.K.Mishra “Development of plasma sprayed ceramic coatings using copper slag – A solid waste of copper refinery plant” International congress of Environmental Science & Technology, May, 2012, Argentina.
62. R.Sahoo, **B.B.Jha** and T.K.Sahoo, Dry Sliding Wear Behaviour of biomedical grade Ti-6Al-4V Alloy Consisting of Bimodal Microstructure", International conference on Recent advances in composite materials held at International center, Goa on 18 -21 February 2013.
63. R.Sahoo, **B.B.Jha** and T.K.Sahoo, A study on the effect of volume fraction of primary alpha phase on mechanical behaviour of near alpha titanium alloy using miniature specimen technique", National conference on processing and characterization of materials held at NIT, Rourkela during 7-8 December 2012.
64. R.Sahoo, S.Mantry, T.K.Sahoo, S.Mishra and **B.B.Jha**, Influence of microstructure on solid particle erosion behaviour of Ti-6Al-4V alloy, National conference on processing and characterization of materials held at NIT, Rourkela during 7th -8th December 2012.
65. A.B. Pattnaik, **B.B. Jha** and R. Sahoo, Effect of strain rate on acoustic emission during tensile deformation of α -brass, National conference on processing and characterization of materials held at NIT, Rourkela during 7th -8th December 2012.
66. A.B. Pattnaik and **B.B. Jha**, Acoustic emission during Tensile plastic deformation of 2.25Cr-1Mo steel, 3rd International Conference on Thermo-mechanical Simulation and Processing of Steels (SimPro'12), 12-14 December 2012, Ranchi, INDIA.
67. **B.B.Jha**, T.K.Sahoo, D. Tripathy and B.K.Mishra, Miniature Specimen Technique For Assessing The Microstructural Degradation In 2.25Cr-1Mo Steel, 3rd International Conference on Thermo-mechanical Simulation and Processing of Steels (SimPro'12), 12-14 December 2012, Ranchi, INDIA.

68. A.K. Chaubey, K. Jayasankar, P.S. Mukherjee, **B.B. Jha** “An innovative method to utilize plant waste for value added product and sustainable environment” Indian Science Day 11 June-2012 at Freie university Berlin, Germany
69. A.K. Chaubey, **B.B. Jha**, B.K. Mishra, N.K. Mukhopadhyay “Mg-6.7% Al metal matrix composites reinforced with nanocrystalline Al-Ca intermetallics” Int. conf. and Exhibition on powder metallurgy (PM-13) 7th – 9th March 2013 at Pune, India.
70. A.K. Chaubey, **B.B. Jha**, N.K. Mukhopadhyay, B.K. Mishra “Effect of Cerium on structural stability and mechanical properties of Mg–Al alloy” in EEMR-2013 held at IMMT Bhubaneswar.
71. A. K. Chaubey, **B. B. Jha**, N. K. Mukhopadhyay, B. K. Mishra “Microstructure and mechanical property of Mg-7.4%Al alloy produced by hot consolidation of mechanically alloyed powder” NMD-ATM-2013 held at IIT(BHU) Varanasi.
72. A.K. Chaubey, **B.B. Jha**, K.G. Prashanth “Al metal matrix composites reinforced with nanocrystalline Al-Ca intermetallics” in PLASMA-2013 held at KIIT University Bhubaneswar.
73. A.K. Chaubey, **B.B. Jha**, B.K. Mishra, N.K. Mukhopadhyay “Mg-6.7%Al metal matrix composites reinforced with nanocrystalline Al-Ca intermetallics” in PM-2013 held at Pune)
74. A. K. Chaubey, K.G. Prashanth, **B. B. Jha**, N. K. Mukhopadhyay, B. K. Mishra “Development of Al- based metal matrix composites reinforced with mechanically alloyed Mg-7.4%Al particles through powder metallurgy processing”, in ICEMP-2014 held at IMMT Bhubaneswar.
75. Rohit Kumar, A. K. Chaubey, **B. B. Jha**, B. K. Mishra “Synthesis and characterization of Al₂O₃-TiC nano-composite by spark plasma sintering process for the cutting tool application” in ICEMP-2014 held at IMMT Bhubaneswar.
76. R.Sahoo, **B.B.Jha**, T.K.Sahoo, S.K.Badajena, “A study on the effect of volume fraction of primary alpha phase on mechanical behavior of Ti-6Al-4V alloy using miniature specimen technique”, NMD-ATM held at IIT, Varanasi during 12th -15th November 2013.
77. R.Sahoo, **B.B.Jha**, T.K.Sahoo, “Effect of Microstructural Degradation on Solid Particle Erosion Behavior of 2.25Cr-1Mo Steel” NMD-ATM held at IIT, Varanasi during 12th - 15th November 2013.
78. R.Sahoo, S. Mantry, **B.B.Jha**, “ Development and Characterization of Iron Aluminide Coatings by Thermal Plasma Spray Technique of Aluminum Powders on Mild Steel Followed by Subsequent Annealing and Evaluation of Its Erosion Behavior, 28th National Symposium on Plasma Science & Technology (PLASMA 2013) held at KIIT University, Bhubaneswar during 3rd -6th December 2013.

79. S. Mantry, **B.B.Jha**, R.Sahoo, “Implementation of Taguchi Design for Performance Evaluation of Plasma Sprayed Nano-structured YSZ Coatings”, 28th National Symposium on Plasma Science & Technology (PLASMA 2013) held at KITT University, Bhubaneswar during 3rd -6th December 2013.
80. R.Sahoo, **B.B.Jha**, T.K.Sahoo, “Effect of volume fraction of primary alpha phase on dry sliding wear behavior of near alpha Titanium alloy”, National conference on processing and characterization of materials held at NIT, Rourkela during 6th -7th December 2013.
81. R.Sahoo, **B.B.Jha**, T.K.Sahoo, “Effect of volume fraction of primary alpha phase on high temperature solid particle erosion behavior of Ti-6Al-4V alloy”, National conference on processing and characterization of materials held at NIT, Rourkela during 6th -7th December 2013.
82. S. Mantry, **B.B.Jha** and R.Sahoo, “Solid Particle Erosion behavior of Plasma Sprayed LaYSZ Nanocomposite Coatings” 6th Asian Thermal Spray Conference being held at ARCI, Hyderabad on 24-26th November 2014.
83. S. Mantry, **B.B.Jha** and R.Sahoo, “Influence of particle state diagnostics on microstructure of Plasma Sprayed nanocomposite LaCeYSZ coatings” 6th Asian Thermal Spray Conference being held at ARCI, Hyderabad on 24-26th November 2014.
84. R. Sharma, R. Sahoo, B.B. Jha, and P.S. De, “Study of growth kinetics of a thermally aged LPTR blade on application of load at high temperature”, International conference on materials science and technology held at University of Delhi during 1st – 4th March 2016.
85. B. B. Jha, R. Sahoo, T.K. Sahoo, and S.N. Ojha, “Oxidation behavior and its impact in residual life assessment of Cr-Mo steel components”, 4th International conference on Thermomechanical simulation and processing of steel (SIMPRO 16), held at RDCIS, Ranchi during 10th- 12th February 2016.
86. B.B. Jha, R. Sahoo, and T.K. Sahoo, “Microstructural characterization of Ti-6Al-4V using ultrasonic attenuation and its correlation with mechanical behavior”, 25th National seminar and International exhibition on Non Destructive Evaluation, held at Hyderabad during 26th-28th November 2015.
87. R. Sahoo, B.B. Jha and T.K. Sahoo, “Effect of Volume Fraction of Primary Alpha Phase on Solid Particle Erosion Behavior of Ti-6Al-4V Alloy” NMD ATM 2015 held at Coimbatore during 13th-16th November 2015.
88. B.B. Jha, and S. Mantry, “Plasma Sprayed Nano-structured YSZ Coatings Doped with Rare Earth Oxides: A state of the art”, 12th International Surface engineering, Paints and Coating symposium and Expo, held at New Delhi during 7th - 9th October 2015.
89. R. Sharma, R. Sahoo, B.B. Jha, T.K. Sahoo, and P.S. De, “Microstructural analysis of thermally aged LPTR blade of an aero engine”, National conference on emerging technologies for aerospace applications held at Sathyabama University, Chennai during 10th-11th April 2015

90. B.B. Jha, and S.N. Ojha, “Microstructural Characterization of Thermally Degraded 2.25Cr-1Mo steel Using Ultrasonic Measurement and Miniature Specimen Parameters including its Correlation with Wear Properties”, International Conference on Electron Microscopy, EMSI-2016 during June 2-4, 2016 held at IT, BHU Varanasi.
91. R. Sahoo, **B.B. Jha** and T.K. Sahoo, “Assessment of mechanical properties of Ti- 6Al-4V alloy by means of small punch test” International Conference on Electron Microscopy (EMSI 2016) held at IIT (BHU), Varanasi during 2nd – 4th June 2016
92. Sisir Mantry , alok Satapathy, **B.B. Jha**, B.K.Mishra “Development of plasma sprayed ceramic coatings using copper slag – A solid waste of copper refinery plant” International congress of Environmental Science & Technology, May, 2012, Argentina.
93. S. Sahoo , **B.B. Jha** , T.K. Sahoo , A. Mandal, Effect of TiB₂ reinforcement on wear performance of steel metal matrix composites produced by hot pressing method, NMD ATM 2018, Nov14-16.
94. S. Sahoo , **B.B. Jha** , T.K. Sahoo , A. Mandal, Effect of TiB₂ reinforcement on wear performance of steel metal matrix composites produced by hot pressing method, NMD ATM 2018, Nov14-16.
95. R. Sahoo, **B.B. Jha**, T.K. Sahoo and S. Bysakh, “Effect of Primary Alpha Phase Variation on Creep Behavior of Ti-6Al-4V Alloy: An Impression Creep and TEM analysis” NMD ATM 2018 held at Kolkata during 14th-16th November 2018.
96. R. Sahoo, R. Sharma, T.K. Sahoo, P.S De and **B.B. Jha**, “Morphological Stability of γ' Precipitates in a Nickel Base Superalloy: Continuous Vs. Cyclic Thermal Ageing” NMD ATM 2018 held at Kolkata during 14th -16th November 2018.
97. **B.B. Jha**, R. Sahoo and T.K. Sahoo, “Effect of volume fraction of primary alpha phase on impression creep behavior of Ti-6Al-4V alloy”, International conference on electron microscopy (EMSI 2018), Bhubaneswar, 18th -20th July 2018.
98. S. Mantry, R. Sahoo and **B.B. Jha**, “Characteristics of Plasma sprayed ceramic coatings using industrial wastes and low grade minerals”, National conference on waste to wealth in mineral and metallurgical industries (WMMI-2018) held at CSIR-IMMT, Bhubaneswar during 9th-10th March 2018.
99. R. Sahoo, T.K. Sahoo, S. Sahoo and **B.B. Jha**, “Assessment of mechanical properties of SA-213-T22 structural steel by means of small punch test”, Asia steel international conference 2018 held at Bhubaneswar during 6th-9th February 2018.
100. R. Sahoo, S. Mantry, T.K. Sahoo and **B.B. Jha** “Modeling on solid particle erosion behavior of 2.25Cr-1Mo steel”, Asia steel international conference 2018 held at Bhubaneswar during 6th-9th February 2018.

101. R. Sahoo, T.K. Sahoo and **B.B. Jha**, “Effect of volume fraction of primary alpha phase on stress exponent and activation energy of Ti-6Al-4V alloy: An impression creep study”, NMD ATM 2017 held at Goa during 11th-14th November 2017.
102. R. Sahoo, T.K. Sahoo and **B.B. Jha**, “Effect of microstructure on the creep properties of Ti-6Al-4V alloys: An analysis”, NMD ATM 2017 held at Goa during 11th-14th November 2017.
103. **B.B. Jha**, R.K. Satapathy, R. Sahoo and K. Muraleedharan, “Damage evaluation of Yttria stabilised Zirconia (YSZ) thermal barrier coatings”, International conference on electron microscopy and allied techniques (EMSI 2017) held at Mahabalipuram, Chennai during 17th -19th July 2017.
104. **B.B. Jha**, R.K. Satapathy, T.K. Sahoo and R. Sahoo, “Damage evaluation of Yttria stabilised Zirconia (YSZ) thermal barrier coatings”, 26th national seminar & international exhibition on non-destructive evaluation, held at Thiruvananthapuram during 15th -17th December 2016.
105. R. Sahoo, A.K. Chaubey, T.K. Sahoo and **B.B. Jha**, “Impression creep behavior of Mg-Nd Magnesium alloy”, International conference of young researchers on advanced materials (ICYRAM 2016) held at IISc, Bangalore during 11th-15th December 2016.
106. R. Sharma, R. Sahoo, T.K. Sahoo, **B.B. Jha**, and P.S. De, “Study of growth kinetics of a thermally aged LPTR blade on application of load at high temperature”, International conference on materials science and b technology held at University of Delhi during 1st – 4th March 2016.
107. R. Sahoo, **B.B. Jha** and T.K. Sahoo, “On the microstructural behavior of Titanium alloy during non-optimal regime of Superplastic deformation”, National conference on processing and characterization of materials held at NIT, Rourkela during 5th -6th December 2014.
108. S. Mantry, R. Sahoo, **B.B. Jha**, B.K. Mishra and M. Chakraborty, “Tribological studies of plasma sprayed YSZ-La₂Ce₂O₇ nanocomposite coatings”, International conference on emerging materials and processes held at CSIR-IMMT, Bhubaneswar on 26-27th February 2014.
109. **B.B. Jha**, M. Scheffler, S. Rannabauer, S. Mantry, R. Sahoo and B.K. Mishra, “Structure property co-relationship of Glass-Epoxy composites filled with copper slag under the influence of tensile testing”, International conference on emerging materials and processes held at CSIR-IMMT, Bhubaneswar on 26-27th February 2014.
110. **B.B. Jha**, R. K. Sahoo, T. K. Sahoo and S. Bysakh,” Impression Creep Behavior of Ti-6Al-4V Alloy: A Study on Various Creep Deformation Mechanisms by TEM Analysis” **12th Asia-Pacific Microscopy Conference (APMC 2020)** Hyderabad International Convention Centre, **3-7 February 2020**, Hyderabad, India

- 111. B.B. Jha**, “ A Practical Approach towards Damage Assessment of High Temperature Components in Service” in a Short Term Course on **“Protection of On-Shore and Off-Shore Facilities against Corrosion in the Coastal Region”** during **20-24th January 2020** at Bhubaneswar
- 112. B.B. Jha**, “Structural Health Monitoring for enhancing the service worthiness of Assets and Components” presented in 1st National Conference on Materials, Mechanics & Modelling, **29th & 30th Aug 2020** Organised by Department of Mechanical Engineering, National Institute of Technology Jamshedpur, India Sponsored by TEQIP III (A Government of India Project Assisted by World Bank)
- 113. B.B. Jha**, ”Assessment of service worthiness of high temperature components in in thermal power plants “, in National online conference on Research and development of materials processing, modelling and characterisation, **26-27 August 2020** at NIT Jamshedpur.
- 114. B.B. Jha**, (2020) “Asset Integrity Management of High Temperature Tubing’s in Service” in National Webinar on Oilfield Chemistry & Chemical Engineering Organised by Eventagious ConEx, New Delhi Date: 17th August 2020,
- 115. B.B. Jha** (2020), “ Asset Integrity Management towards enhancing the service worthiness of components and pipelines “. In International online webinar on Asset integrity management and Inspection technologies, New Delhi, September 29, 2020.
- 116. B.B. Jha**, (2020) “Structural Health Monitoring and Residual Life Assessment of Pipelines” in National Conference on Integrity Management of “Oil & Gas Pipelines, New Delhi. Date: 8-9th OCTOBER 2020 .
- 117. B.B. Jha** (2020), “Integrity Assessment and Residual Useful life of Mining Components” in National webinar on India Corrosion Technology Forum, New Delhi on November 6, 2020 (Keynote Lecture)
- 118. B.B. Jha** (2021), “Advanced NDE methods for Integrity Assessment of Pipelines in a National Virtual conference of pipeline technology forum on 18-19th Jan. 2021 Organised by IONEX, New Delhi
- 119. B.B. Jha** (2021), “RECENT ADVANCEMENT IN INSPECTION TECHNIQUES TOWARDS PIPELINES RISK MANAGEMENT” in a 2nd Pipeline Technology Forum(2nd PTF 2021)” organized by Conex India, New Delhi Date: 26th April 2021,
- 120. B.B. Jha**, (2021), “ Recent Advancement in Inspection Technologies towards pipeline risk management” in International Virtual conference on City gas and Natural Gas Forum, New Delhi, May 7-8, 2021.
- 121. B.B. Jha**, (2021)“ Structural Integrity Assessment by Latest NDT and Inspection Techniques “ in 2nd International Virtual conference and exhibition on Asset Integrity Management and Technology Forum, New Delhi, June 22-23, 2021
- 122. B.B. Jha**,” Recent Intrusive /Non Intrusive techniques for Integrity Assessment of Non-piggable pipelines” in Global pipeline technology and development Conference (PIPE-TECH 2021), 29-30 September 2021, New Delhi.

- 123.B.B. Jha**, “Asset Integrity Management through latest Non Destructive Techniques”, in International Conference India corrosion technology Forum, 24-25 September 2021, New Delhi.
- 124.B.B. Jha**, “Asset Integrity Management towards enhancing the service worthiness of components and pipelines”, International webinar on Asset Integrity management and inspection technology Forum, 29th August 2021, New Delhi.
- 125.B.B. Jha**,” Recent trends in remnant life assessment of Engineering components through advanced NDE methods”, in 2nd virtual conference on Integrity management of oil and gas pipelines, October 7, 2021, New Delhi.
- 126.B.B. Jha**,”Science, Scientists, Scholars & Students in New Millennium” in Two days National Workshop on Importance of Online education system in Pedagogy (IOESP-2021), September 3&4, 2021, NIT Jamshedpur
- 127. B.B. Jha**, R.K. Satpathy, T.K. Sahoo and R. Sahoo “ Damage Evaluation of Ytria Stabilised Zirconia (YSZ) Thermal Barrier Coatings” , First National Thermal Spray Conference And Exposition 2023(NTSC- 2023) during February 18-19, 2023 held at Hotel Shree Ram International, Jodhpur, India.
- 128. B.B. Jha**, and C. Siddaraju “ Structural Integrity Evaluation of Thermal Barrier Coatings” 15th International Conference on Surface Protective Coatings and Paint Expo, September 15-16, 2023 at Hotel Lalit, International Airport , Mumbai, India
- 129. B.B. Jha**, and C. Siddaraju “ Structural Alteration and Damage Evaluation of Thermal Barrier Coatings” Asian Thermal Spray Conference and Expo 2023 (ATSC-2023), November 2-4, 2023, held at Indian Institute of Technology Madras, India.
- 130. B.B. Jha**, “ Advanced Ceramics for Strategic Applications “ Eighteenth edition of Indian Ceramics Asia, March 6-8, 2024, held at Helipad Exhibition Centre, Gandhinagar, Gujrat, India.
- 131. B.B. Jha**, “Advanced Ceramics for Strategic Applications” 4th Global Ceramic Leadership Roundtable Ceramics for Frontier Sectors: Emerging Advances and Propects (CerAP2024), March 11-12,2024, held at Centre for Space Science and Technology, IIT Roorkee, India.
- 132. B.B. Jha & Silani Sahoo**, “Advanced Ceramics for Nuclear Reactors: Future Prospects” 96th Foundation day Celebration of the InCerS India along with One day Seminar on “Challenges and Future prospective of Advanced Ceramics” held on April 23, 2024 at IIT Chennai.
- 133. B.B. Jha & Silani Sahoo**, “Advanced Ceramics for Nuclear Industries” International Conference on Frontier in Ceramic Materials (ICFCM 2024) & Alumni Meet Centenary Celebration- 2024 Department of Ceramic Engineering, IIT (BHU), Varanasi ,16-18th December 2024.

List of Invited Talks (30):

- 1. Applications of Acoustic Emission-NDT.**
At one day seminar on “Acoustic Emission-NDT”, March 10, **1989**, VSSC Trivendrum.
- 2. An overview of RLA studies of power plant components.**
January 20, **2004**, Ib Thermal Power Station, Vanherpalli, Jharsuguda, Orissa.
- 3. Assessment of service worthiness of high temperature materials.**
At one day seminar on “Brain storming session on advance materials and applications, January 21, **2005**, State Council on Science and Technology, Govt. of Orissa.
- 4. Residual life assessment of high temperature components.**
On the eve of “National Technology Day”, May 11, **2004**, RRL, Bhubaneswar.
- 5. Service suitability assessment of components using non-destructive techniques.**
October 30, **2004**, East Coast Railways, Bhubaneswar.
- 6. Research career in Material Science.**
December 23, **2004** on the occasion of CPLYs program of CSIR.
- 7. Regain lost megawatts: a novel approach.**
On the eve of National Technology day, May 11, **2005** at NALCO, Angul.
- 8. Service suitability assessment of in-service components used in railway coaches.**
Interactive meet on service suitability assessment of in-service components held at RRL, Bhubaneswar on July 21, **2006**.
- 9. An overview of residual life assessment studies of power plant components.**
August 18, **2006**, Captive Power Plant, NALCO, Angul, Orissa.

- 10. An overview of RLA of high temperature components.**
February 22, 2008, Ib Thermal Power Station, Vanherpalli, Jharsuguda, Orissa.
- 11. Acoustic Emission during High Temperature Oxidation of 2.25Cr-1Mo Steel.**
January 27, 2010, Institute of Microstructure and Properties, Juelich, Germany.
- 12. Miniature specimen technology for Residual life assessment of power plant components.** January 20, 2010, RWTH, Aachen, Germany.
- 13. Oxide Scale Adherence behavior of 2.25Cr-1Mo steel in steam environment.**
August 20, 2010, Institute of Microstructure and Properties, Juelich, Germany.
- 14. Acoustic Emission in Materials Research.**
September 6, 2010, Mechanical Engineering Department, University of Leeds, UK.
- 15. Determination of Failure Criteria for Industrial Superplastic Forming.**
September 13, 2011, at workshop on “Failure Analysis” organized by The Aeronautical Society of India, Sunabeda Branch, HAL, Koraput.
- 16. Miniature Specimen Technologies for Materials Evaluation,** November 2, 2011,
Institute of Complex Materials (IKM), Dresden, Germany.
- 17. Research Activities in Surface Engineering Department, CSIR-IMMT, Bhubaneswar”** on 15th November 2011 at HAL, Koraput.
- 18. Role of Oxide Scale thickness in life evaluation of high temperature tubings,** January 20, 2012 Institute of Energy and Climate Research (IEK), Juelich, Germany.
- 19. Mechanical characterisation of high temperature components through miniature specimen techniques.**
June 14, 2012 at Otto-Von Guericke University (OVGU), Magdeburg, Germany.
- 20. Residual life assessment of engineering components.**
November 9, 2013 at High-tech Institute of technology, Bhubaneswar.
- 21. Precipitation kinetics in low alloy steel.**
October 4, 2013 at NIT, Rourkela.
- 22. Cyclic oxidation behavior of Cr-Mo steel in steam environment.**
April 12, 2013 at Institute of Climate Research, Juelich, Germany.
- 23. Plasma Sprayed Nanostructured YSZ Coatings Doped with Rare Earth Oxides: A state of the art,** October 8, 2015 at 12th International Surface Engineering, paints and coatings Symposium 2015, New Delhi.
- 24. Materials Development program in collaboration with HAL, Koraput and CSIR-IMMT, Bhubaneswar,** in Industry – Institute Partnership Meet 2015 held at KIST, Bhubaneswar on 22nd January 2016.
- 25. Microstructural Characterization of Thermally Degraded 2.25Cr-1Mo steel**

Using Ultrasonic Measurement and Miniature Specimen Parameters including its Correlation with Wear Properties”, International Conference on Electron Microscopy, EMSI-2016 during June 2-4, 2016 held at IT, BHU Varanasi.

26. **Assessment of Service Worthiness of High Temperature Components in Thermal Power Plants** in National Online Conference on “Research and Developments in Material Processing, Modelling and Characterization 2020” **26th -27th August, 2020**, Department of Metallurgical and Materials Engineering in Association with Department of Production and Industrial Engineering, National Institute of Technology Jamshedpur, India
27. **Inculcation of positive Research Environment in Higher Education Institutions** in SERB sponsored online workshop to Faculty members on Research Methodologies under SERB Scientific Social Responsibility Policy on 19th September, 2020 Organised by Department of Mechanical Engineering, National Institute of Technology Jamshedpur, India.
28. **Catalysing Quality Academic Research through Implementation of NEP 2020** in Two Days National Webinar on **INCULCATION OF RESEARCH CULTURE IN ACADEMIC INSTITUTIONS (IRCAI) – 2020, 05-06 September, 2020**, Jointly Organized by Department of Metallurgical & Materials Engineering and Office of, Dean (R & C), NIT Jamshedpur
29. **NEP 2020: Towards Education for All (Keynote Address)**, Summit on “**EDUCATION FOR ALL**” organised by KITS University, Bhubaneswar , 3rd February 2021.
30. **Science and Spirituality**, in **International Conference on Scientific Spirituality, March 21-22, 2024** , held at Dev Sanskriti Vishwavidyalaya, Haridwar, Bharat.

List of projects completed (as a leader):

Sl. No	Title of the Project	Sponsors	Project cost (Rs.)	Year
1.	Assessment of present state of health and service suitability of turbo-generator components (Unit-III)	M/s Bokaro steel Ltd. (SAIL), Bokaro, Bihar	4.85 Lakhs	1992
2.	Assessment of metal conditions of turbo-generator components by non-destructive testing (Unit-III)	M/s Talcher Thermal Power Station, OSEB, Orissa	3.5 Lakhs	1993
3.	Assessment of present state of health and service suitability of turbo-generator components (Unit-I)	M/s Bokaro steel Ltd. (SAIL), Bokaro, Bihar	4.85 Lakhs	1994
4.	Assessment of metal conditions of gas turbine components by non-destructive testing (Unit-IV and VIII)	M/s Gas turbine power station, Uran (MSEB), Maharashtra	6.00 Lakhs	1994
5.	Service suitability assessment of boiler components by non-destructive testing (Unit-I and II of 35 MW set)	M/s Shriram Fertilizers and Chemicals, Kota, Rajasthan	8.35 Lakhs	1995
6.	Assessment of metal conditions of gas turbine components by non-destructive testing (Unit-II and VII)	M/s Gas turbine power station, Uran (MSEB), Maharashtra	6.00 Lakhs	1995
7.	Service suitability assessment of waste heat boiler components by non-destructive testing (Unit-VE, IIC, IVA and ID)	M/s Bokaro steel Ltd. (SAIL), Bokaro, Bihar	16.15 Lakhs	1996
8.	Assessment of metal conditions of gas turbine components by non-destructive testing (Unit-III and IV)	M/s Gas turbine power station, Uran (MSEB), Maharashtra	5.6 Lakhs	1997
9.	Assessment of service-induced damage and residual life of turbine components at STPS, Santhaldih (Unit-I)	M/s Development consultants Ltd., Kolkata	13.00 Lakhs	1998
10.	Non-destructive examinations of various boilers and turbine components by non-destructive testing (Unit-I and II of 30 MW set)	M/s Shriram Fertilizers and Chemicals, Kota, Rajasthan	6.00 Lakhs	1998
11.	Assessment of metal conditions of gas turbine components by non-destructive testing (Unit-I and V)	M/s Gas turbine power station, Uran (MSEB), Maharashtra	5.96 Lakhs	1998

12.	Residual life of estimation studies of turbine components (Unit-I and III)	M/s Chandrapura Thermal Power Stations (DVC), Chandrapura, Bihar	4.73 Lakhs	1999
13.	Assessment of present state of health and service suitability of boiler components	M/s DSM Sugar Mill, Kashipur (UP)	3.25 Lakhs	1999
14.	Service suitability assessment of waste heat boiler components by non-destructive testing (Unit-IIIB)	M/s Bokaro steel Ltd. (SAIL), Bokaro, Bihar	4.9 Lakhs	1999
15.	Service suitability assessment of boiler components using non-destructive testing (Unit-II and VI)	M/s Durgapur Steel Plant (SAIL), Durgapur, WB	4.55 Lakhs	2000
16.	Assessment of present state of health and service suitability of boiler components (Unit-I and II)	M/s Dayasugar Mill, Saharanpur (UP)	6.00 Lakhs	2000
17.	Condition assessment and residual life estimation of 81.7 TPH boiler components (Unit-V and VI)	M/s Bellary Alloys and Steels Ltd., Bellary, Karnataka	8.38 Lakhs	2001
18.	Assessment of present state of health and service suitability of turbine components (Unit-II)	M/s Shriram Fertilizers and Chemicals, Kota, Rajasthan	3.75 Lakhs	2001
19.	Assessment of present state of health and service suitability of boiler components (Boiler No: GT1283)	M/s Jaypore Sugar Co., Chaggulu, AP	3.00 Lakhs	2001
20.	Condition assessment and residual life estimation of 81.7 TPH boiler components (Unit-IV and V)	M/s Bellary Alloys and Steels Ltd., Bellary, Karnataka	8.38 Lakhs	2002
21.	Assessment of present state of health and service suitability of turbine components (Unit-I)	M/s Dayasugar Mill, Saharanpur (UP)	3.25 Lakhs	2002
22.	Reviews of reports on RLA study of 2x30 MW and 3x75 MW units at DPL, Durgapur	M/s Development consultants Ltd., Kolkata	2.25 Lakhs	2003
23.	Quality evaluation of Coach wheel discs	M/s East Coast Railways, Bhubaneswar	3.00 Lakhs	2003
24.	Service suitability assessment of Coach wheel discs	M/s East Coast Railways, Bhubaneswar	3.00 Lakhs	2004
25.	Plasma processing of industrially important high temperature materials (as a member). Project duration (2002-2007)	CSIR Network Project	150.00 Lakhs	2004
26.	Assessment of present state of health of Coach Wheel discs for surface discontinuities	M/s East Coast Railways, Bhubaneswar	19.00 Lakhs	2005

27.	Developing new building construction materials and technologies (as a member). Project duration (2002-2007)	CSIR Network Project	70.00 Lakhs	2005
28.	Service suitability assessment of draw gear and bogie components	M/s East Coast Railways, Bhubaneswar	22.80 Lakhs	2006
29.	Technology for assessment and refurbishment of engineering materials and components (TARE Mac). Project duration (2007-2012)	CSIR Network Project	60.00 Lakhs	2007
30.	Assessment of present state of health of draw gear components for service worthiness using non-destructive inspection	M/s East Coast Railways, Bhubaneswar	20.16 Lakhs	2008
31.	Experimental and Theoretical Investigations of the Mechanical Behavior and the Evolution of Structure for the Alloys under Non-stationary Process of Superplastic Deformation	DST, New Delhi	17.50 Lakhs	2009
32.	Investigation on isothermal and cyclic Oxidation behaviors of 2.25Cr-1Mo steel in steam environment	Institute of Climate and Energy Research, Juelich, Germany	8.55 Lakhs	2013
33.	Novel energy effective metallic materials for automotive and general engineering applications	CSIR Network Project 12 FYP	215 lakhs	2012-2017
34.	Mechanical characterization of composites through miniature specimen technique	OVGU-Magdeburg, Germany	10.65 Lakhs	2013
35.	Centre for special materials	CSIR Network Project	20 Crores	2012-2017
36.	Materials Development for Restoring the Heritage Structure	CSIR Mission Projects	2 Crores	2018-2020

