

## Resume

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**Professor**

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### 1. Qualifications

Qualification	Board/ University	Marks Obtained	Class	Year of passing
B.E.(Met.Engg)	V.N.I.T. Nagpur	72%	I	1991
M.Tech. (Process.Met.)	I.I.T, Mumbai	C.P.I.=9.28	I	1995
Ph.D.	V.N.I.T., Nagpur	Studies of Tribological properties of Copper- based Composites		Jan-2007

### 2. Teaching and Industrial experience

Period		Organization	Designation
From	To		
1/9/2007	Till date	Govt. College of Engg , Pune	Professor
1/1/2006	31/8/2007	Govt. College of Engg , Pune	Associate Professor
18/7/2002	31/12/2005	Govt. College of Engg , Pune	Asstt Professor
1/9/1999	17/7/2002	Govt. College of Engineering, Aurangabad	Asstt Professor
9/9/1998	30/8/1999	Govt. College of Engg., Pune	Lecturer
1/7/1995	3/9/1998	Vidarbha Iron and Steel Company, Nagpur	Sr. Metallurgist
14/2/1995	30/6/1995	Rajinder Steels Raipur	Sr. Engineer
16/10/1991	19/6/1993	Vidarbha Iron and Steel Company, Nagpur	Metallurgist
5/5/1991	12/10/1991	Adhor Fontech Ltd., Nagpur	Metallurgist

**3. Collaborative projects (Completed and On-going)**

Sr. No	Title of the project	Period	Funding Agency	Amount Rs. (lakhs)
1	Development of Cu-8Cr-4Nb copper alloy for Rocket Combustion Engine	2003-2004	ISRO	0.98
2	Oxide dispersion copper base composite	2003-2004	ISRO	1.0
3	Up-gradation of Material characterization laboratory for R and D	2004-2006	AICTE	15.0
4	Extension of Projects as mentioned in Sr.No. 1 and 2.	2005-2007	ISRO	8.02
5	Development of Metallurgy Lab. (At Govt. College of Engg., Aurangabad	2001-2003	AICTE	7.0
6	Synthesis of FGM and wear mechanism studies	2008-2009	DRDO	5.21
7	Development of Aluminum MMCs for Wear resistant components	2009-2012	UGC	11.99
8	Study of Material characteristics of Complex alloyed Tool steel at cryogenic temperature	2009-2013	DST (SERB)	27.0
9	Development of Diamond Cutting Tool	2010-2012	IMP Pune	6.68
10	Wear properties of cryogenically treated gear materials	2010-2011	John-Deere Ltd.	2.25
11	Sintering of AL-PM component	2011-2012	SSPL Pune	3.40
12	Application of electrolytic iron powder for Soft magnetic Composites ( SMC)	2012-2013	IMP Pune	9.82
13	Development of wire saw beads	2012-2013	IMP Pune	4.21
14	Influence of cryogenic treatment on fatigue and wear properties of gear material	2013-2016	AICTE_RP S	18.5
15	Correlating wear behavior for cutting blade	2013-2014	John Deere	3.50
16	Synthesis of high temperature thermoelectric material FeSi2 by mechanical milling	2013-2016	BRNS	30.0
17	Synthesis <i>Design and Development of High Vibration Damping Al-Alloys (AA7075) 10 Wt.-%-Graphite Composites for Naval Applications</i>	2017-2020	NRB DRDO	25.0
18	Wear, corrosion and impact toughness of HNMS for cryo application	2017-2019	ISRO	15.0
19	DST-FIST program for R and D infrastructural development ( Dept Project coordinator)	2018-2021	DST-FIST	150

20	Development of austenite matrix hardfacing alloys	2018-2021	IGCAR	29
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( Total worth of project : Rs.3.73 Crores)

#### 4. Achievements

- [1] **Prof.G.S.Tendulkar award for the Best Paper award** for Industrial driven research project with cash prize of Rs.10,000 for paper titled *Effect of Iron powder Dilution on Sinter properties of M3/2 tool steel* in International Conference on Powder Metallurgy (PM-11), 3-5Feb.2011 at Hotel Westin Pune. This was part of the project carried out by J. Surywanshi and A. Manwatkar.
- [2] **PMAI Best Paper award** for Industrial driven research project with cash prize of Rs.10,000/- for the paper titled *Optimization of Heat treatment cycle for Valve Seat Insert* in International Conference on Powder Metallurgy (PM2010) at Jaipur , 28-30/01/2010 . This was part of the B.Tech. project carried out by S.Madki and N. Patel.
- [3] **I I M certificate of Honour** by IIM Kokatta for *commendable work in Membership and enhancement of IIM activities*. This was awarded on 13/11/2011 in NMD-ATM held at Leonia International exhibition centre Hyderabad.
- [4] **Prof.G.S.Tendulkar award for the Best Paper award** for Industrial driven research project with cash prize of Rs.10,000 for paper titled *Powder Forging of Iron based powders* in International Conference on Powder Metallurgy (PM-16), 20-22 Feb 2016 at Hotel Hyatt Pune. This was part of the M.Tech. project carried out by S.Dhokale, V.T.Thavale

#### 5. Patent filed

1. Indian Patent filed vide 1884/MUM/2012 dtd. 29/9/2012 entitled IRON PARTICLES COATED WITH MAGNESIUM COMPOUNDS, PROCESS FOR PREPARING THESE IRON PARTICLES AND USES THEREOF.
2. Indian Patent applied vide Application no. 201921003487 dtd. 29/1/2019, DESIGN OF MECHANICAL GRINDING SYSTEM AND PROCESS FOR MODIFICATION OF IRREGULAR SHAPED METAL BASED POWDERS AND PRODUCT THEREOF

#### 6. Technical / Consultancy Assignments

L and T Pune, Kayalni Lemmerz, Tata Motoors, SanDonfoss, Sunflag Iron and Steel, Battle India, Sandvik Asia, Industrial Metal Powders, Speciality Sinter, EATON India, John Deere India, ACG Pharam, Essar Steel, Mahindra, Indian

Card Clothing, Nova Oil wells, Indian Railway, SBR Resheller, Cummins India, Indian Card Clothing, etc

## 7. Publications in Journals

- 1 K.Bhide, **N.B.Dhokey** In-Situ  $\text{Cr}_2\text{Nb}$  precipitation in Copper Alloy by Powder Metallurgy, **IIM Transaction**, June-2005, pp 137-140.
- 2 **N.B.Dhokey**, S.G.Sapate, R.K.Paretkar, Evaluation of wear behavior of Cu-SiC composites by dimensional analysis approach **IIM Transaction**, Vol. 59, No.2, April 2006, pp 283-294.
- 3 N.B.Dhokey, **S.G.Sapate**, **R.K.Paretkar**, Influence of operating parameters on dry sliding wear of Copper based SiC composites, **Journal of Tribology**, Vol.221, April 2007, pp105-114.
- 4 **N.B.Dhokey**, ,R.K.Paretkar, Wear Mechanism for 20%SiC copper based composites **Wear** **265**, (2008), 117-133. (Citation: 17 as on 1/10/2013).
- 5 P.P.Deshpande, **N.B.Dhokey** Metallographical Investigations of Iron objects in Ancient Vidharbha region of Maharashtra **IIM Transaction**, vol.61, Nos2-3, April\_June 2008, pp 135 -137.
- 6 S.V.Joshi, P.P.Deshpande, R.K.Mohanty, **N.B.Dhokey**, M.A. More Metallographic Investigations of Iron Objects found in the Megalithic Burials in Vidarbha Region of Maharashtra , **PURATATTVA**, No.38, 2008, **Indian Archaeological Society, New Delhi**.
- 7 N.Patel, S.Madki, J. Dandawate, **N.B.Dhokey** Optimization of Heat treatment cycle for Valve Seat Insert (Best Paper award in student category with cash prize of Rs.10,000) **Transactions of Powder Metallurgy Association of India**, Vol.36, Dec 2010, pp 93-95.
- 8 **N.B.Dhokey**, S.Ghule, K.K.Rane, R.S.Rande, Effect of  $\text{KBF}_4$  and  $\text{K}_2\text{TiF}_6$  on precipitation kinetics of  $\text{TiB}_2$  in Aluminium matrix Composite, **Advanced Materials letters** 2011, 2(3), 210-216 ,VBRI press , doi: 10.5185/amlett.2010.12192.
- 9 **N.B.Dhokey**, S.Sarve, H.Lamsoge, Development of in-situ synthesis of  $\text{Cr}_2\text{Nb}$  reinforced Copper alloy by Aluminothermic process, **IIM Transaction**, (August–October 2011) 64(4–5):425–429, DOI 10.1007/s12666-011-0094-5.

- 10 **N.B.Dhokey, K.Rane**, Wear behavior and its correlation with mechanical properties of TiB<sub>2</sub> reinforced Aluminium-based composites, **Advances in Tribology**, Hindwai Press, Volume 2011, Article ID 837469, 8 pages, doi:10.1155/2011/837469.
- 11 **N.B.Dhokey, S.Sarve, H.Lamsoge**, In-situ Synthesis of Cr<sub>2</sub>Nb Reinforced Copper Alloy by Liquid Metallurgy Route, **Materials Science Forum**, Vol. 710 (2012) pp 143-148 (2012) Trans Tech Publications, Switzerland doi:10.4028/www.scientific.net/MSF.710.143.
- 12 **N.B. Dhokey V.A. Athavale , N. Narkhede, M. Kamble** Influence of Mixing Technique on Sintering Response of Binary Aluminium Alloy Powders **Advance Material Letters**, 2013, 4(2), 164-168. DoI 10.5185/amlett.2012.6369.
- 13 **N.B. Dhokey V.A. Athavale , N. Narkhede, M. Kamble**, Effect of processing conditions on transient liquid phase sintering of Premixed Aluminium alloy powders, **Advance Material Letters** 2013, 4(2), 164-168.
- 14 **N.B.Dhokey, K.Utpat, A.Gosavi, P.Dhoka**, Hot-press sintering temperature response of diamond cutting tools and its correlation with wear mechanism, **Int. Journal of Refractory Metals and Hard Materials** 36 (2013) 289–293.
- 15 **N.B. Dhokey, S. Pandhare, Y. Pawar**, Prediction Of Sintered Density Using Dimensionless Analysis Approach, **Transaction of PMAI, Vol 38, 2012, pp 17-2**
- 16 **N. B. Dhokey, V. Utkar, K. Utpat, P. Dhoka**, Pressureless Sintering Of Fe-Co System And Its impact on wear characteristics, **Transaction of PMAI, Vol 38, 2012, pp 17-20.**
- 17 **N. B. Dhokey, K. Utpat, P. Dhoka**, Application Of Electrolytic Iron For Diamond Cutting Tools - **Transaction of PMAI, Vol 38, 2012, pp 17-20.**
- 18 **S. D. Rajguru , N. B. Dhokey, V. V. Mujumdar**, Development Of Al-TiB<sub>2</sub> Metal Matrix Composite Powder For Wear Resistant Component, **Transaction of PMAI, Vol 38, 2012, pp 17-20.**
- 19 **N.B.Dhokey, S.Nirbhavne** Dry sliding wear of Multiple tempered Cryotreated D-3 steel **Journal of Material Processing Technology**, 209 (2009), 1484-1490.

- 20 N.B.Dhokey, J.Dandawate, H.Gangurde, A.Harle , Metallurgical investigation of cryogenically cracked M35 tool steel, **Engineering Failure Analysis**, 21 (2012) 52–58, DOI:10.1016/j.engfailanal.2011.11.013
- 21 **N. B. Dhokey** , J. V. Dandawate, Study of Wear Stabilisation in Cryoprocessed Cobalt- Based High Speed Steel, **Trans Indian Inst Met** (August 2012) 5(4):405–412, DOI 10.1007/s12666-012-0145-6.
- 22 **N. B. Dhokey**, J. V. Dandawate, and R. Rawat, Effect of Cryosoaking Time on Transition in Wear Mechanism of M2 Tool Steel, **ISRN Tribology**, Volume 2013, Article ID 408016.
- 23 **N.B.Dhokey**, A.Hake, Wear instability in AISI T42 tool steel and its relevance to microstructural features, **Tribology - Materials, Surfaces & Interfaces** ( Maney publications), 2013, VOL 7 NO 4, pp193-200.
- 24 **N.B.Dhokey, A. Hake, S.Kadu, I.Bhoskar, G.K.Dey**, Influence of Cryoprocessing on mechanism of carbide development in cobalt bearing high speed steel (M35), **Metallurgical and Materials Transactions A**, No. 3, 2014, 45:1508-1516.
- 25 **N.B.Dhokey**, S.Dhandhare, S.Patil, V.S.Bandal, Role of ceramic coating on electrical and Magnetic properties of Soft magnetic composite, Accepted in Sept 2013, **Electronic material letters, Electron. Mater. Lett.**, Vol. 10, No. 3 (2014), pp. 591-596.
- 26 **N.B.Dhokey**, P.Nimbalakar, P.Dhoka, Study of Wire Saw Beads for granite cutting, **Diamante: Technology and Applications, Sept 2013, ISSN 1824-5765**.
- 27 **N. B. Dhokey**, M. Walunj, U. Chaudhari, Influence of water pressure and apex angle on prediction of particle size for atomization of copper powder, **Advanced Powder Technology** 25 (2014) 795–800.
- 28 **C. Joshi, N.B.Dhokey**, Study of Kinetics of Mill Scale Reduction: For PM Applications **Trans Indian Inst Metals(2015) 68(1): 31-35**, DOI 10.1007/s12666-014-0425-4.
- 29 **N.B. Dhokey**, A.R. Hake, V.T. Thavale, R. Gite, R. Batheja, Microstructure and Mechanical Properties of Cryotreated SAE8620 and D3 Steels, **Current Advances in Materials Sciences Research (CAMSR)**, American V-King Scientific Publishing, Volume 1, Issue 1 Jan. 2014 PP. 23-37.
- 30 **N.B.Dhokey**, A.Raskar, A. Hake, G.Mohaptra, Abrasive wear response of cryotreated EN45 steel in simulated wear test rig fixture, **Tribology**, 2015, DOI 10.1179/1751584X15Y.0000000017.
- 31 P.Ghosh, **N.B.Dhokey**, Refinement of tempered martensite structure and its effect on wear mechanism in SAE 8620, **Tribology-materials, Surfaces and**

interfaces, Nov 2016, 10:4, 178-184.

- 32 P.Ghosh, **N B Dhokey**, Optimization of cryosoaking period and microstructural transformation on wear mechanism of SARE 8620 gear steel, **Tribology Transactions**, accepted in Nov 2016 ( Talyor & Francis )
- 33 V. S. Poddar, **N. B. Dhokey**, S. P. Butee, N. B. Revade, M. M. Thombre, R. D. Purohit, Deep Prakash, Evolution of Thermoelectric  $\beta$  – FeSi<sub>2</sub> phase by Cryo Milling and Sintering”, *Trans Indian Inst Met*, Vol. 70 (1), (2017), pp:167-174
- 34 Tarang Shinde, **N. B. Dhokey**, Influence of carbide density on surface roughness and quasi-stable wear behaviour of H13 die steel, **Surface Engineering**, ISSN: 0267-0844 (Print) 1743-2944.
- 35 V. S. Poddar, **N. B. Dhokey**, R. R. Garbade, S. P. Butee, Deep Prakash, R. D. Purohit, Rapid production of Iron disilicide thermoelectric material by hot press sintering route, **Materials Science in Semiconductor Processing Journal**, 2017 <http://dx.doi.org/10.1016/j.mssp.2017.06.027>.
- 36 Naimish Shah,• Kapil Arora, **N. B. Dhokey**, N. Dileep Kumar, K. T. Tharian, Studies on Wear Behaviour and DBTT in Sub-zero Regimes of Cryo-Treated High Nitrogen Martensitic Stainless Steel(HNMS) **Trans Indian Inst Met** Feb 2019 , <https://doi.org/10.1007/s12666-018-01555-2>.
- 37 Naimish Shah, Kapil Arora, **N. B. Dhokey**, N. Dileep Kumar & K. Thomas Tharian, Optimization of Cryogenic Process for Enhancing the Wear Resistance of Novel HNMS Steel for Cryogenic Bearings of Launch Vehicle **Tribology Transaction**, 2019, [tps://doi.org/10.1080/10402004.2019.1609147](https://doi.org/10.1080/10402004.2019.1609147).
- 38 V S Poddar, **N B Dhokey**, Thermoelectric Properties of Iron Disilicide and Manganese Silicide: Synthesis and Characterization , , **Trans Indian Inst Met** <https://doi.org/10.1007/s12666-019-01743-8>.
- 39 A.Upadhaya, Naimsih Shah, P.Lalge, **N.B.Dhokey**, Evolution of ultrafine precipitates and its influence on wear mechanism in cryoprocessed High Nitrogen Martensitic Steel, , , Thomas Tharian, **Tribology - Materials, Surfaces & Interfaces**, 2019 accepted.
- 40 C. R. Patil, V. T. Thavale, **N. B. Dhokey**, Effect of Particle Size and Process Parameters on Dimensional Shrinkage 5-9 of Sintered Compact **Transactions of Powder Metallurgy Association of India** , Vol. 43 No.2, December 2017

## 8. Papers published in conferences

- 1 **N.B.Dhokey** , A Case study on Carbide Bands in Ball Bearing Steel  
Proceedings of National Conference on Processing of Metals, PSG College

of Engg., Jan31-Feb 01, 2002 , pp387-391.

- 2 **N.B.Dhokey** ,Improvement in Machinability of High Cr-Mn-N Stainless steel Proceedings of the National Conference –RAMP-2001, Annmalai University, Annamalinagar, Sept.7-8, 2001, pp 492-496.
- 3 **N.B.Dhokey** , A Practical Approach on Development in Single –Roll Melt Drag Caster International Conference on Advances in Materials and Materials Processing(ICAMMP-2002), IIT Kharagpur, 1-3Feb,2002, pp 704-708.
- 4 A.Kaul, N B **Dhokey**, Powder Metallurgical Processing of Copper Alumina composites, National Conference on Composites INCCOM-3, Oct7-9,2004, R& D Dighi, Pune.
- 5 A.Kaul, M.Kulthe, **NB Dhokey** Optimization of sintering parameters of copper compact(PM), *National Conf on Advances in Manufacturing in the era of globalization*, AMTEG-2005, Jan 21-22, 2005, PIET Pune.
- 6 A.Kaul, J.Mehta, **N B Dhokey**, Mechanical Behavior of PM processed Cu-Alumina composites, International Conf Recent Advances in Composites *Materials*,(Dec17-19,2004) IT-BHU Varanashi UP.
- 7 K.Bhide, **N.B.Dhokey**, Development of Cu-8%Cr-4%Nb alloy for Aerospace Applications, International Conf.- TRANSMAT-2004 ( Nov 8-9, 2004) organized by American Society of Metals(ASM) Mumbai chapter.
- 8 **N.B.Dhokey**, S.G.Sapate, Feb23-25,2005, organized by National College of Engg Kovilpatti, Tamilnadu.R.K.Paretkar, Characterization of SiC reinforced copper composites”, International Conf on Recent Advances in Material Processing and Technology(RAMPT’05).
- 9 **N.B.Dhokey**,S.P.Butee ,Relative influence of Interfacial Bonded Reinforcement particles and Warm compaction on properties of Copper Based Alumina Composites International Conference, Oct 2007, RRL, Trivendrum.
- 10 **N.B.Dhokey**, A.R.Deshmukh,J.A.Labde, Relative Wear resistance of cryotreated and plasma Nitrided D-3 tool steel,International Conference on Advanced Tribology (iCAT2008) 3-5/12/2008.
- 11 J..Dandawate **N.B.Dhokey**, Effect of Cryotreatment on wear resistance of SAE52100, Internal Conference on Processing and Fabrication of Advance



Material (PFAM-XVIII), 15-17/12/2008.

- 12 N.Patel, S.Madki, J. Dandawate, **N.B.Dhokey**, Optimization of Heat treatment cycle for Valve Seat Insert( Best Paper award in student category with cash prize of Rs.10,000) International Conference on Powder Metallurgy (PM2010) at Jaipur , 28-30/01/2010.
- 13 **N.B.Dhokey**, U.Honkalas ,Study of wear resistance property of(PFAM-19), University of Auckland, New Zealand, 14-17Jan2011Copper-TiB<sub>2</sub> composite International Symposium on Processing and Fabrication Advance Materials.
- 14 A.Manwatkar, J.Surywanshi, **N.B.Dhokey** Effect of Iron powder Dilution on S properties of M3/2 tool steel.( G.S.Tendolkar award , Best Paper award in student category with cash prize of Rs.10,000) International Conference on Powder Metallurgy (PM-11), 3-5Feb.2011 at Hotel Westin Pune.
- 15 K.K.Rane, **N.B.Dhokey**. Bijoy Sarma, S.Babu Study of Sintered metal Matrix Friction Brake Materials International Conference on Powder Metallurgy (PM-3-5Feb.2011 at Hotel Westin Pune.
- 16 V.Pacharne, J.Dandwate, **N.B.Dhokey** Optimization of Sintering Characteristic Chromium AlloysInternational Conference on Powder Metallurgy (PM-11), 3-5Feb.2011 at Hotel Westin Pune.
- 17 V.Utkar, **N.B.Dhokey**, A.Gosavi , P.Dhoka Metallurgical Investigation of Diamond Impregnated Tool steel International Conference on Powder Metallurgy (PM-11), 3-5Feb.2011 at Hotel Westin Pune.
- 18 J.Dandawate, S.Hoval, N.B.Dhokey Study of wear characteristics of Powder Metallurgical tool steel International Conference M&MT2011, Mumbai 8-11/3/2011.
- 19 S.Pandhare, Y. Pawar, V.Athavale, **N.B.Dhokey**, N.Narkhede, M.Kamble Assessment Of Aluminium Sintering Atmosphere And Safety Practices, International Conference on Powder Metallurgy (PM-12), 2-4Feb.2012 at Hotel Ramada, Mumbai.
- 20 S.Pandhare, Y. Pawar, **N.B.Dhokey** Prediction Of Sintered Density Using Dimensionless Analysis Approach, International Conference on Powder Metallurgy (PM-12), 2-4Feb.2012 at Hotel Ramada, Mumbai.
- 21 V.A.Athavale, **N.B.Dhokey**, N.Narkhede, M.Kamble, Study Of Sintering

- Response Of Premixed Aluminium Alloy Powders, International Conference on Powder Metallurgy (PM-12), 2-4Feb.2012 at Hotel Ramada, Mumbai.
- 22 C.Savant, S.Shelke, **N.B.Dhokey**, Development Of Mgo Coating On Electrolytic Iron Powder For Soft Magnetic Application, International Conference on Powder Metallurgy (PM-12), 2-4Feb.2012 at Hotel Ramada, Mumbai.
  - 23 S. D. Rajgure, **N. B. Dhokey**, V. V. Mujumdar, Design And Development Of Atomiser For Al-TiB<sub>2</sub> Metal Matrix Composite Powder For Wear Resistant Component, International Conference on Powder Metallurgy (PM-12), 2-4Feb.2012 at Hotel Ramada, Mumbai.
  - 24 K.Utpat, **N.B.Dhokey**, A.Gosavi, P.Dhoka , Application Of Electrolytic Iron For Diamond Cutting Tools – A Cost Effective Solution, International Conference on Powder Metallurgy (PM-12), 2-4Feb.2012 at Hotel Ramada, Mumbai.
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  - 26 A.Hake, R.Bhingardive, **N B Dhokey**, Elevated temperature impact test and its response to transition in material properties of HSS, International Conference on iron and Steel on occasion of NMD-2012 organized by Tata Steel Jamshedpur -16-19 Nov.2012.
  - 27 M. Walunj, U. Chaudhari, **N. B. Dhokey**, Prediction of particle size and estimation of free fall height for water atomisation of copper powder, International Conference and Exhibition on Powder Metallurgy for Automotive and Engg (PM-13), 7-9 Feb 2013 at Hotel Hyatt Regency Pune.
  - 28 Chinmaya Joshi, **N. B.Dhokey**, Enhancing The Kinetics of Mill Scale Reduction: An Eco-Friendly Approach, , International Conference and Exhibition on Powder Metallurgy for Automotive and Engg (PM-13), 7-9 Feb 2013 at Hotel Hyatt Regency Pune.
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- 33 **J.Khatri, V.Thavale, N.B.Dhokey**, Study of Powder Forged Properties of Gear Material, International Conference on Powder Metallurgy PM 15, 19-21 Jan 2015, IIT Bombay.
- 34 N. Revade, M. Thombre, V. Poddar, **N.B. Dhokey**, Deep Prakash and R D Purohit, Effect of Cryo Milling on Kinetics of Thermoelectric B – FeSi<sub>2</sub> Phase formation During Sintering, International Conference on Powder Metallurgy PM 15, 19-21 Jan 2015, IIT Bombay.
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- 36 **N.B. Dhokey**, Tarate, P., Recycling Of Mill Scale Into Iron Powder And Its Sintering Characteristics, World Congress PM 16 EPMA, 9-13Oct 2016 Hamburg, Germany.
- 37 **N. B. Dhokey**, P. Lalge, A. Rajankar, K. Bawane, and R. Mahajan Effect of Cryosoaking Period on Soft Tempering Temperature and Wear Mechanism in AISI H11 Tool Steel , Proceedings of Seventh International Conference on Fracture Fatigue and Wear FFW2018, 9-10 July 2018 , Ghent University , Belgium.
- 38 Naimish Shah, Kapil Arora, **N. B. Dhokey**, N. Dileep Kumar, K. T. Tharian, Optimisation of cryogenic treatment to enhance the wear resistance of novel HNMS steel for cryogenic bearings of launch vehicle, International Conference on Advanced Materials and Manufacturing Processes for Strategic Sectors (ICAMPS) 2018, Trivandrum, Kerala, India.
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- 440 C used in space application, Advanced Materials 2017- SkyMat, Trivandrum, Kerala, India
- 40 Aishwarya Upadhye, Naimish Shah, Priyanka Lalge, **N. B. Dhokey**, K. T. Tharian, Review on High Nitrogen Steels, National Metallurgists' Day-ATM 2017, Goa, India
- 41 V.T.Thavale, **N B Dhokey**, Evaluation of Machining performance of PM fabricated NbC reinforced HSS tool insert, International Conference on Powder metallurgy , 19-21 Feb 19 (APMA 2019) JW Marriott Pune.
- 42 N Vemula, S Patil, **N B Dhokey**, V S Poddar, Characterization of Intrinsic n-type Thermoelectric Materials CoSi<sub>2</sub> and Mg<sub>2</sub>Si Synthesized by Powder Metallurgy Route, International Conference on Powder metallurgy , 19-21 Feb 19 (APMA 2019) JW Marriott Pune.
- 43 J Runwal, R. Ambekar, **N B Dhokey**, Modification of Surface Topography of irregular shape Iron Powder by Mechanical Grinding, International Conference on Powder metallurgy , 19-21 Feb 19 (APMA 2019) JW Marriott Pune.
- 44 Sardey Rigved Pravin, Jing Yang, Jose Antonio Calero, **N.B. Dhokey**, Effect of process variables on porosity and structure properties of PM sintered steels, International Conference on Powder metallurgy , 19-21 Feb 19 (APMA 2019) JW Marriott Pune.
- 45 S.B.Gore, **N.B.Dhokey**, V.S.Poddar, Development of Eutectic High Entropy Alloy CoCrFeNiM<sub>x</sub> synthesized from elemental powders through Arc Melting Route, International Conference on Powder metallurgy , 19-21 Feb 19 (APMA 2019) JW Marriott Pune.
- 46 V.S.Poddar, **N.B.Dhokey**, Harvesting Energy from Waste Heat by Thermoelectrics of Transition Metal Silicides: An Overview, International Conference on Powder metallurgy , 19-21 Feb 19 (APMA 2019) JW Marriott Pune.
- 47 S.U.Dangrikar, N B Dhokey, Synthesis of Al<sub>70</sub>Fe<sub>5</sub>-B<sub>4</sub>C composite by hot press sintering method and its wear response, An Overview, International Conference on Powder metallurgy , 19-21 Feb 19 (APMA 2019) JW Marriott Pune.
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## 9. Major events: Coordinator / Convenor

Sr.No	Title of the course/short term course	Duration
1	Surface Processing of Materials STTP self sponsored by ISTE, New Delhi	22/12/2003-03/1/2004
2	Metallurgy for non-metallurgist Sponsored by John Deere, Pune	6/1/2003-7/1/2003
3	Chemical analysis of Ferrous and nonferrous materials	1/8/2006 to 31/8/2006
4	Metallography of Al alloys	28/8/2006 to 30/8/2006
5	Powder Metallurgy Short term Course(PMSC-2010)	8-11/10/2010
6	Ceramic, carbides and Diamonds (CCD-11)	8-10/12/2012
7	Two weeks FDP program on Overview of Nuclear Engineering and its Applications, sponsored by BRNS, AERB and INS, TEQIP	16-27 June 2014
8	<b>NMD ATM 2014</b> , at COE Pune worked as <b>Co-convenor</b>	12-15 Nov 2014
9	PMSC 2015 –four days National Workshop in collaboration with PMAI, worked as <b>Convenor</b>	25-28 Sept 2015
10	PMSC 2016, 17, 18,19 –four days National Workshop in collaboration with PMAI, worked at Chennai, Baroda, Mumbai, Pune.	2016,2017,2018,2019
11	GIAN course for 7 days on Slag Design for Metallurgical Processes by Professor Seetharaman Seshadri, Emeritus Professor, RIT Stockholm Sweden. MHRD sponsored initiative .	21-27 August 2016
12	APMA, International Conference on Powder Metallurgy at JW Marriott Pune	20-22 Feb 2019
13	Hon Secretary of Dr Dara P Antia memorial lecture committee, national event of IIM	2018- till date

## 10. Membership of Professional Bodies

- I. Life Member of Indian Institute of Metals
- II. Life member of Material Research Society of India

- III. Life member of Powder Metallurgical Association of India
- IV. Life member of Indian Society of Technical Education
- V. Life member of Institute of Engineers of India

Sr. No	Name of the Professional Society	Portfolio	Period
1	Indian Institute of Metals Pune chapter	Chairman	2008 to 2012
2	Indian Institute of Metals Kokatta	National Council Member Jt. Secretary	2008-2010 2012-2017 2011-2013
3	Powder Metallurgy Association of India(PMAI, Mumbai) www.pmai.in	Vice President	2015-2020
4	Institute of Engineers Pune chapter	EC member	20011-2013

## 12. Special initiatives undertaken during tenure as HoD (2002-2007 and 2015-2018) of Metallurgy dept

- [1] Formation of IIM student chapter (2005) and inaugurated by Prof P.Ramarao, Ex VC-DIAT Pune. Second oldest chapter under IIM umbrella.
- [2] Formation of ASM student chapter (2006) and inaugurated by C.Dias Chairman, ASM Pune chapter.
- [3] Elective on Wire Technology was introduced in collaboration with TATA Steel in the year 2006 and grant of Rs.6.50 lakhs was announced by B.Muthuraman, MD, Tata Steel on 3/2/2007 during short visit to COEP.
- [4] Modernization of Metallography, Material testing and Heat treatment labs.
- [5] Develop Powder Metallurgy and Cryogenic treatment facility

## 13. Invited talk delivered in Workshop/Seminars/conference

- 1 *Overview of Cryogenic treatment on Materials*, National workshop (PMSC-2010) at COEP organized by PMAI held on Oct 8-11, 2010.
- 2 *Cryotreatment for industrial components* at Sandeep foundation Engineering College

Nashik organized by IIM Pune chapter held on Jan 7, 2012.

- 3 ***Fundamentals of Wear and Friction*** in National workshop **CCD-11** organized by PMAI held on Dec 8-10, 2011.
- 4 ***Tribology of PM components***, National workshop (**PMSC-12**) organized by PMAI at IIT Mumbai held on March 15-18, 2012.
- 5 ***Electrolytic vs Carbonyl Iron Powders***, One day seminar organized IMP Pune on 15/7/2012 at Hotel Fern Jaipur.
- 6 ***Manufacturing Of Diamond Cutting Tool (DCT) Using Electrolytic Iron Powder***, One day seminar organized IMP Pune on 15/7/2012 at Hotel Fern, Jaipur.
- 7 ***Wear stabilization and transition in material properties of Cryoprocessed High Speed Steel***, Two day workshop organized by IIM-MIT Aurangabad on Advances in Heat treatment and Cryogenic treatment (AHCT-2012) 7-8 July 2012.
- 8 ***Recent trend in Soft magnetic composites***, at MIT Aurangabad, Technomillennium, 2012 on Engineers Day 15 Sept 2012.
- 9 ***Structure-Property relationship diamond impregnated wire saw beads***, CCD-13 held on 26-28Sept 2013, NEC, Nashik .
- 10 ***Development of diamond cutting tools for granite cutting, Faculty Development*** program organized on Advances in product Design and Surface Engineering held on 18-22 Nov 2013 at Sinhgad College of Engineering Pune.
- 11 ***Wear failures***, Kalyani Innovation Centre , 22 Feb 2015.
- 12 ***Overview on Thermoelectric materials***, in International Conference on particulate materials (PM18) , 20-22 feb 2018 at Mumbai.
- 13 ***Advances in Brazing and Soldering*** , delivered in Poona Shimps Ltd Pune on 9April 2017.
- 14 ***Optimization of heat treatment cycle for Valve Seat Insert***, in First Regional MSFE conference at Cummins India, Kothrud on 10-12 Sept 2014.
- 15 ***Heat treatment of Steels*** on 23/1/22017at Indian Card Clothing Chandigarh.
- 16 ***Extractive Metallurgy of Zinc and environemtal impact on 7 June 2018 at Prigha*** Management Research Institute Pune

- 17 *Extractive principles of Zinc, Silver and Lead: Applications, health and environment impact* on 10 Jan and 8 June 2019 at Prigha Management Research Institute Pune
- 18 *Techniques and evaluation of nonmetallic inclusions and Weld sensitization* on 23 Feb 2019 at IAI Joinflex Pvt Ltd Chakan Pune
- 19 *Cryogenic treatment of Materials : Tools and Dies on 13/3/2019* at Associated manufacturing Pvt Ltd Chakan and GKN Pune.
- 20 *Fundamentals of wear and Friction* on Jun 2019 at John Deere India Pune

#### 14. Number of project guided

- a) Ph.D. – 3 completed, ( 05 registered)
- b) M.Tech. – 65
- c) B.Tech. - 50

#### 15. On Editorial board of National and International publication

Sr.No.	Editorial board and Publications	Website
1	Transaction of Indian Institute of Metals Springer Publication	<a href="http://www.iim-india.net">www.iim-india.net</a>
2	Transaction of Powder metallurgy Association of India	<a href="http://www.pmai.in">www.pmai.in</a>
3	The Diamante, published , Italy	<a href="http://www.gmassdiamnte.com">www.gmassdiamnte.com</a>

#### 16 . Administrative Experience

Sr.No.	Position held	Period
1	<b>Head of Central Workshop</b> Govt. College of Engineering, Aurangabad	Sept-1999 to July2002
2	<b>Head of the Department</b> Deptt of Metallurgical Engg, Govt. C. O. E., Pune	Nov.2002 to March 2007 July 2015 to April 2019
3	<b>Vice Chairman,</b> First year Admission of five Autonomous Institutes,	Year 2007-2008 Year 2008-2009



- |   |                             |                |
|---|-----------------------------|----------------|
| 4 | <b>Chairman,</b>            | Year 2009-2010 |
|   | First year Admission of Six | Year 2010-2011 |
|   | Autonomous Institutes       |                |

### **17. Courses taught at UG and PG level**

- a) Metallurgical Thermodynamics and Kinetics,
- b) Transport Phenomena in Material Processing
- c) Heat and Mass Transfer
- d) Steelmaking Technology
- e) Powder Metallurgy
- f) Tribology of Materials