

## Brief Biodata

Name: DR VIPIN JAIN

<b>Designation:</b>	<b>Senior Principal Scientist</b>
<b>DP No. and Name:</b>	<b>5.02: BND Outreach</b>
<b>DU No. and Name:</b>	<b>5: Bhartiya Nirdeshak Dravya (BND): Indian Reference Material</b>
<b>Email:</b>	<b>vipin@nplindia.org</b>
<b>Date of Joining CSIR-NPL:</b>	<b>30<sup>th</sup> September 2004</b>
<b>Phone (office)</b>	<b>+91 011 4560 9270/8373</b>
<b>Mobile (optional)</b>	



### Research Area/ Interest

- Production & Certification of Bhartiya Nirdeshak Dravyas (**BNDs**) in collaboration with Reference Materials Producers (**RMPs**). The numerous BNDs include; Chemical BNDs, Cement BNDs, Petroleum BNDs, Precious Metals BNDs, Hardness BNDs, Minerals and Ores BNDs, etc.
- Standardization of iron alloys (e.g., Stainless Steels, etc) using Non-Destructive Techniques; such as; XRD, XRF, Raman Spectroscopy, etc.

### Educational Qualifications

Degree	Subject	University/ Institute	Year
Ph.D.	Materials & Metallurgical Engg.	IIT Kanpur	2014
M. Tech.	Materials & Metallurgical Engg.	IIT Kanpur	1996
B.E.	Metallurgical Engineering	University of Rajasthan	1994

### Academic / Research Experience

Grade / Post	Institute	Duration		Research Field
		From	To	
Senior Principal Scientist	CSIR-National Physical Laboratory, New Delhi	September 2020	Till Date	<ul style="list-style-type: none"><li>• Production and Certification of <b>Bhartiya Nirdeshak Dravyas</b></li><li>• Documentation as per <b>ISO 17025: 2017</b> and <b>ISO 17034: 2016</b></li><li>• Faculty, <b>AcSIR</b>, CSIR-NPL</li></ul>
Principal Scientist	CSIR-National Physical Laboratory, New Delhi	2013	2020	<ul style="list-style-type: none"><li>• Graphene nanocomposites <i>via</i> in-situ Chemical synthesis followed by Spark Plasma Sintering (SPS)</li><li>• <b>Coordinator</b>-certificate course on Precision Measurement &amp; Quality Control (<b>PMQC</b>)</li><li>• Documentation as per <b>ISO 17025:2017</b> and <b>ISO 17034: 2016</b></li><li>• Faculty, <b>AcSIR</b>, CSIR-NPL</li></ul>
• Senior Scientist	CSIR-National Physical	2004	2013	<ul style="list-style-type: none"><li>• Structure-Property correlation of hot extruded Mg alloys (with</li></ul>

• Scientist	Laboratory, New Delhi			<b>General Motors USA)</b> • Ph.D. work on superplasticity in Mg alloys at <b>IIT-Kanpur</b> • Development of Copper based sintered brake pads (under <b>CSIR-Network Project</b> )
<b>Fulbright Visiting Scholar</b>	<b>Missouri University of Science and Technology, Rolla, USA</b> (on deputation from CSIR-NPL, New Delhi)	June 2010	March 2011	Nine (9) months training on <b>“Superplasticity”</b> in fine grained Mg alloys processed by FSP/ECAP
Scientist	ARC International ( <i>DST</i> ), Hyderabad	1999	2004	Structure-property correlation of thermal sprayed coatings and diffusion coatings (such as; boronizing)
<b>Visiting Scholar</b>	<b>IPMS, Kiev, Ukraine</b> (on deputation from ARCI-Hyderabad)	1 <sup>st</sup> October 2001	31 <sup>st</sup> October 2001	One (1) month training on Hot hardness evaluation of thermal sprayed coatings
Engineer	Electrical R&D Association, Vadodara	1996	1999	R&D on by-products; such as, fly ash generated from thermal power stations; Quality Control as per <b>NABL</b> requirements

### **Selected Publications**

- Karar N., **Jain V.** (2022) in **Handbook of Metrology**, Aswal D.K., Yadav S., Takatsuji T., Rachakonda P, Kumar H. (Eds.), Springer 2022.
- Karar N., **Jain V.**, Mohanty R. (2022) **Indian Journal of Pure and Applied Physics**, 60(5), pp. 455-463.
- **Jain V.**, Kumar A., Dhar A. (2017) **Advanced Materials Proceedings**, 2(3), pp. 146-151.
- **Jain V.**, Kumar A., Sivaiah B., Dhar A. (2017) **FiMPART 2015**, Muruganant M., Ali Chirazi, Raj Baldev (Eds.), Springer; 1<sup>st</sup> Eds. 2017, pp. 155-164.
- **Jain V.**, Mishra R.S., Gupta A.K., Gouthama (2013) **Materials Science & Engineering A**, 560, pp. 500–509.
- **Jain V.**, Mishra R.S., Verma R., Essadiqi E (2013) **Scripta Materialia**, 68, pp. 447–450.
- **Jain V.**, Mishra R. S., Gouthama (2013) **Journal of Materials Science**, 48, pp. 2635–2646.
- **Jain V.**, Yuan W., Mishra R.S., Gouthama, Gupta A. K. (2012) **Materials Science Forum** 702-703, pp. 64-67.
- **Jain, V.**, Saravanan M., Anandani R.C., Sikand R., Gupta A.K. (2010) **Transactions of the Indian Institute of Metals**, 63 (1), pp. 43-54.
- Sikand R., Kumar A.M., Sachdev A.K., Luo A.A., **Jain V.**, Gupta A.K. (2009) **Journal of Materials Processing Technology**, 209 (18-19), pp. 6010-6020.
- Shariff S.M., **Jain V.**, Sundararajan G., Joshi S.V. (2005) **Journal of Laser Applications**, 17 (2), pp. 100-109.
- Johnson R., **Jain V.**, Ganesh I., Saha B.P., Mahajan Y.R., Kamat S.V. (2003) **Journal of Advanced Materials**, 35 (3), pp. 3-8.
- **Jain V.**, Johnson R., Ganesh I., Saha B.P., Mahajan Y.R. (2003) **Materials Science and**

**Engineering A**, 347 (1-2), pp. 109-122.

- **Jain V.**, Sundararajan G. (2002) **Surface and Coatings Technology**, 149 (1), pp. 21-26.
- Sivakumar G., Ramakrishna L., **Jain V.**, Rao D.S., Sundararajan G., Reddy G.M. (2001) **Proceedings of the International Thermal Spray Conference, Singapore, 2001**, pp. 1031-1038.

## Patents

- An Improved Boronizing Composition; Indian Patent No. 220370 (Grant Date: 27-May-2008)

## Current Activities

- Production & Certification of Bhartiya Nirdeshak Dravyas (**BNDs**) in collaboration with Reference Materials Producers. The numerous BNDs include Chemical BNDs, Cement BNDs, Petroleum BNDs, Precious Metals BNDs; Hardness BNDs, Minerals and Ores BNDs, etc.
- Documentation control as per **ISO 17034: 2016** and **ISO 17025: 2017** for BND Outreach.
- Associate Professor, **AcSIR**, CSIR-NPL.

## Honour(s)/Award(s)/ Fellowship(s)

- 2021: Awarded certificate for Training Program on **ISO 17034: 2016** and **ISO 17025: 2017** conducted by CSIR-HRDC, Ghaziabad.
- 2016-2021: Nominated by CSIR-NPL as PRINCIPAL MEMBER- Metallurgical Engineering Division Council (**MTDC**): **BIS**.
- 2015- **IIM Distinguished Services Award 2015** conferred by The Indian Institute of Metals-Delhi Chapter.
- 2014-2017: **Honorary Joint Secretary** on the Executive Committee of The Indian Institute of Metals Delhi Chapter.
- 2011- till date: **State Alumni**: International Exchange Alumni-US Department of State.
- 2011: Presented paper in **Magnesium Technology Symposium 2011** at TMS Annual Meeting & Exhibition held at San Diego, California, USA during Feb. 27-March 3, 2011.
- 2011: Invited for **2011 Nashville Fulbright Enrichment Seminar** organized by the US Department of State, Bureau of Educational and Cultural Affairs (ECA) and the Institute of International Education (IIE) at Nashville, USA during 10-13 February, 2011.
- 2010-Awarded **Fulbright Doctoral & Professional Research Fellowship for Nine (9) months** (availed at Missouri S&T, Rolla, USA) for the year 2010-11.
- 2003-**Officer In-Charge** of the AMIIM Examinations for the IIM Hyderabad Chapter.
- 2002-**MRSI Prize** for the *Best Poster Paper* at 13th AGM of MRSI held at Hyderabad.
- 2001-Visited **Institute for Problems in Materials Science (IPMS), Kiev, Ukraine** for one month during October 2001 under a DST sponsored Joint Indo-Ukraine project.
- 2000-**Best Paper Award** for *Oral Paper* at 38th NMD-54th ATM of The Indian Institute of Metals (IIM) at Bhilai.
- 1999-**Best Paper Award** for *Poster Paper* at 37th NMD-53rd ATM of The Indian Institute of Metals (IIM) at IIT-Kanpur.

## Contributions to AcSIR

- 2017-2021: Member-Doctoral Advisory Committee (DAC) for AcSIR student/s
- 2015: Assistant Professor: Engineering Materials (Course No. NPL-2875)

- 2014: Assistant Professor: Engineering Materials (Course No. NPL- 609)

### **Membership of Professional Societies/ Institutions**

- Alumni-IIT Kanpur (since 2014)
- International Exchange Alumni-Fulbright Fellow (since 2010)
- Member-The Minerals, Metals & Materials Society (TMS), USA (since 2011)
- Life Member-Metrology Society of India (MSI)
- Life Member-The Indian Institute of Metals (IIM)
- Life Member-Materials Research Society of India (MRSI)
- Life Member-Indian Carbon Society (ICS)

### **Any other Information**

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