# Curriculum Vitae

## Dr. Prashant Kumar Jain

Principal, Rustamji Institute of Technology (RJIT), BSF Academy, Tekanpur, Gwalior And Professor (Mechanical Engineering Discipline) **On deputation** PDPM Indian Institute of Information Technology, Design & Manufacturing Jabalpur Madhya Pradesh, INDIA-482005 Mobile: 9425800310 (BSNL) 9340841848 (JIO); E-mail ID: <u>pkjain@iiitdmj.ac.in</u>, <u>pkjain2006@gmail.com</u> FB: <u>pkjain2006</u>, LinkedIn: <u>pkjain2006</u>, OrcidID: <u>https://orcid.org/0000-0003-4706-7184</u>



### **Educational Qualification**

- B.E., 1995, Mechanical, I.G. Govt. Engg. College Sagar, (M.P.), Madhya Pradesh, India, 74.83%
- M.E., 2002, Mechanical, S.A.T.I. Vidisha, Madhya Pradesh, India, 76.35% (Honours) Thesis title: Development of Simulation Software for Part Program of CNC Lathe Machine (Mirac)
- Ph.D., 2009, Mechanical, Indian Institute of Technology Delhi, Delhi, India, CGPA 9.5 (In course work)
  Thesis Title: "Experimental and Computational Studies Related to Part Strength in Selective Laser Sintering".

#### **Personal Details**

• Date of Birth: February 10, 1974, Marital Status: Married

#### **Professional Experience**

- Rustamji Institute of Technology (RJIT), BSF Academy, Tekanpur, Gwalior: Principal, 18th June 2025 to till date
- PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur: Professor, 16<sup>th</sup> July 2021 to till date
- PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur: Associate Professor, 5<sup>th</sup> July 2012 to 15<sup>th</sup> July 2021
- PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur: Assistant Professor, 1<sup>st</sup> July 2009 to 4<sup>th</sup> July 2012
- Delhi College of Engineering, Delhi: Lecturer, 1<sup>st</sup> Sep. 2008 to 30<sup>th</sup> June 2009
- Indian Institute of Technology Delhi: Research Associate, 5<sup>th</sup> April 2007 to 31<sup>st</sup> Aug. 2008
- Indian Institute of Technology Delhi: Project Scientist, 1<sup>st</sup> June 2006 to 4<sup>th</sup> April 2007
- Maharaja Agrasen Institute of Technology, Delhi: Sr. Lecturer, 1<sup>st</sup> August 2002 to 31<sup>st</sup> May 2006
- Mandsaur Institute of Technology, Mandsaur: Lecturer, 12th February 1998 to 31st July 2002

#### **Research Interest, Specialization and Expertise**

 Rapid Prototyping & Tooling, Additive Manufacturing/3D printing, CNC Machining, Geometric Modeling, CAD/CAM Integration, Computational Geometry, Nano Technologies in Additive Manufacturing, Incremental Sheet Metal Forming, MATLAB Programming, Graphical user interface in MATLAB

#### **Courses Teaching**

• Rapid Product Development Technologies, CNC Machining and Programming, Additive Manufacturing, CAD

#### **Summary of Research Output**

- Ph.D. Thesis Awarded: 10, Submitted: 01, Ongoing: 04; M.Tech. Thesis Awarded 28, Ongoing 00
- Publications:

SCI/SCIE/MSCI Indexed Journal	72	International Conference(s)	85	Book Chapter	38
Scopus/Referred Journal(s)	23	National Conference(s)	05	Books/Proceedings Edited	07

- Citations: (As on: May 13, 2025)
  - 3613 (<u>https://scholar.google.co.in/citations?user=T56LMvAAAAAJ&hl=en</u>; h-index: 32, i10-index: 78)
  - 2505 (https://www.scopus.com/authid/detail.uri?authorId=57202020887; h-index: 27)

#### **Sponsored Research Projects (Selected)**

- Principal Investigator, Development of Induction-Conduction Based Material Deposition System for Metal Additive Manufacturing, sponsored by DST under Advanced Manufacturing Technologies (AMT) program, September 2018, Duration: 3.5 years. (Co-PI: Dr. Pavan Kankar and Prof. Puneet Tandon) (Amount: Rs. 4.5 millions).
- Co-Principal Investigator, Development of Adaptive Double Sided Incremental Forming Process for Dieless Manufacturing, sponsored by IMPRINT India, March 2017, Duration: 5 years. (PI: Prof. Puneet Tandon, Co-PI: Dr. Pavan K. Kankar) (Amount: Rs. 24.772 millions).
- Principal Investigator, Development of Additive-Subtractive Integrated RP System for Improved Part Quality, sponsored by DST, February 2014, Duration: 4 years. (Co-PI: Prof. Puneet Tandon, Dr. P. M. Pandey (IITD)) (Amount: Rs. 1.95 millions), Completed.

#### **Publications (Selected)**

- 1. Rahul Kumar Choubey, Mayur Patil and Prashant K. Jain, (2024) "<u>Tailoring coil geometry for achieving uniform heating through coil shape topology optimization for induction heating-based metal wire additive manufacturing</u>", Rapid Prototyping Journal, Vol. 31(2), pp.327-343. DOI: 0.1108/RPJ-08-2024-0360, ISSN:1355-2546.
- Gawali, Sagar Kailas, Prashant K. Jain (2024) "<u>Effect of Natural Aging on Mechanical Properties of 3D- Printed Acrylonitrile Stryrene Acrylate for Outdoor Applications</u>" Journal of Materials Engineering and Performance, (Online) DOI: 10.1007/s11665-024-10273-4, ISSN: 1059-9495
- Arpit Bajpai and Prashant Kumar Jain. (2023) "<u>Extrusion based additive manufacturing of aluminium filled</u> <u>ethylene vinyl acetate for electrically conductive 3D part printing</u>", Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, (Online) DOI: 10.1177/09544089241239810, ISSN: 0954-4089.
- Nidhi Dixit and Prashant K. Jain (2022) "Effect of Fused Filament Fabrication Process Parameters on Compressive Strength of Thermoplastic Polyurethane and Polylactic Acid Lattice Structures" Journal of Materials Engineering and Performance, Vol. 31, pp. 5973–5982. DOI: 10.1007/s11665-022-06664-0, ISSN: 1059-9495.
- Gourav K. Sharma, Piyush Pant, Prashant K. Jain, Pavan K. Kankar, and Puneet Tandon, (2020) "<u>On the suitability of induction heating system for metal additive manufacturing</u>", Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture (2020), Vol. 235(1-2), pp 219-229, DOI: 10.1177/0954405420937854, ISSN: 0954-4054.
- Narendra Kumar, Prashant Kumar Jain, Puneet Tandon, and Pulak M. Pandey (2018) "<u>Extrusion-based additive</u> <u>manufacturing process for producing flexible parts</u>" Journal of the Brazilian Society of Mechanical Sciences and Engineering Vol. 40(3), pp. 143. DOI: 10.1007/s40430-018-1068-x, ISSN: 1806-3691.
- Ankit Nayak, Prashant K. Jain, P.K. Kankar, Niharika Jain, (2018) "<u>Computer-aided design-based guided endodontic: A novel approach for root canal access cavity preparation</u>", The Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine. Vol. 232(8), pp. 787-795. DOI: 10.1177/0954411918788104, ISSN: 0954-4119.
- Vishal Francis and Prashant K. Jain (2018) "<u>Investigation on the effect of surface modification of 3D printed parts</u> by nanoclay and dimethyl ketone" Materials and Manufacturing Processes Vol. 33(10), pp. 1080-1092. DOI 10.1080/10426914.2017.1401717, ISSN: 1532-2475.
- Mohammad Taufik and Prashant K. Jain (2016) "<u>A Study of Build Edge Profile for Prediction of Surface Roughness</u> in Fused Deposition Modeling", ASME. Journal of Manufacturing Science and Engineering, Vol. 138(6), pp.061002. DOI: 10.1115/1.4032193, ISSN:1087-1357.

#### Administrative Experience

- Principal, Rustamji Institute of Technology (RJIT), BSF Academy, Tekanpur, Gwalior, since June 18, 2025
- Dean (Students) at IIITDM Jabalpur from June 01, 2016 to July 19, 2021 and Jan. 25, 2023 to August 25, 2023.
- Member Board of Governors, IIITDM Jabalpur since November 23, 2021 to July 18, 2024.
- Dean (RSPC) at IIITDM Jabalpur from September 8, 2022 to January 20, 2023.
- Head Mechanical Engineering Discipline at IIITDM Jabalpur, from August 13, 2021 to January 24, 2023.
- Faculty In-charge, Primary Health Center at IIITDM Jabalpur from January 01, 2016 to July 31, 2021.
- Head ME Discipline, at IIITDM Jabalpur, from September 01, 2014 to June 20, 2016.
- Chairman Placement Cell, at IIITDM Jabalpur from August 07, 2013 to May 31, 2016.
- Faculty In-charge, AMADA Manufacturing Innovation Center (AMIC) at IIITDM Jabalpur since May, 2013.
- Member, Academic Senate of PDPM IIITDM Jabalpur since August, 2012.

#### **Outreach Activities**

- Organized series of Training Programs/workshops/Faculty Development Programmes under QIP/Electronics and ICT Academy, at IIITDM Jabalpur:
  - Related to Additive Manufacturing "Medical Image Processing for Biomedical Applications and Additive Manufacturing Using MIMICS and MAGICS (MIP-BAAM)"
  - Related to Programming "Applications of MATLAB for Engineering Computations"
  - Related to CNC machining "CNC Programming Simulation and Operations"
- Participated in prestigious Leadership Development in Science & Technology (LEADS) Programme, organized by Indian National Science Academy and National Center for Good Governance, New Delhi, July 2024

#### **Recognitions, Awards and Distinctions (Selected)**

- Member Programme Advisory Committee (PAC) on Technology Development Programme (TDP) under Technology Development & Transfer (TDT) Division of DST, Govt. of India.
- Member expert committees of National Board of Accreditation, and visited several Institutes.
- Visited leading Industries and academic Institutions in JAPAN like University of Tokyo, TOKAI University, Metropolitan University, Kanagawa Industrial Technology research center, AMADA solution center, AMADA sheet metal works, YAMANAKA tool engineering etc. under JENESYS program, fully funded by govt. of JAPAN.
- Visited leading Industries and academic Institutions in UK like Nottingham University, Renishaw at stone, Warwick Manufacturing Group, Manufacturing Technology center at Coventry as member of a delegation to the UK on 'Additive Manufacturing and 3D Printing' invited by British High Commission in India.