

## CURRICULAM - VITAE

### PERSONAL

Name : **Dr. Prashant Kumar Jain**  
Father's Name : Shri M. L. Jain  
Date of Birth : February 10<sup>th</sup> 1974  
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Marital Status : Married  
Present Occupation : Associate Professor (Mechanical)  
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### EDUCATIONAL

S. No.	EXAM PASSED	BOARD / UNIVERSITY	INSTITUTE	YEAR	% MARKS OBTAINED	DIVISION
01	H. School	Board of Sec. Edu. M.P.	G.M.H.S. School SAGAR (M.P.)	1989	69.67	First
02	H. Secondary	Board of Sec. Edu. M.P.	G.M.H.S. School SAGAR (M.P.)	1991	78.25	First (Honours)
03	B.E. (Mechanical)	Dr. H. S. Gour Uni. SAGAR M.P.	I.G. Govt. Engg. College SAGAR (M.P.)	1995	74.83	First
04	#M.E. (Mechanical)	R.G.P.V. BHOPAL M.P.	S.A.T.I. Vidisha (M.P.)	2002	76.35	First (Honours)
05	*Ph.D.	Indian Institute of Technology Delhi	Indian Institute of Technology Delhi, Delhi	2009	CGPA 9.5 (In course work)	

# **Specialization:** Advanced Production Systems

**Thesis title:** *Development of Simulation Software for Part Program of CNC Lathe Machine (Mirac)*

\* **Research Area:** CAD/CAM, Additive Manufacturing

**Thesis title:** *Experimental and Computational Studies Related to Part Strength in Selective Laser Sintering*

### RESEARCH INTERESTS

*Additive Manufacturing, Rapid Prototyping & Tooling, CNC machining, Geometric Modeling, CAD/CAM Integration, Computational Geometry, Nano Technologies in Manufacturin, Incremental Sheet Metal Forming*

## ACADEMIC EXPERIENCE

S. No.	POST HELD	EMPLOYER	PERIOD	NATURE OF WORK
1	Associate Professor	PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur	5 <sup>th</sup> July 2012 to Till date	Research, Teaching, Lab Development and Academic Administration
2	Assistant Professor	PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur	1 <sup>st</sup> July 2009 to 4 <sup>th</sup> July 2012	Research, Teaching & Lab Development
3	Lecturer	Delhi College of Engineering, Delhi	1 <sup>st</sup> Sep. 2008 to 30 <sup>th</sup> June 2009	Teaching & Lab Development
4	Research Associate	Indian Institute of Technology Delhi New Delhi	5 <sup>th</sup> April 2007 to 31 <sup>st</sup> Aug. 2008	Research work on Rapid Prototyping
5	Project Scientist	Indian Institute of Technology Delhi New Delhi	1 <sup>st</sup> June 2006 to 4 <sup>th</sup> April 2007	Research work on CNC machines
6	Sr. Lecturer	Maharaja Agrasen Institute of Technology Rohini, Delhi-85	1 <sup>st</sup> Aug. 2002 to 31 <sup>st</sup> May 2006	Teaching & Lab Development
7	Lecturer	Mandsaur Institute of Technology Mandsaur M.P.	12 <sup>th</sup> Feb. 98 to 31 <sup>st</sup> July 2002	Teaching & Lab Development
8	Lecturer	Govt. Engineering College SAGAR M.P.	21 <sup>st</sup> March 96 to 11 <sup>th</sup> Feb. 98	Teaching
9	Lecturer	S.R. Govt. Women's Polytechnic SAGAR M.P.	1 <sup>st</sup> Jan. 96 to 20 <sup>th</sup> March 96	Teaching

## RESEARCH EXPERIENCE

- Worked as Research Associate at IIT Delhi under the project titled "Improvement of Part Quality in Selective Laser Sintering by Study and Control of Surface Roughness," from 5<sup>th</sup> April 2007 to 31<sup>st</sup> August 2008 (Project Investigator: Dr. P. M. Pandey, IITD, Project Sponsored by CSIR).
- Worked as Project scientist at IIT Delhi under the project titled "Tool Deflection Compensation in Peripheral Milling of Curved Geometries," from 1<sup>st</sup> June 2006 to 4<sup>th</sup> April 2007 (Project Investigator: Dr. P. V. M. Rao, IITD, Project Sponsored by MHRD).

## ACHIEVEMENTS/ AWARDS

- Research paper of Mohammad Taufik and Prashant K. Jain on "Accurate and Adaptive FDM Post Finishing Approach" has been awarded as the "Best Technical Paper" in 6th International Conference on Additive Manufacturing Technologies - AM 2016, October 7-8, 2016, Bengaluru, India.
- Awarded First Prize in IMTEX Forming 2016 on "Dieless Manufacturing" held during January 21-26, 2016 at Bengaluru, India (Organized by Indian Machine Tool Manufacturers' Association)
- PG student Mr. Deepesh Panjwani received The IIITD&M Proficiency Prize for Best Thesis in ME discipline of Postgraduate Programme (M.Tech.) August, 2016.
- PG student Mr. Vikas Malviya received The IIITD&M Proficiency Prize for Best Thesis in CSE discipline of Postgraduate Programme (M.Tech.) and best thesis in cross discipline August, 2012.
- UG students Mr. Amit Gupta and Mr. Abhilash Mishra of PDPM IIITDM Jabalpur, awarded "Performance Award" in student's fabrication category in 'The 28th Precision Sheet Metal Technology Fair' organized by AMADA School of Vocational Training Corporation at Isihara, Japan in the mentorship of Dr. Prashant Kumar Jain.
- UG students Mr. Manish Kumar and Mr. Rajesh Singh of PDPM IIITDM Jabalpur have been awarded for their excellent work and high level of contribution in metal fabrication field and participation in 'The

27<sup>th</sup> Precision Sheet Metal Technology Fair' organized by AMADA School of Vocational Training Corporation at Isihara, Japan for their 'abstract model of Tri-cycle' and 'Ya li'

- Received DST International Travel Support for paper presentation, Mohammad Taufik and Prashant K. Jain "Volumetric Error Control in Layered Manufacturing" in the proceedings of ASME 2014 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE 2014), August 17-20, 2014, Buffalo, New York, USA.
- Visited leading Industries and academic Institutions in UK like Nottingham of 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' during 7-10 July, 2014 invited by British High Commission in India.
- Paper of Varun Tiwari, Prashant K. Jain, and Puneet Tandon on "Design Process Automation Support through Knowledge Base Engineering" has been awarded **Certificate of Merit** in the 2013 International Conference of Computational Intelligence and Intelligent Systems (ICCIIS 2013), WCE 2013, July 3 - 5, 2013, London, U.K.
- Received DST International Travel Support for paper presentation, Prashant K. Jain, Pulak M. Pandey, P. V. M. Rao "[Tailoring Material Properties in Layered Manufacturing](#)", in proceedings of *The 2010 International Conference of Manufacturing Engineering and Engineering Management*, held at London, UK, June 30 -July 2, 2010, Vol-III, pp. 2144-2148.
- 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. during 25<sup>th</sup> Nov., 2010 to 25<sup>th</sup> Dec., 2010 under JENESYS program, fully funded by govt. of JAPAN.
- Paper presented in International Conference on Manufacturing Automation at National University of Singapore, Singapore, during May 28-30, 2007, on Rapid Prototyping, was awarded as the "**Highly Commended Paper**" by the jury of RP Journal, a highly reputed journal in the area of Rapid Prototyping.
- A UG project titled "*Development of Rapid Prototyping Machine*" under my guidance was well appreciated and awarded second prize of rupees 50,000/- in *National Design Contest for Engineering Students*, conducted by Product Development & Management Association, India, at Chennai, June 2007.
- A UG project titled "*Development of a Programmable Drilling Machine*" under my guidance was well appreciated and awarded second prize in *National Design Contest for Engineering Students*, conducted by Product Development & Management Association, India, at Chennai, May 2004.

## **PROFICIENCY IN CAD/CAM/CAE**

### **Software packages**

ANSYS, AutoCAD, EspritCAM, ProENGINEER, RP-Magics (Rapid prototyping Software), Workspace (Robotics Simulation Software), MINITAB (Statistical Software)

Similar other packages are also known.

### **Programming languages**

MATLAB, 'C', AutoLISP. CNC (G & M code) Programming.

## **PATENTS**

- “A process and System for Manufacturing of Formed Sheets and / or Components thereof with Offset Contours”, Puneet Tandon, Satwik Priyadarshi, Saurabh Verma, Prashant Kumar Jain, IIITDM Jabalpur and Joseph Jacob Roy, Mahendra Kumar Samal, Debanik Roy, BRNS, DAE, BARC (Indian Patent App No. 201721006539 dated 23-Feb-2017 – BRNS).
- “3D Printed Artificial Temporal Bone and Process of Making the Same” Piyush D. Ukey, Prashant K. Jain, Prashant M. Naik, Rashmi V. Uddanwadiker, IIITDM Jabalpur (Indian Patent App No. E-1/40721/2016-Mum dated 03-December-2016)
- “A tool for evaluating working width of tooth for root canal treatment” Pavan Kumar Kankar, Prashant Kumar Jain, Niharika Jain, Nishant Chowdhry, Parantap Chakrabarti, Ritwik Roy, IIITDM Jabalpur (Indian Patent App No. 201621041472 dated 05-December-2016)
- “Tailoring properties in rapid prototypes”, P.M. Pandey, P.V.M. Rao, Prashant K. Jain (Indian patent application Number 1691/DEL/2009 dated 17/8/2009).
- “Force sensor using functionally graded material”, P.M. Pandey, P.V.M. Rao, Prashant K. Jain (Indian patent has been approved for filing by IITD-IPR Standing Committee).

## **SPONSORED RESEARCH PROJECTS**

- Principal Investigator, Development of Additive-Subtractive Integrated RP System for Improved Part Quality, sponsored by DST, April 2014, Duration: 4 years. (Co-PI: Prof. Puneet Tandon, Dr. P. M. Pandey) (Amount: Rs. 1.95 millions)
- Co-Principal Investigator, Process Development for the Fabrication of Free Form Components through Incremental Sheet Forming, sponsored by BRNS, November 2012, Duration: 5 years. (PI: Prof. Puneet Tandon) (Amount: Rs. 7.545 millions)
- Co-Principal Investigator, Development of Adaptive Double Sided Incremental Forming Process for Dieless Manufacturing, sponsored by IMPRINT India, **March 2017**, Duration: 3 years. (PI: Prof. Puneet Tandon, Co-PI: Dr. Pavan K. Kankar) (Amount: Rs. 24.772 millions)
- Co-Principal Investigator, In-process monitoring of Stamping Process of a thin plate, sponsored by DST-JSPS, June 2017, Duration: 2 years (PI: Prof. Puneet Tandon, Co-PI: Dr. Pavan K. Kankar) (Amount: Rs. 0.876 millions)

## **CONSULTANCY**

- Co-Principal Consultant, Design, Redesign, FEA, Design Optimisation of 155 mm/52mm caliber chassis (Gun Carriage Factory) September 2017, Duration: 6 Months (Amount: Rs. 0.552 million)
- Co-Principal Consultant, Theoretical Formulations and Analytical Modelling for Buckling Analysis of Hydraulic Cylinder, sponsored by Research & Development Establishment (R&DE), Pune - DRDO, 2016, July 2016, Duration: 24 Months. (PI: Dr. Pavan Kumar Kankar, Co-PI: Prof. Prof. Vijay Kumar Gupta) (Amount: Rs. 0.983 million)
- Co-Principal Consultant, Design of Twin Barrel Air Defense Gun (Gun Carriage Factory) October 2016, Duration: 12 Months (Amount: Rs. 0.69 million)
- Principal Consultant, Image Processing Systems for Safety or Deformation detection related Manufacturing Applications – a short Proof of Concept (POC) in the project entitled: Industry 4.0 Related Initiative Projects (Alfa TKG Integrated Solutions India Pvt. Ltd.) December 2015, Duration: 6 months, (Amount: Rs. 0.1 million).

- Principal Consultant, STL file correction Data preparation and Fabrication of Tensile test Specimen on FDM machine (Madhav Institute of Technology & Science, Gwalior) Dated: December, 2015.
- Principal Consultant, Geometric model validation, part program generation and machining of Embossing Dies on Okuma Machining center for M/s U.S. Engineers, M/s Pooja Industries, M/s R. S. Enterprises, Jabalpur, During August-March, 2015-16.
- Principal Consultant, Develop technique to measure surface roughness of human Tooth (Hitkarini Dental College, Jabalpur) During Feb-March, 2016.

## **PUBLICATIONS**

### ***International Journals***

- Tiwari, Varun, Jain, P.K. and Tandon, Puneet, (2017) "A Bijective soft set theoretic approach for concept selection in design process", Journal of Engineering Design, Vol. 28, Issue 2, pp. 100-117.
- Tiwari, Varun, Jain, P.K. and Tandon, Puneet, (2017) "An Integrated Shannon Entropy and TOPSIS for Product Design Concept Evaluation based on Bijective Soft Set", Journal of Intelligent Manufacturing, 2017, pp. 1-15.
- Narendra Kumar, Prashant K. Jain, Puneet Tandon and Pulak Mohan Pandey (2017) "Extrusion based Additive Manufacturing of flexible parts", Brazilian Society of Mechanical Science and Engineering. (accepted)
- Vishal Francis and Prashant K. Jain (2017) "Investigation on the effect of surface modification of 3D printed parts by nanoclay and dimethyl ketone", Materials and Manufacturing Processes. (accepted)
- Vishal Francis and Prashant K. Jain (2017) "On the improved mechanical properties of nanoclay reinforced ABS composite for Fused Deposition Modelling", International Journal of Materials and Product Technology. (accepted)
- Mohammad Taufik and Prashant K. Jain (2017) "Surface roughness improvement using volumetric error control through adaptive slicing", International Journal of Rapid Manufacturing, Vol. 6(4), pp.279-302.
- Mohammad Taufik and Prashant K. Jain (2017) "Characterization, modeling and simulation of fused deposition modeling fabricated part surfaces", Surface Topography: Metrology and Properties, Vol. 5,045003.
- Mohammad Taufik and Prashant K. Jain (2017) "Laser assisted finishing process for improved surface finish of fused deposition modelled parts", Journal of Manufacturing Processes, Vol. 30, pp.161-177.
- Vishal Francis and Prashant K. Jain (2017) "Achieving improved dielectric, mechanical, and thermal properties of additive manufactured parts via filament modification using OMMT-based nanocomposite", Progress in Additive Manufacturing, Vol. 2(3), pp.109-115, ISSN: 2363-9520.
- Deepesh Panjwani, Satwik Priyadarshi, Prashant K. Jain, M. K. Samal, J. J. Roy, Debanik Roy, Puneet Tandon (2017) "A novel approach based on flexible supports for forming non-axisymmetric parts in SPISF", The International Journal of Advanced Manufacturing Technology, Vol. 92(5/8), pp. 2463–2477, ISSN: 1433-3015. DOI: 10.1007/s00170-017-0223-3
- Vishal Francis and Prashant K. Jain (2017) "3D printed polymer dielectric substrates with enhanced permittivity by nanoclay inclusion", Virtual and Physical Prototyping, Vol. 12(2), pp.107-115, ISSN: 1745-2759. doi.org/10.1080/17452759.2017.1312466

- Harish Kumar Nirala, Prashant K. Jain, J. J. Roy, M. K. Samal and Puneet Tandon (2017) "[An approach to eliminate stepped features in multistage incremental sheet forming process: Experimental and FEA analysis](#)", Journal of Mechanical Science and Technology, Vol. 31(2), pp.1-6, ISSN: 1976-3824.
- Mohammad Taufik and Prashant K. Jain (2016) "[CNC-assisted selective melting for improved surface finish of FDM parts](#)", Virtual and Physical Prototyping, Vol. 11(4), pp.1-23, ISSN: 1745-2759.
- Vishal Francis and Prashant K. Jain (2016) "[Experimental investigations on fused deposition modelling of polymer-layered silicate nanocomposite](#)", Virtual and Physical Prototyping, Vol. 11(2), pp.109-121, ISSN: 1745-2759.
- Mohammad Taufik and Prashant K. Jain (2016) "[A Study of Build Edge Profile for Prediction of Surface Roughness in Fused Deposition Modeling](#)", ASME. Journal of Manufacturing Science and Engineering, Vol. 138(6), pp.061002, ISSN:1087-1357
- Varun Tiwari, Prashant K. Jain, and Puneet Tandon (2016) "[Product design concept evaluation using rough sets and VIKOR method](#)", Advanced Engineering Informatics", Vol. 30(1), pp.16-25, ISSN: 1474-0346.
- Vishal Francis and Prashant K. Jain (2015) "[Advances in nanocomposite materials for additive manufacturing](#)", Int. J. of Rapid Manufacturing, Vol. 5(3/4), pp. 215–233, ISSN: 1757-8817.
- Narendra Kumar, Saquib Shaikh, Prashant K. Jain, and Puneet Tandon (2015) "[Effect of fractal curve based toolpath on part strength in fused deposition modeling](#)", Int. J. of Rapid Manufacturing, Vol. 5(2), pp.186-198, ISSN: 1757-8817.
- Varun Tiwari, Prashant K. Jain and Puneet Tandon (2015) "[Design Decision Automation Support through Knowledge Template CAD Model](#)", *Computer-Aided Design and Applications*, Vol. 12(1) pp. 96-103, ISSN: 1686-4360.
- Mohammad Taufik and Prashant K. Jain (2014) "[Role of build orientation in Layered Manufacturing: A review](#)", *International Journal of Manufacturing Technology and Management (IJMTM)*, Vol. 27, pp. 47-73, ISSN: 1368-2148
- Vikash K. Malviya and Prashant K. Jain (2013) "[An Object Oriented Approach to the Online Simulation of CNC Turning and Milling Machining Operations through Computational Geometry](#)", *Computer Aided Design and Applications*, Vol. 10(5), pp. 839-849, ISSN: 1686-4360.
- Vikash K. Malviya and Prashant K. Jain (2012) "[Computations for Simplification of Canned Cycles in CNC Programming for Turning Operations](#)", *Advanced Materials Research*, Vols. 383-390, pp. 965-971, ISSN: 1662-8985.
- Prashant K. Jain, Pulak M. Pandey, P. V. M. Rao, (2010) "[Tailoring Material Properties in Layered Manufacturing](#)", *Materials and Design*, 31(7), pp. 3490-3498, ISSN: 0264-1275.
- Prashant K. Jain, Pulak M. Pandey and P. V. M. Rao, (2010) "[Selective laser sintering of clay-reinforced polyamide](#)", *Polymer Composite*, 31(4), pp. 732-743, ISSN: 1548-0569.
- Prashant K. Jain, Pulak M. Pandey and P. V. M. Rao, (2009) "[Effect of delay time on part strength in Selective Laser Sintering](#)" *International Journal of Advanced Manufacturing Technology*, 43(1-2), pp. 117-126, ISSN: 0268-3768.
- S. K. Singhal, Prashant K. Jain, P. M. Pandey and A. K. Nagpal, (2009) "[Optimum part deposition orientation for multiple objectives in SL and SLS prototyping](#)" *International Journal of Production Research*, 47(22), pp. 6375-6396, ISSN: 0020-7543.

- Prashant K. Jain, Pulak M. Pandey and P. V. M. Rao (2008) "[Experimental investigations for improving part strength in Selective Laser Sintering](#)" *Virtual and Physical Prototyping*, 3(3), pp. 177-188, ISSN: 1745-2759.
- S. K. Singhal, Prashant K. Jain and P. M. Pandey (2008) "[Adaptive Slicing for SLS Prototyping](#)" *Computer-Aided Design and Applications*, 5(1-4), pp. 412-423, ISSN: 1686-4360.

### **International Conferences**

- Kumar, Narendra, Jain, P.K., Tandon, Puneet and Pandey, P.M., (2017) "Experimental investigations on suitability of polypropylene (PP) and ethylene vinyl acetate (EVA) in additive manufacturing", 7th International Conference of Materials Processing and Characterization (ICMPC 2017), March 17-19, Hyderabad, India.
- Deokar, Swapnil, Jain, P.K., and Tandon, Puneet, (2017) "Formability Assessment in Single Point Incremental Sheet Forming through Finite Element Analysis", International Conference on Advances in Materials and Manufacture Applications (IConAMMA 2017), Bengaluru, India, August 17-19, 2017, Ref. No. IConAMMA\_2017\_66,
- Mohammad Taufik and Prashant K. Jain (2016) "Additive Manufacturing: Current Scenario", International conference on advanced production and industrial engineering, Delhi Technological University, 9-10 December 2016.
- Chetani Aman, Priyadarshi Stawik, Kumar Pavan, Jain P.K. and Tandon Puneet (2016), "State of art in Double Sided Incremental Forming", Conference on Sheet Metal Forming, December 8-9, 2016, IIT Bombay, India.
- Priyadarshi Stawik, Kumar Pavan, Chetani Aman, Jain P.K. and Tandon Puneet (2016), "Generation of Automatic Multi-pass tool path for Incremental sheet Forming", Conference on Sheet Metal Forming, December 8-9, 2016, IIT Bombay, India.
- Divyansh Dwivedi, Abhishek Kumar, Satwik Priyadarshi, Prashant K. Jain and Puneet Tandon (2016) "Numerical Prediction of Fracture in Parts formed with Incremental Sheet Forming Process", 6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016), 16-18 December 2016, Pune, INDIA.
- Ankur Raman Goldar and Prashant K. Jain (2016) " [Product Platform Design Based on Common Components](#)", *International Journal of Advanced Production and Industrial Engineering*, Vol. 1(4), pp.21-28, ISSN: 2455 – 8419.
- Mohammad Taufik and Prashant K. Jain (2016) "Development and Analysis of Accurate and Adaptive FDM Post Finishing Approach", 6th International Conference on Additive Manufacturing Technologies - AM 2016, 6-7th October 2016, Bangalore, INDIA.
- Narendra Kumar, Prashant K. Jain, Puneet Tandon. and Pulak Mohan Pandey (2016) "Toolpath Generation for Additive Manufacturing using CNC Milling Machine", 6th International Conference on Additive Manufacturing Technologies - AM 2016, 6-7th October 2016, Bangalore, INDIA.
- Mohammad Taufik and Prashant K. Jain (2016) "Estimation and simulation of shape deviation for additive manufacturing prototypes", in the Proceedings of *ASME 2016 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE 2016)*, August 21-24, Charlotte Convention Center, Charlotte, North Carolina, USA.
- Mohammad Taufik and Prashant K. Jain (2016) "Computer aided visualization tool for part quality analysis of additive manufacturing process", in the Proceedings of *ASME 2016 International Design*

*Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE 2016)*, August 21-24, Charlotte Convention Center, Charlotte, North Carolina, USA.

- Piyush D. Ukey, Ankit Nayak, R. V. Uddanwadiker and Prashant K. Jain (2016) "[Temporal bone fabrication using FDM technique: Issues and opportunities](#)", *International Journal of Advanced Production and Industrial Engineering*, Vol. 1(2), pp.47-52, ISSN: 2455 – 8419.
- Shaikh, S., Kumar, N., Jain, P. K., & Tandon, P. (2016). "[Hilbert Curve Based Toolpath for FDM Process](#)", In *CAD/CAM, Robotics and Factories of the Future* (pp. 751-759). Springer India, ISBN: 978-81-322-2738-0.
- Panjwani, D., Jain, P. K., Samal, M. K., Roy, J. J., Roy, D., & Tandon, P. (2016). "[Single Point Incremental Forming Using Flexible Die](#)", In *CAD/CAM, Robotics and Factories of the Future* (pp. 741-749). Springer India, ISBN: 978-81-322-2738-0.
- Parnika Shrivastava, Prashant K. Jain, JJ Roy, MK Samal and Puneet Tandon (2015) "Parameter Optimization of AA1050A in Incremental Sheet metal forming based on Taguchi design and Response surface methodology", in the Proceedings of the *ASME 2015 International Mechanical Engineering Congress & Exposition (IMECE 2015)*, November 13-19, 2015, Houston, Texas, USA, ISBN: 978-0-7918-5735-9
- Pavan Kumar, Satwik Priyadarshi, JJ Roy, MK Samal, PK Jain and Puneet Tandon (2015) "Effect of tool shape on surface finish of component formed through incremental sheet forming process", in the Proceedings of the *ASME 2015 International Mechanical Engineering Congress & Exposition (IMECE 2015)*, November 13-19, 2015, Houston, Texas, USA, ISBN: 978-0-7918-5735-9
- Sahu, Govind N., Saxena, Sumit, Jain, Prashant K., Samal, M. K., Roy, J. J., & Tandon, Puneet (2015) "Shell Element Formulation based Finite Element Modeling, Analysis and Experimental Validation of Incremental Sheet Forming Process", in the Proceedings of *the ASME 2015 International Mechanical Engineering Congress & Exposition (IMECE 2015)*, November 13-19, 2015, Houston, Texas, USA, ISBN: 978-0-7918-5735-9
- Priyadarshi, S., Jain, P.K., Roy, J.J., Samal, M.K., and Tandon, Puneet (2015) "Feature based assessment of forming force behavior in Incremental Sheet Forming", *23rd International Conference on Computer Graphics, Visualization and Computer Vision 2015 (WSCG 2015)*, Plzen, Czech Republic, June 8 - 12, 2015, pp.95-104
- Mohammad Taufik and Prashant K. Jain (2014) "[Volumetric Error Control in Layered Manufacturing](#)", in the Proceedings of *ASME 2014 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE 2014)*, August 17-20, Buffalo, New York, USA, V004T06A017 (10 pages), ISBN: 978-0-7918-4635-3
- Neelesh Gupta and Prashant K. Jain (2013) "[Motion control of servomotor with microcontroller using MATLAB](#)", *J. Eng., Sci. & Manag. Edu.*, Vol. 7(1), pp.1-5, ISSN: 0976-0121
- Suraj Singh, Mohammad Taufik, Prashant K. Jain (2014) "Development of extruder head for fused deposition process", *J. Eng., Sci. & Manag. Edu.*, Vol. 7(1), pp.1-5, ISSN: 0976-0121
- Narendra Kumar and Prashant K. Jain (2013) "[Energy Harvesting for Low-Power Electronic Devices](#)", *J. Eng., Sci. & Manag. Edu.*, Vol. 7(1), pp.1-5, ISSN: 0976-0121
- Varun Tiwari, Prashant K. Jain and Puneet Tandon (2013) "[Design Process Automation Support through Knowledge Base Engineering](#)", in proceedings of *The 2013 International Conference of*



*Computational Intelligence and Intelligent Systems*, July 3-5, 2013, London, U.K, ISBN: 978-988-19252-8-2

- Rahul Pachori, Om Namah Sharma, Prashant K. Jain, Puneet Tandon (2012) "Effect of Tool Geometry on Dieless Manufacturing", in the proceedings of *All India Machine Tool Design and Research (AIMTDR-2012)*, Jadavpur University, Kolkata, December 14-16, 2012.
- Mohammad Taufik and Prashant K. Jain (2012) "Orientation techniques in layered Manufacturing: a review", in the proceedings of *International Conference on Innovations in Design and Manufacturing (InnDeM - 2012)*, December 5-7, 2012, Jabalpur, India,
- Varun Tiwari, Prashant K. Jain and Puneet Tandon (2012) "Development of Knowledge Base Engineering Tools Through Knowledge Fusion", in proceedings of *International Conference on Innovations in Design and Manufacturing (InnDeM - 2012)*, December 5-7, 2012, Jabalpur, India.
- Prashant K. Jain and Pulak M. Pandey (2012) "On incorporating FEM results in Selective Laser Sintering to achieve customized material properties", in the proceedings of *CAD12 conference*, Niagara Falls, Canada, June 11-14, 2012.
- Shekhar Gupta and Prashant K. Jain (2012) "Green Manufacturing Environment using Rapid Prototyping and CAD/CAM Integration", in proceedings of *International Conference on Mechanical, Industrial, and Manufacturing Engineering (ICMIME 2012)*, January 15-17, 2012, Zurich, Switzerland, pp. 701-706.
- Vikash K. Malviya and Prashant K. Jain (2011) "Computations for Simplification of Canned Cycles in CNC Programming for Turning Operations", in proceedings of *International Conference on Manufacturing Science and Technology (ICMST)*, September 16-18, 2011, Singapore.
- Vikash K. Malviya and Prashant K. Jain (2011) "Computations for Simplification of Canned Cycles in CNC Programming for Milling Operations", in proceedings of *International Conference on Computational Methods in Manufacturing (ICMCM2011)*, December 15-16, 2011, Indian Institute of Technology Guwahati, Guwahati, India, pp. 3005-3011, ISBN: 978-935-059-051-5.
- Prashant K. Jain, Pulak M. Pandey, P. V. M. Rao (2010) "[Tailoring Material Properties in Layered Manufacturing](#)", in proceedings of *The 2010 International Conference of Manufacturing Engineering and Engineering Management*, held at London, UK, June 30 -July 2, Vol-III, pp. 2144-2148, ISBN: 978-988-18210-8-9
- Prashant K. Jain, Pulak M. Pandey and P.V.M. Rao (2008) "SLS of nano-clay polyamide powder", Invited paper presented in *Indo-French workshop* held at IIT Delhi, Sep. 24-26, 2008.
- Prashant K. Jain, P. B. Bacchewar and Pulak M. Pandey (2008) "Effect of part bed temperature on surface roughness in SLS process", in proceedings of *2nd International and 23rd All India Manufacturing Technology, Design and Research Conference*, Dec. 15-17, pp. 1109-1114.
- Prashant K. Jain, K. Senthilkumaran, Pulak M. Pandey and P.V.M. Rao (2008) "On the strength and accuracy of SLS prototypes", in proceedings of *Indo-Russian workshop on Topical Problems in Solid Mechanics*, Organized by DST, New Delhi and Russian Foundation for Basic Research, Russia at BITS Goa campus, Nov. 7-11, pp. 283-298.
- Prashant K. Jain, Pulak M. Pandey and P. V. M. Rao (2007) "Experimental Investigations into the Effect of Delay Time on Part Strength in Selective Laser Sintering", in proceedings of *International Conference on Manufacturing Automation (ICMA07)*, at National University of Singapore, Singapore, May 28-30, pp. 501-515.

- Prashant K. Jain, K. Senthilkumaran, Pulak M. Pandey and P. V. M. Rao (2006) "[Advances in Materials for powder based Rapid Prototyping](#)", in proceedings of *international conference on Recent Advances in Materials and Processing*, at PSG College of Technology, Coimbatore, India, Dec. 15-16, Sec.14.6.

### **National Conferences**

- Mohammad Taufik and Prashant K. Jain (2014) "Surface Finish of PC-ABS Parts Fabricated by Fused Deposition Modelling", in the proceedings of *National Conference on Futuristics in Mechanical Engineering (FME)*, March 8-9, 2014, MMTU Gorakhpur, India, ISBN: 978-93-83842-20-9.
- Nand Kishor Mishra, Prashant K. Jain, On the Machining of Bezier Curve using CNC Turning Machines, in proceedings of *National Conference on Manufacturing: Vision for Future (MVF2013)*, Organized by Department of Mechanical Engineering, Indian Institute of Technology Guwahati, India, October 12-13, 2013
- P.V.M. Rao, Pulak M. Pandey, K. Senthilkumaran, and Prashant K. Jain (2008) "Improvement of strength and accuracy in selective laser sintering (SLS)" in proceedings of *22nd National Convention of Metallurgical and Materials Engineers and National Seminar on Advanced Materials: Characterization and Processing*, Organized by Institution of Engineers (India) at Hyderabad, Jan. 15-17, pp. 73-74.
- Prashant K. Jain (2006) "Surface Roughness in Rapid Prototyping", in proceedings of *National Conference on Automation in Manufacturing Technology*, at North India Engineering College Delhi, March 24-25.

### **Book Chapters**

- Saquib Shaikh, Narendra Kumar, Prashant K. Jain and Puneet Tandon (2016). "*Hilbert Curve Based Toolpath for FDM Process*", In Lecture notes in Mechanical Engineering, Springer.
- Deepesh Panjwani, Prashant K. Jain, P. K., M. K., Samal, J. J. Roy, Debanik Roy & Puneet Tandon (2016). "*Single Point Incremental Forming Using Flexible Die*", In Lecture notes in Mechanical Engineering, Springer.
- Tiwari, Varun, Jain, P.K. and Tandon, Puneet, (2013) "Design Process Automation Support through Knowledge Base Engineering", Lecture Notes in Engineering and Computer Science (LNECS), Volume 2, , pp. 737-742
- Divyansh Dwivedi, Abhishek Kumar, Satwik Priyadarshi, Prashant K. Jain and Puneet Tandon, "*Numerical Prediction of Fracture in Parts formed with Incremental Sheet Forming Process*", To be published in the book titled "Simulations for Design and Manufacturing, Springer.
- Mohammad Taufik and Prashant K. Jain "*Development and Analysis of Accurate and Adaptive FDM Post Finishing Approach*". To be published in the book titled "[Advances in 3D Printing and Additive Manufacturing Technologies](#)" - Vol 2.
- Narendra Kumar, Prashant K. Jain, Puneet Tandon. and Pulak Mohan Pandey "*Toolpath Generation for Additive Manufacturing using CNC Milling Machine*", To be published in the book titled "[Advances in 3D Printing and Additive Manufacturing Technologies](#)" - Vol 2.

## **RESEARCH GUIDANCE/SUPERVISION**

### **Ph. D.**

- Mohammad Taufik (ME), Part Surface Quality Improvement Studies in Fused Deposition Modelling Process, Completed, *Registration: August 2012, Submitted: November 2016, Defended: April 2017.*
- Varun Tiwari (ME), Capturing Design Intent: Effective Handling of Design Information in Early Design Stages, (with Prof. Puneet Tandon), Completed, *Registration: August 2011, Submitted: July 2016, Defended: May 2017.*
- Vishal Francis (ME), Experimental Investigation on Suitability of Nanocomposite in Additive Manufacturing, *In progress, Registration: August 2014.*
- Narendra Kumar (ME), Experimental Investigations into screw extrusion based FDM process, *In progress, Registration: January 2015.*
- Ankit Nayak (ME), Guided Endodontics: A CAD Based Approach, (with Dr. Pavan Kankar), *In progress, Registration: August 2015.*
- Gaurav Sharma (ME), Development of Induction-Conduction Based Material Deposition System for Metal Additive Manufacturing, (with Dr. Pavan Kankar), *In progress, Registration: January 2016.*
- Aman Chetani (ME), Double Sided Incremental Sheet Forming, (with Prof. Puneet Tandon), *In progress, Registration: January 2016.*

#### **M. Tech.**

- Vikash Malviya (CSE), Development of Online Simulation Facility for CNC Machining Operations and Simplification of Canned Cycles, *Completed, Registration: August 2009, Submitted: August 2011, Defended: September 2011.*
- Swapnil Deokar (ME), Formability assessment in Single Point Incremental Sheet Forming through Finite Element Analysis, *Completed, Registration: August 2011, Submitted: August 2014, Defended: January 2015.*
- Sandip Nandgaonkar, Tool wear investigation in ti-6al-4v drilling under dry cutting and oil mist spray cooling condition, (with Dr. TVK Gupta), *Completed, Registration: August 2012, Submitted: June 2014, Defended: August 2014.*
- Harish Kumar Nirala, Experimental Investigations in Multistage Incremental Sheet Metal Forming to Improve Formability, *Completed, Registration: August 2012, Submitted: December 2014, Defended: April 2015.*
- Deepesh Panjwani (ME), Incremental Sheet Metal Forming Process using Flexible Supports, *Completed, Registration: August 2013, Submitted: August 2015, Defended: September 2015.*
- Saquib Shaikh (ME), Fractal Curve Based Toolpath Generation and Part Fabrication using FDM Process, *Completed, Completed, Registration: August 2013, Submitted: August 2015, December 2015.*
- Piyush D. Ukey (ME (CAD/CAM)), Fabrication of Artificial Temporal Bone from CT Scan Data Using FDM Technique for Dissection Training, (with Dr. R. V. Uddanwadiker, VNIT Nagpur), *Completed, Registration: August 2014, Submitted: June 2016, Defended: July 2016.*
- Ankur Raman Goldar (ME (Design)), Design and Verification of New Concepts for Oven Console Subsystem Allowing Common Interface, *Completed, Registration: August 2014, Submitted: June 2016, Defended: July 2016.*
- Gaurav Shukla (ME), Evaluation of Process Parameters for Surface Roughness and Cutting Force in End Milling of Aluminium Alloy, *Completed, Registration: August 2013, Submitted: June 2017, Defended: July 2017.*

- Ankush Gaurav (ME (CAD-CAM)), Concept Generation and Analysis of Saddle System of Large Calibre Gun, Completed, Registration: August 2015, Submitted: June 2016, Defended: July 2017.
- Ashish Wadkar (ME (CAD-CAM)), Design for Retrofitting and Analysis of Components of Artillery Gun, Completed, Registration: August 2015, Submitted: June 2017, Defended: July 2017.
- Abhishek Srivastava (ME (CAD-CAM)), Enhancing localized property of FDM parts, In progress, Registration: August 2016
- Pushpendra Kataria (ME (CAD-CAM)), Design and development of tool for automatic 4D PHD creation, In progress, Registration: August 2016
- Mayur Vispute (ME (CAD-CAM)), Studies on part finishing strategies in hybrid additive-subtractive processes, In progress, Registration: August 2016
- Rayate Amol Babanrao (ME (CAD-CAM)), Experimental investigation on 4D printing of shape memory polymers, In progress, Registration: August 2016
- Bari Nikhil Rambhau (ME (Manufacturing)), Variable bolt height in flexible support for multi-stage ISF, In progress, Registration: August 2016

### **REVIEWER TO INTERNATIONAL JOURNALS/CONFERENCES**

- Additive Manufacturing (Elsevier)
- International Journal of Rapid Manufacturing (Inderscience)
- International Journal of Mechatronics and Manufacturing Systems (Inderscience)
- Wear (Elsevier)
- IMeche Part E: Journal of Process Mechanical Engineering (SAGE)
- The International Journal of Advanced Manufacturing Technology (Springer)
- Mathematical and Computational Applications (MDPI)
- Journal of Mechanical Science and Technology (Springer)
- Advanced Engineering Informatics (Elsevier)
- International Journal of Advanced Manufacturing Technology (Springer)
- Journal of Mechanical Design (ASME)
- International Journal of Material Forming (Springer)
- International Journal of Rapid Manufacturing (Inderscience)
- IMeche Part B: Journal of Engineering Manufacture (SAGE)
- Int. J. Mechatronics and Manufacturing Systems (Inderscience)
- Composites Part B: Engineering (Elsevier)
- ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference
- ASME International Mechanical Engineering Congress and Exposition
- Additive Manufacturing Society of India (AMSI) (<http://amsi.org.in/contact.html>)
- International Journal of Advanced Production and Industrial Engineering (<http://ijapie.org/EditorialBoard.html>)
- All India Manufacturing Technology, Design and Research Conference (AIMTDR)
- National Conference on Manufacturing: Vision for Future (MVF2013), Indian Institute of Technology Guwahati, India, 12-13 October, 2013

- International Conference on Advanced Production and Industrial Engineering, Delhi Technological University, India, 9-10 December, 2016 (<http://www.icapie.com/>)
- International Conference on Design and Manufacturing, IITDM Kancheepuram, India, 16-17 December, 2016 (<http://icondm16.in/>)

### **INVITED LECTURES/TALK**

- Delivered invited talk on “3D Printing of Flexible Parts using EVA Material” at Mechanical Engineering Discipline, PDPM Indian Institute Of Information Technology, Design And Manufacturing Jabalpur, Jabalpur, during International Conference on Physics and Mechanics of New Materials and Their Applications (PHENMA 2017) October 14-16, 2017
- Delivered expert talk on “Introduction to Additive Manufacturing processes” and “Data preparation for Additive Manufacturing” at Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur, during one week short term training program on “Interdisciplinary research in biomedical engineering”, October 3-9, 2017.
- Delivered expert talk on “Additive Manufacturing: Challenges and Possibilities”, “Data preparation for Additive Manufacturing” and “Design & Manufacturing Integration through Programming” at Mechanical Engineering Discipline, PDPM Indian Institute Of Information Technology, Design And Manufacturing Jabalpur, Jabalpur, during QIP Short Term Course On “Recent Advancement in Product Design, Manufacturing and Maintenance Techniques”, September 16 - 20, 2017
- Delivered expert talk on “STL Data Format and Slicing Procedures” at Department of Mechanical Engineering, Indian Institute of Technology (BHU) Varanasi, during seven day QIP Short Term Course on “Additive Manufacturing: Theory & Practice” March 16-22, 2017.
- Delivered expert talk on “Innovative design through Additive Manufacturing” and “Design & Manufacturing Integration through Programming” at Maulana Azad National Institute of Technology, Bhopal, Madhya Pradesh, during Faculty development program on “Advances in Product Design and Manufacturing (APDM)”, January 3-8, 2017.
- Delivered expert talk on “Additive Manufacturing and 3-D Printing: Issues, Challenges and Innovative Applications” at Prasad V. Potluri Siddhartha Institute of Technology Kanuru, Vijayawada, Andhra Pradesh during workshop on “Additive Manufacturing & 3D Printing”, November 18-19, 2016.
- Delivered expert talk on “Innovative Applications of Additive Manufacturing” at IPS College of Technology & Management, Gwalior during Short Term Course on “Additive Manufacturing”, February 12-13, 2016.
- Delivered an expert talk on "3D Printing: Present and Future Perspective", Gyan Ganga Group of Institutions, during two days workshop on “Nanofabrication and MEMs”, February 05, 2016.
- Delivered keynote lectures on “3D Printing: Present and Future Perspective” at AMITY University, Gwalior during National Seminar on Emerging Trends in Manufacturing and Automation Engineering, October 09-10, 2015.
- Delivered expert lectures on “Importance of CNC in Manufacturing”, “Numerical Control, CNC, Programming and Application”, “Rapid Prototyping and Biomedical Applications of RP”, at Delhi Technological University (DTU) Delhi during Faculty Development program on Automation in Manufacturing, May 04-15, 2015.

- Delivered an expert talk on “Programming Applications for Engineers”, at Madhav Institute of Technology and Science, Gwalior during Workshop on Innovations in Teaching and Research Methods, March 25-26, 2015.
- Delivered an expert talk on “Enhanced Computational facility for CNC machines”, at Department of Mechanical Engineering, Hindustan College of Science and Technology, Mathura, August 01, 2014
- Delivered an expert talk on "Rapid Prototyping" during Short Term Training Program (STTP) on Industrial Engineering Techniques, May 20-24, 2014, at Department of Mechanical Engineering, Maulana Azad National Institute of Technology, Bhopal, May 23, 2014.
- Delivered an expert talk on “Critical Thinking: A way to achieve success”, at Hitkarini College of Engineering and Technology, Jabalpur, April 30, 2014.
- Delivered an expert talk on "CAD-CAM Integration" during Short Term Training Program (STTP) on Recent Advancements in Product Innovations and Design (RAPID2014), February 17-21, 2014, at Department of Mechanical Engineering, Maulana Azad National Institute of Technology, Bhopal, February 21, 2014.
- Delivered an expert talk on "Machining of Free form curves and surfaces" during Short Term Training Program (STTP) on Recent Advancements in Product Innovations and Design (RAPID2014), February 17-21, 2014, at Department of Mechanical Engineering, Maulana Azad National Institute of Technology, Bhopal, February 21, 2014.
- Delivered an expert talk on “Rapid Prototyping: Concept to Reality” during National Seminar on “Recent Advances in Production Systems”- 2014 at ITM university, Gwalior (MP), January 18, 2014.
- Delivered lecture series on “Importance of Geometric Modelling and CAD Transformation” at National Institute of Technical Teachers' Training and Research, (NITTTR) Bhopal. December 26-27, 2013.
- Delivered a talk on “Plotting/Visualization Using MATLAB” at Maulana Azad National Institute of Technology, Bhopal, During “Workshop on MATLAB for researchers”, December 10, 2013.
- Delivered a talk on “Plotting/Visualization Using MATLAB” During STTP on Research Methodology, at Madhav Institute of Technology and Science, Gwalior (MP) November 14, 2013.
- Delivered a talk on “Rapid Prototyping: Concept to Reality” at Gyan Ganga Institute of Technology and Science, Jabalpur (MP), October 25, 2013.
- Delivered a talk on “Rapid Prototyping: Concept to Reality” at Madhav Institute of Technology and Science, Gwalior (MP), October 07, 2013.
- Delivered an expert talk on “Incremental Sheet Metal Forming Through CNC Machines” During AICTE sponsored Faculty Development Program on “Metal Forming Processes: A Practical Approach” September 21 to October 5, 2013, At Ojaswini Institute of Management & Technology, Damoh (MP).
- Delivered an expert talk on “Incremental Sheet Metal Forming Through CNC Machines” During Faculty Development Program on “Metal Forming Processes: A Practical Approach” September 6-20, 2013, At Infinity Management and Engineering College, Sagar (MP).

- Delivered an expert talk on “Innovative Designs through Rapid Prototyping” in National Workshop on Significance of Rapid Prototyping and Rapid Tooling in Indian Industry, organized by MANIT, Bhopal, during May 11-12, 2013.
- Delivered an expert talk on “CNC Machines” in National conference on Engineering and Applied Sciences, organized by Jabalpur Engineering College, Jabalpur, during March 22-23, 2013.
- Delivered keynote address on “Rapid Prototyping: Advancement in Science and Technology” in International Design Workshop (DeW-2012) organized by PDPM IITDM Jabalpur in collaboration with MOFA Japan, on December 5, 2012.
- Delivered an expert talk on “Medical Rapid Prototyping: Advancement in Science and Technology” in All India Seminar on Bio-Medical Engineering (AISOB-2012), organized by Institution of Engineers India, Jabalpur Centre on Nov. 3, 2012.
- Delivered keynote address on “Rapid Prototyping” in National seminar on *advancement in material processing and production technology* organized by Gyan Ganga Institute of Technology and Sciences, sponsored by AICTE, Delhi, on February 25, 2012.
- Delivered an expert lecture on “Rapid Product Manufacturing” in Workshop on *Rapid Prototyping – From Concept to Reality*, organized by international Centre for Automotive Technology (ICAT), Manesar, Gurgaon, India, on December 15, 2011.
- Delivered a talk on “Medical Rapid prototyping” in 15<sup>th</sup> National Workshop on *skill in maxillofacial surgery*, jointly organized by Hitkarini Dental College, Jabalpur and Jabalpur Hospital & Research Center Jabalpur, 29<sup>th</sup> Jan, 2011.
- Delivered a talk as guest of honor on “Critical Thinking” in national seminar on *How to achieve 100% result*, jointly organized by District Education Office Sagar and BT Institute of Research and Technology, Sironja, Sagar, (M.P.) 16<sup>th</sup> Jan, 2011.
- Delivered a talk on “Renovated designs using CAD/CAM, Rapid Prototyping” at AMADA Co. Ltd. Japan on 21<sup>st</sup> December, 2010.
- Delivered a talk on “Custom Material Properties in Rapid Prototyping” at Kanagawa Institute of Technology, Kanagawa, Japan on 15<sup>th</sup> December, 2010.
- Delivered a talk on “Rapid Product Manufacturing” during International Design Workshop 2010, at PDPM IITDM Jabalpur on October 12, 2010.
- Delivered keynote address on “Rapid Prototyping to Rapid Manufacturing” in National Conference on *Recent Trends in Automation and Manufacturing Technology* at Northern India Engineering College, Delhi, 22<sup>nd</sup> March, 2009.
- Delivered invited lecture in Continuing Education Program at DRDO Delhi on “NC/CNC Machining” on 25<sup>th</sup> April 2006.
- Delivered keynote address on “Rapid Prototyping” in National Conference on Automation in Manufacturing Technology at Northern India Engineering College, Delhi, March 25, 2006.
- Delivered lecture on “Manufacturing Modeling through Pro/ENGINEER” as Resource Person during Short-Term Training Program (STTP) on “Recent trends, Techniques & Multimedia Applications in Mechanical Engineering” Sponsored by AICTE-ISTE, At Madhav Institute of Technology & Science, Gwalior M.P., on 15<sup>th</sup> July, 2004.
- Delivered lecture on “AutoLISP Programming” as Resource Person in Short-Term Training Program (STTP) on “RAPID DESIGN & MANUFACTURING: CAD/CAM/RT/CE/RE” Sponsored by

AICTE-ISTE, At Institute of Technology Banaras Hindu University, Varanasi, on December 31, 2003.

- Delivered lecture series at Hindustan College of Science Technology, Farah, Mathura, for the subject *Numerical control of machine tools* in Sequential M.Tech. program of Uttar Pradesh Technical University, June 2008.
- Delivered lecture series at Manav Rachana College of Engineering, Faridabad, for the subject *Computer aided Design*, March-April. 2008.
- Delivered lecture series at Northern India Engineering College, Shahdara, Delhi for the subject *Computer aided Manufacturing*, August-Dec. 2007.
- Delivered lecture series at Rai Foundation Engineering College, Faridabad for the subject *Robotics and Dynamics of Machines* April-July 2007.
- Delivered lecture series at Maharaja Agrasen Institute of Technology, Delhi for the subject *Computer aided Manufacturing*, August-Dec. 2006.
- Delivered lecture series at Delhi College of Engineering, Delhi for the subject *CAD/CAM* from August 2002 to May 2006.
- Delivered lecture series at B.R Nahta college of Pharmacy Mandsaur, M.P. for the subject *Engineering Graphics* Aug. 1999 to April 2001.

#### **SEMINAR/CONFERENCES/WORKSHOP/FDP/TRAINING PROGRAMS CONDUCTED**

- Organised International Conference on 'Physics and Mechanics of New Materials and Their Applications (PHENMA 2017)' during October 14-16, 2017, as Co-Chair with (with Prof. V. K. Gupta and Dr. Pavan Kumar Kankar)
- Organised one week short term training program on 'Interdisciplinary research in biomedical engineering, under Electronics and ICT Academy, at Department of Mechanical Engineering, Visvesvaraya National Institute of Technology, Nagpur, October 3-9, 2017 (with Dr. Rashmi Uddanwadiker, NIT Nagpur)
- Organised QIP Short Term Course on 'Recent Advancement in Product Design, Manufacturing and Maintenance Techniques', at Mechanical Engineering Discipline, PDPM Indian Institute of Information Technology, Design and Manufacturing Jabalpur, Jabalpur, September 16 - 20, 2017 (with Prof. Pramod Kumar Jain and Dr. Pavan Kumar Kankar)
- Organised faculty development programme on 'Numerical methods and programming in MATLAB' under Electronics and ICT Academy, at Gyan Ganaga Institute of Technology and Science, Jabalpur, January 20-25, 2017. (with Dr. Pavan Kumar Kankar and Ms. Nidhi Misra).
- Organised faculty development programme on "Advances in Product Design and Manufacturing (APDM)", under Electronics and ICT Academy at Maulana Azad National Institute of Technology, Bhopal, Madhya Pradesh, during January 3-8, 2017. (with Prof. Siraj Ahmed and Dr. M. K. Pradhan).
- Organised International Design Workshop on "Internet of Process Centric Design and Manufacture", at PDPM IIITDM Jabalpur as convener in collaboration with MOFA Japan, (with Prof. Puneet Tandon) December 12-14, 2016.



- Organised Hands-on Experience Oriented Programming Skill Development Program on 'Computer Programming and APP Development using MATLAB' under Electronics and ICT Academy, IIITDM Jabalpur, October 10-14, 2016. (with Dr. Pavan Kumar Kankar)
- Organised faculty development programme on 'Computer programming and GUI development in MATLAB' under Electronics and ICT Academy, IIITDM Jabalpur, March 18-23, 2016. (with Dr. Pavan Kumar Kankar)
- Organised International Design Workshop on "Process Centric Design and Manufacture", at PDPM IIITDM Jabalpur as convener in collaboration with MOFA Japan, (with Prof. Puneet Tandon), December 8-10, 2015
- Organised faculty development programme on Computational Methods and GUI Development for Scientists and Engineers under Electronics and ICT Academy, IIITDM Jabalpur, October 28 – November 1, 2015, (with Dr. Pavan Kumar Kankar)
- Organised fifth workshop on Applications of MATLAB for Engineering Computations, at PDPM IIITDM Jabalpur, February 06-08, 2015. (with Dr. Pavan Kumar Kankar)
- Conducted Training Program on "CNC Programming Simulation and Operation" at PDPM IIITDM Jabalpur, July 01-15, 2015. (with Dr. Pavan Kumar Kankar)
- Organised fourth workshop on Applications of MATLAB for Engineering Computations, at PDPM IIITDM Jabalpur, December 01-05, 2014. (with Dr. Pavan Kumar Kankar)
- Organised third workshop on Applications of MATLAB for Engineering Computations, at PDPM IIITDM Jabalpur, January 10-12, 2014. (with Dr. Pavan Kumar Kankar)
- Organised second workshop on Applications of MATLAB for Engineering Computations, at PDPM IIITDM Jabalpur, August 30- September 01, 2013. (with Dr. Pavan Kumar Kankar)
- Organised two days workshop on Applications of MATLAB for Engineering Computations, at PDPM IIITDM Jabalpur, April 20-21, 2013. (with Dr. Pavan Kumar Kankar)
- Conducted Training Program on "CNC Programming Simulation and Operation" at PDPM IIITDM Jabalpur, July 01-12, 2013. (with Dr. Pavan Kumar Kankar)
- Organised International Design Workshop 2012 on "User Centric Design" (DeW-2012), at PDPM IIITDM Jabalpur as Co-convener in collaboration with MOFA Japan, (Convener: Prof. Vijay Kumar Gupta) December 5-7, 2012.
- Member, Organizing Committee, International Conference on "Innovations in Design and Manufacturing (InnDeM 2012)", PDPM IIITDM Jabalpur, December 5-7, 2012.
- Organised International Design Workshop on "Leading-edge Theories and Practices in Design DeW2010", at PDPM IIITDM Jabalpur as Co-convener in collaboration with MOFA Japan, (Convener: Prof. Puneet Tandon) October 11-15, 2010.
- Conducted Training Program on AutoCAD at Delhi College of Engineering Delhi, Dec. 2008.
- Conducted Training Program on Manufacturing Modeling Through Pro/ENGINEER at Maharaja Agrasen Institute of Technology, Delhi, May 12-14, 2004.
- Conducted short-term training courses on AutoCAD 2000, Solid Modeling, CNC machine programming, AutoLISP, at M.I.T. Mandsaur and prepares courseware for these courses. 2001-02.
- Conducted Training Program on AutoCAD R-12 at Govt. Engineering College Sagar, under banner of ISTE, Nov.- Dec. 1997.

## **SEMINAR/CONFERENCES/WORKSHOP/FDP/TRAINING PROGRAMS ATTENDED**

- Attended Training Program on “AP100 CAD/CAM – Punch” and “RGM2 1003 & AE255NT” Bending and Punching CNC machines at Amada Technical Center, Bangaluru, India, September 10-18, 2012.
- Attended one week Quality Improvement Program (QIP) on “Innovation in Maintenance management” Sponsored by AICTE-Govt. of India, Mechanical Engineering Department of Indian Institute of Technology, Delhi, May 21-25, 2012.
- Attended one week Fourth SERC school on “Micro Fabrication and Micromachining Processes” Sponsored by Department of Science and Technology, Govt. of India, at Production Engineering Department of Jadavpur University, Kolkata, April 5-10, 2010.
- Attended one week Short-Term Training Program (STTP) on “To disseminate New Approach and provisions of IS: 800-2007 (General Construction in Steel)” Sponsored by AICTE at Delhi College of Engineering, Delhi, March 2-6, 2009.
- Attended International conference on “Combating Challenges of Climate Change”, Vigyan Bhavan, Delhi, organized by Scientists and Education Wing of Rajyoga Education and Research Foundation, Feb 7-8, 2009.
- Participated in International Workshop on “Nanoceramics and Nanocomposites”, at Indian Institute of Technology Kanpur, during September 8-9, 2007.
- Attended and presented a paper in *International Conference on Manufacturing Automation*, at National University of Singapore, Singapore, May 28-30, 2007.
- Attended and presented a paper in *international conference on Recent Advances in Materials and Processing*, at PSG College of Technology, Coimbatore, India, December. 15-16, 2006.
- Attended one week Quality Improvement Program (QIP) on “Numerical Methods for Scientists & Engineers using MATLAB & C” Sponsored by AICTE-ISTE, at Chemical Engineering Department of Indian Institute of Technology, Delhi, July 11-15, 2005.
- Attended one week Training Program on “EspritCAM-2005” & “Flexible Manufacturing System” at MTAB-DENFORD Technology Centre, CHANNAI, December 24-30, 2004.
- Attended two weeks Staff Development Program (SDP) on “3D Design & Modeling Using CATIA V5 - A Step towards PLM” Sponsored by AICTE, at JSS Academy of Technical Education, NOIDA, July 26 - August 06, 2004.
- Attended one week Short-Term Training Program (STTP) on “Recent trends, Techniques & Multimedia Applications in Mechanical Engineering” Sponsored by AICTE-ISTE, at Madhav Institute of Technology & Science, Gwalior M.P., July 12-17, 2004.
- Attended Seminar on “Induction Training for Engineering Teachers”, at M.A.I.T. Delhi. May 6-7, 2004.
- Attended national conference on “Energy, Communication and Computer Systems”, at M.A.I.T. Delhi. Feb 2-4, 2004.
- Attended Seminar on “Teaching Techniques and Methodology”, at M.S.I.T. Delhi. Jan. 17, 2004.
- Attended two weeks Short-Term Training Program (STTP) on “Advanced Production Systems” Sponsored by AICTE-ISTE, At National Institute of Technology, Kurukshetra, 14-26 July, 2003.

- Attended two weeks Short-Term Training Program (STTP) on “RAPID DESIGN & MANUFACTURING : CAD/CAM/RT/CE/RE” Sponsored by AICTE-ISTE, At Institute of Technology Banaras Hindu University, Varanasi, December 27 – January 6, 2003-04.
- Attended two weeks Short-Term Training Program (STTP) on “Mechatronics Systems” Sponsored by AICTE-ISTE, At Netaji Subhash Institute of Technology, New Delhi, June 09-20, 2003.
- Attended One-week Winter School on “Integrated CAD/CAM through I-Deas-8” at N.S.I.T. Dwarka, Delhi, 06-10, January 2003.
- Attended National Seminar on “ISO – 9000” conducted by SISI Indore, at M.I.T. Mandasaur, March 2002.
- Attended one month training on CNC machines programming (Lathe & Milling) at MTAB-DENFORD Technology Centre, CHANNAI, Jan. 2002.
- Attended National Seminar on “Satellite Remote Sensing” conducted by ISRO, at M.I.T. Mandasaur, Sep, 2001.
- Attended National Seminar on “Role of Information Technology in 21<sup>st</sup> Century: Challenges & Strategies” conducted by ISTE at GEC Jabalpur, February 11-12, 1999.

#### **MEMBERSHIP OF PROFESSIONAL BODIES**

- Life member of Indian Society for Technical Education (ISTE), LM – 25959.
- Member of American Society Mechanical Engineers (ASME) Member #100711170
- Senior Member of International Association of Computer Science and Information Technology (IACSIT), Membership No.: 80341928.
- Member of International Association of Engineers (IAENG), Membership No.: 106193.

#### **MEMBERSHIP OF UNIVERSITY/INSTITUTE BODIES**

- Member as a subject expert in the Board of Studies of Mechanical Engineering Department, MITS, Gwalior since October 2017.
- Member, Institute Advisory Group – General Administration (IAG-GA) at IIITDM Jabalpur since August, 2013.
- Member, Academic Senate of PDPM IIITDM Jabalpur since August, 2012.
- Member, *Board of studies* of Industrial and Production Engineering Department, Engineering College Jabalpur since July 2009.

#### **ADMINISTRATIVE EXPERIENCE**

- Dean (Students) at IIITDM Jabalpur since June 01, 2016.
- Faculty In-charge, Primary Health Center at IIITDM Jabalpur since January 01, 2016.
- Convener, Student Advisory Committee of the Senate (SACS) at IIITDM Jabalpur, since June 01, 2016.
- Head ME Discipline at IIITDM Jabalpur from September 01, 2014 to June 20, 2016.
- Exam superintended JEE-2014 (Mains) at IIITDM Jabalpur March, 2014 and performed duty as observer at various other examination centres over the time.
- Chairman, Placement Cell at IIITDM Jabalpur from August 07, 2013 to May 31, 2016.

- Member, Campus Advisory Committee, PDPM-IIITDM Jabalpur Since July 2013.
- Faculty In-charge, AMADA Manufacturing Innovation Center (AMIC) at IIITDM Jabalpur since May, 2013.
- Member, Student Advisory Committee of the Senate (SACS) at IIITDM Jabalpur, June 2012 to Nov 2012.
- Member, Institute Advisory Group – General Administration (IAG-GA) at IIITDM Jabalpur, July, 2011 to June 2012.
- Coordinator, Students' Affairs at IIITDM Jabalpur, March, 2010 to June 2012.
- Convener, Student Advisory Committee of the Senate (SACS) at IIITDM Jabalpur March, 2010 to June 2012.
- Co-convener, International Design Workshop 2010, organised at IIITDM Jabalpur in collaboration with MOFA Japan, Oct 11-15, 2010.
- Hostel warden (Mess) at IIITDM Jabalpur from July, 2009 to Sep, 2010.
- Lab in-charge for Flexible Manufacturing System and Engineering Mechanics laboratory at M.A.I.T. Rohini, Delhi, 2004-06.
- Lab in-charge for CAD/CAM laboratory at M.I.T. Mandsaur 1999-2002.
- Exam superintended at MIT Mandsaur for university exams, 1999-2002.
- Hostel warden at MIT Mandsaur, 1999-2001

#### **CURRICULA/LABORATORY DEVELOPMENT ACTIVITIES**

- Faculty In-charge, AMADA Manufacturing Innovation Center (AMIC) at IIITDM Jabalpur since May, 2013 and various other central facilities.
- Developed various laboratories in Mechanical and Automation Engineering Department at M.A.I.T. Rohini Delhi, including Flexible Manufacturing System lab.
- Developed various laboratories in Mechanical Engineering Department at M.I.T. Mandsaur, including CAD/CAM lab.
- Examiner, Valuer, Paper setter for Rajiv Gandhi Proudyogiki Vishwavidyalay, Bhopal, (M.P.), G.G.S.I.P. University Delhi.
- Subject Coordinator for Computer Aided Manufacturing for GGSIP University, Delhi, 2005-06, 07.
- Guided several UG and PG Projects on *CAD/CAM Integration, Design Automation, Manufacturing on CNC Machines, Finite Element Analysis, Rapid Prototyping, Robotics, Simulation of Mechanisms and machining operations, AutoLISP Programming, etc.*
- Associated with several PG projects at IIT Delhi in the area of CAD/CAM, Rapid Prototyping and computational geometry.
- Developed a PG course "*Computations for Part Programming*" covering contents in CNC Part Programming and computational geometry required for part programming with exhaustive programming using MATLAB.
- Imparting Teaching in Computer Aided Design and Manufacturing through project based open ended learning by developing various computer programs for manipulation of curves and surfaces as well as geometric computations required for manufacturing in interactive manner with students. Implemented CAD/CAM integration projects with data exchange through various software. Developed online CNC simulation software as a part of M. Tech. Thesis.

***PRASHANT KUMAR JAIN***