

Puneet Tandon

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Areas of Interest

- ◆ *Geometric Modeling for Design, Engineering & Manufacturing, Tool Design,*
- ◆ *Conceptual Design, Product Innovation, Design and Development, Engineering Design,*
- ◆ *Rapid Prototyping & Tooling, Rapid Manufacturing and Casting, Reverse Engineering,*
- ◆ *Micro Cutting and Manufacturing,*
- ◆ *Die-less manufacturing*
- ◆ *MEMS, etc.*

Education

- *Ph.D., Department of Mechanical Engineering, Indian Institute of Technology Kanpur.*
- *Post Graduate Diploma in Management, Indira Gandhi National Open University, New Delhi (1996).*
- *M.Tech. (Mechanical Engineering) Indian Institute of Technology Kanpur (January 1995).*
- *Certificate Course in German, Kurukshetra University, Kurukshetra (1993).*
- *B.Tech (Hons.) (Mechanical Engineering) Regional Engineering College (R.E.C.), Kurukshetra, (now N.I.T. Kurukshetra) India (1988).*

Working Experience

Total Work Experience: 22.5 years (approx.)

Professional Accomplishments

✳ Projects /Workshops

- **Principal Investigator, DST-JSPS Project – Development of a micro pump with NEMS sensing function for an automatic blood collecting and measurement system, 2010. Duration: 2 years.**
- **Principal Investigator, Department of Science and Technology (Govt of India) Project – Geometric Modeling, Analysis and Design for Generic Definitions of Custom-Engineered Cutting Tools at IIIT-DM Jabalpur. Period 2008-11 (Amount: Rs.2.526 millions)**
- **Co-Principal Investigator, Department of Science and Technology (Govt of India) Project – Geometric Modeling of Cutting Tools using Reverse Engineering at I.I.T. Kanpur. Period 2000-03 (Amount: Rs. 1.1 millions)**
- **Design and Development of a Novel Setup for Dieless Free-form Fabrication of Sheet Metal Components, submitted to ARDB for Rs. 93,44,640 (Rs. Ninety Three Lakhs Forty Four Thousand Six Hundred Forty only). Duration: 3 years.**
- **Automated Feature based Geometric Design and Synthesis of Industrial Product, submitted to DST for Rs.3.25 millions. Duration: 3 years.**
- **Development of Integrated CAD/CAM Lab at N.I.T. Kurukshetra, funding from World Bank (TECHAID IV).**

- Coordinator, Ministry of Human Resource Development (MHRD), Govt of India, Research Project on *Integration of Design and Analysis Phase in Product Development Cycle* (Amount: Rs.1.5 millions)
- Principal Coordinator, Tracking and Analysis of Metro Bus Service of Jabalpur City Transport Services Ltd. (JCTSL), sponsored by District Administration, Jabalpur City, (Amount: Rs. 0.15 million)
- Consultancy project on “A Dynamic System for Vehicle Tracking and Performance Analysis for Nagar Nigam, Jabalpur”, Nagar Nigam Jabalpur, (Amount: Rs. 0.15 million)
- Conducted a Two day Workshop on “Design and Development of NDT Equipment for Product Development” from Department of Science & Technology, New Delhi on September 01-02, 2005. (Funding: Rs. 2.5 Lacs)
- Guided and successfully completed a few consultancy projects in the area of CAD/CIMS.

✿ Publications

- Published 34 papers in International peer refereed journals of repute and 51 in International / National Conferences.

✿ Conferences Programme Committees / Technical Committees / Session Chairing

- Member, International Programme Committee – Computer Aided Design Conference and Exhibition – CAD’11 to be held at Taipei.
- Member, Technical Advisory Committee, Third International and 24th All India Manufacturing Technology Design & Research Conference, Andhra University, Vishakapatnam, India during December 13-15, 2010.
- Chairman, Technical Session on CAD at First International and 22nd All India Manufacturing Technology Design & Research Conference, IIT Roorkee, India on December 22, 2006.
- Keynote Speaker and Chairman, Technical Session on Mechanical Engineering at National Conference on Futuristic Trends in Engineering and Technology, JNC DLM College of Engineering, Sirsa, January 28-29, 2008.

✿ Reviewer to International Journals

- ASME Journal of Manufacturing Science and Engineering.
- ASME Journal of Computing and Information Science in Engineering.
- Computer Aided Design (Elsevier)
- International Journal of Advanced Manufacturing Technology
- International Journal of Manufacturing Technology & Management.
- Computer Aided Design & Applications
- International CAD Conferences.

✿ Indo-Japan Forum

- Convener, Joint India-Japan **Design Workshop** on “**Leading-edge Theories and Practices in Design**”, October 11-15, 2010.
- Member of the Indian Delegation to First Indo-Japan Workshop on Micro and Nano Manufacturing, February 2006, Tokyo, Japan.
- Delivered a 21st Century Center of Excellence (CoE) Technical Seminar at Tohoku University, Japan, on “Geometric Modeling of Cutting Tools for Integrated Design and Manufacturing” on December 13, 2007.
- Exposure visit to various Universities and Industries of Japan under India-Japan Joint Project IITDM Jabalpur during the period December 2007. Sponsored by MOFA, Japan and MHRD, India.

✿ Indo US Science and Technology Forum

Member of the Indian delegation at First Indo-US workshop on Rapid Manufacturing, March 2006, Bangalore.

✿ International Workshop on Futuristic Shaping Technology at Meso, Micro and Nano Scales Indo US Center for Advanced and Futuristic, IIT Kanpur

Invited to attend and present at International Workshop on Futuristic Shaping Technology at Meso, Micro and Nano Scales, October 9 – 12, 2007 at IIT Kanpur.

✿ Research Guidance

- Ph.D. Supervision – Awarded: Two; Under progress: Eight
- Completed research guidance to Twelve M.Tech. / M.Des Students and presently supervising Three Students.
- Established “Advanced Manufacturing Center” at IIIT-DM Jabalpur
- Proficiency of various CAD/CAM software and RP/RT machines/processes (Stratasys FDM/ Cubital SGC/ MCP SVC/ TAFA Metal Arc Spray/ TAFA Low Melting Alloy System)
- Proficiency of CNC machine (g-code) programming.
- Developed and established laboratories. Taught & developed a number of courses.
- Framed the course curriculum of a new B.Tech. Mechanical and various M.Tech. Schemes.

✿ Conferences / Workshops Organized

- Organized three conferences of national level at N.I.T./R.E.C. Kurukshetra.
- Organized a 5 day Workshop on “**Design (DeW 2010)**” during October 11-15, 2010 on “**Leading-edge Theories and Practices in Design**” along with Japanese Collaborators
- Organized a Two day Workshop on “Design and Development of NDT Equipment for Product Development” from Department of Science & Technology, New Delhi on September 01-02, 2005. (Funding: Rs. 2.5 Lacs)
- Member, Organizing Committee, National Workshop on “Future of the Past: Use of Modern Technologies in the Study of the Past”, held at IIT Kanpur, 12 June to 7 July, 2006
- Member, Organizing Committee, International Symposium on Frontiers of Research on Speech and Music (FRSM 2006), January 9-10, 2006
- Member, Organizing Committee, National Workshop on “Tsunami Rehabilitation”, 23-25 September, 2005
- Officer-in-Charge, Literati (Students’ Technical Symposium), N.I.T., Kurukshetra.

✿ Books

- Edited and published (jointly) One conference proceedings - National Conference on Recent Advances in Mechanical Engineering, March 1997.
- Text Book under preparation - **Production Technology & Processes**, Jointly authored with Professor Yoshimi ITO, Professor Emeritus, Tokyo Institute of Technology, Tokyo, Japan and Professor Manabu KIUCHI, Professor Emeritus, University of Tokyo, Tokyo, Japan, Publishers McGraw Hill
- Text Book under preparation - **Engineering Literacy**, Jointly authored with Professor Yoshimi ITO, Professor Emeritus, Tokyo Institute of Technology, Tokyo, Japan
- Text Book under preparation – **Computer Integrated Manufacturing and System Components**, Jointly authored with Professor Sh’inchi Warisawa, Professor, The University of Tokyo, Tokyo, Japan

Invited Lectures

- ✿ Invited to attend an 11th International Workshop of International Institute of Industrial and Manufacturing Culture (IMAC) on Industrial Cultures supporting Open Innovation Systems at Munich, Germany
- ✿ Delivered Invited lectures on various aspects of CAD, CAM, Rapid Prototyping & Tooling Technologies at IIT Guwahati, NIT Kurukshetra, NIT Hamirpur, MANIT Bhopal, MNNIT Allahabad.

Administrative Experience

- Member, Board of Governors, PDPM-IIITDM Jabalpur (March 2010 – till date)
- Dean, Planning and Development, PDPM-IIITDM Jabalpur (March 2010 – till date)
- Member, Building and Works Committee, PDPM-IIITDM Jabalpur (March 2010 – till date)
- Member, Academic Senate, PDPM-IIITDM Jabalpur (August 2005 – till date)
- Member, Planning and Evaluation Committee, Jabalpur Engineering College Jabalpur (An autonomous college) (August 2010 – till date)
- Convener, Campus Advisory Committee, IIIT-DM Jabalpur (August 2010 onwards)
- Coordinator, International Relations, PDPM-IIITDM Jabalpur (January 2009 – May 2010)
- Coordinator, Research, Development and Planning, IIIT-DM Jabalpur (January 2009 – March 2010)
- Chairman, Placement Cell, IIIT-DM Jabalpur (January 2009 – till date)
- Coordinator, Central Facilities, IIIT-DM Jabalpur (January 2009 – May 2010)
- Convener, Undergraduate Committee of Senate (UGCS), IIIT-DM Jabalpur
- Convener, Institute Communication Policy Committee, IIIT-DM Jabalpur
- Member, Campus Advisory Committee, IIIT-DM Jabalpur (2005 onwards)
- Coordinator, Students' Placement, Internship and Industrial Tour Committee, IIITDM Jabalpur
- Member, Placement Cell, IIIT-DM Jabalpur
- Member, Institute Advisory Committee – General Administration, IIIT-DM Jabalpur
- Member, Institute Advisory Committee – Academic Vision, IIIT-DM Jabalpur
- Member, Institute Advisory Committee – Student Affairs, IIIT-DM Jabalpur
- Prof-In Charge, CAD Labs, NIT Kurukshetra.
- Prof-In Charge, Examinations (Results), NIT Kurukshetra.
- Member, TEQIP Committee, NIT Kurukshetra.
- Member, Non-Teaching Grievance and Welfare Committee, NIT Kurukshetra.
- Member, Workshop Modernization/CAM Lab Committee, NIT Kurukshetra.
- Member, Labour Contract Committee, NIT Kurukshetra.
- Member, Library Committee, NIT Kurukshetra.
- Member, Institute Furniture Committee, NIT Kurukshetra.
- General Secretary, Alumni Association, NIT Kurukshetra.
- Member, Curriculum Development Committee, UG & PG (both), NIT Kurukshetra.
- Warden, NIT Kurukshetra & PDPM-IIITDM Jabalpur.

Some Recent Publications

1. Pal, Vijay & Tandon, Puneet, "Effect of Abrasive Flow Rate in Milling with Abrasive Water Jet", 2nd International Conference on Mechanical, Industrial and Manufacturing Technologies (MIMT 2011), Sponsored by International Association of Computer Science and Information Technology (IACSIT), Singapore Institute of Electronics (SIE) and IEEE, Singapore, February 26-28, 2011. [Accepted]
2. Tandon, Puneet et al., "Design and Simulation of an Intelligent Bicycle Transmission System", IEEE/ASME Transactions on Mechatronics, 2010, Vol. PP, Issue: 99, pp. 1-9. ISSN : 1083-4435.
3. Khan, Mohammed Rajik and Tandon, Puneet, Mathematical modeling for design of a generic custom-

- engineered form mill, International Journal of Advanced Manufacturing Technology (In Press).
4. *Sambhav, K., Dhande, S.G. & Tandon, Puneet*, “CAD Based Mechanistic Modeling of Forces for Generic Drill Point Geometry”, Computer Aided Design & Applications, 2010, Vol. 7, No. 6, pp. 809-819.
 5. *Soni, S., Khanna, P. & Tandon, Puneet*, “Multi-Agent Feature based Shape Grammar Implementation for Concept Generation of Industrial Product Design”, Computer Aided Design & Applications, 2010, Vol. 7, No. 6, pp. 797-807.
 6. *Gulati, Vishal, Tandon, Puneet & Singh, Hari*, “A Jewelry Modeler for Carved Bangles”, International Journal on Computer Applications, 2010, Vol. 5, No. 2, pp. 25-27.
 7. *Gulati, Vishal & Tandon, Puneet*, “A CAD Paradigm to Produce Zillij Style of Geometrical Patterns for Wooden Carvings”, International Journal on Computer Applications, 2010, Vol. 3, No. 3, pp. 36-39.
 8. *Gulati, Vishal, Tandon, Puneet & Singh Hari*, “A Jewelry Modeler for the Fret-worked Bangles”, International Journal on Computer Applications, 2010, Vol. 2, No. 2, pp. 76-80.
 9. *Gulati, Vishal, Tandon, Puneet & Kamaldeep*, “Parameterized Modeling of Blow-Moulds for Designer PET Bottles”, Computer Aided Design & Applications, 2010, Vol. 7, No. 4, pp. 479-487.
 10. *Khan, Md Rajik & Tandon, Puneet*, “Computer-Aided Design and Analysis of a Custom-Engineered Form Milling Cutter”, Computer Aided Design & Applications, 2010, Vol. 7, No. 2, pp. 213-219.
 11. *Gulati, Vishal & Tandon, Puneet*, “A CAD Paradigm to Produce Blow Moulds for Decorated PET Bottles”, International Journal on Computer Applications, 2010, Vol. 1, No. 5, pp. 99-102.
 12. *Gupta, Vikas, Kasana, K.S. & Tandon, Puneet*, "Computer-Aided Design Modeling for Heterogeneous Objects" Int JI of Computer Science Issues, 2010, Volume 7, Issue 2, No. 5, March 2010, pp. 37-44.
 13. *Khan, Md Rajik & Tandon, Puneet*, “Design of a Novel Multi-Radius Form Milling Cutter”, 3rd International and 24th All India Machine Tool Design & Research Conference – AIMTDR, Andhra University, Vishakapatnam, India, December 13-15, 2010. [Accepted]
 14. *Sambhav, Kumar, Tandon, Puneet and Dhande, S.G.*, “Chisel Edge Indentation Model for Drills with Generic Point Profiles” 3rd International and 24th All India Machine Tool Design & Research Conference – AIMTDR, Andhra University, Vishakapatnam, India, December 13-15, 2010. [Accepted]
 15. *Pal, Vijay & Tandon, Puneet*, “Effect of Pressure Range on Material Response to Particle Impact on milled material during Controlled Depth Milling (CDM) In Abrasive Water Jet”, 3rd International and 24th All India Machine Tool Design & Research Conference – AIMTDR, Andhra University, Vishakapatnam, India, December 13-15, 2010, pp. 449-453.
 16. *Vasal, Apurv, Mishra, Deepak and Tandon, Puneet*, “Deployment of GSM and RFID Technologies for Public Vehicle Position Tracking System”, The Second International Conference on Networks & Communications (NetCoM - 2010), Chennai, India, December 27-29, 2010. (Accepted)
 17. *Soni, Nisheet & Tandon, Puneet*, "Path planning of a point robot in unknown environment", ICIRET 2010, Proceedings of International Conference on Innovative Research in Engineering and Technology 2010, Coimbatore, Tamilnadu, August 12-14, 2010, pp. 1-4.
 18. *Gupta, Vikas & Kasana K.S. Tandon, Puneet*, “A Gradient Reference Modeling Approach for Heterogeneous Objects”, CAD'10, the 2010 International CAD Conference and Exhibition, Dubai, UAE, June 21-25, 2010.
 19. *Khan, Md Rajik & Tandon, Puneet*, “Computer-Aided Design and Analysis of a Custom-Engineered Form Milling Cutter”, CAD'10, the 2010 International CAD Conference and Exhibition, Dubai, UAE, June 21-25, 2010.
 20. *Soni, Sitaram, Khanna, Pritee & Tandon, Puneet*, “Multi-Agent Feature based Shape Grammar Implementation for Concept Generation of Industrial Product Design”, CAD'10, the 2010 International CAD Conference and Exhibition, Dubai, UAE, June 21-25, 2010.
 21. *Sambhav, Kumar, Dhande, S.G. & Tandon, Puneet*, “CAD Based Mechanistic Modeling of Forces for Generic Drill Point Geometry”, CAD'10, the 2010 International CAD Conference and Exhibition, Dubai, UAE, June 21-25, 2010.
 22. *Gulati, Vishal & Tandon, Puneet*, “A CAD Paradigm to Produce Blow Moulds for Decorated PET Bottles”, International Conference on Futuristic Computer Applications, 2010, IISc Bangalore.

23. *Tandon, Puneet and Khan, Md. Rajik*, “Three Dimensional Modeling and Finite Element Simulation of a Generic End Mill”, *Computer Aided Design*, 2009, Vol.41, No.2, pp. 106-114.
24. *Gulati, Vishal Singh, Hari & Tandon, Puneet*, “Integrative Modeling to Produce Ornamental Products”, *Computer Aided Design & Applications*, 2009, Vol. 6, No. 1, pp. 27-42.
25. *Gupta Vikas, Kasana K.S. & Tandon, Puneet*, “Algorithm Design and CAD Model for Heterogeneous Objects”, *International CAD Conference, CAD09, Reno, Nevada, USA, June 8-12, 2009*.
26. *Gulati Vishal, Singh, H. & Tandon, Puneet*, “Integrative Modeling to Produce Ornamental Products”, *International CAD Conference, CAD09, Reno, Nevada, USA, June 8-12, 2009*.
27. *Tandon Puneet, Johry Aakash & Rathore Harsh*, “Development of a System for Rapid Prototyping of Heterogeneous Objects”, *National Conference on Rapid Prototyping and Manufacturing, R.V. College of Engineering, Bangalore, India, May 12-13, 2009, Endorsed by Rapid Prototyping Society of India (RPSI)*.
28. *Tandon, Puneet, Gupta, P. and Dhande, S.G.*, "Geometric Modeling of Fluted Cutters", *ASME Journal of Computing and Information Science in Engineering*, 2008, Vol. 8, Issue 2, pp. 021007-1-15.
29. *Tandon, Puneet, Gupta, P. & Dhande, S.G.*, “Modeling of Twist Drills in terms of 3D Angles” *International Journal of Advanced Manufacturing Technology*, 2008, Vol. 38, No.5-6, pp. 543-550.
30. *Gulati, Vishal Singh, Hari & Tandon, Puneet*, “A Parametric Voxel Based Unified Modeler for Creating Carved Jewelry”, *Computer Aided Design & Applications*, 2008, Vol. 5, No. 6, pp. 811-821.
31. *Saini, P.K., Kumar, P. and Tandon, P.*, “Surface Roughness Effects in Elastohydrodynamic Line Contacts Using Couple Stress Fluid”, *Proc. IMechE, Part J: J. Engineering Tribology*, 2008, Vol. 222, No. 2, pp. 151-155.
32. *Tandon, Puneet, et al.*, “A Parametric Feature-based CAD System for Thin Objects”, *Competitive Manufacturing, Proceedings on – 2nd International and 23rd All India Machine Tool Design & Research Conference – AIMTDR, IIT Madras, Chennai, India, December 15-17, 2008, pp. 997-1002*.
33. *Khan, Md Rajik & Tandon, Puneet*, “Geometric Modeling and Analysis of Three Dimensional Generic End Mill Cutter”, *Competitive Manufacturing, Proceedings on – 2nd International and 23rd All India Machine Tool Design & Research Conference – AIMTDR, IIT Madras, Chennai, India, December 15-17, 2008, pp. 1029-1034*.
34. *Gulati, Vishal, Singh, H. & Tandon, Puneet*, “An Integrated CAD-CAM Approach for Islamic Star Pattern Ornamental Product Development”, *International CAD Conference, CAD08, Orlando, Florida, USA, June 23-27, 2008*.
35. *Tandon, Puneet*, “Manufacturing Three-dimensional Components at the meso and micro scales: The Role of Information Theory in μ metrology”, *National Conference on Futuristic Trends in Engineering and Technology, JNC DLM College of Engineering, Sirsa, January 28-29, 2008, pp. 12-16*.
36. *Bansal, Rajesh Kumar, Goel, Vineet Kumar, Kumar, Punit & Tandon, Puneet*, “Extraction of Thin-Metal Feature from Solid Model”, *National Conference on Futuristic Trends in Engineering and Technology, JNC DLM College of Engineering, Sirsa, January 28-29, 2008, pp. 161-165*.
37. *Goel, Vineet Kumar, Bansal, Rajesh Kumar, Garg, T.K. & Tandon Puneet,*, “Technical Approach to Jewellery Manufacturing: A Review”, *National Conference on Futuristic Trends in Engineering and Technology, JNC DLM College of Engineering, Sirsa, January 28-29, 2008, pp. 166-171*.
38. *Gulati, Vishal & Tandon, Puneet*, “A Parametric Voxel Oriented CAD Paradigm to Produce Forming Components for Stretch Formed Jewelry”, *Computer Aided Design & Applications*, 2007, Vol. 4, No. 1-4, pp. 137-145.
39. *Saini, P.K., Kumar, P. & Tandon, Puneet*, “Design and Analysis of Radially Tapered Disk Spring With Parabolically Varying Thickness” *Proc. IMechE, Part C: Journal of Mechanical Engineering Science*, 2007, Vol. 221, Issue C2, pp. 151-158.
40. *Saini, P.K., Kumar, Punit & Tandon, Puneet*, “Thermal EHL Characteristics of Couple Stress Fluids in Rolling/Sliding Line Contacts”, *Proc. IMechE, Part J: Journal of Engineering Tribology*, 2007, Vol. 221, No. 2, pp. 141-153.
41. *Saini, P.K., Kumar, Punit & Tandon, Puneet*, “Transient EHL Analysis of Involute Spur Gear Using Couple Stress Fluid”, *Proc. IMechE, Part J: Journal of Engineering Tribology*, 2007, Vol. 221, No. 6, pp. 743-754.

42. *Tandon, Puneet, Gupta, P. & Dhande, S.G.*, “Surface Modeling of Multi-Point, Multi-Flute Cutting Tools”, 2nd International Conference on Computer Graphics Theory and Applications, GRAPP 2007, Barcelona, Spain, March 08-11, 2007, pp. 172-175.
43. *Khanna, P., Tandon Puneet, & Dhande S.G.*, “Hierarchic Modeling of Symmetric Geometries”, 2nd International Conference on Computer Graphics Theory and Applications, GRAPP 2007, Barcelona, Spain, March 08-11, 2007, pp. 176-179.
44. *Gulati, Vishal & Tandon, Puneet*, “A Parametric Voxel Oriented CAD Paradigm to Produce Forming Components for Stretch Formed Jewelry”, International CAD Conference, CAD07, Hawaii, USA, June 21-26, 2007, pp. 137-145.
45. *Tandon, Puneet & Siddhartha Kumar*, “Curve Fitting for Styling Applications Using Genetic Algorithms”, International CAD Conference, CAD07, Hawaii, USA, June 21-26, 2007.
46. *Gupta, Vikas & Tandon, Puneet*, “CAD Modeling and Process Planning for Rapid Manufacturing of Heterogeneous objects”, International CAD Conference, CAD07, Hawaii, USA, June 21-26, 2007.
47. *Tandon, Puneet & Siddhartha Kumar*, “Curve Fitting for Virtual Prototyping Using Genetic Operators”, International Conference on Advanced Manufacturing Technologies, ICAMT-2007, CMERI, Durgapur, November 29-30, 2007, pp. 239-244.
48. *Gulati, Vishal & Tandon, Puneet*, “A Linguistic Approach for modeling the two and half dimensional components”, IE(I) Journal -CP (Computer Division), Nov 2006, Vol. 87, pp. 1-6.
49. *Tandon, Puneet, Gupta, P. & Dhande, S.G.*, “Rapid Manufacturing of Multi-point Cutting Tools – Geometric Modeling Approach”, Japan-India Symposium on Micro/Nano Manufacturing Techniques, Tokyo, February 18-25, 2006. (Invited Paper)
50. *Gupta, Vikas & Tandon, Puneet*, “CAD Modeling and Process Planning for Rapid Manufacturing of Heterogeneous objects”, IndoUS Workshop on Rapid Manufacturing, Bangalore, April 17-19, 2006. (Invited Paper)
51. *Tandon, Puneet, Gupta, P. & Dhande, S.G.*, “Virtual Prototyping and Rapid Manufacturing of Twist Drills” 17th IEEE International Workshop on Rapid System Prototyping, Chania, Crete, June 14-16, 2006.
52. *Goel, Vineet Kumar, Bansal, Rajesh Kumar & Tandon, Puneet*, “A Geometric Modeling Schema for Non-Manifold Gold Metal Ornaments”, Proceedings 1st International and 22nd All India Machine Tool Design & Research Conference – 22nd AIMTDR, Roorkee, India, December 21-23, 2006, pp. 29-33.
53. *Tandon, Puneet, Gupta, P. & Dhande, S.G.*, “Geometric Modeling of Solid Twist Drills”, Proceedings First International and 22nd All India Machine Tool Design & Research Conference – 22nd AIMTDR, Roorkee, India, December 21-23, 2006, pp. 137-142.

BOOKS:

Edited and Published Proceedings of National Conference on Recent Advances in Mechanical Engineering, March 1997. (Joint Editor and Publisher).

Text Books under preparation

- (i) **Production Technology & Processes**, Jointly edited with Professor Yoshimi ITO, Professor Emeritus, Tokyo Institute of Technology, Tokyo, Japan and Professor Manabu KIUCHI, Professor Emeritus, University of Tokyo, Tokyo, Japan, Publishers McGraw Hill
- (ii) **Engineering Literacy**, Jointly edited with Professor Yoshimi ITO, Professor Emeritus, Tokyo Institute of Technology, Tokyo, Japan
- (iii) Text Book under preparation – **Computer Integrated Manufacturing and System Components**, Jointly authored with Professor Sh’inchi Warisawa, Professor, The University of Tokyo, Tokyo, Japan

Ph.D. Thesis Supervision

1. Parveen Kumar Saini, Analysis of Rough Non-Conformal EHL Contacts Using Couple Stress Fluids, N.I.T. Kurukshetra. (Awarded: May 2008)
2. Vishal Gulati, Unified Shape Modeler for Three Dimensional Components, N.I.T. Kurukshetra. (Awarded: May 2009)
3. M.Rajik Khan, Geometric Modeling of Custom-made cutters, IIIT-DM Jabalpur
4. Kumar Sambhav, CAD Based Mechanistic Modeling of Forces for Generic Drill Point Geometry, IIT Kanpur
5. Sitaram Soni, Automation of Human Skills for developing Engineering Products, IIIT-DM Jabalpur
6. T.V.K. Gupta, Applications of Waterjet Machining, IIT Kanpur

M.Tech. Thesis Supervision

1. Addepalli Srinivas, 1998, Computer Aided Inspection Planning System for Cylindrical Components, N.I.T. Kurukshetra.
2. Anuj Kant, 2003, A CAD System for the Heterogeneous Solid Modeling, N.I.T. Kurukshetra.
3. Vishal Gulati, 2003, Unified Shape Modeler for Two and a half Dimensional Components, NITK.
4. Awanish Kumar, 2004, Feature Based Modeller for Non-Manifold Sheet Metal Components, NITK.
5. Satya Pal Singh, 2004, Three-Dimensional Finite Element Modelling of Face Milling Cutters, NITK.
6. Mohit Kumar, 2005, Generic Solid Modelling for integration of CAD and CAE databases, NIT K.
7. Dheeraj Sharma, 2005, ERP Implementations for Railway Workshop Jagadhari, PTU Jullandhar.
8. M. Rajik Khan, 2006, Computer Aided Engineering Analysis of End Milling Cutters, NIT Kurukshetra.
9. Siddhartha, 2006, Curve Fitting for Styling Applications, N.I.T. Kurukshetra.
10. Nisheet Soni, 2010, Path planning of an Automated Guided Vehicle in an unknown environment, IIITDM Jabalpur
11. Umesh, 2010, Development of a Material Dispensing and Positioning System of a Rapid Prototyping Workbench for manufacturing of Heterogeneous Objects, IIITDM Jabalpur
12. Vijay Pal, 2011, Abrasive Water jet Machining, IIITDM Jabalpur

M.Des. Thesis Supervision

1. Ravindra Singh, 2010, Designing and Capturing the Design Intent of a Lifting Mechanism, IIITDM Jabalpur.
2. Amaltas Khan, 2011, Design and Development of a Transportation Device for Indian context of use, IIITDM Jabalpur
3. Dhananjay Bisht, 2011, Design of Shopping Aid, IIITDM Jabalpur

Invited Lectures in Workshops/Short-Term Courses

- “*Computer Integrated Manufacturing Systems*” in the Summer School on Advanced Manufacturing Technologies at NIT Kurukshetra, 2004
- “*Rapid Prototyping and Tooling Technologies*” in the Summer School on Advanced Manufacturing Technologies at NIT Kurukshetra, 2004
- “*Advanced Networking in Manufacturing*” in the Summer School on Advanced Manufacturing Technologies at NIT Kurukshetra, 2004
- “*Rapid Tooling: An Introduction*”, AICTE Short Term Course on Rapid Product Development, IIT Guwahati, India, December 11-15, 2006.
- “*Rapid Tooling and Manufacturing Technologies*”, MHRD / AICTE sponsored Summer School on CAD/CAM and Optimization Techniques, NIT Hamirpur, India, June 10-11, 2008.

- “*Manufacturing Three-Dimensional Components at the Meso and Micro Scales: The role of μ -Metrology*”, MHRD / AICTE sponsored Summer School on CAD/CAM and Optimization Techniques, NIT Hamirpur, India, June 10-11, 2008.
- “*Rapid Tooling and Manufacturing Technologies*”, AICTE / MHRD sponsored Short Term Course on Recent Trends in Industrial and Production Engineering, Maulana Azad National Institute of Technology Bhopal, July 02, 2008.
- “*Rapid Prototyping*”, AICTE / MHRD sponsored Short Term Course on Recent Trends in Industrial and Production Engineering, Maulana Azad National Institute of Technology Bhopal, July 02, 2008.
- “*Rapid Tooling and Manufacturing Technologies*”, AICTE sponsored Staff Development Course on CAD & FEM, M. N. National Institute of Technology Allahabad, August 01, 2008

Awards & Achievements

- Research paper “Three dimensional modeling and finite element simulation of a generic end mill”, Computer-Aided Design, 2009, Vol. 41, No. 2, pp. 106-114, has been the 4th most cited paper under Science Direct, hottest 25 articles, Computer Science, Computer-Aided Design, January to March 2009.
- Chosen for '**Marquis Who's who in the World, 2007-08, 2008-09**
- Chosen for '**Marquis Who's who in Science and Engineering', 2006-07, 2007-08, 2008-09**
- Best Technical Paper Award 2000 for the paper, "Computer Aided Design and Development of Saddle Tree" presented at All India SDRC Users' Conference, October 9-11, 2000, Pune.
- Pro/User Award '99 for excellence in application of Pro/Engineer by PTC Inc., USA during All India PTC Users' Conference, 1999.
- Qualified "National Talent Search Examination" of Govt. of India.
- Received 'National Cultural Talent Search Scholarship' from Govt. of India for Painting for the longest period in its record.
- Obtained 4th rank in the class of 85 in B.Tech.
- Awarded Best Project award for the B.Tech. project.
- Secured 4th rank in the State Board in Higher Secondary (10+1).
- Secured a position in the Merit list in High School (Haryana Board).
- Won various International/ National/ State/ University level prizes in Painting and other co-curricular activities.
- Won prizes at various levels in various Literary and Dramatics events.
- Organized various inter and intra college/institute events.
- Bagged merit certificates in various General Knowledge quizzes.
- Represented college/ I.I.T./ School in Swimming, Water polo, Badminton, Basketball, Chess and other sports activities.