

Detailed CV of Prof. Neelesh Kumar Jain

➤ Education

Specialization / Discipline	College/University/Institute	Year
PhD	IIT Kanpur	2003
M.Tech.	IIT Kanpur	1995
B.E. (Mechanical Eng)	S.G.S.I.T.S. Indore	1993
HSSCE (12 th)	B.S.E. Bhopal	1989
HSCE (10 th)	B.S.E. Bhopal	1987

➤ Awards and Honors

- Member, Editorial Board, **International Journal of Precision Technology** (Inderscience)
- Award for **Excellence in Teaching** by Lions Club Unique, Indore in Sep. 2011.
- Inclusion in **Marquis's Who's Who** for the year 2010.
- **BOYSCAST Fellowship (2007-08)** in Engineering Sciences by Department of Science and Technology (DST), Government of India to visit **Oklahoma State University, Stillwater** (USA) for duration of SIX months for doing advanced training/research in area of micro-machining/nanotechnology/manufacturing process simulation under the mentorship of **Prof. Ranga Komanduri**.
- **Second Best Paper award** at **17th AIMTDR Conference** held at NIT (REC) Warangal during January 1997.
- **National Merit Scholarship** during Oct. 1989 to July 1993 on the basis of Higher Secondary Examination 1989 conducted by B.S.E. Bhopal.
- **National Scholarship Merit Certificate** on the basis of High School Examination 1987 conducted by B.S.E. Bhopal.
- **MHRD Ph. D. Scholarship** during January 1997 to July 2002.
- **MHRD scholarship** during July 1993 to January 1995 on basis of GATE 1993

➤ **Work Experience**

Sl. No.	Position	Organization/Institution	Duration	
			From	to
1	Professor	IIT Indore	19 th Dec. 2013	continuing
2	Associate Professor	IIT Indore	Jan. 29, 2010	18 th Dec. 2013
3	Assistant Professor	IIT Roorkee	Feb. 6, 2007	Jan. 28, 2010
4	Visiting Assitant Professor	Oklahoma State University, Stillwater (USA)	July 2008	Dec. 2008
5	Assistant Professor (on-contract)	IIT Roorkee	June 17, 2004	Feb. 5, 2007
6	Assistant Professor	South Asia International Institute, Hyderabad	June 22, 2003	May 31, 2004
7	Lecturer	NSIT, New Delhi	July 29, 2002	June 19, 2003
8	Sr. Project Associate	IIT Kanpur	Dec. 17, 1995	Mar. 17, 1996
9	Sr. Project Associate	IIT Kanpur	May 1, 1996	Oct. 31, 1996
10	Tata Electric Company, Mumbai	PGET	Aug. 1, 1995	Aug. 10, 1995
11	Project Research Associate	IIT Kanpur	Apr. 1, 1995	June 11, 1995

➤ **PUBLICATIONS:** More details available at http://scholar.google.co.in/citations?hl=en&user=NHW6zSQAAAAJ&view_op=list_works&sortby=pubdate

SUMMARY of PUBLICATIONS

Year	Refereed International Journals		In Refereed Conference Proceedings (Under Review)	Book / Encyclopedia Chapters	Editor of conference proceedings	Total publications
	Published	Under Review				
2015	5	(6)	3		--	8(5)
2014	11	--	1	2	--	14
2013	6	--	6	2	1	15
2012	5	--	1	--	--	6
2011	3	--	2	1	--	6
2010	1	--	5	---	--	6
2009	4	--	3	----	--	7
2008	1	--	1	---	--	2
1997-2007	6	--	5	2	--	13
Total	42	(6)	27	7	1	76 (6)

[A.1] Editor of conference proceedings

1. Proceedings of 2nd **International Conference on Intelligent Robotics, Automation and Manufacturing, 2013 (IRAM 2013)**, 600 pages [Editors: **N K Jain**, B K Lad, I A Palani, Anand Parey and M Santhakumar], *Emerald Group Publishing (India) Pvt. Ltd.*

[A.2] Book Chapters

2. Jhavar, S; & **Jain, N K (2014)** "Development of Micro-Plasma Wire Deposition Process for Layered Manufacturing" Chapter 20 in **DAAAM International Scientific Book 2014**, pp. 239-256, B. Katalinic (Ed.), Published by *DAAAM International* Vienna, Austria, ISBN 978-3-901509-94-0, ISSN 1726-9687. (DOI: 10.2507/daaam.scibook.2014.20)
3. Pathak, S; **Jain, N K** & Palani, I A (2014), "Improving Surface Quality of Bevel Gears by Pulsed-ECH Process" Chapter 19 in **DAAAM International Scientific Book 2014**, pp. 221-238, B. Katalinic (Ed.), Published by *DAAAM International* Vienna, Austria, ISBN 978-3-901509-94-0, ISSN 1726-9687. (DOI: 10.2507/daaam.scibook.2014.19)
4. Gupta, K; & **Jain, N K (2013)**, "Manufacturing of High Quality Miniature Gears by Wire Electric Discharge Machining" Chapter 40 in **DAAAM International Scientific Book 2013**, pp. 679-696, B. Katalinic & Z. Tekic (Eds.), Published by *DAAAM International* Vienna, Austria, ISBN 978-3-901509-94-0, ISSN 1726-9687. (DOI: 10.2507/daaam.scibook.2013.40)
5. Shaikh, J H; & **Jain N K (2013)**, "High Quality Finishing of Bevel Gears by Electrochemical Honing" Chapter 41 in **DAAAM International Scientific Book 2013**, pp. 697-710, B. Katalinic & Z. Tekic (Eds.), Published by *DAAAM International* Vienna, Austria, ISBN 978-3-901509-94-0, ISSN 1726-9687. (DOI: 10.2507/daaam.scibook.2013.41)
6. Shandilya, Pragya; Jain, P K, & **Jain, N K (2011)**, "Wire Electric Discharge Machining of Metal Matrix Composite Materials", Chapter 30 in **DAAAM International Scientific Book 2011**, pp. 383-400, B. Katalinic (Ed.), Published by *DAAAM International* Vienna,

7. **Neelesh K Jain**, Vijay K Jain (2001), “Computer Aided Process Planning in Agile Manufacturing Environment” Chapter 27 in **Agile Manufacturing: 21st Century Competitive Strategy**, Editor: A. Gunasekaran, Elsevier Science Publications, pp. 515-534.
8. **Neelesh K Jain**, Vijay K Jain, (1999) “Computer Aided Process Planning (CAPP) Approach for Advanced Machining Processes” in Users' Encyclopedia (on CD-ROM) of **International Journal of Industrial Engineering Application and Practice** (Editor: A. Mital).

[A.2] Papers in Refereed Journals

2015 (5)

1. Kapil Gupta, **N K Jain**, R F Laubscher (2015), “Spark-erosion Machining of Miniature Gears: a Critical Review”, **International Journal of Advanced Manufacturing Technology** (DOI: 10.1007/s00170-015-7130-2) (**Impact Factor: 1.78**)
2. J H Shaikh, **N K Jain**, Sunil Pathak (2015), “Investigations on Surface Quality Improvement of Straight Bevel Gears by Electrochemical Honing Process” **Proceedings IMechE, Part B: Journal of Engineering Manufacture** (DOI: 10.1177/0954405415584899) (**Impact Factor: 0.66**).
3. Sunil Pathak, **N K Jain**, I A Palani (2015), “Process Performance Comparison of ECH and PECH for Quality Enhancement of Bevel Gears” **Materials and Manufacturing Processes**, 30(7), 836-841, July 2015, (DOI: [10.1080/10426914.2014.994764](https://doi.org/10.1080/10426914.2014.994764)) (**Impact factor: 1.49**).
4. J H Shaikh, **N K Jain** (2015), "Effect of finishing time and electrolyte composition on geometric accuracy and surface finish of straight bevel gears in ECH Process", **CIRP Journal of Manufacturing Science and Technology**, 8(1) 53-62 Jan 2015 (DOI: 10.1016/j.cirpj.2014.09.002).
5. Deepak Raj, R Tyagi, S K Chaubey, A D'Souza, I A Palani, **N K Jain** (2015), “Investigation on Solid State Nd-YAG Nano-second Laser Assisted Shock Peening of Miniature Gears” **Materials Today: Proceedings**, 2015.

2014 (11)

6. Sunil Pathak, **N K Jain**, I A Palani (2014), “On Use of Pulsed Electrochemical Honing to Improve Micro-geometry of Bevel Gears” **Materials and Manufacturing Processes** 29(11-12) 1461-1469, Nov. 2014 (DOI: 10.1080/10426914.2014.952032) (**Impact factor: 1.49**)
7. Kapil Gupta, **N K Jain** (2014), “Comparative Study of Wire-EDM and Hobbing for Manufacturing High Quality Miniature Gears” **Materials and Manufacturing Processes** 29(11-12) 1470-1476, Nov. 2014 (DOI: 10.1080/10426914.2014.941865) (**Impact factor: 1.49**).

8. Kapil Gupta, **N K Jain (2014)**, "Analysis and Optimization of the Micro-Geometry of the Wire Electric Discharge Machined Miniature Gears" **Precision Engineering**, 38(4), Oct. 2014, 728-737 (DOI: 10.1016/j.precisioneng.2014.03.009) (**Impact Factor: 1.40**).
9. A. Parey, **N K Jain**, S C Koria (**2014**) "Failure Analysis of Air Cooled Condenser Gearboxes" **Case Studies in Engineering Failure Analysis**, 2(2) 150-156, Oct 2014 (DOI: 10.1016/j.csefa.2014.08.003).
10. Kapil Gupta, Sujeet K Chaube, **N K Jain (2014)**, "Exploring Wire-EDM for Manufacturing the High Quality Meso-gears" **Procedia Materials Science**, 5, 1755-1760 Sep 2014, (DOI: 10.1016/j.mspro.2014.07.365)
11. Suyog Jhavar, **N K Jain**, C P Paul (**2014**), "Enhancement of deposition quality in micro-plasma transferred arc deposition process" **Materials and Manufacturing Processes**, 29(8), Aug. 2014, 1017-1023 (DOI: 10.1080/10426914.2014.892984) (**Impact factor: 1.49**).
12. Suyog Jhavar, C P Paul, **N K Jain (2014)** "Experimental investigation on geometrical aspects of micro-plasma deposited tool steel for repair applications" **International of Journal of Modern Physics: Conference Series**, 32 (1460347) (9 pages), Aug. 2014.
13. Kapil Gupta, **N K Jain (2014)**, "On Surface Integrity of Miniature Spur Gears Manufactured by Wire Electrical Discharge Machining", **International Journal of Advanced Manufacturing Technology**, 72(9-12), June 2014, 1735-1745 (DOI: 10.1007/s00170-014-5772-0) (**Impact Factor: 1.78**).
14. Kapil Gupta, **N K Jain (2014)**, "Analysis and Optimization of the Surface Finish of the Wire Electrical Discharge Machined Miniature Gears" **Proceedings IMechE, Part B: Journal of Engineering Manufacture**, 228(5), May 2014, 673-681. (**Impact Factor: 0.66**) (DOI: 10.1177/0954405413508938).
15. Suyog Jhavar, **N K Jain**, C P Paul (**2014**), "Development of micro-plasma transferred arc (μ -PTA) wire deposition process for additive layer manufacturing applications" **Journal of Materials Processing Technology** 214(5), May 2014, 1102-1110. (DOI: 10.1016/j.jmatprotec.2013.12.016) (**Impact factor: 2.05**).
16. J H Shaikh, **N K Jain (2014)**, "Modeling of Material Removal Rate and Surface Roughness in Electrochemical Honing of Bevel Gears" **Journal Materials of Processing Technology**, 214(2), Feb. 2014, 200–209. (DOI: 10.1016/j.jmatprotec.2013.08.010) (**Impact factor: 2.05**).

2013 (6)

17. J H Shaikh, **N K Jain**, V C Venkatesh (**2013**), "Precision Finishing of Bevel Gears by Electrochemical Honing" **Materials and Manufacturing Processes**, 28(10), 1117-1123 (DOI: 10.1080/10426914.2013.811737). (**Impact factor: 1.49**)
18. Kapil Gupta, **N K Jain (2013)**, "On micro-geometry of miniature gears manufactured by Wire Electrical Discharge Machining", **Materials and Manufacturing Processes**, 28(10), 1153-1159 (DOI:10.1080/10426914.2013.792422). (**Impact factor: 1.49**)

19. Suyog Jhavar, C P Paul, **N K Jain (2013)** "Causes of Failure and Repairing Options for Dies and Molds: A Review", **Engineering Failure Analysis**, 34, 519-535. (DOI: 10.1016/j.engfailanal.2013.09.006) (**Impact factor: 1.13**)
20. Shandilya Pragya, P K Jain, **N K Jain (2013)** "Study on wire electric discharge machining Based on response surface methodology and genetic algorithm", **Advanced Material Research**, Vol. 622-623, 1280-1284. (DOI:10.4028/www.scientific.net/AMR.622-623.1280)
21. Shandilya Pragya, P K Jain, **N K Jain (2013)** "RSM and ANN modeling approaches for predicting average cutting speed during WEDM of SiC_p/6061 Al MMC", **Procedia Engineering**, 64: 767–747. (DOI: 10.1016/j.proeng.2013.09.152).
22. Abhishek Das, **N K Jain (2013)**, "Investigations on Tool Wear and Material Deposition Aspects of TiC Coating on Aluminum by Electro Discharge Coating (EDC) Process", **International Journal of Manufacturing Technology and Management**, 27(4/5/6), 251-262. (DOI: 10.1504/IJMTM.2013.058906)

2012 (5)

23. Pragya Shandilya, P K Jain, **N K Jain (2012)** "On Wire Breakage and Microstructure in WEDC of SiC_p/6061 Aluminum Metal Matrix Composites", **International Journal of Advanced Manufacturing Technology**, 61(9-12) (Aug. 2012), 1199-1207 (DOI: 10.1007/s00170-012-4095-2). (**Impact Factor: 1.78**)
24. Pragya Shandilya, P K Jain, **N K Jain (2012)** "Prediction of Surface Roughness During Wire Electrical Discharge Machining of SiC_p/6061 Al MMC", **International Journal of Industrial and Systems Engineering**, 12(3), 301-315.
25. Pragya Shandilya, P K Jain, **N K Jain (2012)** "Neural Network based Modeling in Wire Electric Discharge Machining of SiC_p/6061 Aluminium Metal Matrix Composite", **Advanced Materials Research**, Vol. 383-390, 6679-6683. (DOI:10.4028/www.scientific.net/AMR.383-390.6679)
26. Pragya Shandilya, P K Jain, **N K Jain (2012)** "Parametric optimization during wire electrical discharge machining of SiC_p/6061 Al MMC using response surface methodology", **Procedia Engineering**, 38: 2371–2377. (DOI: 10.1016/j.proeng.2012.06.283).
27. J P Misra, P K Jain, **N K Jain, H Singh (2012)**, "Effects of Electrolyte Composition and Temperature on Precision Finishing of Spur Gears by Pulse Electrochemical Honing (PECH)" **International Journal Precision Technology**, 3(1), 37-50. (DOI: 10.1504/IJPTECH.2012.045987).

2011 (3)

28. Pragya Shandilya, P K Jain, **N K Jain (2011)**, "Modeling and analysis of surface roughness in WEDC of SiC_p/6061 Al MMC through response surface methodology", **International Journal of Engineering Science and Technology**, 3(1) 531-535. (<http://www.ijest.info/docs/IJEST11-03-01-116.pdf>)

29. Pragma Shandilya, P K Jain, **N K Jain**, (2011), “Modelling and Analysis of Average Cutting Speed in WEDM of SiC_p/6062 Al Metal Matrix Composite”, **Manufacturing Technology Today**, 10 (4), 18-26.
30. Pragma Shandilya, **N K Jain**, P K Jain (2011), "Experimental Studies on Wire Electric Discharge Cutting of SiC_p/6061 Aluminium Metal Matrix Composites", **Key Engineering Materials**, 450 (2011), 173-176. (DOI:10.4028/www.scientific.net/KEM.450.173)

2010 (1)

31. J P Misra, **N K Jain**, P K Jain (2010), “Investigations on Precision Finishing of Helical Gears by Electro Chemical Honing (ECH) Process”, **Proceedings of IMechE, Part B: Journal of Engineering Manufacture**, 224 (12), Dec 2010, 1817-1830. (DOI: 10.1243/09544054JEM1836) (**Impact Factor: 0.66**).

2009 (4)

32. **N K Jain**, L. Ramlal Naik, A K Dubey, H S Shan (2009), “State of Art Review of Electrochemical Honing of Internal Cylinders and Gears” **Proceedings IMechE, Part B: Journal of Engineering Manufacture**, 223(6), 665-681. (June 2009). (DOI: 10.1243/09544054JEM1381). (**Impact Factor: 0.66**)
33. T V S Reddy, D K Dwivedi, **N K Jain** (2009), “Adhesive Wear of Stir Cast Hypereutectic Al-Si-Mg Alloy Under Reciprocating Sliding Conditions” **Wear**, 266(1-2), 1-5, (DOI: 10.1016/j.wear.2008.05.003). (**Impact Factor: 1.86**)
34. T V S Reddy, D K Dwivedi, **N K Jain** (2009), “Effect of Stir Casting on the Microstructure and Adhesive Wear Characteristics of Cast Al-Si-Cu Alloy” **Proceedings IMechE, Part B: Journal Engineering Manufacture**, 223(1), 83 – 87. (DOI: 10.1243/09544054JEM1196). (**Impact Factor: 0.66**)
35. A K Dubey, H S Shan, **N K Jain** (2009) “Precision Micro-Finishing By Electro-Chemical Honing” **International Journal of Manufacturing Technology and Management**, 17(4), 364-372. (DOI: 10.1504/IJMTM.2009.023953)

2008 (1)

36. A. K. Dubey, H. S. Shan, **N.K. Jain** (2008), “Analysis of Surface Roughness and Out-of-Roundness in Electro-Chemical Honing of Internal Cylinders” **International Journal of Advanced Manufacturing Technology**, 38(5-6), 491-500. (DOI: 10.1007/s00170-007-1180-z). (**Impact Factor: 1.78**)

1997-2007 (6)

37. **N K Jain**, V K Jain, S Jha (2007), “Parametric Optimization of Advanced Fine Finishing Processes”, **International Journal of Advanced Manufacturing Technology**, 34(11-12), 1191-1213. (DOI: 10.1007/s00170-006-0682-4). (**Impact Factor: 1.78**)
38. **N K Jain**, V K Jain, (2007) “Optimization of Electro-Chemical Machining Process Parameters Using Genetic Algorithms” **Machining Science and Technology**, 11(2), 235-258. (DOI: 10.1080/10910340701350108). (**Impact Factor: 0.657**)

39. **N K Jain, V K Jain, K Deb** (2007), “Optimization of Process Parameters of Mechanical Type Advanced Machining Processes Using Genetic Algorithms” **International Journal of Machine Tools and Manufacture**, 47(6), 900-919. (DOI: 10.1016/j.ijmachtools.2006.08.001). (Impact Factor: 2.74)
40. **Neelesh K Jain, Vijay K Jain** (2003) “Process Selection Methodology for Advanced Machining Processes”, **Journal of Advanced Manufacturing Systems**, 2(1), 5-45. (DOI: 10.1142/S0219686703000204). (Impact Factor: 0.)
41. **Neelesh K Jain, Vijay K Jain** (2003) “An Integrated and Automated Process Planning System for Advanced Machining Environment”, **International Journal of Industrial Engineering: Theory Applications and Practice**, 10(2), 98-106. (DOI:) (Impact Factor: 0.165)
42. **Neelesh K Jain, Vijay K Jain**, (2001) “Modeling of Material Removal in Mechanical Type of Advanced Machining Processes: a State-of-Art Review”, **International Journal of Machine Tools and Manufacture**, 41(11), 1573-1635. (DOI: 10.1016/S0890-6955(01)00010-4). (Impact Factor: 2.74)

[A.3] Papers in the Refereed Conference Proceedings

2015 (3)

1. Sunil Pathak, N K Jain, I A Palani **(2015)**, "Influence of Electrolyte Flow Rate and Rotary Speed on Surface Modification of Bevel Gear Finished by PECH" **29th International Conference on Surface Modification Technologies (SMT29), Technical University of Denmark, June 10-12, 2015.**
2. Kapil Gupta, **N K Jain**, R F Laubscher **(2015)** "Experimental Investigations on Manufacturing of High Quality Miniature Gears by Wire Electric-Discharge Machining" **International Conference on Gears, Garching (Germany) Oct. 5-7, 2015.**
3. Deepak Raj, R Tyagi, I A Palani, **N K Jain** (2015) "Laser Assisted shock Peening of Miniature Gears" Proceedings of **International Conference on Robotics, Automation and Embedded Systems (RACE 2015)** Feb. 18-20, 2015, Hindustan University, Chennai (India).

2014 (1)

4. J H Shaikh, **N K Jain** **(2014)**, "Form Error Correction of Bevel Gears by Electrochemical Honing Process" Proceedings of **5th International and 26th All India Manufacturing Technology, Design and Research (AIMTDR) Conference (ISBN: 978-8-19274-612-8)**, Dec. 12-14, 2014, IIT Guwahati, 472-1 (6 pages) (DOI: 10.13140/2.1.1684.3843).

2013 (6)

5. Kapil Gupta and **N K Jain** **(2013)**, "Deviations in geometry of miniature gears fabricated by wire electrical discharge machining" **(IMECE2013-66560)**, Proceedings of **International Mechanical Engineering Congress & Exposition (IMECE 2013) of ASME**, Nov. 13-21, 2013, San Diego, California, **USA** (DOI: 10.1115/IMECE2013-66560).
6. Kapil Gupta, **N K Jain** **(2013)**, "On productivity of wire electric discharge machining for manufacturing of miniature gears" Proceedings of **2nd International Conference on Intelligent Robotics, Automation and Manufacturing 2013 (IRAM 2013)**, Dec. 16-18, 2013, IIT Indore (Eds. N K Jain, I A Palani, B K Lad, M S Kumar and A Parey), 428-439, Emerald Group Publishing (India) Pvt. Ltd, New Delhi (ISBN: 9780992680015).
7. J H Shaikh, **N K Jain** **(2013)**, "Experimental investigations on influence of electrolyte parameters on surface quality of bevel gears finished by ECH", Proceedings of **2nd International Conference on Intelligent Robotics, Automation and Manufacturing 2013 (IRAM 2013)**, Dec. 16-18, 2013, IIT Indore (Eds. N K Jain, I A Palani, B K Lad, M S Kumar and A Parey), 306-319, Emerald Group Publishing (India) Pvt. Ltd, New Delhi (ISBN: 9780992680015).
8. Sunil Pathak, **N K Jain**, I A Palani **(2013)**, "Methodology for precision finishing of conical gears using automated field controlled Electrochemical Honing process", Proceedings of **2nd International Conference on Intelligent Robotics, Automation and Manufacturing 2013 (IRAM 2013)**, Dec. 16-18, 2013, IIT Indore (Eds. N K Jain, I A Palani, B K Lad, M S Kumar and A Parey), 440-449.
9. Suyog Jhavar, **N K Jain**, C P Paul **(2013)**, "Effect of Work Material Hardness and Machining Parameters on Burr-formation and Surface Finish in Micro-Milling of AISI D2 Steel"

Proceedings of **2nd International Conference on Intelligent Robotics, Automation and Manufacturing 2013 (IRAM 2013)**, Dec. 16-18, 2013, IIT Indore (Eds. N K Jain, I A Palani, B K Lad, M S Kumar and A Parey), 547-555.

10. Shandilya Pragya, P K Jain P K, **N K Jain (2013)** "A comparative study of ANN and RSM models for predicting process parameters during WEDC of SiCp/6061 Al MMC", Proceedings **37th International MATADOR Conference 2012** (Eds: **S. Hinduja** and **L. Li**), 67-70, Springer-Verlag London 2013. (DOI: 10.1007/978-1-4471-4480-9_3).

2012 (1)

11. Shandilya Pragya, P K Jain P K, **N K Jain (2012)**, "Artificial neural network kerf model in Wire Electric Discharge Machining of SiCp/6061 Al MMC". Proceedings of **4th International and 25th All India Manufacturing Technology Design and Research Conference**, 14-16 December, 2012, Jadavpur University, Kolkata, India.

2011 (2)

12. Shandilya, Pragya, P K Jain P K, **N K Jain (2011)**, "Selection of optimum parameters in wire electric discharge cutting (WEDC) of SiCp/6061 Al MMC". Proceedings of **5th International Conference on Advances in Mechanical Engineering (ICAME 2011)**, 6-8 June, 2011, SVNIT, Surat, India, 666-670 [].
13. Shandilya, Pragya, P K Jain P K, **N K Jain (2011)**, "Surface Integrity Aspects after Wire Electric Discharge Machining of SiCp/6061 Al Metal Matrix Composites". Proceedings of **International Conference on Advanced Materials and Manufacturing Processes (ICAMP)**, 9-11 December, 2011, IIT Kharagpur, India.

2010 (5)

14. Shandilya, Pragya, P K Jain P K, **N K Jain (2010)** "On Wire Breakage and Microstructure in WEDC of SiCp/6061 Aluminum Metal Matrix Composites". Proceedings of **3rd International and 24th AIMTDR Conference**, 13-15 December, 2010, Andhra University, Visakhapatnam, India, 1089-1094 [Eds: **B. Satyanarayana** and **K. Ramji**].
15. Abhishek Das, **N K Jain**, A Wanner, and V Schulze (**2010**), "*Effect of Coating Time and Electrode Polarity in Electro Discharge Coating of Al using Ti/Cu Green Compact Tool*", Proceedings of **3rd International and 24th AIMTDR Conference**, 13-15 Dec. 2010, Andhra University, Visakhapatnam, India, 527-530 [Eds: **B. Satyanarayana** and **K. Ramji**].
16. J P Misra, H Singh, **N K Jain**, P K Jain (**2010**), "*Effect of Electrolyte Composition and Temperature on Finishing of Spur Gears by Pulse Electrochemical Honing (PECH)*", Proceedings of **3rd International and 24th AIMTDR Conference**, 13-15 Dec. 2010, Andhra University, Visakhapatnam, India, 903-908 [Eds: **B. Satyanarayana** and **K. Ramji**].
17. Shandilya, Pragya, P K Jain, **N K Jain (2010)**, "Study on average cutting speed in WEDM of SiCp/6061 Al MMC based on RSM". Proceedings of **4th International Conference on Advances in Mechanical Engineering (ICAME 2010)**, 23-25 September, 2010, SVNIT Surat (India), 394-398 [Ed: R.V. Rao].

18. J P Misra, H Singh, P K Jain, **N K Jain (2010)**, "*Parametric optimization of pulse electrochemical honing by response surface methodology*" Proceedings of **4th International Conf. Advances in Mechanical Engineering (ICAME 2010)**, 23-25 Sep. 2010, SVNIT Surat (India), 331-335. [Ed: R. V. Rao].

2009 (3)

19. J P Misra, **N K Jain**, A K Sharma (**2009**), "*Effect of finishing time and electrolyte on precision finishing of helical gears by Electrochemical honing (ECH) process*", Proceedings of **6th International Conference on Precision, Meso, Micro and Nano Technology (COPEN 6)**, 11-12 Dec. 2009, PSG College of Technology, Coimbatore, India, F24-29.
20. J P Misra, A K Sharma, **N K Jain (2009)**, "*Setup For Electrochemical Honing of Helical Gears*" Proceedings of **National conference on Emerging Trends in Manufacturing Engineering (ETME)**, 20-21 March 2009, G. H. Patel College of Engineering and Technology, Vallabh Vidyanagar, India, 171-177.
21. J P Misra, A K Sharma, **N K Jain (2009)**, "*Design of Experiments for Electrochemical Honing of Helical Gears*" Proceedings of the **International Conference on Emerging Research and Advances in Mechanical Engineering (ERA 2009)**, 19-21 March 2009, Velammal Engineering College, Chennai, 874-878.

2008 (1)

22. L. Ramlal Naik, **N K Jain**, A K Sharma (**2008**), "*Investigation on Precision Finishing of Spur Gears by Electrochemical Honing*" Proceedings of **2nd International and 23rd AIMTDR Conference**, 15-17 Dec. 2008, IIT Madras, India, (Ed. M.S. Shunmugam and N. Rameshbabu), 509-514.

1997-2007 (5)

23. A K Dubey, H S Shan, **N K Jain, (2006)**, "*Analysis of Surface Roughness and Out-of-Roundness in Electro-Chemical Honing Process*" Proceedings of **1st International and 22nd AIMTDR Conference**, 21-23 Dec. 2006, IIT Roorkee, India, 887-892 [Eds: N K Mehta, P K Jain, A K Sharma].
24. **N K Jain**, V V Rao (**2006**), "*Process Selection Methodology for Rapid Prototyping (RP) Processes*", Proceedings of **1st International and 22nd AIMTDR Conference**, 21-23 Dec. 2006, IIT Roorkee, India, 815-821. [Eds: N K Mehta, P K Jain, A K Sharma].
25. A K Dubey, H S Shan, **N K Jain (2006)**, "*Precision Micro-Finishing By Electro-Chemical Honing*" Proceedings of **International Conference on Manufacturing Science and Technology (ICOMAST)**, 28-30 August, 2006, Multi Media University, Maleka, Malaysia, 173-176 (DOI: 10.13140/2.1.5011.2323).
26. Amitabha Mukerjee, **N K Jain (1997)**, "*A Featureless Approach to Process Planning*" Proceedings of **International Conference on Robotics and Automation [ICRA' 97]**, New Mexico (USA) April 1997, 2747-2752 (DOI:10.1109/ROBOT.1997.606702).

27. Amitabha Mukerjee, **N K Jain (1997)**, *“Featureless Process Planning”* Proceedings of **17th AIMTDR Conference**, REC Warangal, Jan. 1997 [Eds: R.L. Murthy, G. Srihari, and C.S.P. Rao], pp. 125-130. (***This Paper Won the 2nd Best Paper Award***)

➤ **Thesis/Project Supervision**

[A] Summary of Theses/Project Supervision:

Degree	Completed + Under Progress	Total
Ph. D. Thesis	5 + 5	10
M. Tech. Theses	12 + 5	17
B. Tech. Projects	11	11

[B] Ph.D. Theses Supervision

SN	Student Name (joining)	Thesis Theme/Title	Status	Other Supervisor (if any)
1.	Anand C Petare (July 2014)	<i>Investigations on Spur and Bevel Gear Finishing by Abrasive Flow Machining Process</i>	On-going since July 2014	Dr. I.A. Palani (IIT Indore)
2.	Nikam Sagar Hanmant (July 2014)	<i>Modeling, Optimization & Investigations on Multi-material Multi-layer Deposition by Micro-PTA Process</i>	On-going since July 2014	None
3.	Sawant Mayur (Jan. 2014)	<i>Development of Micro-Plasma Transferred Arc (μ-PTA) Powder Deposition Process</i>	On-going since Jan. 2014	Dr. I.A. Palani (IIT Indore)
4.	Sujeet Kumar Chaubey (Jan. 2014)	<i>Investigation on Helical and Conical Miniature Gear Manufacturing by WEDM</i>	On-going since Jan. 2014	Dr. I.A. Palani (IIT Indore)
5.	Sunil Pathak (Jan. 2013)	<i>Investigations on High Quality Finishing of Bevel Gears by Pulsed Electrochemical Honing Process</i>	On-going since Jan. 2013	Dr. I.A. Palani (IIT Indore)
6.	Suyog Jhavar (July 2010)	<i>Development of Micro-Plasma Transferred Arc Wire Deposition Process for Additive Layer Manufacturing Applications</i>	Completed on 29 May 2014	Dr. C.P. Paul (RRCAT, Indore)
7.	Kapil Gupta (July 2011)	<i>Experimental Investigations on Manufacturing of High Quality Miniature Gears by Wire Electric Discharge Machining</i>	Completed on 3 rd March 2014	None
8.	Shaikh Javed Habib (July 2010)	<i>Experimental Investigations and Performance Optimization of Electrochemical Honing Process for Finishing the Bevel Gears</i>	Completed on 17 th Jan. 2014	None
9.	Pragya Shandilya (Jan. 2009)	<i>Studies on Wire Electro Discharge Cutting (WEDC) of Al-based Metal Matrix Composites (MMC)</i>	Completed in March 2012	Prof. P. K. Jain (IIT Roorkee)

10.	Abhay Kumar Dubey (July 2004)	<i>Development of the Setup and Performance Optimization of Electro Chemical Honing Process</i>	Completed in Oct 2006	Retd. Prof. H. S. Shan (IIT Roorkee)
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[C] M. Tech. Theses Supervision

SN	Student Name	Thesis Title	Status	Other supervisor (if Any)
1.	Praveen Rai	<i>Improving Quality, Noise and Transmission Characteristics of Helical Gears by PECH Process</i>	Ongoing since May 2015	Dr. Anand Parey
2.	Muneer Alam	<i>Investigations on Nano-particles Generation by Electrolytic Dissolution</i>	Ongoing since May 2015	Dr. I A Palani
3.	Naresh K Bagri	<i>Studies on Machinability Improvement of Alloy Steel</i>	Ongoing since May 2015	Prof. S C Koria
4.	Swagat Dwivedi	<i>Investigations of Joining of Thick and thin sheets by Micro-plasma Transferred Arc Deposition Process</i>	Ongoing since May 2015	Prof. S C Koria
5.	Jigar Choudhary	<i>Investigations on Joining of Thin Sheets by Pulsed Micro-plasma Transferred Arc Deposition Process</i>	Ongoing since May 2014	Prof. S C Koria
6.	Harpreet Singh	<i>Investigations on Pulse-Electrochemical Honing (PECH) of External Gears</i>	Completed (July 2010)	Prof. P. K. Jain
7.	D. Srinath	<i>Enhancement of Electrode Life in Resistance Spot Welding of Zn-Coated Steel Sheets</i>	Completed (July 2010)	Dr. D. K. Dwivedi
8.	Abhishek Das	<i>Surface Modification of Aluminum by EDM Using Tic/Cu Green Compact Electrode</i>	Completed (July 2009)	Prof. Pradeep Kumar Prof. Alexander Wanner Prof. Volker Schulze (Karlsruhe Institute of Technology)
9.	Abhimanue Potpelwar	<i>Investigation of Electrolytic Jet Drilling (EJD) Process</i>	Completed (July 2009)	Prof. N. K. Mehta
10.	Joy Prakash Misra	<i>Precision Finishing of Helical Gears by Electro Chemical Honing (ECH) Process</i>	Completed (July 2009)	Dr. A. K. Sharma
11.	L. Ramlal Naik	<i>Investigations on Precision Finishing of Gears by Electro Chemical Honing</i>	Completed (July 2008)	Dr. A. K. Sharma
12.	Sandeep Srivastava	<i>Investigation on Densification of Weld Joints using Compaction Techniques</i>	Completed (July 2008)	Dr. D. K. Dwivedi

13.	Kailash S. Kuhite	<i>Modeling of Surface Roughness of Electro Discharge Machined Components</i>	Completed (July 2008)	Dr. D. K. Dwivedi
14.	Deepark Kumar Nagar	<i>Decision Support System for Selection of Casting Processes</i>	Completed (July 2007)	Prof. Pradeep Kumar
15.	T. Venkat Siva Reddy	<i>Experimental Investigation on Stir- Casting of Al-Si Alloys</i>	Completed (July 2006)	Dr. D. K. Dwivedi
16.	Devender Ninaniya	<i>Process Parameters Optimization and Experimental Verification of Ultrasonic Machining (USM) Process</i>	Completed (July 2006)	None
17.	V. V. Rao	<i>Decision Support System for Selection of Rapid Prototyping Processes</i>	Completed (July 2006)	None

[D] B.Tech. Project Supervision

SN	Title	Students Name	Co-Guide (if any)	Status
1.	<i>Design and Development of Ultrasonic Machining (USM) Setup</i>	1. M. Srilakshmi 2. Mayank K Uprawal	Dr I A Palani	<i>On going since May 2015</i>
2.	<i>Design and Fabrication of Abrasive Jet Machining (AJM) Setup and Experimental Study on AJM Process</i>	1. Prasad Kulkarni 2. Pratik Bagal 3. Devkant Singh	Dr I A Palani	<i>Completed in Dec. 2014</i>
3.	<i>Laser Assisted Shock Peening of Miniature Gears</i>	1. Ruchir Tyagi 2. Deepak Raj	Dr I A Palani	<i>Completed in Dec. 2014</i>
4.	<i>Laser Shock Peening of HSS Tool Inserts</i>	1. Jeet Peswani 2. Devashish Thakkar	Dr. I.A. Palani	<i>Completed in April 2014</i>
5.	<i>Design, Fabrication, and Testing of Abrasive Jet Machining Setup</i>	1. Keshav Kumar 2. Bharath Bhushan Peddini	---	<i>Completed in April 2013</i>
6.	<i>Design and Fabrication of Noise and Vibration Test Rig for Bevel Gears</i>	1. Brahm Pratap	Dr. Anand Parey	<i>Completed in April 2013</i>
7.	<i>Modeling of Supply Chain for Disaster Management</i>	1. Mukund M Singh 2. Durgendra N. Singh	---	<i>Completed (2007-08)</i>
8.	<i>Design and Development of Tribo-Fatigue Testing Machine</i>	1. Shanshank Rai Goel 2. Vaishav Sah 3. Tarjan Singh	Dr. D. K. Dwivedi	<i>Completed (2007-08)</i>
9.	<i>Development of Touch Pad Controlled AGV</i>	1. Kaustubh Chilwarwar 2. Kamaljeet Singh	Dr. D. K. Dwivedi	<i>Completed (2007-08)</i>
10.	<i>Software Development for Dynamic Trains Scheduling</i>	1. Abhinav Anand 2. Keshav Sirohi 3. Rakesh Prakash	---	<i>Completed (2006-07)</i>
11.	<i>Computer Aided Plant Layout</i>	1. Siddharth Jain 2. Tushar Parashar 3. Sher Ali	---	<i>Completed (2006-07)</i>
12.	<i>Computer Aided Materials Selection System (At NSIT New Delhi)</i>	1. Amit Kumar 2. Charan Jeet Singh, 3. Pradeep Verma	---	<i>Completed (2002-03)</i>

➤ **SPONSORED RESEARCH PROJECTS**

Sponsoring Agency	Title of the Project	Amount of grant	Duration	Co-investigator (If any)
CSIR, New Delhi	Experimental Investigations and Performance Optimization of High-Precision Finishing of Gears by Electro Chemical Honing (ECH) Process	Rs. 18.76 Lacs	May, 2009 to March, 2013	Co-PI: Prof. P. K. Jain (IIT Roorkee)
Dean, SRIC IIT Roorkee	Investigation on Precision Finishing of External Gears by Electrochemical Honing (ECH) Process	Rs. 4.5 Lacs	March, 2008 to January, 2010	None
DST, Govt. of India	Influence of Process Parameters in Electro Chemical Spark Machining	Rs. 7.75 Lacs	2002-2004	Co-PI: Self PI: S. K. Chak (NSIT, New Delhi)

➤ **CONSULTANCY PROJECTS:**

Sponsoring Agency	Title	Amount of grant	Duration	Other Investigator(s)
VNIT Nagpur	Measurement and Analysis of surface Roughness of Coated Samples	Rs. 7,000/-	2 days (April 2015)	None
AVTEC Pithampur	Technical Opinion on Spline Hubs for Clutch Plate	Rs. 1.00 Lacs	Two Weeks (Feb-March 2015)	Dr. Anand Parey
VNIT Nagpur	Measurement and Analysis of surface Roughness of Metal Matrix Composite samples	Rs. 7,500/-	2 Days (Jan 2015)	None
Shree Power Limited, Ras, Distt. Pali (Rajasthan)	Failure Analysis of Gearboxes used in Air Cooled Condenser (ACC) Fan	Rs. 3.0 Lacs	July-Sep. 2013	Dr. Anand Parey Prof. S C Koria
Govt. Dental College, Indore	Measurement and Analysis of Surface Roughness of Bio-material used for Dental Applications	Rs. 4,500/-	Sep 2012	None

➤ **Teaching Experience**

• **Courses Taught**

Sl. No.	Title of course taught	PG or UG	Role* (Sole instructor or with others)	Semester and Year
(A) At IIT Indore (Jan. 2010 onwards)				
A1	ME 657: Mechatronics and Metrology (3-0-2-4)	PG	I	Autumn 2015 Autumn 2014 Autumn 2013
A2	ME 451/ME 751: Advanced Machining Processes (3-0-0-3)	UG and PG	SI & CC	Autumn 2015 Autumn 2014 Autumn 2013, Autumn 2012, Autumn 2011, Autumn 2010
A3	ME 401: Machine Design-II (2-2-0-4)	UG	I	Autumn 2012
A4	ME 308: Quality Management (3-0-0-3)	UG	SI & CC	Spring 2015 Spring 2014 Spring 2013
A5	ME 305: Machining Science and Metrology (3-0-0-3)	UG	SI & CC	Autumn 2011
A6	ME 208: Theory of Manufacturing Processes (3-0-0-3)	UG	SI & CC	Spring 2011
A7	ME 258: Manufacturing Process Lab (0-0-3-1.5)	UG	I	Spring 2015
			I	Spring 2014
			I	Spring 2013
			I & CC	Spring 2012
			SI & CC	Spring 2011
A8	ME 205: Materials Science (2-1-0-3)	UG	SI & CC	Autumn 2010
A9	ME 152: Workshop Practice (1-0-3-2.5)	UG	SI & CC	Spring 2010
(B) At IIT ROORKEE (June 2004 Onwards)				
B1	MI 572: Advanced Manufacturing Processes (3-1-0-4)	PG	SI & CC	Spring 2008, Spring 2007, Spring 2006
B2	MI 577: Industrial Automation (3-1-0-4)	PG	SI & CC	Spring 2009, Spring 2006, Spring 2005
B3	MI 584: Advanced Manufacturing Processes (3-1-0-4)	PG	SI & CC	Spring 2005
B4	MI 449: Facilities Planning (3-1-0-4)	UG	SI & CC	Autumn 2006, Autumn 2005, Autumn 2004
B5	MI 443: Maintenance Management (3-1-0-4)	UG	SI & CC	Autumn 2004
B6	MI 335: Machining Science and Metrology (3-1-2/2-4)	UG	I & CC	Autumn 2009
B7	MI 331: Manufacturing Science (3-1-2/2-4)	UG	SI & CC	Autumn 2007, Autumn 2006,
			I	Autumn 2005
B8	MI 334: Quality Control (3-1-0-4)	UG	SI & CC	Spring 2008, Spring 2007
B9	MI102: Basic Manufacturing Techniques (2-0-2-3)	UG	I & CC	Spring 2009

			I	Autumn 2009
			I & CC	Autumn 2007
(C) At SAIL HYDERABAD (June 2003 to May 2004)				
C1	ESC 101: Engineering Thermodynamics (3-1-0-4)	UG	T	Spring 2004
C2	ETL101: Engineering Graphics (2-0-3-3.5)	UG	I & T	Autumn 2003
(D) At NSIT NEW DELHI (July 2002 to June 2003)				
D1	MA-405: CAM and Robotics-II (3-0-3-5)	UG	I	Autumn 2002
D2	MA-402 Modern Methods of Manufacturing (3-0-3-5)	UG	I	Autumn 2002
D3	MA 313: Applied Plasticity (3-1-0-4)	UG	SI & CC	Spring 2003
D4	MA-311: CAM & Robotics-I (3-0-3-5)	UG	I	Spring 2003

*** I: Instructor; SI: Sole Instructor; CC: Course Coordinator; T: Tutor**

➤ **Development of Courses and Curriculum:**

[A] At IIT Indore: Developed following UG and/or PG courses

1. ME 154 : Basic Manufacturing Techniques (2-0-2-3)
2. ME 205 : Materials Science (2-1-0-3)
3. ME 208 : Theory of Manufacturing Processes (3-0-0-3)
4. ME 258 : Manufacturing Processes Lab (3-0-0-3)
5. ME 305 : Machining Science and Metrology (3-0-0-3)
6. ME 355 : Machining Science and Metrology Lab (0-0-3-1.5)
7. ME 307 : Principles of Industrial Engineering (3-0-0-3)
8. ME 308 : Quality Management (3-0-0-3)
9. ME 451 / ME 751 : Theory of Advanced Machining Processes (3-0-0-3)
10. ME 655 : Advanced Manufacturing Processes (3-0-0-3)
11. ME 657 : Mechatronics and Metrology (3-0-2-4)
12. ME 663 : Theory of Conventional Machining (3-0-0-3)
13. ME 453 / ME 653 : Computer Aided Manufacturing (CAM) (3-0-0-3)
14. ME 454 / ME 654 : Rapid Product Manufacturing (3-0-0-3)
15. ME 456 / ME 756 : Industrial Automation (3-0-0-3)
16. ME 471 / ME 671 : Operations Research (2-0-2-3)
17. ME 473 : Engineering Optimization (2-0-2-3)
18. ME 474 : Non-traditional Optimization Techniques (2-0-2-3)
19. ME 440 / ME 640 : Smart Materials and Structures (3-0-0-3)

Coordinated with other Mechanical Engineering faculty

- ✓ To develop UG curriculum for B.Tech. (Mechanical Engineering) during Feb-April 2010
- ✓ To develop curriculum for M.Tech. (Production & Industrial Engineering) during June-Sep. 2012

[B] At IIT Roorkee: Developed following courses either by completely revising the old courses or developing as new course

1. MI 588 : Non-Traditional Machining Process (3-1-0-4)
2. MI 572 : Advanced Manufacturing Processes (3-1-0-4)
3. MI 431 : Tool Engineering (2-1-2/2-3)
4. MI 335 : Machining Science and Metrology (3-1-2/2-4)
5. MI 336 : Theory of Production Processes (3-0-2/2-4)
6. MI 334 : Quality Management (3-1-0-4)
7. MI 231 : Manufacturing Technology-I (2-0-4-4)
8. MI 232 : Manufacturing Technology-II (2-0-2-3)
9. MI 102 : Manufacturing Techniques (2-0-2-3)

- Coordinated the revision of UG curriculum and courses for BTech (Mechanical Engineering) and BTech (Production and Industrial Engineering) during 2006-08 at IIT Roorkee as member DUGC of Mechanical and Industrial Engineering Department.

Coordinated in revising **all the PG curricula and all the PG courses** and coordinating in starting **new M.Tech. Program in CAD, CAM, and Robotics** from AY 2005-06 during 2004-06 at IIT Roorkee as the Member of PG Program Academic Structure Review Committee of Mechanical and Industrial Engineering Department.

➤ **Invited Expert Lectures:**

1. On "Advanced Machining Processes" in the MPCST sponsored national workshop on "Recent Trends in Mechanical Engineering-Materials and Manufacturing" at IES-IPS Academy Indore on 1st May 2015.
2. On "Using Advanced Machining and Finishing Processes for Micro-manufacturing Applications" at **IIT Kanpur** on 2nd April 2014 in AICTE-BARC sponsored course on "Micro-manufacturing".
3. On "*Machining of Metal Matrix Composites*" in the Short-Term Training Program on "Recent Advances in Composite Materials" at **SVNIT Surat** on 27th June 2013.
4. On "*Process Selection Methodology for Rapid Prototyping (RP) Processes*" in National Workshop on "Significance of Rapid Prototyping and Rapid Tooling in Indian Industry" at **MANIT Bhopal** on May 11th, 2013.
5. On "*Electrochemical honing of Internal Cylinders and external gears*" DST sponsored 3rd SERC school at **IIT KANPUR** during 20-25th July 2009.
6. FOUR expert lectures on the topics of *Electro Discharge machining (EDM)*, *Wire-EDM*, *Electro Chemical Machining (ECM)*, and *Electro Chemical Grinding (ECG)* in the short-term course on "Non-Conventional Machining" held at **Delhradun Institute of Technology, Dehrdun** during 2-6th March, 2009.
7. FIVE Lectures on the topics of *CIM*, *Automation*, *CAM*, and *CAPP* in a Short-Term Training Program on ACAD/CAM for Polytechnic Teachers of Uttarakhand during 11th to 15th March 2008 organized at STEP **IIT Roorkee**.
8. On "Manufacture Process Selection" in AICTE-Sponsored Short-Term Course on "*Product Design and Development*" on 12th July 2007 held at **IIT ROORKEE** during 9-13 July, 2007.
9. On "*Electrochemical Honing (ECH) Process*" in AICTE-BARC sponsored Short-Term Course on "*Micromachining*" on 21st June 2007 held at **IIT KANPUR** during 18-23 June 2007.
10. On "*Automated Manufacturing Process Selection for Advanced Machining Processes and Rapid Prototyping Processes*" at **SGSITS INDORE**, on 29th Jan, 2007.
11. On "*Rapid Prototyping Technology*" in QIP-sponsored Short-Term Course on "*Advanced Processing of Composite Materials*" on 26th July 2006 held at **IIT ROORKEE** during 24-28th July, 2006.
12. On "*Plant Layout*" on 1st Feb. 2005 in the Analytical Skills Development Program for ACC Management Trainees conducted at Continuing Education Center of **IIT ROORKEE** during Jan-Feb. 2005.
13. On "*Advanced Machining Process Selection*" on 20th March 2004 at Sreenidhi Institute of Science and Technology (**SNIST**), **HYDERABAD**.
14. On "*Computer Aided Process Selection and Parametric Optimization of Advanced Machining Processes*" in the Contact Program for Young Scientists sponsored by DST, Government of India New Delhi and held at **IIT KANPUR** during July 2001.

➤ **Short-Term Course/Workshop/Seminars Etc. Organized**

1. General Secretary, **2nd International Conference on Intelligent Robotics, Automation, and Manufacturing (IRAM 2013)** being organized during **16-18 Dec. 2013 at IIT Indore** in association with *Monash Uiniversity, Sunway Campus, Malaysia.*
2. Course Coordinator of the 5 day (19-23 Nov. 2012) **short term course on ADVANCES in GEAR ENGINEERING.** [it was attended by 21 participants (16 from Industries and 5 from academic institutions) from 12 organizations].

➤ **Academic Responsibilities (Outside the Institute)**

- PhD thesis Examiner, NIT Hamirpur (HP), NIT Raipur, PEC University Chandigarh, Government Engineering College, Aurangabad, North Maharashtra University, Jalgaon
- Member, Board of Studies (Mechanical Engg.), MANIT Bhopal since April 2013
- Member of Board of Studies (Mechanical Engg.) Government Engineering College, Aurangabad (Maharashtra) since Aug. 2012
- Member, PG Board of Studies (Mechanical Engg), SGSITS Indore
- Institute Representative (IR) for JEE 2005 (Bareilly), JEE 2006 (NIT Kurukshetra); JEE 2007 (Moradabad); JEE 2008 (NIT Jalandhar); JEE 2009 (Panipat)
- Institute Representative (IR) for JAM 2012 (Indore); GATE 2013 (Indore)
- M.Tech. Thesis examiner, IIITDM Jabalpur
- ME Thesis examiner, SGSITS Indore

➤ **International Academic Responsibilities:**

- Reviewer, **Journal of Materials Processing Technology** (Elsevier)
- Reviewer, **International Journal of Machine Tools and Manufacture** (Elsevier)
- Reviewer, **Measurement** (Elsevier)
- Reviewer, **Precision Engineering** (Elsevier)
- Reviewer, **International Journal of Advanced Mfg Technology** (Springer-Verlag)
- Reviewer, **Proceedings IMechE, Part B: Journal of Engineering Manufacture** (Professional Engineering Publishing, UK)
- Reviewer, **International Journal of Mfg Technology and Management** (Inderscience)
- Reviewer, **International Journal of Materials and Product Technology** (Inderscience)
- Reviewer and Member of Local Organizing Committee of 1st International and 22nd AIMTDR Conference (21-23 Dec. 2006)

➤ Important Conferences/Seminars Attended

Sl. No.	Conference/Seminar	Title of paper read (if any)	Year
1	5th International and 26th All India Manufacturing Technology, Design and Research (AIMTDR) Conference, IIT Guwahati	1. J H Shaikh, N K Jain (2014), "Form Error Correction of Bevel Gears by Electrochemical Honing Process"	Dec. 12-14, 2014
	2nd International Conference on Intelligent Robotics, Automation and Manufacturing (IRAM 2013), IIT Indore	2. Suyog Jhavar, N.K. Jain, C.P. Paul (2013), "Effect of Work Material Hardness and Machining Parameters on Burr-formation and Surface Finish in Micro-Milling of AISI D2 Steel" 3. Kapil Gupta, N.K. Jain (2013), "On productivity of wire electric discharge machining for manufacturing of miniature gears" 4. J.H. Shaikh, N.K. Jain (2013), "Experimental investigations on influence of electrolyte parameters on surface quality of bevel gears finished by ECH", 5. Sunil Pathak, N.K. Jain, I. A. Palani (2013), "Methodology for precision finishing of conical gears using automated field controlled Electrochemical Honing process"	16-18 Dec. 2013
2	3rd International Conference on Advanced Design and Manufacturing (ADM2010) Nottingham Trent University, Nottingham (UK)	<i>"Experimental Studies on Wire Electric Discharge Cutting of SiCp/6061 Aluminum Metal Matrix Composites"</i> , authored by Pragma Shandilya, N. K. Jain , and P. K. Jain	8-10 Sep. 2010
3	Workshop on "Emerging Global Job Competencies" held at I.I.T. ROORKEE	Made presentation about the revised 1 st year B.Tech. curriculum and revised curriculum of B.Tech. in Mechanical Engineering and Production and Industrial Engineering	25-26 March 2007
4	22nd and 1st International AIMTDR Conference, held at IIT ROORKEE	1. <i>Analysis of Surface Roughness and Out-of-Roundness in Electro-Chemical Honing Process, authored by A. K. Dubey, H. S. Shan and N. K. Jain.</i> 2. <i>Process Selection Methodology for Rapid Prototyping (RP) Processes,</i>	21-23 Dec. 2006

		authored by N. K. Jain and V. V. Rao.	
5	19th AIMTDR Conference held at IIT MADRAS	None	14-16 Dec. 2000

➤ **Administrative Responsibilities (Within the Institute):**

[A] At IIT Indore

- Convener, Center of Excellence in Gear Engineering
- **Dean**, Academic Affairs (since 6th Oct. 2010 onwards; reappointed for another term)
- **Acting Director**
 1. 26-27 Feb. 2015
 2. 11-12 Feb. 2015
 3. 24-25 Nov. 2015
 4. 26 Sep. 2014
 5. 20-23 Sep. 2014
 6. 8th Sep to 14 Sep. 2014
 7. 12th July to 12th Aug. 2014
 8. 27th March 2014
 9. 12-14 March 2014
 10. 27th Feb to 3rd March 2014
 11. 16-24 Jan. 2014
 12. 30th Dec. 2013 to 9th Jan. 2014
 13. 12th Nov. to 12th Dec. 2013
 14. 19-21 June 2013
 15. 27-28 Sep. 2011
 16. 27-29 Dec. 2010
 17. 13-15 Dec. 2010
 18. 15-16 Nov. 2010
- **Member**, Board of Governors (**BOG**) of IIT Indore (April 2010-Nov. 2012)
- **Member, Academic Council**, (July 2011 - April 2013) and subsequently **Senate**, IIT Indore (April 2013 onwards)
- **Coordinator, NKN and Virtual Classroom** at IIT Indore (March 2010 onwards)
- Convener, UGAPEC (March 2010 to March 2011) & PGAPEC (May 2010 to March 2011)
- Member, Institute Library Committee (May 2010 - June 2012)
- In-charge, Central Workshop (April 16, 2012 to Feb 10, 2013)
- Lab-in-charge, Gear Research Lab, Metrology Lab, and Advanced Manufacturing Processes Lab (since May 2012 onwards)

[B] At IIT Roorkee

- Staff Advisor, Photography section of Hobbies Club, from March 2009 to Jan. 2010.

- Member Departmental Under Graduate Committee (DUGC) of Mechanical and Industrial Engineering Department during 2006-07.
- Member, PG Program Academic Structure Review Committee of Mechanical and Industrial Engineering Department during Oct 2004 to April 2006.
- Member, B. Tech. Project Evaluation Committee of Mechanical and Industrial Engineering Department for year 2005-06.
- OC, Work Science Laboratory July 2005 to Jan. 2010.
- Member, Website Maintenance and Update Committee of Mechanical and Industrial Engineering Department.

➤ **Contribution towards Institute Development**

[A] As **Dean, Academic Affairs** (6th Oct. 2010 onwards) has

- Played significant role in the getting developed and approved the **Curriculum and the Courses** for
 - ✓ BTech program in CSE, EE, and ME during 2010,
 - ✓ PhD program in all the disciplines of Engineering, Sciences, and HSS during 2010 to 2013 and for the inter-disciplinary areas such as Biosciences and Bioengineering, and Surface Engineering during 2012-13,
 - ✓ Preparatory program during 2012
 - ✓ 2-year MSc program in Chemistry and Physics during 2012,
 - ✓ MTech programs in Communications and Signal processing (CSP), Production and Industrial Engineering (PIE), and Surface Engineering during 2012,
 - ✓ Motivating the faculty for proposing new courses the Institute Elective and Discipline Elective courses at very regular intervals and helping to get approved these new courses. This has resulted some unique courses being offered at IIT Indore.
- Played significant role in getting prepared the **Bulletin of Courses of Studies** for Preparatory, BTech, MSc, MTech, and PhD program and their updating at regular intervals.
- Conceived and got implemented **in-house computerization and making online** almost all the academic activities from March 2012 onwards such as course registration, fee payment, grade submission, grade viewing, grade sheet generation, collection of student feedback, progress records of the PhD students, etc. Other activities such as time table making, allocation of the teaching duties, etc. is in the progress.
- Developed state-of-art **classroom infrastructure** at both IET and PACL campus.
- Led in **properly organizing the academic office** and getting the infrastructure required for its proper and smooth functioning
- Trained the **inexperienced academic office staff** in the absence of any Superintendent, AR or DR till July 2012.
- Significant role in developing the academic procedures, rules, regulations, and system for the various **academic programs, admission to the PG programs, and scholarships.**
- As *ex-officio* convener of **IUGC** and **IPGC** giving guidance and directions to these institute level academic committees on various academic issues since April 2010 onwards.
- Led organization of **Orientation programs for the New entrants to IIT Indore** for the AY 2010-11, 2011-12, 2012-13
- Mobilized the individuals and led organization of the 1st Convocation of the Institute
- Coordinated with the Organizing Institute in properly organizing the various activities related to **JEE, GATE, and JAM through IIT Indore till July 2011** in the absence of

the corresponding Chairman. Subsequently to appointment of the Chairman, now coordinating with them for the smooth conduct of such activities.

- Coordinated the *various activities related to the Students Affairs* in the absence of appointment of DOSA till Aug. 2012.

[B] As Convener, Agreement Committee (for the PACL Campus):

- Negotiated with the authorities of the PACL to get rented the PACL campus by the Institute to develop state-of-art School of Engineering
- Played very significant role the development of all type of infrastructure required for School of Engineering at the PACL campus

[C] As Coordinator and Nodal Officer of NKN at IIT Indore, (from March 2010 onwards):

Coordinated the development of state-of-art Virtual Classroom at IIT Indore. NIC judged it best among VCRs of all the IITs and it chosen as one of the IIT for the inauguration by Sh. Kapil Sibbal on 5th Feb. 2011.

[D] As member, Board of Governors (BOG) of IIT Indore (April 2010-Nov. 2012):

- contributed towards overall policy and direction framing of the institute

[E] As ex-officio Member, Academic Council (during July 2011 to April 2013) and subsequently Senate (April 26, 2013 onwards)

- Suggested the constitution of the Academic Council and helped in it during May-June 2011.
- Contributed significantly in preparing the agenda for the meetings, presenting information for helping in the decision making, finalizing the minutes of the meetings, and if required informing within the Institute about the decisions on academic policies of the institute.

[F] As a Member, Institute Library Committee (May 2010 - June 2012):

- Played significant role in the development of the Central Library of the Institute by helping in framing the various policies and procedures, giving advice and direction and to develop world-class library facility at IIT Indore.

➤ **Professional Training Received**

Sl. No.	Name of Training	Organization where training was received	Year	Duration
1	Workshop on " <i>Internet Based Manufacturing Management</i> "	Indira Gandhi National Open University (IGNOU) New Delhi	Nov. 17, 2000	One day
2	Short-term course on " Neural Networks and their Engineering Applications "	IIT KANPUR	June 2000	One week
3	Short-term course on " Fuzzy Logic and its Engineering Applications "	IIT KANPUR	May 1999	One week
4	6 th SERC school on " Advanced Manufacturing Technology " Sponsored by <i>Dept. of Science and Technology (DST)</i> , Govt. of India	IIT KANPUR	March 1999	One week