

CURRICULUM VITAE

Name : **Dr. Vijay Pandey**
Designation : Professor & Head
Qualification : Ph.D.
Date of Birth : 22 June, 1973
Nationality : Indian
Address : Mechanical Engineering Department
BIT Sindri, Dhanbad - 828123, Jharkhand – INDIA
Email : vpandeybit@gmail.com, vpandey.me@bitsindri.ac.in
ORCID ID : <https://orcid.org/0000-0002-1385-3358>
M.Ph. : +91- 9631658233
Researcher ID : M-6033-2017
Scopus Author ID: 56956397100 <https://vidwan.inflibnet.ac.in/profile/137253>



Academic Qualifications:

- Doctoral work is related to Development of Feature Recognition System: A Link between Design and Manufacturing.
- Post Graduate dissertation was related to Design of Part Feature Recognition System Using Formal Language Theory.
- Bachelor Degree dissertation was related to Design and Fabrication of Groundnut Decorticator.
- Achieved first division at graduate level (in Mechanical Engineering) and first division with honors at postgraduate level (in CAD/CAM).

Qualifications

Examination	Discipline	University/Board	Year
Ph.D.	CAD/CAM	B.I.T., Mesra, Ranchi	2008
M.E.	CAD/CAM	M.N.R.E.C., University of Allahabad	2000
B.E.	Mechanical	N.M.U., Jalgaon	1997

Professional Experience: 23 Years

September 14, 2021 – September 30, 2021	Director (Curriculum Development) Jharkhand University of Technology, Ranchi, Jharkhand
February 01, 2018 – September 13, 2021	Professor Department of Mechanical Engineering of Birsa Institute of Technology, Sindri, Dhanbad, Jharkhand.
August 14, 2011 - January 30, 2018	Associate Professor Department of Production Engineering of Birla Institute of Technology, Mesra, Ranchi, Jharkhand.
August 14, 2008 - August 13, 2011	Reader Department of Production Engineering of Birla Institute of Technology, Mesra, Ranchi, Jharkhand.
March 11, 2003 - August 13, 2008	Lecture Department of Production Engineering of Birla Institute of Technology, Mesra, Ranchi, Jharkhand.
Nov 30, 1999 - March 10, 2003	Guest Lecturer Department of Mechanical Engineering Motilal Nehru National Institute of Technology, Allahabad, U.P.

Additional Responsibilities

1.	January 12, 2022 – May 15, 2023	Vice Chancellor (Acting) Jharkhand University of Technology, Ranchi, Jharkhand
2.	December 06, 2021 – April 06, 2022	Registrar (Acting) Jharkhand University of Technology, Ranchi, Jharkhand
3.	January 08, 2021 – till date	Dean (UG) Jharkhand University of Technology, Ranchi, Jharkhand
4.	November 18, 2021 – September 30, 2021	Dean (R&D) Jharkhand University of Technology, Ranchi, Jharkhand
5.	November 2, 2019 – September 30, 2021	Chairman, Research Degree Committee (RDC) Jharkhand University of Technology, Ranchi, Jharkhand
6.	September, 20, 2021- September 30, 2021	Chairman, University Placement Cell Jharkhand University of Technology, Ranchi, Jharkhand
7.	August 6, 2022	Nominee of Honorable Governor cum Chancellor Birsa Agricultural University, Kanke, Ranchi
8.	August 22, 2022 – September 10, 2022	Nominee of Honorable Governor cum Chancellor Birsa Agricultural University, Kanke, Ranchi
9.	May, 16, 2020 - September 13, 2021	Departmental NBA Coordinator PG Program Mechanical Engineering Department, BIT Sindri, Dhanbad,
10.	November 17, 2020 - September 13, 2021	Co-PC, TEQIP BIT Sindri, Dhanbad, Jharkhand
11.	December, 01, 2020 – September 13, 2021	Professor-In-charge (Advance Manufacturing Lab) COE Lab, BIT Sindri, Dhanbad, Jharkhand
12.	December, 03, 2020 - September 13, 2021	NBA Coordinator Mechanical Engineering Department, BIT Sindri, Dhanbad,
13.	May, 02, 2018 - September 13, 2021	Coordinator (Ranking & Accreditation) BIT Sindri, Dhanbad, Jharkhand
14.	September, 14, 2018 - September, 13, 2021 -	Professor-In-charge (Sarjana Magazine) BIT Sindri, Dhanbad, Jharkhand
15.	October, 03, 2018 – June 30, 2019	Professor-In-charge (PG & Research) BIT Sindri, Dhanbad, Jharkhand
16.	January 02, 2019 – November 17, 2020	Professor-In-charge (Examination) BIT Sindri, Dhanbad, Jharkhand
17.	November 06, 2018 - September 13, 2021	Nodal Officer Academics (TEQIP III) BIT Sindri, Dhanbad, Jharkhand
18.	July 01, 2008 – June 01, 2014	Superintendents / Assistant Superintendent (Hostel) BIT Mesra, Ranchi, Jharkhand
19.	May 13, 2014 – June 30, 2016	Departmental Ph.D. Coordinator BIT Mesra, Ranchi, Jharkhand
20.	July 19, 2017 – January 30, 2018	Professor-In-charge (FMS Lab) BIT Mesra, Ranchi, Jharkhand
21.	January 13, 2017 – January 30, 2018	Professor-In-charge (CNC Lab) BIT Mesra, Ranchi, Jharkhand

Subject Taught

UG level: Operation Research, Manufacturing Automation, Numerical Methods and Computer programming, Automation in Manufacturing, Manufacturing Processes, Flexible Manufacturing System and Robotics.

PG level : Unix and C Programming, Computer Graphics and Drafting, CAD of Mechanical Systems, Basics of CAD, Rapid Prototyping and Flexible Manufacturing, Computer Aided Manufacturing, Environment Management System, Design for Manufacturing & Assembly.

Research Guidance:

Ph.D. : 02				
Sr. No.	Name of the Scholar	Title of the Thesis	Institute	Month and Year
1	Rajeev Kant	Design and performance evaluation of cellular manufacturing system in lean environment	BIT Mesra, Ranchi	July 2017
2	Abraham Moody Kandikatla	The analysis of customer focused product development of steel plant by QFD	AISECT University, Bhopal	July 2019
M.Tech. : 19				
Sr. No.	Name of the Scholar	Title of the Dissertation/Thesis	Institute	Month and Year
1	Ashutosh Shankar Gupta	Development of software to integrate CAD & CAM for axisymmetric rotational parts	BIT Mesra, Ranchi	May, 2005
2	Jagani Ashish Kumar Batuklal	Reverse engineering data acquisition : Dimensional measurement verification of software used in coordinate measuring machine using an algorithm	BIT Mesra, Ranchi	Dec, 2009
3	Mayank Pawar	Scheduling problem in printed circuit board assembly	BIT Mesra, Ranchi	May, 2011
4	Vimlesh A.	Optimization of quick response manufacturing system by using artificial intelligence	BIT Mesra, Ranchi	May, 2012
5	Anamika Rai	Design of controller to automate Filament Winding Machine	BIT Mesra, Ranchi	May, 2013
6	Randhir Kumar	Job shop scheduling with alternate process plan by using genetic algorithm	BIT Mesra, Ranchi	May, 2014
7	Nawal Kishore Mahto	Automation of mechanical design transformer	BIT Mesra, Ranchi	May, 2014

8	Om Prakash	Reducing the bullwhip effect in supply chain using artificial intelligence technique	BIT Mesra, Ranchi	May, 2014
9	Partho Banerjee	Development of a feature recognition system for mill-turn parts	BIT Mesra, Ranchi	May, 2014
10	Akshaye Malhotra	Solving scheduling problem in printed circuit boards assembly and its optimization	BIT Mesra, Ranchi	May, 2015
11	Amish Kumar	Green supply chain management in SMEs	BIT Mesra, Ranchi	May, 2015
12	Prem Prakash Prasad	To develop forward and reverse modelling of TIG welding process of stainless steel using back propagation neural network	BIT Mesra, Ranchi	May, 2015
13	Puneet Saini	Product development by using modular design structure matrix and quality function deployment	BIT Mesra, Ranchi	May, 2015
14	Mohd Hassan	Analysis and optimization of process parameters of submerged arc welding using Taguchi Method	BIT Mesra, Ranchi	May, 2016
15	Suswanth Poluru	Design, analysis and modification of involute profile of spur gear by using CAD	BIT Mesra, Ranchi	May, 2016
16	Ananya Upadhyay	Experimental investigation and artificial neural network modelling for blind hole drilling by micro-EDM	BIT Mesra, Ranchi	May, 2017
17	Prabha Kumari	Investigation of aluminium metal matrix composite reinforcement by nano particles produced by stir squeeze casting combination	BIT Mesra, Ranchi	May, 2018
18	Awadhesh Prasad	Structural optimization of mechanical component by using 3D printing	BIT Sindri, Dhanbad	Feb, 2021
19	Amit Kumar	The effect of mechanical properties in the resistance spot welding process of duplex stainless steel sheet on varying the different parameters	BIT Sindri, Dhanbad	March, 2022

Consultancy Project Completed

1. Inspection of GPIs for compliance verification at Project cost of Rs. 20,56,028/-, Central Pollution Control Board (CPCB), Ministry of environment, forest & climate change, Government of India, New Delhi, duration 1 Year.

CSR Project Ongoing

1. Setting up a Technology Business Incubator at Project cost of Rs. 91,30,474/- , Central Coalfields Limited (CCL), Ranchi, duration 3 Years.

MOUs

1. Central Coalfields Limited (CCL), Ranchi and Jharkhand University of Technology, Ranchi for setting up a Technology Business Incubator
2. Jharkhand Government Tool Room (JGTR) and Jharkhand University of Technology, Ranchi

RESEARCH PAPERS

International Journals : 27

1. Pandey, V., Tiwari, M.K. & Kumar, S. "An Interactive Approach to Solve the Operation Sequencing Problem Using Simulated Annealing". International Journal of Advanced Manufacturing Technology. vol.29, no.11-12, pp.1212-1231, Aug 2006. , [10.1007/s00170-005-0007-z](https://doi.org/10.1007/s00170-005-0007-z), Springer Publications, UK, ISSN: 0268-3768.
2. Vijay Pandey and Surender Kumar. "Feature Recognition from Axis-symmetric Rotational Parts: A Syntactic Approach", The International Journal of Applied Management and Technology", Vol. 5, No., 2, pp. 113-132, 2007, A refereed journal published by the School of Management, Walden University, USA, ISSN: 1554-4740.
3. Vijay Pandey and Ashish Jagani. "Evaluation of Circle Fitting Algorithm for Coordinate Measuring Machine". International Journal of Mechanical Engineering. vol.2, no.2, pp.113-119, Jul 2009, Serial Publications, New Delhi, ISSN: 0974-5823.
4. Vijay Pandey, "Standard for Exchange of Products (STEP) based feature Recognition System for Prismatic Parts", International Journal of Production Research and Management, Volume 1, Issue 1, April, 2011, Pages 19-37, ISSN: 2249 – 4766.
5. Vijay Pandey and Mayank Pawar, "Scheduling of PCB Assembly using Particle Swarm Optimization Algorithm" International Journal of Production Research and Management, Volume 1, Issue 1, April, 2012, Pages 43-59, ISSN: 2249 – 4766.
6. Vijay Pandey, "Application of Artificial Intelligence tools in Manufacturing", International Journal of Research in Engineering and Applied Sciences, Vol. 2, Issue 2, February 2012, Pages 429-438, ISSN: 2249 – 3905.
7. Om Prakash and Vijay Pandey, "Reducing the Bullwhip Effect in a Supply Chain Using Artificial Intelligence Technique, International Journal of Production Research and Management, Volume 4, Issue 2, April, 2014, Pages 31-42, ISSN: 2249 – 4766.
8. Kant, R.; Pattanaik, L.N.; Pandey, V.. "Framework for strategic implementation of cellular manufacturing in lean production environment". Journal of Manufacturing Technology Research. vol.6, no.3-4, pp.177-191, Jul 2015. , [2-s2.0-84946830971](https://doi.org/10.26434/chemrxiv-2015-2-s2.0-84946830971), ISSN:1943-8095.
9. Vijay Pandey, Puneet Saini, Joyjeet Ghose, "Product development using modular design structure matrix and quality function deployment", International Journal of Production Research and Management, Volume 5, Issue 3, September, 2015, Pages 8-19, ISSN: 2249 – 4766.
10. Rajeev Kant, L.N. Pattanaik, Vijay Pandey, "Heuristic for Enabling Lean Characteristics In Cellular Manufacturing Using Reconfigurable Machines", Asian Review of Mechanical Engineering, Vol. 4 No. 1, pp. 27-30, Jan 2015, ISSN: 2249 – 6289.
11. Randhir Kumar and Vijay Pandey, "Job shop scheduling with alternate process plan by using genetic algorithm", International Journal of Research in advent technology, Volume 3, Issue 9, September, 2015, Pages 91-98, ISSN:2321 – 9637.
12. Puneet Saini, Ayush Dubey, Vijay Pandey. "Product Development by Using Modular Design Structure Matrix". ELK Asia Pacific Journals – Special Issue. vol.2, no.1, pp.462-467, Apr 2015.
13. Akshaye Malhotra, Vijay Pandey, S.K. Sahana, Somak Datta. "Ant Colony Optimization For Scheduling of PCBs Using Single Machine". ELK Asia Pacific Journals – Special Issue. vol.2, no.1, pp.441-447, Apr 2015.
14. Rajeev Kant, Vijay Pandey, L.N. Pattanaik. "Lean, Agile & Leagile Supply Chain: A Comparative Study". ELK Asia Pacific Journals – Special Issue. vol.1, no.1, pp.102-106, Apr 2016, ISBN: 978-81-930411-8-5.
15. Mohd. Hassan, Sanjay Kumar Jha, Vijay Pandey. "Submerged Arc Welding: A Review Paper". ELK Asia Pacific Journals – Special Issue. vol.2, no.1, pp.232-236, Apr 2016, ISBN: 978-81-930411-8-5.
16. Mohd. Hassan, Sanjay Kumar Jha, Vijay Pandey. "Analysis and Optimization of Parameters in Submerged Arc Welding Process using Taguchi Methods and Regression Analysis". ELK Asia Pacific Journals – Special Issue. vol.2, no.1, pp.173-177, Apr 2016, ISBN: 978-81-930411-8-5.
17. Mohd. Hassan, Sanjay Kumar Jha, Vijay Pandey, "Metal foam by powder metallurgy routes: A review paper", International Journal of Production Research and Management, Volume 6, Issue 1, February,

2016, Pages 9-15, ISSN: 2249 – 4766.

18. Ananya Upadhyay, Vijay Pandey, Vinay Sharma, Ved Prakash. "Experimental Investigation of Micro-EDM Process on Brass using Taguchi Technique". ELK Asia Pacific Journals – Special Issue. vol.1, no.1, pp.176-179, Apr 2017, ISBN: 978-93-85537-06-6.
19. Abraham Moody K, Vijay Pandey, R.R Lal. "Analysis of Customer Focused Product Development by Using Quality Function Deployment". ELK Asia Pacific Journals – Special Issue. vol.1, no.1, pp.341-346, Apr 2017, ISBN: 978-93-85537-06-6.
20. Abraham, M.K.; Pandey, V.; Lal, R.R.. "Investigation of customer focused Steel plant product with quality Function deployment". International Journal of Mechanical Engineering and Technology. vol.8, no.4, pp.19-25, Apr 2017. , [2-s2.0-85018748293](#), ISSN: 0976-6340.
21. Moody, K.A.; Lal, R.R.; Pandey, V. "Analysis of customer oriented product development with quality function deployment". International Journal of Mechanical Engineering and Technology. vol.8, no.5, pp.270-279, May 2017. , [2-s2.0-85019591168](#), ISSN: 0976-6340.
22. Abraham Moody, K.; Lal, R.R.; Pandey, V. "Analysis of customer focused steel product development by using quality function deployment". International Journal of Mechanical and Production Engineering Research and Development. vol.7, no.4, pp.1-10, Aug 2017. , [10.24247/ijmperdaug20171](#), ISSN (P): 2249-6890; ISSN (E): 2249-8001.
23. Poluru, S.; Pandey, V.. "Improving the bending strength of spur gear tooth through profile modification using CAD". International Journal of Mechanical and Production Engineering Research and Development. vol.7, no.4, pp.39-48, Aug 2017. , [10.24247/ijmperdaug20175](#), ISSN (P): 2249-6890; ISSN (E): 2249-8001.
24. Kant, R., Pattanaik, L.N., Pandey, V. "Sequential optimization of reconfigurable machine cell feeders and production sequence during lean assembly". International Journal of Computer Integrated Manufacturing. vol.33, no.1, pp.62-78, Jun 2020. , [10.1080/0951192X.2019.1690686](#), Taylor & Francis, UK.
25. Awadhesh Prasad and Vijay Pandey, "Structural Optimization of Mechanical Component by Using 3D Printing", International Journal of Research and Analytical Reviews, Volume 8, Issue 1, 2021, pp. 237–243, E-ISSN 2348-1269, P- ISSN 2349-5138.
26. Amit Kumar and Vijay Pandey, "The Effect of Mechanical Properties In The Resistance Spot Welding Process of Duplex Stainless Steel Sheet on Varying The Different Parameters". International Journal of Research and Analytical Reviews, Volume 9, Issue 2, 2022, pp. 801–809, E-ISSN 2348-1269, P- ISSN 2349-5138.
27. Pooja Verma, Gayatri Paul , Joyjeet Ghose, and Vijay Pandey, "Mechanical and Wear Properties of Graphite Reinforced Aluminum Metal Matrix Composites Processed by Ultrasonic-Stir-Squeeze Casting", Journal of Materials Engineering and Performance, <https://doi.org/10.1007/s11665-023-08576-z>, ASM International, Published online 10 August 2023.

National Journal: 04

1. **Vijay Pandey** and Nirjhar Roy. "Extraction of Features from a Rotational Part: A Syntactic Approach". Journal of Institution of Engineers (India), Production Engineering, Vol. 82, March 2002, pp. 64-68.
2. **Vijay Pandey**, S.K.Jha and Rajiv Ranjan."A Case Study of Value Engineering in Bicycle Design". Journal of Indian Value Engineering Society (EZC), October 2003.
3. R.K. Srivastava, **Vijay Pandey**, "Dynamic Modification of Machine Tool Structure". Journal of Institution of Engineers (India), Mechanical Engineering, Vol. 85, October 2004, pp. 124-130.
4. **Vijay Pandey** and Ashish Jagani, "Dimensional Measurement Verification of CMM Software Using Matlab Code", Journal of SCI-TECH Research - Volume 1 Issue 1, ISSN: 0974-9780, Jan-Jun 2010.

International Conference: 04

1. Ujjawal Nag, S.C. Srivastava, Vijay **Pandey** and Surender Kumar, "Evolving Artificial Neural Network with The Use of Hybrid Strength Pareto Evolutionary Algorithm and Back Propagation Algorithm", Proceeding of International Symposium on Intelligence Based Materials and Manufacturing, B.I.T., Mesra, Ranchi, August 18-20, 2005.
2. **Vijay Pandey** and Ashish Jagani, *Evaluation of Circle Fitting Algorithm for Coordinate Measuring Machine*, Proceeding of Indo-German Conference on PDE, Scientific Computing and Optimization in Applications (supported by INSA-DFG, CSIR & DST), Department of Mathematics & Statistics, IIT, Kanpur, October 7-9, 2009.
3. Ananya Upadhyay, Ved Prakash, Vijay Pandey and Vinay Sharma. "Effect of different types of additives

- added in a dielectric fluid on Micro-EDM of brass sheet". International Conference on Evolutions in Manufacturing, Department of production engineering, B.I.T., Mesra, Ranchi. PP.80-83, Nov 12-13, 2016.
4. Apeksha, Rajlaxmi, Vijay Pandey and Amish Kumar. "Green supply chain management in SMEs". International Conference on Evolutions in Manufacturing, Department of production engineering, B.I.T., Mesra, Ranchi. PP.162-166, Nov 12-13, 2016.

National Conferences : 15

1. Nirjhar Roy and **Vijay Pandey**. "A Methodology for Extraction of Features from Orthographic 3-Views". Proceedings of National Conference on Manufacturing Challenges in 21st Century, I.T., B.H.U., January 8-9, 2000, pp. SI A 4.1-4.9.
2. S. Muthukumaran, S.C. Srivastava and **Vijay Pandey**. "Energy Conservation Study on Bottle Heat Treatment System". Proceeding of National Conference on Value Engineering-A Fast Track to Profit Improvement and Business Excellence, B.I.T., Mesra, Ranchi, July 26-27, 2003.
3. Anurag Bodra, Anamika Rai, Vijay Pandey and Prem Prakash Prasad. "Artificial Intelligence tools in Manufacturing", Proceeding of 27th National Convention of Production Engineers and National Seminar on Advancements in Manufacturing - Vision 2020, Institution of Engineers (I), Jharhkhand State Centre, IE(I), B.I.T., Mesra, Ranchi, May 25 – 26, 2012.
4. Anamika Rai, Mayank Pawar, Vijay Pandey and Prem Prakash Prasad." Printed Circuit Board Assembly Problem: A Review", Proceeding of 27th National Convention of Production Engineers and National Seminar on Advancements in Manufacturing - Vision 2020, Institution of Engineers (I), Jharhkhand State Centre, IE(I), B.I.T., Mesra, Ranchi, May 25 – 26, 2012.
5. NehaVerma, Partho Banerjee, Arpith S.,Ankita Chakraborty, and Vijay Pandey. " Precision forming approach in vehicle assemblies", Proceeding of National Conference on Emerging trends in mechanical engineering, T.I.T., Bhopal, November 29-30, 2012.
6. Partho Banerjee,Arpith S.,Ankita Chakraborty,NehaVerma, and Vijay Pandey. " Just In Time: A model for better Productivity", Proceeding of National Conference on Emerging trends in mechanical engineering, T.I.T., Bhopal, November 29-30, 2012.
7. Ankita Chakraborty, Neha Verma, Partho Banerjee, Arpith. S, and Vijay Pandey. "Micromachining and actuation control of micro-EDM", Proceeding of National Conference on Emerging trends in mechanical engineering, T.I.T., Bhopal, November 29-30, 2012.
8. Arpith. S, Partho Banerjee, Neha Verma, Ankita Chakraborty, and Vijay Pandey. " Recent trends in manufacturing", Proceeding of National Conference on Emerging trends in mechanical engineering, T.I.T., Bhopal, November 29-30, 2012.
9. Navaneeta Mahanty and Vijay Pandey. "Green supply chain management for developing countries like India: A review", Proceeding of All India Seminar on Technology Solution in Manufacturing, Institution of Engineers (I), Jharhkhand State Centre, IE(I), B.I.T., Mesra, Ranchi, March 1-2, 2013.
10. Asifa Imam, Ankita Chakraborty, and Vijay Pandey. "Filament winding: A technology for manufacturing of composites", Proceeding of All India Seminar on Technology Solution in Manufacturing, Institution of Engineers (I), Jharhkhand State Centre, IE(I), B.I.T., Mesra, Ranchi, March 1-2, 2013.
11. Utkarsh, Sushant Kumar Thakur, and Vijay Pandey. "Warehouse design and optimization by order picking: A literature overview", Proceeding of All India Seminar on Technology Solution in Manufacturing, Institution of Engineers (I), Jharhkhand State Centre, IE(I), B.I.T., Mesra, Ranchi, March 1-2, 2013.
12. Rajashree samantray, Khushboo Rani, and Vijay Pandey. " Agile, Lean & Leagile: Comparative Analysis", Proceeding of National Conference on Research And Innovations In Mechanical Engineering (RIME-2014), Department of Mechanical Engineering, Technocrats Institute of Technology & Science College, Bhopal, March 5-6, 2014.
13. N.K. Mahto, Vijay Pandey, and D. Mahto. " Automation of Mechanical Design Transformer", Proceeding of National Conference on Research And Innovations In Mechanical Engineering (RIME-2014), Department of Mechanical Engineering, Technocrats Institute of Technology & Science College, Bhopal, March 5-6, 2014.
14. Amresh Kumar, Joyjeet Ghose, Vijay Pandey and Pooja Verma. Effect of pre-heating of reinforced particle on aluminium metal matrix composite (AMMCs), Proceeding of National conference on Production Engineering (NCPE 2017), 27-28, May 2017, pp. 29-35, Institution of Engineers (I), Jharhkhand State Centre, IE(I), Ranchi. ISBN: 978-93-86256-87-4.

15. Amresh Kumar, Joyjeet Ghose, Vijay Pandey and Pooja Verma. "Effect of addition of magnesium & preheating of reinforced particle on aluminium metal matrix composite (AMMCs), Proceeding of National conference on Production Engineering (NCPE 2017), 27-28, May 2017, pp. 43-48, Institution of Engineers (I), Jharkhand State Centre, IE(I), Ranchi. ISBN: 978-93-86256-87-4.

Book

1. Vijay Pandey, Feature recognition system: A link between design and manufacturing, LAMBERT Academic Publishing, 2011, ISBN 978-3-8465-2064-2.

Book Chapters : 08

1. Rajeev Kant, Vijay Pandey and L.N. Pattanaik, "An NSGA II-Based Approach for Optimization of Reconfigurable Cellular Manufacturing System", Advances in Computational Intelligence, Springer, pp. 57-66, ISBN: 978-981-10-2524-2, 2017, DOI: 10.1007/978-981-10-2525-9_6.
2. Vijay Pandey, Akshaye Malhotra, Rajeev Kant and Sudip Kumar Sahana, "Solving Scheduling Problems in PCB Assembly", Advances in Swarm Intelligence (LNCS, volume 11655), 2019, pp. 243-253, Springer Nature Switzerland, ISBN 978-3-030-26368-3.
3. Pooja Verma, Prabha Kumari, Joyjeet Ghose, and Vijay Pandey, "Investigation of Mechanical Properties and Microstructure of Pure Al-SiC-Nanocomposite Casted by Stir-Squeeze Casting Process", Innovation in Materials Science and Engineering, Volume 2, pp. 61-70, Springer Nature Singapore Pvt. Ltd. 2019, ISBN 978-981-13-2943-2.
4. Md Shoaib Alam, Rajesh Kr Tiwari and Vijay Pandey. "Healthcare Billing Fraud Detection Through Machine Learning And Using Homographic Encryption Technique For Prevention", 4th International Conference on Recent Trends in Computer Science and Technology, PP. 181-186, IEEE, 2022, DOI: 10.1109/ICRTCST54752.2022.9781896, ISBN: 978-1-6654-6633-2.
5. Jeevan Kumar, Rajesh Kr Tiwari and Vijay Pandey. "Diabetes prediction using machine learning tools", 4th International Conference on Recent Trends in Computer Science and Technology, PP. 263-267, IEEE, 2022, DOI: 10.1109/ICRTCST54752.2022.9781963, ISBN: 978-1-6654-6633-2.
6. A. G. P. Kujur, Rajesh Kumar Tiwari, and Vijay Pandey, "Student Performance Monitoring System Using Artificial Intelligence Models, Recent Trends in Artificial Intelligence and IoT (CCIS, volume 1822), 2023, pp. 3-18, Springer, ISBN 978-3-031-37302-2, 2023, DOI: 10.1007/978-3-031-37303-9_1.
7. Abhishek Kumar, Upendra Prasad, Rajesh Kumar Tiwari & Vijay Pandey, "Research Study: Data Preprocessing Using Machine Learning for Prediction of Booking Cancellations", Recent Trends in Artificial Intelligence and IoT (CCIS, volume 1822), 2023, pp. 164-182, Springer, ISBN 978-3-031-37302-2, 2023, DOI: 10.1007/978-3-031-37303-9_13.
8. Md Shoaib Alam, Pankaj Rai, Rajesh Kumar Tiwari, Vijay Pandey and Sharafat Hussain, "Evaluation of Healthcare Data in Machine Learning Model Used in Fraud Detection", Recent Trends in Artificial Intelligence and IoT (CCIS, volume 1822), 2023, pp. 29-39, Springer, ISBN 978-3-031-37302-2, 2023, DOI: 10.1007/978-3-031-37303-9_3.

Reviewer / Editorial Board Member : 05

1. Reviewer of International Journal of Neural Computing and Applications, Springer
2. Reviewer of International Journal of Engineering and Research, Kuwait University
3. Reviewer of Journal of The Institution of Engineers (India): Series C, Springer
4. Editorial board member of Journal of Mechanical Engineering and Automation, Scientific & Academic Publishing, USA
5. Editorial board member of Journal of Production Research and Management, STM Journals, India

Special Lecture(s) Delivered : 08

1. On "Internet and Communication Standards", at National Academy of Sciences, Allahabad, June 10-29, 2002.
2. On "Applications of AI in Manufacturing", at Short Term Training Program on, Applications of Artificial Intelligence Techniques In Engineering and Research, Organized By The Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, 23-27, September, 2013.
3. On "CNC Machines", at Training on Machining, Organized By The Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, 23-27, June, 2014.
4. On "Six Sigma tools", at ISTE-SRM STTP on Six sigma tools and applications, Organized By The Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, Sponsored by

ISTE-SRM, 25-30, August, 2014.

5. On “Lean manufacturing”, at STTP on Lean ix sigma tools and applications, Organized By The Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, 25-29, May, 2015.
6. Key note lecture on “CAD/CAM Integration”, at 2nd International Conference on Advancement and recent innovations in mechanical, production and industrial engineering, Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida, April 15-16, 2016.
7. On “CAD/CAM Integration”, one week Workshop on Manufacturing Automation, Robotics & Factory of Future, organized by Department of Production Engineering, BIT Sindri, Dhanbad, Jharkhand, October 03-07, 2018.
8. On “AI Tools in Manufacturing”, National Conference on Recent Trends of Engineering, Science and management, organized by Guru Gobind Singh Educational Society’s Technical Campus, Bokaro, April 22-23, 2022.

Short Term Training Program / Conference / Workshop Organized : 11

1. **Organizing Secretary** of National Workshop on Curriculum Development For Technical Education, Organized By The Birla Institute of Technology, Mesra, Ranchi, April 3-4, 2004.
2. **Organizing Secretary** of National Workshop on Value Added Life Style Management, VALSM-05, Organized By The Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, 21-22, May, 2005.
3. **Organizing Secretary** of Short Term Course on Value Added Time Management, VATM-05, Organized By The Institution of Engineers (I), Jharkhand State Center, Ranchi in Collaboration with The Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, 21, August, 2005.
4. **Organizing Secretary** of Training Programme on CAD/CAM and Robotics, Organized By The Department of Production Engineering (Under TEQIP Networking Scheme), Birla Institute of Technology, Mesra, Ranchi, 05-11, December, 2005.
5. **Coordinator** of Short Term Training Program on, Applications of Artificial Intelligence Techniques In Engineering and Research, Organized By The Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, 23-27, September, 2013.
6. **Coordinator** of ISTE-SRM STTP on Six sigma tools and applications, Organized by Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, Sponsored by ISTE-SRM, 25-30, August, 2014.
7. **Coordinator** of STTP on Lean Six sigma tools and applications, Organized by Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, Sponsored by ISTE-SRM, 25-29, May, 2015.
8. **Workshop coordinator** of FDP on Use of ICT in education for online and blended learning conducted by IIT, Bombay, 2 May, 2016 to 10 July 2016.
9. **Convener** of Workshop on Recent Advances in Manufacturing, Organized by Department of Mechanical Engineering in collaboration with SIEMENS, COE & Sponsored by TEQIP-III, BIT Sindri, Dhanbad, November 27- December 1, 2018.
10. **Organizing Secretary of** One Day Panel Discussion on "Academic Excellence In Technical Education", organized by Jharkhand University of Technology, Ranchi, 12, August 2023.
11. **Chairman** of One Day Webinar on "Research and Innovation: Research Ethics, Publication, and Plagiarism", organized by Jharkhand University of Technology, Ranchi, 23, August 2023.
12. **Chairman** of One Day Workshop on "Research and Innovation: How to Publish in a Reputed Journal?" organized by Jharkhand University of Technology, Ranchi, 24, August 2023.

Conference / Workshop Attended: 24

1. A Methodology for Extraction of Features from Orthographic 3-Views. National Conference on Manufacturing Challenges in 21st Century, I.T., B.H.U., January 8-9, 2000.
2. ONE-DAY International Workshop on “Wireless Communication Technologies”, IWWCT-2003, November 12, 2003, B.I.T., Mesra, Ranchi.
3. Ant Colony Optimization For Scheduling of PCBs Using Single Machine, 1st International Conference on Advancement and recent innovations in mechanical, production and industrial engineering, Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida, April 10-11, 2015.
4. Product Development by Using Modular Design Structure Matrix, 1st International Conference on Advancement and recent innovations in mechanical, production and industrial engineering, Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida, April 10-11, 2015.
5. Heuristic for Enabling Lean Characteristics In Cellular Manufacturing Using Reconfigurable Machines, 1st International Conference on Advancement and recent innovations in mechanical, production and

industrial engineering, Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida, April 10-11, 2015.

6. Analysis and Optimization of Parameters in Submerged Arc Welding Process using Taguchi Methods and Regression Analysis, 2nd International Conference on Advancement and recent innovations in mechanical, production and industrial engineering, Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida, April 15-16, 2016.
7. Submerged Arc Welding: A Review Paper, 2nd International Conference on Advancement and recent innovations in mechanical, production and industrial engineering, Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida, April 15-16, 2016.
8. Lean, Agile & Leagile Supply Chain: A Comparative Study, 2nd International Conference on Advancement and recent innovations in mechanical, production and industrial engineering, Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida, April 15-16, 2016.
9. Green supply chain management in SMEs, International Conference on Evolutions in Manufacturing, Department of production engineering, B.I.T., Mesra, Ranchi, November 12-13, 2016.
10. Effect of different types of additives added in a dielectric fluid on Micro-EDM of brass sheet, International Conference on Evolutions in Manufacturing, Department of production engineering, B.I.T., Mesra, Ranchi, November, 12-13, 2016.
11. International Workshop on Waterjet processes and related 4.0 applications, Department of mechanical engineering, IIT (ISM), Dhanbad in collaboration with BIT Sindri, Dhanbad, December, 7-8, 2019.
12. National Webinar on Virtual Lab, Institute of Engineering and Technology, RLA University Ayodhya and SPIU U.P. in collaboration with Dr. Ambedkar Institute of Technology, Bengaluru, Karnataka, 16 April 2020.
13. International Webinar on Social Awareness & Prevention Against COVID-19 and Post COVID Challenges, Department of basic science & humanities, Dumka Engineering College, Dumka, Jharkhand, 6-7 May 2020.
14. Webinar on Virtual Teaching Learning with Google Classroom, Google Meet and Youtube, BIET, Jhansi in Association with SPIU, U.P., 18 May 2020.
15. Webinar on the Added Values of Innovation in Advanced Materials, Department of Mechanical Engineering, ITS Engineering College, Greater Noida, 20 May 2020.
16. Webinar on Application of Gas Turbine in Fighter Aircraft, Department of Mechanical Engineering, ITS Engineering College, Greater Noida, 25 May 2020.
17. Webinar on Insights to Industry 4.0, Department of Mechanical Engineering, S.A. Engineering College, Chennai, 29 May 2020.
18. Webinar on Current Challenges and Future Scope of Artificial Intelligence, Department of ECE, Meenakshi College of Engineering, Chennai, 1 June 2020.
19. Webinar on Quality Concepts (QC, Kaizen, 5S, SPC & Six Sigma), Production Engineering Department in association with Institutions Innovation Council, BIT Sindri, Dhanbad, June, 5-9, 2020.
20. Webinar on Design Thinking and Artificial Intelligence, Production Engineering Department in association with Institutions Innovation Council, BIT Sindri, Dhanbad, 11 August 2020.
21. Webinar on e-Commerce AI enabled solutions through Government e-Marketplace (Gem), Production Engineering Department in association with Institutions Innovation Council, BIT Sindri, Dhanbad, 13 August 2020.
22. Webinar on Operations and Scheduling Aspect of Flexible Manufacturing System (FMS), Production Engineering, BIT Sindri, Dhanbad, September, 7, 2020.
23. Conference on Opportunity and Challenges in Professional Education in Jharkhand, Jharkhand University of Technology, Ranchi, March, 6-7, 2021.
24. National Conference on Tribal Development & Rural Entrepreneurship, Jharkhand University of Technology, Ranchi, March, 22-23, 2021.

Session Chair : 03

1. 1st International Conference on Advancement and recent innovations in mechanical, production and industrial engineering, Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida, April 10-11, 2015.
2. 2nd International Conference on Future Learning Aspects of Mechanical Engineering, Department of Mechanical Engineering, Amity School of Engineering and Technology, U.P., 5-7 August 2020.

3. National Conference on recent trends of Engineering, Science, and Management, GGSESTC, Bokaro, April 22-23

Short Term Training Program / Workshop Attended: 34

1. STTP on "Human Values in Technical Education", sponsored by ISTE and organized by School of Management Studies, MNNIT, Allahabad, MARCH 20 to 24 March, 2002.
2. A Two Weeks Winter School on "Smart Material Opportunity and Challenges", Sponsored by AICTE-ISTE and Organized by Department of Chemistry and Department of Applied Mechanics, MNNIT, Allahabad, November, 29 to December 10, 2004.
3. Faculty enablement workshop on "Soft Skills", Organized by Training & Placement Division, Birla Institute of Technology, Mesra, Ranchi, December, 21-24, 2006.
4. Workshop on "Effective Teaching", organized by Birla Institute of Technology, Mesra, Ranchi, August, 25-29, 2008.
5. Workshop on "Know Yourself as a Teacher", organized by Birla Institute of Technology, Mesra, Ranchi, May, 3-5, 2011.
6. Short term school on "Micromanufacturing", organized by I.I.T., Kanpur, November 5-10, 2012.
7. Short term course on Applications of AI techniques in engineering systems, organized by M.N.N.I.T., Allahabad, June 10-14, 2013.
8. One week STTP on "Applications of AI techniques in engineering and research", Sponsored by TEQIP and Organized by Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, September, 23-27, 2013.
9. One week STTP on "Research methodology and design of experiments" Organized by Department of Mechanical Engineering, MNIT, Jaipur, October, 21-25, 2013.
10. ISTE-SRM STTP on "Six sigma tools and applications", Organized by Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, August, 25-30, 2014.
11. STC on "Industrial automation and Mechatronics", Sponsored by TEQIP-II and Organized by Department of Mechanical Engineering, IIT, Delhi, December, 8-12, 2014.
12. STTP on "Lean six sigma tools and applications", Sponsored by TEQIP-II and Organized by Department of Production Engineering, Birla Institute of Technology, Mesra, Ranchi, May, 25-29, 2015.
13. One week Professional Development Training, Sponsored by TEQIP-III and Organized by IIM, Udaipur, February, 12-17, 2018.
14. One week Summer Training Programme on Active Learning, Sponsored by TEQIP-III and Organized by IIT, Gandhi Nagar, June, 18-22, 2018.
15. One Week Workshop on Emerging Trends and Technology In Mechanical Engineering, Sponsored by TEQIP-III and Organized by Department of Mechanical Engineering, BIT Sindri, Dhanbad, 8-12 July 2019.
16. Two week course on Digital Transformation in Teaching Learning Process, Sponsored by Ministry of HRD, Government of India and TEQIP 3, Organized by IIT Bombay, March, 16-30, 2020.
17. Three day's Workshop on NAAC Assessment and Accreditation: A step by step process, GATES Institute of Technology, Gooty, Ananthapuramu, Andhra Pradesh, 28-30, May 2020.
18. Online FDP on Virtual Labs, NIT Surathkal, June, 29, 2020.
19. One day faculty development program on Free Open Source Tools for Education and Research, BIT Sindri, Dhanbad in association with FOSSEE, IIT Bombay, 7 July 2020.
20. Online Training on Essentials for NX designers, SIEMENS -BIT Sindri, Dhanbad, July, 28- August, 19, 2020.
21. Online Training on Synchronous modeling & parametric design, SIEMENS - BIT Sindri, Dhanbad, August, 20-31, 2020.
22. ATAL Academy Online FDP on Product Design, MNNIT Allahabad, December, 7-11, 2020.
23. ATAL Academy Online FDP on Manufacturing & Monitoring, VNIT Nagpur, December, 14-18, 2020.
24. Online Professional Development Training, IIM Raipur, December, 21-23, 2020.
25. ATAL Academy Online FDP on Advances in Manufacturing, SVNIT Surat, January, 4-8, 2021.
26. Awareness Workshop on NIRF-2021 for HEIs, IAE Hyderabad, January, 18-19, 2021.
27. ATAL Academy Online FDP on Training for Social Connectedness & Inspiration, RG Government Polytechnic, Assam, January, 25-29, 2021.
28. Online Training on Robcad, SIEMENS- BIT Sindri, Dhanbad, August, 20-31, 2020.
29. Eighteen Days Diploma Course in Bhagwat Geeta, ISKCON Ayodhya, June, 1-18, 2021.

30. ATAL Academy Online FDP on Internet of Things, NIT Hamirpur, June, 1-5, 2021.
31. Online Leadership Skill Program on Business Yoga From Bhagavad Geeta, June, 20, 2021.
32. AICTE Examination Reforms Workshop, AICTE & Chitkara University, Chandigarh, Punjab, July, 8-10, 2021.
33. ATAL Academy Online Elementary FDP on Moral Values, Attitude and Workplace Behavior, GL Bajaj Institute of Technology and Management Greater Noida, July, 27-31, 2021.
34. ATAL Academy Online Elementary FDP on Leadership and Excellence in Higher Education, RCPET's R.C. Patel Arts, Commerce and Science College Shirpur, August 23-27, 2021.

E-Learnings : 05

1. Capability Development Certificate from TATA Steel for successfully completing the ELearning Programme on Basic TQM, April 20, 2020.
2. Capability Development Certificate from TATA Steel for successfully completing the ELearning Programme on Industry 4.0, April 20, 2020.
3. Capability Development Certificate from TATA Steel for successfully completing the ELearning Programme on MS Office, May 11, 2020.
4. Capability Development Certificate from TATA Steel for successfully completing the ELearning Programme on Lifting Tools and Tackle, May 20, 2020.
5. Certificate of achievement for the successful completion of The Fundamentals of Digital Marketing, 29 June 2020.

Software's developed

1. Feature-less Machining from Rotational Parts.
2. Data Extraction from DXF File.
3. Data Extraction from STEP file.
4. Part Feature Recognition from Rotational Parts.
5. Part Feature Recognition from Prismatic Parts.
6. Design and Drafting of Single Spur Gear and Gears in Meshing Condition.
7. NC Code Generation for Rotational Parts.
8. Optimized Process Planning for Rotational Parts.

Academic Awards

1. Sir R.N. Mookerjee Award (**Gold Medal**) for **best paper** in the Journal of Institution of Engineers (I), Mechanical Engineering Division, 2005.
2. Won first prize in college project exhibition, 1997.
3. Won second prize in NAFEN seminar, 1996.

Chairman of Committee's

1. Chairman of Departmental academic committee, 23.03.2018, Mechanical Engineering Department, BIT Sindri, Dhanbad
2. Chairman of Core committee for graduate programme, 11.05.2021, Jharkhand University of Technology, Ranchi
3. Chairman of University Placement Cell, 20.09.2021, Jharkhand University of Technology, Ranchi
4. Chairman for selection of employee in PMU section committee, 28.09.2021, Jharkhand University of Technology, Ranchi
5. Chairman of syllabus and ordinance committee of BBA & BCA programme, 30.09.2021, Jharkhand University of Technology, Ranchi
6. Chairman of syllabus committee (NEP) for undergraduate programmes, 01.10.2021, Jharkhand University of Technology, Ranchi
7. Chairman of syllabus committee for MBA programme, 20.10.2021, Jharkhand University of Technology, Ranchi
8. Chairman of University building committee, 21.10.2021, Jharkhand University of Technology, Ranchi
9. Chairman of Research Degree Committee (RDC) for graduate programme, 02.11.2021, Jharkhand University of Technology, Ranchi
10. Chairman of digital classroom & online classes committee, 02.11.2021, Jharkhand University of Technology, Ranchi
11. Chairman of selection committee of class basis faculties for Civil Engineering, 18.11.2021, Jharkhand University of Technology, Ranchi

12. Chairman of selection committee of class basis faculties for Mechanical Engineering, 18.11.2021, Jharkhand University of Technology, Ranchi
13. Chairman of selection committee of class basis faculties for Computer Science & Engineering, 18.11.2021, Jharkhand University of Technology, Ranchi
14. Co-Chairperson of Interview panel for Ph.D. candidates, 31.08.2021, Jharkhand University of Technology, Ranchi

Member of Committee's

1. Member of Board of Studies of mechanical engineering department, 27.04.2016, BIT Mesra, Ranchi.
2. Member of Departmental purchase committee, 26.06.2020, BIT Sindri, Dhanbad.
3. Member of Solar light committee, 19.01.2021, BIT Sindri, Dhanbad.
4. Member of Water supply connection committee, 19.01.2021, BIT Sindri, Dhanbad.
5. Member of Extinguisher refilling committee, 18.03.2021, BIT Sindri, Dhanbad.
6. Member of Core committee for Post Graduate programme, 11.05.2021, Jharkhand University of Technology, Ranchi
7. Member of Apex committee for examination, 18.05.2021, Jharkhand University of Technology, Ranchi
8. Member of Senate of IIIT Ranchi, 09.12.2021 – 15.09.2022.
9. Member of NEP implementation committee, 08.03.2022, Department of Higher and Technical Education, Government of Jharkhand, Ranchi
10. Member of committee for giving more autonomy to BIT Sindri and to increasing the quality of research, 21.12.2022, Department of Higher and Technical Education, Government of Jharkhand, Ranchi
11. Member of committee to promote student outreach in engineering colleges of Jharkhand state, the percentage of seats to be reserved for students of other states or students of other countries and the fees and enrollment method of these students, 03.01.2023, Department of Higher and Technical Education, Government of Jharkhand, Ranchi
12. Member of teaching and non-teaching restructuring committee for BIT Sindri, 03.01.2023, Department of Higher and Technical Education, Government of Jharkhand, Ranchi
13. Member of committee to provide opinion regarding registration of BIT Sindri, Incubation Center as Section 8 SPV Company, 20.04.2023, Department of Higher and Technical Education, Government of Jharkhand, Ranchi
14. Member of committee for formation of Jharkhand technical education service rules, 06.06.2023, Department of Higher and Technical Education, Government of Jharkhand, Ranchi
15. Member of committee for reorganization of state technical education institutions with a view to improve the quality of education, 06.06.2023, Department of Higher and Technical Education, Government of Jharkhand, Ranchi
16. Member of committee for Institutions to arrange courses based on the National credit framework, 07.06.2023, Department of Higher and Technical Education, Government of Jharkhand, Ranchi

Membership

1. Life Member of ISTE.
2. AMIE, Institution of Engineers (India).

Vijay Pandey