



Vaishal Banker

Assistant Professor

Dedicated individual with excellent leadership, teamwork, analytical, formative and management abilities seeking a project management position where I can apply my skills to industry. Accomplished Mechanical Engineer seeking a career path with an organization and seeking an opportunity to apply my knowledge of administrative and academic traits to design and manufacturing domain.

Contact

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G/704 Akshar Vandan

Vasna- Bhayali Road

Vadodara - 390012

Education

2015 (Gold Medalist)

M.E CAD/CAM - 9.18 CPI

Gujarat Technological University

2013

B.E Mechanical Engineering - 8.40 CGPA

Gujarat Technological University

Expertise

- CAD/CAM
- 3D Printing
- Project Management
- Advanced Manufacturing Processes
- Cost Estimation
- Data Analysis

Language

English

Hindi

Gujarati

Experience

2021 - Present

A D Patel Institute of Technology, Anand

Exam Coordinator | A D Patel Institute of Technology

- Academics : Coordinating registration of students at the beginning of every semester, Section (divisions; authorization, Coordinating student attendance and grade entry on ERP, Timely dissemination of academic guidelines
- Examination execution: Managing exam schedules, Preparation and execution of internal and external examinations, viva examination arrangements, HR Planning

2016- Present

A D Patel Institute of Technology, Anand

Assistant Professor | Mechanical Engineering Department

- Teaching Subjects from domains of Manufacturing, Design and Management
- Maintenance of Documents as per the OCP developed for ISO 9001:2015
- Coordinator for scheduling and executing various university and government examinations conducted at Institute
- Supervise and develop Annual Budget Preparation for the department
- Buying new equipments for updation of laboratories
- Involved in Accreditation Team for NBA and NAAC for mapping of Course Outcomes with Program Outcomes
- Carried out various industrial visits for students at reputed organizations
- Faculty Incharge and Coordinator for various departmental events held during Annual Technical Festival - Spectrum
- Actively involved in developing a research ecosystem at institute level

2015- 2016

Neotech Institute of Technology, Vadodara

Assistant Professor | Mechanical Engineering Department

- Departmental Time Table Incharge and University Coordinator
- Laboratory In-charge in Design of Machine Elements and Dynamics of Machines, Neotech Institute of Technology
- Faculty Incharge and Coordinator for various departmental events held during Annual Technical Festival
- Carried out various industrial visits for students at reputed organizations

Certifications

- Specialization Certification in Digital Manufacturing and Design Technology by University at Buffalo and The State University of New York
- Specialization Certification in 3D Printing and Additive Manufacturing by University of Illinois at Urbana-Champaign
- Specialization Certification in Project Management Principles and Practices by University of California at Irvine

Research Publications

International Journals - 12
International Conferences - 10

Areas of Research

CAD/CAM/CAE

3D Printing

Advanced Manufacturing Processes

Optimization and Modeling of Processes

Social

LinkedIn

<https://www.linkedin.com/in/vaishal-banker-273518115>

Scopus ID

<https://www.scopus.com/authid/detail.uri?authorId=57210157528>

Google Scholar

<https://scholar.google.com/citations?hl=en&user=-CWm52AAAAAJ>

Professional Skills

- Strong problem-solving abilities and synthesizing skills.
- Uses structured approach with good analytical skills and logical thinking
- Excellent communication, presentation skills and negotiation skills
- Strong interpersonal skills, with an ability to engage & influence & work effectively with the Client, & other internal and external stakeholders
- Service-oriented attitude with strong communication skills, and a solid understanding of engineering design, specifications, cost drivers
- Excellent documentation skills including proofreading to ensure accuracy of content
- Strong computer skills including Microsoft Office Products

Key Projects Guided

- Experimental Investigation of Cutting Parameter on Surface Roughness and Tool Wear for Turning of AISI 4340 Hardened Steel
- Temperature Measurement and Power Consumption During Processing on Lathe Using Different Materials
- Design and Analysis of Variable Angle Welding Fixture
- Minimization of Casting Defects
- Optimization of Plant Layout in Oswal Machinery
- Optimization of internal defects in open die forged component
- Material Handling and Inventory Management in Anupam Industries Limited
- Part Build Optimization in Rapid Manufacturing
- Design of PLC Based Fixture for Drilling Machines
- Development of aligners for orthodontics using Fused Deposition Modeling
- Topology optimization of parts manufactured by Additive Manufacturing
- Development of Crowns in Dentistry using Fused Deposition Modelling
- Investigation of surface roughness and various cutting parameters in machining of Inconel alloys
- Experimental Investigation in Machining of Inconel 718 and Ti6Al4V by WEDM

Personal Details

- Date of Birth : 20/12/1991
- Blood Group : B+ve
- Gender : Male
- Passport No. : M3813504
- Marital status : Married

Reference

Abhishek Pandey

Component Engineer, Siemens

Phone: +91 99095 65105

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Sankalp Soni

Senior Production Engineer, Abiomed

Phone: +1 (617) 678 - 0644

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Research Publications

1. Banker, V. J. & Mistry, J. M., Friction Force Behavior in Dry Sliding of Inconel 600 Alloy Using Taguchi Method and Regression Analysis, *Applied Mechanics and Materials*, TransTech Publications, Ltd., 2015, 813-814, 179-184.
2. Banker, V. J.; Mistry, J. M.; Thakor, M.R. & Upadhyay, B.H., Wear Behavior in Dry Sliding of Inconel 600 Alloy Using Taguchi Method and Regression Analysis, *Procedia Technology*, Elsevier BV, 2016, 23, 383-390
3. Banker, V. J.; Patel, D. A. & Mistry, J. M., Effect of Machining Parameters on Cutting Force and Surface Roughness in Milling Machine: A Review, *ADIT Journal of Engineering*, 2016, 16, 26-31.
4. Banker, V. J., Design of Fin-Tube Heat Exchanger for Control of Overheating In Hydraulic Power Pack, *International Journal for Research in Applied Science and Engineering Technology*, *International Journal for Research in Applied Science and Engineering Technology (IJRASET)*, 2017, V, 636-641
5. Banker, V. J., Joshi, H. B. & Patel, M. B Design & Development of Versatile Mixer, *International Journal for Research in Applied Science and Engineering Technology*, *International Journal for Research in Applied Science and Engineering Technology (IJRASET)*, 2019, 7, 2145-2150
6. Banker, V. J.; Mistry, J. M. & Patel, M. H., Experimental Investigation of Cutting Parameters on Surface Roughness in Hard Turning of AISI 4340 Alloy Steel, *Advanced Engineering Optimization Through Intelligent Techniques*, Springer Singapore, 2019, 727-737
7. Banker, V. J. & Joshi, H. B., Design of Transmission System of Tractor for same Load Carrying Capacity, *International Journal for Research in Applied Science & Engineering Technology (IJRASET)*, 2020, 8, 1126-1131
8. Naik, A. J.; Bhuvu, H. V.; Rana, D. B.; Panchal, J. D.; Banker, V. J. & Bhatia, S. B., Tensile Strength and Flexural Strength of Components manufactured from Additive Manufacturing – A Review, *International Journal of Engineering Science Invention (IJESI)*, 2020, 9, 21-26
9. Panicker, A. S.; Naik, M. S.; Makwana, M. K.; Verma, N. A.; Banker, V. J. & Soni, S. G., Design and Analysis of a Drilling Fixture, *International Journal for Research in Engineering Application & Management*, IJREAM Publishing House, 2020, 56-60
10. Joshi, R. H.; Patel, J. N.; Patwa, K. M.; Prajapati, S. V.; Banker, V. J. & Joshi, H. B., Design and Development of Rotor Profile for Screw Pump – A Review, *International Journal of Engineering Science Invention (IJESI)*, 2020, 9, 13-19
11. Ansari, M. I.; Badarpura, M. S.; Pandya, P. J.; Prajapati, D. B.; Banker, V. J. & Malli, M. R., Design and Development of Cow Dung Stick Manufacturing Machine, *International Journal for Research in Engineering Application & Management*, IJREAM Publishing House, 2020, 01-03
12. Naik, A. J.; Bhuvu, H. V.; Rana, D. B.; Panchal, J. D.; Banker, V. J. & Bhatia, S. B., Parameteric Optimization of Tensile strength and Flexural Strength in 3-D Printed components, *ADBU-Journal of Engineering Technology*, 2021, 10 1-6
13. Joshi, A. Y., Banker, V. J., Patel, K. K., Patel, K. S., Joshi, D. M., & Purohit, M. R. (2022). Experimental Investigation in Wire Cut EDM of Inconel 718 Superalloy. In *Recent Advances in Manufacturing Processes and Systems: Select Proceedings of RAM 2021* (pp. 445-455). Singapore: Springer Nature Singapore.
14. Banker, V. J. & Mistry, J. M., Wear Mode in Inconel Alloys - A Literature Study, *International Conference on Advances in Materials and Product Design (AMPD- 2015)*, 2015, 141-147
15. Sagar, A. G.; Banker, V. J. & Mistry, J. M., Experimental Investigation of Effect of Graphite as reinforcing element on Cutting Force in Drilling of Al₂O₃ Reinforced Metal Matrix Composites, *National Conference on Design, Analysis and Optimization in Mechanical Engineering (DAOME-2016)*, 2016, 148-152
16. Joshi, A. Y.; Joshi, U. A. & Banker, V. J., Experimental Investigation of Adding Various Additives and Binders in Dry Sand Moulding By Taguchi's Method, *National Conference in Advances in Materials and Product Design (AMPD-2017)*, 2017, 229-234
17. Banker, V. J. & Joshi, A. Y., Advances in Hybrid Electric Vehicles and Their Technologies-A review, 22nd ISTE State Annual Faculty Convention and National Conference on theme "Engineering Innovations for Social and Environmental Development, 2017, 121-124
18. Patel, D. A.; Banker, V. J.; Mistry, J. M. & Upadhyay, B. H., Experimental Optimization of Cutting Force and Surface Roughness of AISI 304 Stainless Steel in End Milling Process, *Parul University International Conference on Engineering & Technology (PiCET-2018)*, 2018, 101-106
19. Joshi, A. Y., Bhatia, S. B., Banker, V. J., Prediction of Surface Roughness in Machining of Titanium Alloy (Ti6Al4V) using Artificial Neural Networks, *Second International Conference on Research and Innovations in Science, Engineering & Technology ICRASET- 2020*
20. Panchal, P. H., Mistry, J. M., Banker, V. J., Joshi, D. R., Upadhyay, B. H., A Review on Abrasive Water Jet Machining (AWJM) of Aluminium Matrix Composites (AMCs), *Second International Conference on Research and Innovations in Science, Engineering & Technology ICRASET-2020*
21. Banker, V. J., Bhatia, S. B., Joshi, A. Y., Lakdawala, D. K., Malavia, J. K., Padhiyar, H. G., Sisodiya, H. N., Development & Cost Analysis of Aligners for Orthodontics using FDM and DLP, *2nd International Conference on Recent Advances in Manufacturing*, SVNIT Surat
22. Banker, V. J., Joshi, A. Y., Bhatia, S. B. (2023). Optimization of Surface Roughness in Wire Cut Electric Discharge Machining of Ti6Al4V Alloy Using Taguchi Method and ANOVA. In: Venkata Rao, R., Taler, J. (eds) *Advanced Engineering Optimization Through Intelligent Techniques*. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-19-9285-8_57
23. Banker, V. J. & Joshi, A. Y., Experimental Study of Surface Roughness in Dry Turning of Inconel 600 and 625 alloys using ANOVA, *International Conference on Recent Trends in Engineering and Sciences (RTES - 2025)* 14th - 15th February 2025, SVNIT Surat
24. Desai, R. J., Banker, V. J., Shah, R. R., Expert System-Based Selection of Carbide Tools for CNC Turning, *International Conference on "Synergetic Development through Smart Technologies & Digital Transformation-2025 (SDSTD2025)"*, 25-26 June, 2025, CVM University
25. Banker, V. J., Joshi, A. Y., Bhatia, S. B., Joshi, H. B., Shah, K. J., Design and Analysis of a Hydrostatic Bearing Using CAD and FEM Simulation, *International Conference on "Synergetic Development through Smart Technologies & Digital Transformation-2025 (SDSTD2025)"*, 25-26 June, 2025, CVM University