SNJB's Shri Hiralal Hastimal (Jain Brothers, Jalgaon) Polytechnic, Chandwad, Nashik.

Department of Mechanical Engineering

Mr.Ganesh J. Pagar

Life member of ISTE - LM 132994

Lifetime Associate member of IEI - AM3058075

Life member of InSc - 202212YAA8 Life member of QCFI - 039903 123514 Google Scholar: http://surl.li/pdrdvh

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I am Mr. Ganesh J. Pagar, a dedicated Mechanical Engineering professional with over 10 years of teaching experience and a strong research focus in thermal engineering, manufacturing processes, and friction stir welding. Currently pursuing a Ph.D. in Mechanical Engineering (SPPU, Pune), I have consistently contributed to academic excellence, innovation, and technical skill development. I have authored three textbooks under TechKnowledge Publications for MSBTE and SPPU curricula and published multiple research papers in reputed international journals, including Routledge (Taylor & Francis Group). My work has been recognized through the ADOR Researchers Scholarship 2025 awarded by The Indian Institute of Welding(IIW). As an innovator, I hold 12 granted Indian Design Patents and have guided numerous student projects, securing state-level funding and awards. I actively contribute to institutional growth as a coordinator for IIC, ACKVK, and NBA activities, while fostering entrepreneurship, research ethics, and industry collaboration. Passionate about technical education and innovation, my goal is to empower students and institutions to achieve excellence through research-driven learning and industrial integration.

Qualification :	✓ Ph.D. Mechanical Engineering (Pursuing), (SPPU, Pune)
	✓ M.E. Design Engineering, (SPPU, Pune)
	✓ B.E. Mechanical Engineering (SPPU, Pune)
Designation:	Lecturer
Date of Joining:	01/01/2016
Experience :	1.Teaching: 10 Years
	2.Industrial: 6 Months
Teaching/research Areas:	✓ Thermal ✓ Automobile ✓ Solid Modeling
	✓ Mechanical ✓ Refrigeration
	Engineering and Air ✓ Manufacturing Process
	Material conditioning

Courses / Subjects Involved With:	 Thermal Engineering Solid Modeling and Additive Manufacturing Mechanical Engineering Material Refrigeration and Air Conditioning Automobile Engineering Entrepreneurship Development Manufacturing Processes Computer Aided Drafting Renewable energy Sources Fluid Mechanics & Machinery Measurement & Control
Staff training/FDP attended	 Successfully completed One month UGC-mandated two-credit course in "Research and Publication Ethics" with Grade A, conducted by the Centre for Publication Ethics, Savitribai Phule Pune University, Pune, during May 16, 2025 to June 18, 2025, focusing on academic integrity, research ethics, and responsible publishing practices. Successfully completed a 3-day Face-to-Face FDP on "Inculcating Universal Human Values in Technical Education" organized by AICTE at SNJB's Shri Hiralal Hastimal (Jain Brothers) Polytechnic, Nashik from
	3. Faculty Development Program (FDP) - Virtual Labs, 2025 Successfully completed the One Day State Level Online FDP on "Virtual Labs: Hands-on Outreach Workshop" organized by SNJB's Shri HHJB Polytechnic, Chandwad in association with the Department of Electronics and Telecommunication Engineering, Smt. Kashibai Navale College of Engineering, Pune. Workshop conducted in association with IIT Bombay, Institution of Engineers (India), and IEI Local Centre Nashik on 9th July 2025.
	4. Successfully completed a Two-Day Online FDP on "Recent Trends in Mechanical Engineering" organized by Marathwada Institute of Technology Polytechnic, Chhatrapati Sambhajinagar, Program held from 27th June to 28th June 2025, focusing on advancements in modern mechanical design, materials, and manufacturing technologies.
	5. Successfully participated & completed AICTE Training and Learning (ATAL) Academy Faculty Development Program on Manufacturing Techniques for Novel Materials: The Impact of Industry 4.0 at MET'S Institute of Engineering from 16/12/2024 to 21/12/2024.

- Participated in AICTE recognized faculty development program on "Research methodology" conducted by NITTTR, Chandigarh on 7th – 11th October 2024.
- 7. Participated in **AICTE** recognized faculty development program on "Outcome based Education" organized by SPIT Polytechnic, Kurund, Ahilyanagar on 24th -18th October 2024
- 8. Completed the 3 Days State Level FDP/SDP on "Introduction on Basics of AUTOCAD" organized by Mechanical Engineering Department of MVPS'S Rajarshi Shahu Maharaj Polytechnic, Nashik in Association with BOSCH ATC, Nashik on 18 -20 Sep 2024,
- 9. Completed the 3 Days State Level FDP/SDP on "Innovative teaching learning practices in engineering" Organized by Rajarambapu institute of technology, Polytechnic, Lohgaon, Pune on 3rd -5th October 2024.
- 10. Participated in AICTE recognized faculty development program on "OBE for NEP implementation" conducted by NITTTR, Chandigarh on 9th – 13th October 2023.
- Attended 3 Days online FDP on "Introduction on Basics of AUTOCAD", Organized by MVPs RSM Polytechnic, Nashik on 18-20 September 2024
- 12. Attended 2 Days offline FDP on "Efficient Technologies on Waste heat recovery" Organized by Sandip foundations SITRC, Nashik on 8th -9th January, 2024
- 13. Attended one-week national level FDP on "Additive manufacturing Technology" Organized by Sandip University's School of Engineering and technology, Nashik on 4th 9th March 2024
- 14. Attended Three Days FDP on "Innovative system for E-Mobility" Organized by Amrutvahini polytechnic, Sangamner on 4th -6th January 2024.
- 15. Completed Three Days offline "Teachers Training Program in Enterprise education (TTPEE)" Organized by SNJB COE, Chandwad on 1st -3rd June 2023.
- 16. Completed three days online FDP on "Effective teaching and learning using active learning methods" organized by JSPM's Rajarshi Shahu COE, Polytechnic, Pune on 30th October 1st November 2023.

17. Attended Two day workshop on "Advanced excels" at SNJB COE, Chandwad on 9th -10th March, 2022 18. Completed one week **AICTE** Sponsored online faculty development program on "Applications of artificial intelligence and machine learning in mechanical engineering" organized by Kolhapur institute of technology's COE, Kolhapur on 12th – 16 June, 2021. 19. Attended Three Days online FDP on "QGIS" organized by MAEER's MIT on 1st -3rd June 2020 20. Attended 5 Days FDP on "Research techniques and sustainable development in mechanical engineering" organized by st. John college of engineering and management, Palghar on 29th June – 3rd July 2020. 21. Attended One-week faculty development program on "Emerging trends in refrigeration & air conditioning" organized by MVP RSM Polytechnic, Nashik on 8th June – 12th June 2020. 22. Attended Three days FDP on "Recent trends in automobile" organized by shriram institute of engineering & technology, Paniv on 1st -3rd June 2020. 23. Attended MSBTE Sponsored Offline One week Industrial training at CIPET, Sambhajinagar on 22nd – 26th July 2019 24. Attended MSBTE Sponsored Offline One Week Industrial training at measurewell technovision, Sambhajinagar on 12th -16th March 2018. 25. Attended MSBTE Sponsored Offline One week Content updating program at Sandip polytechnic, Nashik on 8th -14th December 2014. 26. Attended MSBTE Sponsored Offline One week FDP on "Solid Modeling" at Sandip polytechnic, NASHIK, 2014. 1. Completed NPTEL Course Defects in Crystalline Solid -Part 2 (January-February 2024) 2. Completed NPTEL Course on Manufacturing Processes-Casting & Joining (July-August 2024) **NPTEL Courses completed** 3. Completed NPTEL Course on Inspection & Quality Control (January-February 2025) 4. Completed NPTEL Course on Effective engineering teaching in practice (January-February 2025)

	5. Completed NPTEL Course on Product Design & Development (July-August 2025)6. Completed NPTEL Course on Welding Application Technology (July-September 2025)
List of Projects guided at diploma level last 3years	 Design & Fabrication of Three Seater Electric Rickshaw (A.Y2023-24) (Received seed funding Rs. 1 lakh from Govt. of Maharashtra) Design & Fabrication of Micro hybrid agriculture machine. (A.Y2022-23) (Rs. 35000/- Winner of Project Competition "SHODH-2023" at JSPM COE, Pune) Bridge Safety Mechanism Pedal Operated Pump Hydraulic silage packing machine (A.Y2019-20) Development of multi-use conveyor for agricultural purpose (A.Y2019-20) Multi-purpose agricultural robot Double disc polishing machine. Solar Electric Car (A.Y2024-25), Students received prize of Rs. 1000 in SNJB ideation challenge 2024, Students received prize of Rs. 5000 in Project competition held at RSMPolytechnic, Nashik for solar electric car Solar operated shoes cleaning machine (A.Y2024-25)
Paper presentation /conferences attended	 Participated and presented a paper titled "Finite Element Analysis of Straight Horizontal Flat Clamps Hinged at One End Milling Fixture for Friction Stirs Joining Process of Aluminium AA3103" in second international conference on Advances in Thermal Systems, Materials, And Design Engineering (ATSMDE-2024), hosted by department of mechanical engineering, Veermata Jijabai Technological Institute (VJTI), Mumbai, India, during 27th – 28th December 2024. Participated and presented a paper titled "A review of the friction stir welding process for lightweight metals and its alloy from a parametric perspective" in the 2nd international conference on recent innovations and development in mechanical engineering (ICRIDME-2024), organized by department of mechanical engineering, NIT Meghalaya, India, during 14th to 16th November 2024. Presented paper entitled "A review of friction stir welded joint of

aluminium alloy" in 3rd international E-Conference on mechanical and material science engineering: Innovations and research (ICMMSE:IR2023) at Sandip foundations SITRC, Nashik on 12th -13th December 2023.

- 4. Presented paper entitled "A friction stir welding and processing on aluminium aa3000 series-a review" in international conference on advancements in science, technology and management (icastm-2024) jointly organized by st. xavier college of management and technology, patna and global conference hub Coimbatore on 25th -26th April 2024
- 5. Presented paper entitled "Vibration Analysis of Peristaltic Pump Using FEA and FFT Analyzer", 6th International Conference on Recent Trends in engineering & Technology 2018(ICRTET'2018) at SNJB's Late Sau. K. B. Jain College Of Engineering, Chandwad https://www.ijream.org/ICRTET2018.html
- <u>6.</u> Attended 1st Post graduation conference of mechanical engineering (MECHPGCON-2015) at Flora Institute of Technology, Pune on 19th-20th July 2015.
- 7. Presented paper entitled "A review of Experimental wear analysis of DLC coating on bushing material used in leaf spring" in 7th International conference on Recent Trends in engineering & Technology on 15th-16th November 2021
- <u>8.</u> Presented paper entitled "vibration analysis of peristaltic pump using FEA" in Third post-graduation students conference in mechanical engineering (MECHPGCON-2017) at Zeal COE, Pune on 20th- 21th June 2017.
- $\underline{9.}$ Presented paper entitled "PV water pumping system" in E-NSPIRE 2023, A national conference organized by pravara rural Engineering college on 12^{th} - 13^{th} March 2013.

Paper published injournals

- 1. Published a research paper titled "Finite Element Analysis of Straight Horizontal Flat Clamps Hinged at One End Milling Fixture for Friction Stir Joining Process of Aluminium AA3103" in journal named as Advances in Thermal System, Materials and Design Engineering" by Routledge (Taylor & Francis Group).
- 2. "Optimization of Design Parameter & Vibration Analysis of Peristaltic Pump", International Journal For Research & Development In Technology Volume-6,Issue-5(Dec-16)

http://www.ijrdt.org/full_paper/788/15/Optimization-of-Design-Parameter- Vibration-Analysis-of-Peristaltic-Pump

	 "An Overview of Vibrational Analysis of Peristaltic Pump", International Journal of Recent Trends in Engineering & Research (IJRTER), Volume 02, Issue 12; December – 2016. https://www.ijrter.com/?s=peristaltic+pump Published Paper entitled "Vibrational Analysis of Peristaltic Pump using FEA & FFT" in Magazine "Pump Valves and system", April, 2024.
Books published withISSN/ISBN number :	1. Author Of A Text Book On Subject "Solid Modeling & Drafting" for Mechanical Engineering Degree Course Under Techknowledge Publication, Pune For SPPU, Pune. ISBN: 978-93-89889-80-2, 2020 2. Author Of A Text Book Entitled "Emerging Trends In Mechanical Engineering- I Scheme syllabus" For Mechanical Engineering Diploma Students Under Tech-Knowledge Publication, Pune for MSBTE, 2022 3. Author Of A Text Book Entitled "Emerging Trends In Mechanical Engineering- K Scheme syllabus" For Mechanical Engineering Diploma Students Under Tech-Knowledge Publication, Pune for MSBTE, 2025
Patent Filed and Granted	✓ Granted Following Indian Design Patents 1. Design No- 418239-001, Micro Hybrid Agricultural Machine, 20/06/2024 2. Design No- 418482-001, Pedal Operated Pottery Wheel, 30/07/2024 3. Design No- 423134-001, IOT Based Agricultural Machine for Seed Plantation 23/08/2024 4. Design No- 424142-001, Hydraulic Height Adjustable Device for Basin 27/08/2024 5. Design No- 424628-001, IOT Based Smart Door with Frame, 19/09/2024 6. Design No- 424030-001, IOT Based Grass Cutter, 02/09/2024 7. Design No- 426084-001, Power Operated Grain Collector with Weighing Bridge, 19/09/2024 8. Design No- 420988-001, Fixture for Friction Stir Welding, 02/08/2024 9. Design No- 415065-001, Fixture for Friction Stir Welding, 04/07/2024 10. Design No- 438268-001, Electric Rickshaw, 24/11/2024 11. Design No- 452998-001, Onion seed sowing and Mixing Machine 26/03/2025 ✓ Filed Following Design Patent 1. Application Number – 419463-001

	2. Application Number – 426475-001 3. Application Number – 434719-001
Participation in MSBTE activities (RAC/DC/Theory/PR Exam/Curriculum development)	 Selected as a expert for development of MSBTE Laboratory Manual Design (Subject- Cold Chain management - 316364) Worked as Officer In-charge(OIC) for MSBTE Regional Assessment center (RAC-0079) Worked as Additional Officer In-charge(A-OIC) for MSBTE Regional Assessment center (RAC-0079) Worked as a supervisor in MSBTE Distribution center (DC-0079) supervisor Worked as a Controller for MSBTE theory exam Work as quality control officer, Supervisor in RAC Worked as a Supervisor in theory exam Worked as a External for MSBTE OR/PR exam Work as a Internal Vigilance in MSBTE theory exam Worked as an assessor Moderator in RAC.
Role and responsibilities at institute level	1. Institute Entrepreneurship cell (EDP) coordinator 2. ISTE Work 3. Institute Innovation Council (IIC) Coordinator 4. Working as coordinator for Acharya Chanakya Kausalya Vikas Kendra (Received Rs 1,46,873/- Grant under ACKVK) 5. Developed Industry Supported laboratory in mechanical engineering department (Automobile Engineering Lab) 6. NBA Work: Working on Criterion 8.5 7. Member of Admission Process (Manmad region) 8. Working as Coordinator for "Acharya Chanakya Kaushalya Vikas Kendra-ACKVK"
Role and responsibilities at department level	 Departmental Training and Placement Coordinator Industrial training coordinator NBA Criterion 6 coordinator Lab development Member of Research Committee Lab In-Charge of Automobile Engineering Lab Student Mentoring Project Guide for Final year students Course Coordinator
Major achievements in last 5 years	Awarded the ADOR Researchers Scholarship - 2025 by The Indian Institute of Welding (IIW-India Foundation) for excellence in welding research. Received selection approval from the Management Board for this prestigious national recognition. The scholarship amount of

	 Rs. 50,000 conferred during the National Welding Seminar (NWS-2025) at Cochin, Kerla in December 2025. 2. Awarded as Young Achievers Award from Institute of Scholar, Bengaluru, Karnataka 3. Received Rs.01 Lakh seed funding as project guide for Last year diploma project (A.Y. 2024) 4. Received 11 Indian Design patent grant. 5. Received Certification for Best result for the course of Automobile Engineering, (Summer- 2024) from hon. Management 6. Received Certification for Best project guide from hon. Management 7. Established Institute Innovation Council in Institute
Professional membership	1. Life member of ISTE – LM 132994 2. Lifetime Associate member of IEI - AM3058075 3. Life member of InSc - 202212YAA8 4. Life member of QCFI - 039903 123514
Additional information	 Served as Event Co-ordinator for the Two-Day State Level Online FDP on "Research Methodology" organized by the Department of Mechanical Engineering, SNJB's Shri Hiralal Hastimal (Jain Brothers) Polytechnic, Chandwad, on 19th–20th June 2025. Presented Idea in Pitching Competition at "Igniting Innovation: Building Nashik Startup Ecosystem" at Gurudakshina Hall, GES COE Nashik, on 27th February 2025. Worked as Jury Member for Pitching Competition at "Igniting Innovation: Building Nashik Startup Ecosystem" at Gurudakshina Hall, GES COE Nashik, on 27th February 2025. Invited as Jury Member for Maharashtra State Innovation Society's "Maharashtra Student Innovation Challenge" held on 20th December 2024 at MVP RSM Polytechnic, Nashik. Worked as Mock NBA Peer Team Member at Mahavir Polytechnic, Nashik for NBA Criterion 6 on 8th August 2024. Worked as Mock NBA Peer Team Member at MVP's RSM Polytechnic, Nashik for NBA Criterion 6 on 8th August 2024. Worked as Expert NBA Criteria 6 Coordinator for various institutes. Coordinator for Two-Day FDP on Manufacturing Process held on 26th—

- 9. Worked as Program Coordinator for SNJB Ideation Challenge 2022.
- 10. Invited as **Jury Member** for Maharashtra Start-up Yatra 2022 at V.N. Naik COE, Nashik organized by the Maharashtra State Innovation Society on 13th–14th October 2022.
- 11. Coordinator for Two-Day FDP on Lean Manufacturing.
- 12. **Coordinator** for Two-Day FDP on Supply Chain Management.
- 13. Signed Memorandums of Understanding (MoUs) with various industries to promote academia—industry collaboration.
- 14. Worked as **Coordinator** for Newsletter Publication at SNJB's Shri HHJB Polytechnic, Chandwad.
- 15. Prepared and Submitted Various Nominations for **ISTE Awards** at state and national levels.
- 16. Prepared Detailed Reports for **ISTE Awards** Nominations at institutional level.
- 17. **Consultant** to Gurukrupa Welding Workshop, Redgaon (Tal–Chandwad, Nashik) for Trolley Manufacturing Unit in 2020.
- 18. **Consulted** and Verified innovative "Kadaba Kutti Machine" for farmers at Chandwad, issuing certification in 2020.
- 19. Appointed as **Chief Faculty Coordinator** for "Robokart", conducted in association with Innovation Cell, UMIC–IIT Bombay, held on 14th–15th January 2017 at SHHJB Polytechnic, Chandwad.
- 20. Completed Certification Course on AutoCAD R-2014 on 20th June 2014.
- 21. Completed Certification Course on "Creo for Design Engineers" by PTC University at Dysmech Consultancy Services, Nagpur on 31st October 2014.
- 22. Attended Two-Day Workshop on "Automobile Mechanics & IC Engine Design" at SNJB COE, Chandwad, on 18th—19th March 2014.
- 23. Completed **National Service Scheme (NSS)** volunteer period from 2012–2014 and attended NSS Special Camp at Panhale from 3rd–9th January 2014.

24. Participated in Two-Day Workshop on "National Robotics Championship 2013" conducted by ARK Techno Solutions in association with IIT Kharagpur at SNJB's KBJ COE, Chandwad, on 22nd–23rd January 2013. 25. Organized and Coordinated Various Academic Activities including guest lectures, industrial visits, competitions, and student mentoring sessions alongside regular teaching duties.