

Name:

Dr. Ami Rudrax Barot

Designation:

Assistant Professor

Contact Details:

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Educational Qualifications:

- PhD (Mechanical)- SP Pune University, Pune, November' 2025
- M.E. (Mechanical - Automotive)), SP Pune University, AISSM's college of Engineering and Technology, Pune, August' 2014.
- B.E. (Mechanical), Gujarat University, L.D. College of Engineering, June' 2000

Experience:

- Industrial: 1 Year
- Teaching: 18 Years
- Research: 5 Years

Research Interests:

- Vibration based Condition Monitoring
- Machine Learning
- Signal Processing
- Artificial Intelligent

Research Projects:

- **Research** project on "Development Of An Intelligent System For Auto Classification Of Rotating Machinery Faults"



Number of Publications:

International Journal: 12

International Conference: 02

Number of Patent Published: 02

- **Ami Barot and Pravin Kulkarni**, Design patents; Design of “Gearbox Health Monitoring Device” published on 06-01-2025
- **Ami Barot and Pravin Kulkarni**, Utility patent “ADAPTIVE WAVELET-BASED GEARBOX MONITORING SYSTEM FOR REAL-TIME FAULT DETECTION AND PREDICTIVE MAINTENANCE” published on 19-09-2025.

Number of FDPs / STTPs attended: 31

Number of Conferences / Seminars attended: 02

Number of Workshops organized: 02

Number of Online Certification Courses done:

UGC course on “Research and Publication Ethics”, 1 to 30 Sep, 2021.

- **Coursera – 18**
- **NPTEL – 01**
- **Udemy – 01**

Details of Research papers published:

- **Ami Barot and Pravin Kulkarni**, “Analytical Model of Spur Gear Tooth Crack for Evaluating the Effect of Crack Propagation Angle on Vibration Response”, Springer Book, Sep **2023**
- **Ami Barot and Pravin Kulkarni**, “APPLICATION OF WAVELET MULTI-RESOLUTION ANALYSIS FOR GEAR FAULT DIAGNOSIS”, ISSN: 0970-2555 Volume : 52, Issue 8, No. 3,, August **2023**

- **Ami Barot et al** , “VIBRATIONAL ANALYSIS OF GEAR DRIVE USING MACHINE LEARNING”, Industrial Engineering Journal, ISSN: 0970-2555 Volume : 52, Issue 6, No. 4, June 2023
- **Ami Barot and Pravin Kulkarni**, “Dynamic analysis of effect of progressive crack and variation in center distance on vibration of spur gears” , Elsevier : Materials today proceedings, Available online 26 October 2022
- **Ami Barot et al.**, Design Of Mechanical Systems for Small Scale Harvesting Robot, International Research Journal of Engineering and Technology e-ISSN:2395-0056, Volume: 09 Issue: 04 | Apr 2022
- **Ami Barot et al.**, Design and Manufacturing of Test Rig to Determine Discharge Capacity of Steam Trap, Volume: 09 Issue: 04 | Apr 2022
- **Ami Barot, Pravin Kulkarni**, Technological Evolution In The Fault Diagnosis Of Rotating Machinery: A Review, *IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)*, Volume 18, Issue 2, (2021)
- **Pravin Kulkarni, Ami Barot**, A Wavelet Based Multi-resolution Technique for Analysis of Vibration Signals, *International Journal of Science Technology & Engineering (IJSTE)*, Vol. 7, Issue 4, (2020)
- **P. G. Kulkarni, N. G. Jaiswal, Ami R. Barot**, Analysis of Vibration Signals of Rolling Element Bearings with Localized Defects, *International Journal Of Modern Engineering Research (IJMER)*, Vol. 10, Issue 7,(2020)
- **P. G. Kulkarni, A. R. Barot**, Attainment of Course Outcomes and Program Outcomes: A Case Study in an Engineering Course, *International Journal of Science Technology & Engineering (IJSTE)*, Vol. 5, Issue 8, (2019) 40-45
- **P. G. Kulkarni, A. R. Barot**, Methodology For Course Outcomes Attainment Analysis For An Engineering Course, *International Journal of Scientific & Technology Research (IJSTR)*, Vol. 8, Issue 3, (2019) 16-19
- **A. R. Barot, V. R. Patil**, A Theoretical Model For Selection Of V-Angle And Determination Of Firing Order For Balancing Of V6-Engine, International Journal Of Scientific & Technolgy Research, VOLUME 3, ISSUE 4, APRIL 2014 ISSN 2277-8616

Details of FDPs / STTPs attended in last 5 years:

- AI Mastery for Educators, organized by Vishlesan-I Hub-lit Patana, FDP 15 May to 07 June 25
- OBE 5, organized by National Institute of Technical Teachers Training and Research, Bhopal, 04 to 08 Aug , 2025
- RESEARCH METHODOLOGY, ETHICS AND PUBLICATION TOOLS, organized by PVG's College of Engineering, Technology & Management, Pune 16 to 20 June 2025
- NEP 2020 Orientation and Sensitization Programme, organized by Pimpri Chinchwad University, Pune, 20 to 28 Nov 2025
- MH-11 Assessment and Evaluation Techniques in Engineering Courses, organized by National Institute of Technical Teachers Training and Research, Bhopal, 15 to 19 Dec 2025
- ""Revolutionizing Vibration Analysis through Artificial Intelligence and Machine Learning Integration" (RVAIML-24)" organized by Dr. D. Y. Patil Institute of Technology, Pimpri, 11 to 15 June 2024
- Applications of Artificial Intelligence and Machine Learning in Mechanical Engineering STTP 8 Aug to 12 Aug 2022
- Syllabus implementation workshop of subject "Data Analytics Laboratory" Workshop 30 July to 2 Aug 2022
- Workshop DOM Syllabus Implementation 27 to 30 July 2022 Workshop 27 to 30 July 2022
- EMERGING TRENDS IN TEACHING & RESEARCH (ETTR) Faculty Development Program 7th Feb to 12th Feb 2022
- Interactive Teaching Learning Strategies with affective and cognitive Approach(ITLS) 21 to 25 June 2021
- Research Opportunities in Vibration Engineering Faculty Development Program 24th Jan to 29th Jan 2022
- Machinery Condition Monitoring Faculty Development Program 10th Jan to 14 Jan 2022
- Diagnostic Maintenance of Mechanical Systems Faculty Development Program 8th Nov to 12th Nov 2021
- ATAL FDP on "Applications of Artificial Intelligence in Mechanical Engineering" 2nd Aug to 6th Aug 2021

- ATAL FDP on “Recent Advancement in Artificial Intelligence” 2nd Aug to 6th Aug 2021
- Ansys R21 31jan to 4 feb 2022
- ATAL FDP on Robotics 11th to 15th Jan 2021
- ATAL FDP on Artificial Intelligence 4th to 8th Jan 2021
- FDP organized by VIIT, Pune on “Research and application perspective of Artificial Intelligence” 21st to 25th Dec 2020
- Awareness of recent noise control techniques and noise pollution laws 18th to 22nd Jan 2021

Major Portfolios Handled: (college level and department level)

- Robotics lab incharge
- Research coordinator
- Academic Coordinator
- MESA coordinator
- NBA criteria 3
- NAAC – AQAR – IQAC
- Member of women’s grievances cell