Somaiya Vidyavihar University

Name: Dr. Manoj Janardan Pawar			**E-mail: manoj.jp@somaiya.edu**
Contact No: +91-9421136691			
Department/Section: Mechanical Engineering Department			
College: K J Somaiya School of Engineering			
DOJ Somaiya: 01/01/2018	Career Experience: 20 Yrs	Industry Experience:___Yrs	Teaching Experience: 20 Yrs
Present Academic Designation: Professor		Present Administrative Designation: ----	

Area of research/specialization and Courses Delivered

Research domain/interests/areas

1. Tribology
2. Ballistic analysis
3. Composite materials
4. Modeling and simulation

Courses Delivered

1. Autmovile Systems and Vehicle Dynamics (Sem-V: UG)
2. Electric Vehicle (Sem-V:UG)
3. Theory of Machines (Sem-V:UG)
4. Vehicle Safety)Sem-VII:PG)
5. Green Design and Manufacturing (Sem-V:UG)
6. Automobile Engineering (Sem-VIII:UG)
7. Engineering Drawing (Sem-I: UG)
8. Engineering Mechanics (Sem-II: UG)
9. Manufacturing Processes (Sem-III: UG)
10. Vehicle Systems (Sem-VI: UG)
11. Internal Combustion Engines (Sem-VI: UG)
12. Chassis and Body Engineering (Sem-VII: UG)
13. Engine Testing laboratory (Sem-VI: UG)
14. Design of Experiment and Research Methodology (PG)
15. Project Management (Sem-VIII: UG)

Recognition as a teacher by any University	UG: Yes	PG: Yes	Ph.D : Yes
Details of Recognitions 1. PhD Guide in Mechanical Engineering			

Education

Examination	Name of the Degree	University/Board	Institute/College	Year	CPI/SPI/ %Marks
Ph.D	PhD (Mechanical)	Malaviya National Institute of Technology, Jaipur	Malaviya National Institute of Technology, Jaipur	2017	NA
PG	M.E.(Mech-Prod)	Shivaji University, Kolhapur	Govt. College of Engineering, Karad	2012	69.83
UG	B.E. (Automobile)	Shivaji University, Kolhapur	Rajarambapu Institute of Technology, Sakhrale	2004	72.13
Diploma	D.M.E.	M.S.B.T.E., Mumbai	Rajarambapu Institute of Technology, Sakhrale	2001	67.16
NET/SET/Other					

Notable Experience Details

Sr. No	Name of the organization	Designation	Date of Joining	Date of Leaving	Experience (Years)
1.	Kolhapur Institute of Technology's College of Engineering,	Associate Professor	07.08.2016	31.12.2017	1.4

	Kolhapur				
2.	Malaviya National Institute of Technology, Jaipur	Research Scholar	19.07.2013	20.07.2016	3
3.	Annasaheb Dange College of Engineering and Technology, Ashta	Assistant Professor	23.07.2012	15.07.2013	1
4.	Adarsh Institute of Technology and Research Centre, Vita	Sr. Lecturer	02.12.2010	21.07.2012	1.5
5.	Rajendra Mane College of Engineering and Technology, Ambav	Lecturer	18.01.2005	01.12.2010	6

Research Accomplishments and Projects		
No of students pursuing Ph.D as on date: 03		No of students completed Ph.D as on date: 00
No of students completed PG thesis / Project work as on date: 03		No of students / groups completed UG projects as on date: 20
Publications Total: 18	Number of Peer review Journal papers: 18	Number of Conference papers: 7

Details of Publications:

International Journals

1. Gautam Vikash, Patnaik Amar, Bhat Inder K., Kukshal Vikas, Pawar Manoj J. and Kumar Ashiwani, Optimization of physico-mechanical and erosive wear properties of single/multilayer – coated granite filled aluminum alloy composites, International Journal of Materials Research, vol. 115, no. 5, 2024, pp. 359-367. https://doi.org/10.1515/ijmr-2023-0041
2. Vikash Gautam, Deepak Kumar, Ashiwani Kumar, M.J. Pawar, Investigation on dry abrasion wear of natural and synthetic fiber reinforced polymer composites filled with stone waste, Materials Today: Proceedings (2023). https://doi.org/10.1016/j.matpr.2023.08.192
3. M. J. Pawar, Vikash Gautam, Ashiwani Kumar, Vikas Kukshal, Computational analysis of aluminium alloy plates against conical-nose steel projectile, Materials Today: Proceedings, 2021, 46(15), 6552-6557. https://doi.org/10.1016/j.matpr.2021.04.017.
4. M. J. Pawar, A. Patnaik, R. Nagar, Ashiwani Kumar, Experimental and numerical investigation on erosive wear performance of hybrid polymer composites, Materials Today: Proceedings, 2021, 46(6), 4775-4782. https://doi.org/10.1016/j.matpr.2020.10.973.
5. A. Kumar, M. Kumar, A. Patnaik, M. J. Pawar, Akhileshwar Pandey, Anil Kumar, Vikas Gautam, Optimization of sliding and mechanical performance Ti/NI metal powder particulate reinforced Al 6061 alloy composite using preference selection index method, Materials Today: Proceedings, 2021, 46(6), 4784-4788. https://doi.org/10.1016/j.matpr.2020.10.974.
6. A. Kumar, M. Kumar, V. Kukshal, Akhileshwar Pandey, M. J. Pawar, Vikash Gautam, Investigation on mechanical and tribological characterization of Gr filled AA7075 alloy composite using Taguchi method, Materials Today: Proceedings, 2021, 46(15), 6534-6540. https://doi.org/10.1016/j.matpr.2021.03.734.
7. S. Bagwe, S. Thale, P. Sawant, M J Pawar, Finite element analysis of armor steel and aluminium alloy under the impact of 7.62 mm projectile, Materials Today: Proceedings 2021: 44(6), 4086-4091 https://doi.org/10.1016/j.matpr.2020.10.447.
8. M. J. Pawar, A. Patnaik, S. K. Biswas, U. Pandel, I. K. Bhat, S. Chatterjee, A. K. Mukhopadhyay, R. Banerjee, B. P. Babu, Comparison of ballistic performances of Al2O3 and AlN ceramics. International Journal of Impact Engineering 2016: 98, 42-51.
9. M. J. Pawar, Amar Patnaik, Ravindra Nagar, Mechanical and Thermo-Mechanical Analysis Based Numerical Simulation of Granite Powder Filled Polymer Composites for Wind Turbine

Blade. Fibers and Polymers 2016: 17, 1078-1089.

10. M. J. Pawar, Amar Patnaik, Ravindra Nagar, Numerical Simulation and Experimental Validation of Granite Powder Filled Jute Epoxy Composite for Slurry Jet Erosive Wear, International Polymer Processing, 2016: 31, 37-50.
11. M. J. Pawar, Amar Patnaik, Ravindra Nagar, Investigation on Mechanical and Thermo-Mechanical Properties of Granite Powder Filled Treated Jute Fiber Reinforced Epoxy Composite, Polymer Composites 2017: 38 (4), 736-748 (DOI 10.1002/pc.23633).
12. M.J. Pawar, Amar Patnaik, Ravindra Nagar, Experimental Investigation and Numerical Simulation of Granite Powder Filled Polymer Composites for Wind Turbine Blade: A Comparative Analysis, Polymer Composites 2017: 38 (7), 1335-1352 (DOI 10.1002/pc.23700).
13. M. J. Pawar, V. S. Jadhav, Finite Elemental Analysis of Influence of Shape and Profile of Cutting Edge of Twist Drill on Drilling Process, International Journal of Engineering and Advanced Technology 2012: 1, 57-61.

National Journals

1. ----

Conferences

1. M J Pawar, Mayuresh Pathak, Vikash Gautam, Vikas Kukshal, Computational Analysis of Ballistic Material against High Energy impact, International Conference on Technologies for Energy, Agriculture and Healthcare, K J Somaiya College of Engineering, Mumbai, 15 – 16 April 2024.
2. Prathmesh Patil, Mustafa Pardawala, Vaibhav Gala, M J Pawar, Enhancing Stability of Agricultural Vehicle using Dynamic Lean Control, International Conference on Technologies for Energy, Agriculture and Healthcare, K J Somaiya College of Engineering, Mumbai, 15 – 16 April 2024.
3. P A Bhavsar, A Mehta, H Ratnani, V Bhosale, M Pawar, Automated Solar Panel Mounted Mechanism for Energy Generation in a Vehicle, Internationa Conference on Recent Developments in Mechanical Engineering (ICRDME-22) at Ramdeobaba Collge of Engineeirng and Management, Nagpur from 23 – 24 Sept 2022.
4. Aakash Sharma, Vikash Gautam, Amar Patnaik, M. J. Pawar, Ashiwani kumar, Vikas kukshal, Transforming Granite Wastes into High Performance Hybrid Polymer Composites for Environmental Sustainability and its Comparative Optimization using TOPSIS Technique, International Conference on Innovations in Energy Engineering & Cleaner Production IEECP21, July 29-30, 2021, Silicon Valley, San Francisco, CA – USA, DOI:https://dx.doi.org/10.6084/m9.figshare.14737971
5. M. J. Pawar, Amar Patnaik, Ravindra Nagar. Tribo-performance of granite powder filled glass-epoxy composites. An International Conference on Tribology, VJTI, Mumbai, India, 13th - 15th December 2018.
6. M. J. Pawar, Amar Patnaik, Ravindra Nagar Investigation on Mechanical Properties of Granite Dust Filled Glass Epoxy Composite for Wind Turbine Blade. International Conference on Emerging and Futuristic Trends in Engineering & Technology at Maharja Agrasen Institute of Technology, Solal, Baddi (HP), May 8-9, 2015
7. M. J. Pawar, Ravindra Nagar, Amar Patnaik. Parametric Optimizations for Wind Turbine Blade Applications: A Statistical Analysis. NIT-MTMI International Conference on Emerging Paradigms and Practices in Global Technology, Management & Business Issues. NIT Hamirpur, December 22-24, 2014.
8. D.R. Unune, M. J. Pawar, Ride Analysis of Quarter Vehicle Model, International Conference on Industrial Engineering, 2011 at S.V.N.I.T., Surat.

Books/Book Chapters

1. Bhosale V V, Pawar M J, Warehouse Material Handling Electrically Operated Automated Guided Vehicle, Emerging Technologies in Electrical Engineering for Reliable Green Intelligence, Volume , Year 2024, Pages 532-542
2. Gautam V., Sharma A., Patnaik A., Pawar M. J., Kumar, A., Kukshal, V. (2022). Slurry Abrasion Wear Assessment of Hybrid-Reinforced Polymer Composite Using Comparative Taguchi Gray Relational Analysis. In: Kumar, S., Ramkumar, J., Kyratsis, P. (eds) Recent Advances in Manufacturing Modelling and Optimization. Lecture Notes in Mechanical

Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-16-9952-8_34

3. Pawar M.J., Patnaik A., Kukshal V., Kumar A., Gautam V., Modal Analysis of a Wind Turbine Blade Using a Computational Method, Advanced Materials and Manufacturing Processes, Volume , Year 2021, Pages 23-34
4. Kumar A., Patnaik A., Kumar M., Kukshal V., Pawar M.J., Gautam V., Analysis of Mechanical and Sliding Wear Performance of AA6061-SiC/Gr/MD Hybrid Alloy Composite Using a PSI Approach for Rotor Applications, Advanced Materials and Manufacturing Processes, Volume , Year 2021, Pages 77-94
5. Gautam V., Pawar M.J., Patnaik A., Kukshal V., Kumar A., Microstructural and Tribological Behavior of 5083-TiB2 Cast Composites Fabricated by a Flux-Assisted Synthesis Technique Advanced Materials and Manufacturing Processes, Volume , Year 2021, Pages 107-118

Patents/Copy Rights

1. Registered a copyright entitled “Single Seat Foldable Electric Vehicle” L-150167/2024 on 28/06/2024

No of Research / consultancy / projects completed: o1 Rs: 3,00,000	No of Research / consultancy / projects on-going: 01 Rs: 8,10,000	No of Research / consultancy / projects on applied as on date: Rs: Nil

Details of Research / consultancy / projects:

Completed

1. Received funds of Rs. 3, 00,000/- from Somaiya Vidyavihar University for project entitled “Design and Development of Electric Mobilty for Physically Challenged Person”
2. Consultancy work for Rs. 8,10,000 at Kohli Printing and Converting Machines Pvt. Ltd, Ambernath

Applied

1. ----

IPR/ Copyrights

1. Registered a copyright entitled “Single Seat Foldable Electric Vehicle” L-150167/2024 on 28/06/2024

FDPs/Seminars/Workshops/Training Programs Attended/ Organized/ Delivered

Attended

1. Participated in “9th Summer School in Tribology” organized by Tribology Society of india at indian Oil institute of Petroleum Management from 19 – 23 June 2017.
2. Participated in special workshop on “Advanced Developments in Beam and Plate Theories and Structural Dynamics” at MNIT, Jaipur form 4 – 6 Jan 2014.
3. Participate in one week STC on “Nanotechnology and its applications” at MNIT Jaipur from 7 – 11 Oct 2013.
4. Participated in two days workshop on “Recent Trends in Composites” at Annasahed Dange College of Engineering and Technology, Ashta (Sangli) on 27th and 28th Sept 2016.
5. Participated in two week STTP on “Engineering Thermodynamics” conducted by IITB at remote centre RIT, Sakhrale (Sangli) from 11 Dec-21 Dec 2012.
6. Participated in one week STTP on “Recent Trends in Precision Mechanical Measurement” at SCOE, Pune (organized under TEQUIP-II) from 26 Nov-01 Dec, 2012.
7. Participated in ISTE Approved one week STTP on “Finite Elemental Analysis and Their Applications in Science and Engineering” at Annasaheb Dange Collage of Engineering and Technology, Ashta (Dist: Sangali) during 20-24 Dec, 2010.
8. Participated in workshop WIPRO Mission 10X workshop conducted at Sou. Shushila Dhanchand Charitable Trust’s Group of institutions, atigre (Dist: Kolhapur) during 13-17 Dec, 2010.
9. Participated in AICTE sponsored one week STTP on “Knowledge Management: Issues and Challenges” at SVNIT, Surat during 04-08, Jan 2010.
10. Participated in ISTE approved one week STTP on “Nano Technology” at Shri Vitthal Education and Research institute’s Collage of Engineering, Pandharpur (Dist: Solapur) during 15-19 Dec,2008.

11. Participated in AICTE and ISTE sponsored one week STTP on “Computer Aided Drafting” at Govt. Polytechnic, Amravati during 16-21 June, 2008.
12. Participated in ISTE sponsored one week STTP on “Robotics and its Applications” at Fr. Conceicao Rodrigues Collage of Engineering, Bandra, Mumbai during 26-30 May, 2008
13. Participated in five day QIP on “Micro/ Nano Tribology” at IIT, Mumbai during 01-05 Jan, 2007.
14. Participated in DTE sponsored Training program on “Developing Teaching Competencies” at NITTTR, Bhopal, Ext centre Pune during 09-20 May, 2005.
15. Participated in AICTE sponsored Two weeks faculty Development Programme (FDP) on "Materials - Processing, Characterization and Applications" conducted during 25th November 2019 to 8th December 2019 at Sri Ramkrishana College of Engineering, Coimbatore, Tamilnadu.
16. Participated in AICTE Sponsored online Short Term Training Program on “Hybrid & Electric Vehicle Technologies for Sustainable Mobility (HEVTSM-2021)” organized by Maharaj Vijayaram Gajapathi Raj College of Engineering (A), Vizianagaram, andhra Pradesh from 28th June to 3rd July 2021.
17. Participated in AICTE-ISTE sponsored induction/Refresher program on “Sustainable Product Design and Manufacturing (Phase II)” held online Shri Mata Vaishno Devi University, Katara, Himchal Pradesh during May 21-27, 2021.
18. Successfully completed the 5 day course on 'Electric and Hybrid Vehicle Engineering' organized by Haritha TechLogix in collaboration with Dept. of Electrical and Electronics Engineering and the IEEE PES SBC of Rajagiri School of Engineering and Technology, Kochi, held from 3rd - 7th August 2020.
19. Successfully passed 6 days online Proficiency Improvement Programme (oPIP) on “Design & Analysis of ATV using ANSYS Software” jointly organized by The Automotive Research Association of india (ARAI), Pune & ANSYS Software Pvt Ltd, Pune from 30th May to 20th June 2020.
20. Successfully attended one week Faculty Development Programme on “Pedagogy of Scientific Writing, Reporting and Scholarly Networks” Organised by Feroze Gandhi institute of Engineering and Technology, Raebareli, During June 19-23, 2020.
21. Participated in 5 day workshop on "IPR Awareness and Skill Development" organized by IPR Cell, NIT Mizoram from 16 March to 20 March 2024
22. Participated in the one Week National level online Faculty Development Program on Outcome Based Education and Essential AI Tools for Teachers, organised by the internal Quality Assurance Cell (IQAC) of St. Thomas College, Palai in association with The Kerala State Higher Education Council (KSHEC)from 10 January 2024 to 16 January 2024
23. participating in the Faculty Development Program on “Sharpening the Grant Writing Skills for Funded Research” organised by FSDC, SVU on 8th January 2024

Organized

1. Five day workshop on “Methodology for Effective Teaching Learning Process” at Adarsh Institute of Technology and Research Centre, Vita (Maharashtra) from 4th – 8th July 2011.
2. ISTE approved two days workshop on “Institutional Development through Research” on 1st and 2nd April 2017 in KIT’s College of Engineering Kolhapur.
3. ISTE approved one day workshop on “Research Methodology” on 2nd April 2017 in KIT’s College of Engineering Kolhapur.
4. Three-days Hands on Training on Welding Equipment for technical not teaching staff of K J Somaiya College of Engineering from 24th to 27th Dec 2019.
5. Refresher course on “Euclidean Tensor Algebra for Engineers” from 04/04/2022 to 22/04/2022 (16 hrs.)

Delivered

1. Invited as resource person for summer internship program on “Computational and Experimental Analysis in Industrial Applications in Mechanical Engineering” organized by Mechanical Engineering Department at MNIT Jaipur on 24 June 2017.
2. Delivered guest lecture on “Engineering Tribology” at SSPMCOE, Kankavli in their annual tech fest VIRTUOSIC 2017 on 23rd March 2017.

3. Delivered a session on Transmission of Vehicles and CVT Concept in workshop on Internal Combustion Engines and Vehicle Dynamics organized by Redshift Racing and K J Somaiya College of Engineering on from 20 and 21 Oct 2018.
4. Conducted a session on Design of Experiment and Practical Implementation using Software for a workshop on Sustainable Research and Development on 3 Jan 2024 at K J Somaiya College of Engineering.

Notable Key Scholastic Achievements	
1.	
2.	

Notable Positions and Responsibility	
1.	Member, Board of Studies, Mechanical Engineering
2.	PhD Coordinator, Mechanical Engineering and Energy Engineering
3.	Faculty Advisor, Orion Racing India
4.	Member, Admission Core Committee and Coordinator, M.Tech Admissions

Date: 10/05/2025 **Signature of Faculty Member**