SRES', Sanjivani College of Engineering, Kopargaon
(An Autonomous Institute affiliated to SPPU, Pune)

Staff Profile

Personal Information	
Name of Teaching Staff: (Dr) Palekar Shailesh Purushottam	
Designation: Associate Professor	
Department: Mechanical Engineering	
Date of joining: 23st June, 2009	
E Mail ID :	palekarshaileshmech@sanjivani.org.in
Contact No:	**(+91) 9922868097**

Education Details

Qualification	Specialization with Class or Grade	University	Year
UG	Mechanical Engineering	SRTM University-Nanded	1999
PG	Heat Power Enginnering	SRTM University-Nanded	2010
Ph.D.	Mechanical Engineering	SVNIT-Surat	2016

Total experience in years:

Teaching:	**27 years**
Industry:	Nil

Research and Publications

Title of Paper:

Year:- 2016-17

1. **S. P. Palekar**, A. Lal, S. B. Mulani, R. K. Kapania, Stochastic extended finite element implementation for fracture analysis of laminated composite plate with a central crack, ***Aerospace Science and Technology***, 2017; 60: 131-151.
2. Achchhe Lal, **Shailesh P. Palekar**, Stochastic Fracture Analysis of Laminated Composite Plate with Arbitrary Cracks using X-FEM, ***International Journal of Mechanics and Materials in Design***, (***Springer***), 2017; 13(2):195–228.
3. Achchhe Lal, **Shailesh P. Palekar**, Probabilistic Fracture Investigation of Symmetric Angle Ply Laminated Composite Plates Using Displacement Correlation Method, ***Curved and layered structures***, 2016; 3 (1):47–62.

Year:- 2017-18

4. Achchhe Lal, **Shailesh P. Palekar** Mixed mode stress intensity factor of edge crack laminated composite plate in hygrothermal environment using XFEM, Proceedings of ICTACEM 2017, International Conference on Theoretical, Applied, Computational and Experimental Mechanics December 28-30, 2017, IIT Kharagpur, India, doi- 10.1007/978-981-15-1189-9, ISBN 9789811511899.

Year:- 2019-20

5. Achchhe Lal, Khushbu Jain and **S. P. Palekar**, Fracture analysis of centre cracked laminated composite plate subjected to bi-axial loading using extended finite element method, ***IOP Conf. Series: Materials Science and Engineering***, 2020, 814 -012020.
6. Vaibhav J. Suryawanshi , Amar C. Pawar , **Shailesh P. Palekar**, Kuldip A. Rade, Defect Detection of Composite Honeycomb Structure by Vibration Analysis Technique, ***Materials Today Proceedings,*** https://doi.org/10.1016/j.matpr.2019.12.192.

Year:- 2020-21

7. **P. Shailesh**, A. Lal , XFEM for Fracture Analysis of Centrally Cracked Laminated Plates Subjected to Biaxial Loads, ***Mechanics of Advanced Composite Structures***, 8,pp 213 – 234, 2021.

8. **Shailesh P. Palekar**, Achchhe Lal, Stochastic Fracture Analysis of the Laminated Composite Plates Subjected to Different Types of Biaxially Applied Stresses by Implementing SXFEM,

9. **Shailesh P. Palekar**, Achchhe Lal, Stochastic Fracture Analysis of the Laminated Composite Plates Subjected to Different Types of Biaxially Applied Stresses by Implementing SXFEM, ***Iranian Journal of Science and Technology, Transactions of Mechanical Engineering***, https://doi.org/10.1007/s40997-021-00434-4, 2021.

Year:- 2021-22

10. Palekar Shailesh P, Achchhe Lal, Patare Prasad M, Joshi Atul A, Bojage Prasad A, Suryawanshi Vaibhav J, Probabilistic Mixed Mode Stress Intensity Factors of Single Edge Cracked Laminated Composite Plates Using Stochastic Extended Finite Element Method, ***Joint Conference of ICTACEM 2021, APCATS 2021, AJSAE 2021 and AeSI 2021, IIT-Kharagpur, December 20 - 22, 2021. Accepted in CRC press-In process.***
11. Vaibhav J. Suryawanshi, **Shailesh P. Palekar**, Prasad M. Patare, Prasad A. Bojage and Atul A. Joshi, Based on Natural Frequencies, Crack Analysis of Fixed Support Fibre Glass Composite Beam, ***Joint Conference of ICTACEM 2021, APCATS 2021, AJSAE 2021 and AeSI 2021, IIT-Kharagpur, December 20 - 22, 2021. Accepted in CRC press-In process.***

Year:- 2022-23

12. Atteshamuddin S. Sayyad, Pravin V. Avhad, **Shailesh P. Palekar**, Free vibration analysis of anti-symmetric fgm sandwich circular beams using a fifth-order circular beam theory, 2023, *Romanian Journal of Acoustics and Vibration*, https://rjav.sra.ro/index.php/rjav/article/view/328.
13. Prasad M Patare, S P Palekar, Sandhya S Deore, Tribological Failure Analysis of Journal Bearings used in Sugar Mill, Materials Today: Proceedings, https://doi.org/10.1016/j.matpr.2023.07.319.

Year:- 2023-24

14. S. P. Palekar, A. S. Sayyad, P. M. Patare, A. Lal, Probabilistic fracture analysis of double edge Cracked orthotropic laminated plates using the stochastic extended finite element method, Forces in Mechanics 14, 100257

International Conferences/Seminars

1. **Shailesh P. Palekar**, Achchhe Lal, Rakesh Kapania, Determination of fracture parameters for single notched edge cracks laminated composite plates subjected in-plane mechanical loadings, ***4th International Congress on Computational Mechanics and Simulation (ICCMS-2012), IIT-Hyderabad, 12-15 Dec.2012.***
2. **Shailesh P. Palekar**, AchchheLal, Probabilistic Fracture Analysis of Symmetrically Angle-Ply Laminated Composite Plates with Single Edge V- Notch, ***ICTACEM-2014, IIT-Kharagpur, 29-31 Dec.-2014.***
3. **Shailesh P. Palekar**, AchchheLal, Probabilistic Fracture Analysis of Symmetrically Angle-Ply Laminated Composite Plates with elliptical crack subjected to biaxial load, ***ICCMS-2016, IIT-Mumbai. June 27-1 July 2016.***
4. Achchhe Lal , **Shailesh P. Palekar**, Niranjan L. Shegokar, Sameer B. Mulani, Rakesh K. Kapania, B.N. Singh, Hygro-thermo-mechanically induced mixed mode stress intensity factor of central crack orthotropic plate subjected to in-plane tensile and shear loadings using XFEM, ***Asian Joint Symposium on Aerospace Engineering-2016, Jeju Island, Korea, May- 2016.***
5. AchchheLal, Rahul Kumar, NandJeeKanu, **Shailesh P. Palekar**, Mixed Mode Stress Intensity of Edge Crack Laminated Composite Plate in Hygro- Thermal Environment using XFEM***, Indian Conference on Applied Mechanics (INCAM) 2017 MNNIT Allahabad***, **5– 7 July 2017.**

Research Profile URL	
Google Scholar	https://scholar.google.com/citations?user=rBuQVI4AAAAJ
Scopus	https://www.scopus.com/authid/detail.uri?authorId=56912210700
Other Research Details	
Professional Memberships:	Life Member of Institute of Engineers India

FACULTY DEVELOPMENT PROGRAMMES ATTENDED

Name of the FDP / Workshop	Organization	Duration	Month-Year
Machine Automation and Condition Monitoring	VNIT-Nagpur	Two week	15-12-2008 to 27-12-2008
Effective Research Methodology	SRES COE, Kopargaon	One Day	31-01-2010 to 31-01-2010
Recent Advances in Composite Materials	SVNIT-Surat	One week	24-06-2013 to 28-06-2013
Finite Element and Analytical Solution for Composite Lamina	SRES COE, Kopargaon	One week	26-04-2015 to 30-04-2015
Finite Element Methods for Engineering Applications	SVNIT-Surat	One week	03-11-2015 to 07-11-2015
Advances in Theoretical, Applied, Computational, and Experimental Mechanics	SVNIT-Surat	One week	19-10-2016 to 23-10-2016
Implementation of revised syllabus of SE Mechanical (2012 course), Theory of Machines I	Cummins College of Engineering for Women-Pune	One Day	04-01-2014
Implementation of revised syllabus of BE Mechanical (2012 course), Finite element analysis	MET Bhujbal Knowledge City-Nashik	One Day	21-12-2015
Strategies to Improve R&D Activities in Engineering Institutes	SREs SCOE, Kopargaon	One Day	7-9-2021
Research Areas in Mechanical Engineering	Organized at SREs SCOE, Kopargaon	One Week	18/10/2021 to 23/10/2021

Guest lecture/ Expert lecture delivered

1. Delivered an Expert lecture as a resource person for the STTP ***"Finite Element Methods for Engineering Applications"*** held at SVNIT-Surat, during 03-07 November 2015.
2. Delivered an Expert lecture as a resource person for the STTP ***"Advances in Theoretical, Applied, Computational, and Experimental Mechanics"*** held at SVNIT-Surat during 19-23 October-2016.
3. Delivered an Expert lecture as a resource person for the workshop ***"Introduction to Finite Element Method and Engineering Applications"*** held at SRES COE-Kopargaon during 9-10 December-2016.

STTP/FDP Organized

Title	Sponsored By	Duration	**Month-Year**	**Capacity**
Research Areas in Mechanical Engineering	AICTE	7 days	October 2021	54 participant

Personal Website	-
Linked In Profile	https://www.linkedin.com/in/palekar-shailesh-28196b27/
GitHub URL	-
YouTube Channel	https://www.youtube.com/@dr.sppalekar9450

NPTEL Courses Completed –

Sr No	**Discipline**	**Year**	**Course Title**	**Duration (Weeks)**
1	ME	2025	Engine system and performance	**12**
2	MG	2024	Innovation, Business Models and Entrepreneurship	**12**
3	GE	2024	Non-conventional energy Resources	**12**
4	GE	2024	Effective Engineering Teaching In Practice	**12**
5	DE	2023	Fundamentals of Automotive Systems	**12**
6	ME	2021	NBA Accreditation and Teaching-Learning in Engineering (NATE)	**08**
7	MG	2019	Toyota Production System	**12**
8	GE	2018	Non-Conventional Energy Resources	**08**
9	MM	2017	Laws of thermodynamics	**12**
10	MG	2017	Six Sigma	**12**

Patents-

Sr. No.	**Title of Patent**	**Registration and Date**	**Published Date**	**Granted Date**
1	Suspension Test Analyzer	388063-001 29/09/2023	02/05/2024	02/05/2024

ACADEMIC PROJECTS: -

- **Title of Ph.D. Thesis:** "Probabilistic Fracture Modeling and Analysis of Laminated Composite Panel by XFEM".
- **Research Supervisor:** Dr. Achchhe Lal, Assistant Professor, Department of Mechanical Engineering, SVNIT, Surat.

- **M. Tech. Project:** "Residual Stress Analysis of Cold Hole Expansion of different shapes of holes by FEM". Guide: Late Dr. S. B. Sharma

TEACHING EXPERIENCE

Name of Institute	1. SRE's Sanjivani College of Engineering, Kopargaon. Associate Professor June 1st- 2016- Till Date 2. SRE's Sanjivani College of Engineering, Kopargaon. Assistant Professor June 26, 2009 to June 1st- 2016. 3. S.N.D. College of Engineering and Research Centre- Yeola. Lecturer. September 12, 2007 to June 23, 2009. 4. Aditya Engineering College-Beed. Lecturer June 27, 2001. to September 12, 2007. 5. Govt. Polytechnic-Beed, Lecturer August 2000 to March 31, 2001	
Designation	Associate Professor	
Department	Mechanical Engineering	
Qualification	Ph.D. (Mechanical Engg.) SVNIT-Surat M.Tech. (CAD/CAM)	
Total Experience in Years	Teaching:- 26	Industry :- 00
Papers Presented in Conferences	International :- 14 Conference paper :- 06	
Responsibilities	• Institute Ph.D. Coordinator (SPPU-Pune) • Coordinator Institute Awards and Ranking from December-2021 to till date- Prepared and submitted More than 100 Institute level reports to various organizations and received good ranking and awards for Institute. • Department Coordinator for NAAC from June-2016 to December-2021, and prepared the total report of the department. • Department Coordinator for NBA from June-2018 to December-2020. • Department Coordinator for NBA report criteria 1, 7 and 8. • Department coordinator R&D • Research- coordinator Department (Ph.D.). • Department coordinator- Student Development and Discipline. • Faculty Advisor- Integrated Development of engineering association (IDEA) Club. • Chairman- Examination Grievances of	

	Theory/Practical/Oral-Department. • Member Institute Research advisory Committee.
Field of Interest	Fracture analysis of Laminated composite plates/ Isotropic plates, CAD/CAM, Design
Professional Membership	LMISTE, IEI
Workshop Attended	11
Interaction with Professional Institutions	1. SVNIT-Surat 2. IIT-Kharagpur 3. IIT-Mumbai 4. DIAT-Pune

SKILL SETS

- CAD/CAM - ANSYS, MASTERCAM, Pro-E.
- Programming tools - MATLAB
- Microsoft Tools - Word, Excel, Power Point

Any Other:

➢ **Department Responsibilities**:

- ***Conducting Industrial training for 60 students from TY and B Tech on the topic Industrial Design and GD& T training in association with TOOLCLINICS Pvt. Ltd Pune***
- ***Personally visited 35 industries from Ch. Sambhajinagar***
- ***Completed 5 Industry sponsored projects as a Mentor under the banner of Ready Engineer Program Sponsored by Tata Technologies -Pune in association with Marathwada Association of Small-Scale Industries and Agriculture (MASSIA)***

➢ **Subjects Taught**-

1. **Undergraduate Level:-**
   - I. Dynamics of Machinery (for B.E.)
   - II. Finite Element Analysis (B.E.)
   - III. Robotics (B.E.)
   - IV. Theory of machines-I (S.E.)
   - V. Kinematics of Machines (S.Y.)
   - VI. Product Design and Development (B.E.)
2. **Post Graduates Level:-M.E.(Design Engg.)**
   - I. Reliability Engineering