

Dr.SAGAR DNYANDEV PATIL

Associate Professor in Mechanical Engineering



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1.Linkedin linkedin.com/in/dr-sagar-d-patil-86930ba2

2.https://www.scopus.com/authid/detail.uri?authorId=58983467600

3.WWW.webofscience.com/wos/author/record/AAN-9146-2021

Area of Expertise: Optimization Techniques, Composite Materials

Regarding Research Work ,Publications and Patents:

➤ **Research Reorganizations:**

1. Working as Ph.D. Guide for Dr.Babasaheb Ambedkar Technological University, Lonere,Raigad
2. Working as Ph.D. Guide for SR University, Warangal, Telangana (Registered 2 Ph.D.Candidates)
3. Working as Ph.D. Guide for Visvesvarya Technological University, Belgaum.

➤ **Patents:**

- 1.“AUTOMATIC MOISTURE CONTROL SYSTEM FOR VERMICOMPOST BED” Indian Patent application number: 202321019081
2. “IOT Based refrigerated vaccine storage system with thermal storage” Indian Patent application number: 202421030954
3. “Design and Development of mechanism or the pretreatment process of resin” Indian Patent application number: 202421030968

The following Research papers have published in **SCIE, ESCI, Web of Science, Scopus journals etc.**

1. “Multi-objective Optimization of Carbon/Glass Hybrid Composites with Newly Developed Resin (NDR) using Grey Relational Analysis”.

Vol.16 No.06 (2020) pp. 1709-1729

[DOI 10.1108/MMMS-08-2019-0141](https://doi.org/10.1108/MMMS-08-2019-0141)

Journal: Multidiscipline Modeling in Materials and Structures

(Scopus Index, SCIE, Web of Science)

Publisher: Emerald

2. “Optimization of Dynamic Properties of Hybrid Composite Shaft with Newly Developed Resin (NDR) using Grey Relational Analysis”

Vol.11 No.02 (2020) pp. 248-263

[DOI 10.1108/IJSI-07-2019-0073](https://doi.org/10.1108/IJSI-07-2019-0073)

Journal: International Journal of Structural Integrity

(Scopus Index, ESCI, Web of Science)

Publisher: Emerald

3. “Optimization of design variables for carbon/glass hybrid composites laminates using the Taguchi

Technique".

Vol.17 No.02 (2020) pp. 309-323

[DOI 10.1108/WJE-10-2019-0290](https://doi.org/10.1108/WJE-10-2019-0290)

Journal: World Journal of Engineering

(Scopus Index, ESCI, Web of Science)

Publisher: Emerald

4. "Multi-Objective Optimization of Laser Machining Parameters for Carbon-Glass Reinforced Hybrid Composites: Integrating Gray Relational Analysis, Regression, and ANN".

Vol.13 PP.103066

<https://doi.org/10.1016/j.mex.2024.103066>

(ESCI, Web of Science, Scopus Index)

Publisher: Elsevier

5. Analyzing the Design Parameters and Their Influence on the Tensile Strength of Composite Layers using Taguchi Technique

doi.org/10.1016/j.matpr.2022.11.276

Journal: Materials Today Proceeding

(Scopus Index)

Publisher: Elsevier

6. "Design, Analysis, and Development of Additive Manufacturing by using FDM Technique with Dual Nozzle Assembly"

doi.org/10.1016/j.matpr.2022.11.010

Journal: Materials Today Proceeding

(Scopus Index)

Publisher: Elsevier

7. "Methoding and Defect Minimization of Center Plate Casting by Auto-CASTX1 Software"

doi.org/10.1016/j.matpr.2022.11.286

Journal: Materials Today Proceeding

(Scopus Index)

Publisher: Elsevier

8. "Innovative Approach of Learning the Quality Management Course Contents Through Collaborative Learning in the Classroom"

<https://doi.org/10.16920/jeet/2025/v39i2/25145>

Journal: Journal of Engineering Education Transformations

(Scopus Index)

9. "Analysis of the effect of process parameters on Amaranth Popping and Puffing in the Lahi machine using the Taguchi Method"

[10.1088/1742-6596/2601/1/012013](https://doi.org/10.1088/1742-6596/2601/1/012013)

Journal: Journal of Physics: Conference Series

(Scopus Index)

10. "Heat Transfer Phenomenon of Nano-Enhanced Phase Change Material (NEPCM) Incorporated in Refrigeration Test Rig"

[10.30919/ese1099](https://doi.org/10.30919/ese1099)

Journal: Engineered Science Publisher

(Scopus Index)

11. "A Scientometric Study on the Role of Resins in High-Strength Composites: Research Trends and Industrial Applications"

Journal: E3S Web of Conferences

(Scopus Index)

12. " Medical Additive Manufacturing: Challenges and Features"

doi.org/10.51983/arme-2023.12.1.3658

Journal: Asian Review of Mechanical Engineering

(Peer Reviewed)

13. "Investigation of Composite Torsion Shaft for Static Structural Analysis using Finite Element Analysis"

Journal: International Journal of Engineering Research and Technology

ISSN: 2278-0181 Volume 1 Issue 7

(Peer Reviewed)

14. "Investigation of Composite Torsion Shaft for Torsional Buckling Analysis using Finite Element Analysis"

Journal : IOSR Journal of Mechanical and Civil Engineering

ISSN:2278-1684 Volume 3

(Peer Reviewed)

15. **Published Book Chapter on "Applications and scope of nanotechnology in additive manufacturing for healthcare industry" in **Medical Additive manufacturing: Concepts and fundamentals published by Elsevier****

16. **Published Book Chapter on " Usage of Autodesk Fusion 360 software for 3D Reconstruction of Anatomical Structure from 2D X-ray image" in **Medical Additive manufacturing: Concepts and fundamentals published by Elsevier****

17. **Published Book Chapter on "Investigation of Power Consumption of Refrigeration Model and Its Exploratory Data Analysis (EDA) by Using Machine Learning (ML) Algorithm" in **Communications in Computer and Information Science published by Springer Nature****

18. **Published Book Chapter on "Empowerment of Women Through Education and Training in Artificial Intelligence" in **published by IGI Publication****

19. **Published Book Chapter on "Statistical Analysis of the Empowerment of Women In India" in **published by IGI Publication****

20. **Presented paper entitled " Investigating the Effect of Design Variables on The Tensile Strength of Hybrid Composite Laminate Using The Taguchi Technique"**

International Conference ICIAER-2019

21. **Presented paper entitled "Analysis of the effect of fiber orientation & stacking sequence on bending strength of I-section composite beam"**

International Conference ICRCET 17



Languages



Indian



Languages Known : English, Hindi, Marathi



Work History



Jan 2021 - Associate Professor

Current

Sharad Institute of Technology College of Engineering, Yadav, Ichalkaranji

- HOD Mechanical Engineering Department
- Chairmen Board of Studies, Mechanical Engineering Department
- Chairmen of DAAB committee Mechanical Engineering Department
- Published many papers in SCI,ESCI,SCOPUS, International Journals

- Editorial Board member for International Journal
- Fetched funds in terms of consultancy from various industries
- Increased Research publication in department
- Increased sponsored research funds in department
- Establish good Industrial relation through various MOU.

Jun 2013 - Assistant Professor

Jan 2021 *Sharad Institute of Technology College of Engineering, Ichalkaranji, Ichalkaranji*

- Collaborated with faculty members on research type projects.
- Revised course objectives, course materials, instructional and assessment strategies for various courses like Strength of materials, Automobile Engineering etc.
- Evaluated and supervised student activities and performance levels to provide reports on academic progress.

Jun 2012 - Lecturer

Jun 2013 *Sharad Institute Of Technology Polytechnic Ichalkaranji, Ichalkaranji*

- Used variety of learning modalities and support materials to facilitate learning process and accentuate presentations.
- Evaluated and revised lesson plans and course content to achieve student-centered learning.
- Increased college admission by 60%

Jun 2010 - Lecturer

Jun 2012 *Nanasaheb Mahadik polytechnic Peth, Peth Naka*

Aug 2009 - Lecturer

May 2010 *Dr.J.J.Magdum polytechnic Jaysingpur, Jaysingpur*



Administrative Experience

1. Working as "**Head of Mechanical Engineering Department**" at Sharad Institute of Technology College of Engineering, Yadrav.
2. Worked as "**Dean Administrative**" at Sharad Institute of Technology college of Engineering Yadrav from 28 July 2014 to 06 July 2022
3. Working as "**Chairmen, Board of Studies**" of Mechanical Engineering Department at Sharad Institute of Technology College of Engineering, Yadrav.
4. Working as "**Member in Board of Governance**" at Sharad Institute of Technology College of Engineering, Yadrav
5. Working as "**Member in Local Managing Committee**" at Sharad Institute of Technology college of Engineering Yadrav
6. Working as "**Chairmen for DAAB committee**" in the Mechanical Engineering Department at Sharad Institute of Technology College of Engineering Yadrav.
7. Working as "**Member of Academic Council**" at Sharad Institute of Technology College of Engineering Yadrav.
8. Working as "**Member of IQAC**" at Sharad Institute of Technology College of Engineering Yadrav.

9. Working as “**Member in Internal Compliance Committee (ICC)**” at Sharad Institute of Technology College of Engineering, Yadav

10. Worked as “**HOD in Mechanical Engineering Department**” at Nanasaheb Mahadik Polytechnic Peth



Education

Jan 2015 - Ph.D.

Jan 2021 Savitribai Phule Pune University - Pune India

Jul 2010 - Master of Engineering (M.E.): CAD/CAM/CAE

Apr 2013 Rajarambapu Institute of Technology - Sakharale India

Percentage: 71.11%, First Class with Distinction

Jul 2005 - Bachelor of Engineering (B.E.): Mechanical Engineering

May 2009 Textile & Engineering Institute - Ichakaranji, India

Percentage: 70.85

Jun 2003 - 12th (H.S.C.): Science Education

May 2004 Arts Science And Commerce College - Ichalkaranji

Percentage: 72.83

Jun 2001 - 10th (S.S.C)

Mar 2002 Dr. Bapuji Salunkhe Highschool - Ichalkaranji

Percentage 80.40



Accomplishments

Ph.D. Research Topic

- “Some Finite Element and Experimental studies on the effect of stacking angles, stacking sequences, layers and layer thickness on a composite torsion drive shaft”

Working as Reviewer for:

- Applied Composite Materials (**SCIE Index, Springer Publisher**)
- Part L: Journal of Materials: Design and Applications (**SCIE Index, SAGE Publisher**)
- Materials Chemistry and Physics (**SCIE Index, Elsevier Publisher**)
- Materials Today Proceedings (**SCOPUS Index, Elsevier Publisher**)
- Journal of Engineering, Design and Technology (**ESCI Index, Emerald Publisher**).
- **Editorial Board member** in International Journal for Research in Emerging Science and Technology. ISSN 2349-7610
- **Editorial Board member** for 3rd Edition of International Conference on “Computer Aided Design in Mechanical Engineering”

Research Funding and Reorganization

- Working as **Co-Coordinator for AICTE IDEA Lab and received fund of Rs. 30,00,000**
- **Fetched Rs. 2,25,000 / Consultancy** amount SP Concare Pvt.Ltd.Sangli
- Fetched Funding from TATA Technology and Goshima of **Rs.15000** for UG Project entitled “Automatic Moisture Control System for Vermi compost Bed”

Special Achievement and Awards

- Awarded by “**Best Teacher Award**” in Sharad Institute of Technology in the year 2014-15.
- Awarded by “**Best HOD**” by IACC in Conference

- Awarded Best Research Paper Award in **IRMAS 2023 International Conference held at VIT Chennai.**
- Life member of ISTE, New Delhi
- Received **NPTEL Domain Star** award from **IIT Madras in Faculty Domain**
- Received **NPTEL Subject Topper award** from **IIT Madras** in course "Patent Drafting for Beginners"



Certifications

- | | |
|-----------------|--|
| Dec 2018 | 1. Completed 4 Week training program on "ICT for Education tool" arranged by IIT Bombay 30 Oct 2018-13 Dec 2018 . |
| Oct 2018 | 2. Completed 4 Week training program on "Pedagogy for online and Bended Teaching" arranged by IIT Bombay 13 Sept 2018-18 Oct 2018. |
| Sep 2021 | 3. Completed Online Certification of NPTEL "Accreditation and Outcome based Learning" with 72% score from July-Sept 2021. |
| Aug 2021 | 4. Completed AICTE ATAL training on "Research and Innovation in 3 D Printing" from 02/08/21 to 06/08/21. |
| Aug 2021 | 5. Completed AICTE ATAL training on "Sustainable Green Composites" from 09/08/21 to 13/08/21. |
| Dec 2020 | 6. Completed AICTE ATAL training on "Advancement in 3 D Printing and its Future" from 08/12/20 to 12/12/20. |
| Apr 2022 | 7. Completed Online Certification of NPTEL "Patent Law for Engineers and Scientist" with 80% score from Jan-Apr 2022 |
| Feb 2022 | 8. Completed AICTE ATAL training on "Polymer Matrix Based Nanostructures for Targeted Drug Delivery Application "from 07/02/2022 to 11/02/2022 |
| Oct 2022 | 9. Completed Online Certification of NPTEL "Development Research Methods" with 76% score from Aug-Oct 2022 |
| Oct 2022 | 10. Completed Online Certification of NPTEL "Ethics in Engineering Practice" with 55% score from Aug-Oct 2022. |
| Mar 2023 | 11. Completed Online Certification of NPTEL "Effective Engineering Teaching i Practice" with 75% score from Jan-Feb 2023. |
| Mar 2023 | 12. Completed Online Certification of NPTEL "Introduction to Professional Scientific Communication" with 73% score from Jan-Feb 2023. |
| Aug 2023 | 13. Completed Online Certification of NPTEL "Teaching and Learning in General Programs" with 77% score from Jul-Aug 2023. |
| Feb 2025 | 14. Completed AICTE ATAL training on "Industry 4.0 for Industry and Academia "from 03/02/2025 to 08/02/2025 |
| Feb 2025 | 15. Completed Online Certification of NPTEL "Patent Drafting for Begineers" with 70% score from Jan-Feb 2025. |

- ◆ **Mar 2025** 16. Completed Online Certification of NPTEL "Roadmap for patent Creation" with 73% score from Jan-Mar 2025.
- ◆ **Mar 2025** 17. Completed Online Certification of SR University on "Revolutionizing Data Analytics: Tableau, Power BI, AI, and Optimization Techniques" from 12/03/2025 to 16/03/2025



References

1. Dr.Yogesh J Bhalerao

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