Name of the Teaching Staff	:	Dr. Rajkumar Bhimgonda Patil Parmappa
Designation	:	Associate Professor
Department	:	Mechanical Engineering
Date of Joining	:	December 21, 2023
Email ID	:	rajkumar.patil@djsce.ac.in

Personal Website Link	:	https://sites.google.com/view/rajkumarbpatil/home?authuser=0
Google Scholar Link	:	https://scholar.google.co.in/citations?user=vqMJYAsAAAAJ&hl=en
Scopus Link	:	https://www.scopus.com/authid/detail.uri?authorId=57162294600
Web of Science Link	:	https://publons.com/researcher/2371844/rajkumar-b-patil/
ORCiD Link	:	https://orcid.org/0000-0002-6292-1337
Vidwan Link	:	https://vidwan.inflibnet.ac.in/profile/453784

Qualifications with Class / Grade :

Academic Credentials	Duration	University/Board	Marks	Grade
Post-Doctoral Fellow (Research Associate)	Sept. 2019 to Sept. 2020	University of Maryland, College Park, Maryland, USA	--	Completed
Ph.D. (Mechanical Engineering)	August 2014 to October 2018	Savitribai Phule Pune University, Pune	--	Awarded
M.E. (Mechanical - Design Engineering)	August 2011 to Sept. 2013	Shivaji University, Kolhapur	71.09%	Distinction
B.E. (Mechanical Engineering)	August 2006 to May 2010	Shivaji University, Kolhapur	75.64%	Distinction

Total Experience in Years :

Organization	Designation	From	To	Total
Pimpri Chinchwad College of Engineering, Pune	Assistant Professor	May 2021	Till date	2 years
Annasaheb Dange College of Engineering and Technology, Ashta	Assistant Professor	16/06/2014	15/05/2021	7 years
Dr. J. J. Magdum College of Engineering, Jaysingpur	Assistant Professor	03/01/2012	31/05/2014	2 years, 5 months
Sharad Institute of Technology, College of Engineering, Yadrav, Ichalkaranji	Assistant Professor	01/08/2011	31/12/2011	5 months
MOJJ Engg. Systems LTD., Pune	Trainee Engineer	15/07/2010	15/07/2011	1 year
			Total	**13 years**

Papers Published in Journals :

1. Sonawane, P. R., Bhandari, S., Patil, R. B, and Al-Dahidi, S., 2023, Reliability and Criticality Analysis of a Large-Scale Solar Photovoltaic System Using Fault Tree Analysis Approach, Sustainability, MDPI, Vol. 15, Issue 5, pp. 4609, https://doi.org/10.3390/su15054609, (**Impact Factor = 3.889, Cite Score = 5.0**).
2. Roy, A., Patil, R. B., and Sen, R., **2022**, The Effect of Fast Charging and Equalization on the Reliability and Cycle Life of the Lead-acid Batteries, *Journal of Energy Storage*,

Elsevier, https://doi.org/10.1016/j.est.2022.105841 (**Impact Factor = 8.907, Cite Score = 8.4**).

3. Patil, R. B., Patil, S. S., Gupta, G., Bewoor, A. K., 2022, A Generalized Model Selection Framework for Multi-State Failure Data Analysis, *International Journal of Quality and Reliability Management*, Emerald, Vol. 39, Issue 7, pp. 1637-1647, https://doi.org/10.1108/IJQRM-08-2021-0280 (**Cite Score = 4.9**).
4. Kumar, A., Saini, M., Patil, R. B., Al-Dahidi, S., and Mellal, M. A., **2022**, Reliability, Availability, Maintainability, and Dependability of Tube-Wells Integrated with Underground Pipelines in Agricultural Fields for Irrigation, *Advances in Mechanical Engineering*, SAGE, Vol. 14, No. 8, pp. 1-17, https://doi.org/10.1177/16878132221115931, (**Impact Factor = 1.566, Cite Score = 3.1**).
5. Patil, S. S., Bewoor, A. K., and Patil, R. B., 2022, A New Approach for Failure Modes, Effects, and Criticality Analysis Using ExJ-PSI Model – A Case Study on Boiler System, Applied Sciences, MDPI, Vol. 12, pp. 11419, https://doi.org/10.3390/app122211419 (**Impact Factor = 2.838, CiteScore = 3.7**).
6. Shinde, A. B., and Patil, R. B., **2022**, Multi-objective Optimization of Split and Recombine Micromixer Using Grey Relational Analysis Method, *International Journal of Quality and Reliability Management*, Emerald, Vol. 39, Issue 7, pp. 1577-1591, https://doi.org/10.1108/IJQRM-06-2021-0186 (**Cite Score = 4.9**).
7. Saini, M., Goyal, D., Kumar, A., and Patil, R. B., **2022**, Availability Optimization of Biological and Chemical Processing Unit using Genetic Algorithm and Particle Swarm Optimization, *International Journal of Quality and Reliability Management*, Vol. 39, Issue 7, pp. 1704-1724, https://doi.org/10.1108/IJQRM-08-2021-0283 (**Cite Score = 4.9**)
8. Rajani, P. K., Patil, R. B., Bhandari, S. U., and Raut, R., **2022**, Rice Leaf Disease Detection using Convolutional Neural Network, *Journal of Advanced and Applications in Mathematical Sciences*, Mili Publication, **(WoS – ESCI), Accepted.**
9. Patil, R. B., Mellal, M. A., Bewoor, A. K., and Al-Dahidi, S., **2021**, Reliability, Maintainability, and Availability Analysis of a Computerized Numerical Control Turning Center using Markov Chains, *Acta Polytechnica Hungerica*, Vol. 18, Issue 6, pp. 45-70, DOI: 10.12700/APH.18.6.2021.6.3 (**Impact Factor = 1.806, Cite Score = 4.4**).
10. Gaonkar, A., Patil, R. B., Kyeong, S., Das, D., and Pecht, M., **2021**, An Assessment of Validity of the Bathtub Model Hazard Rate Trends in Electronics, *IEEE Access*, Vol. 9, pp. 10282-10290, 10.1109/ACCESS.2021.3050474 (**Impact Factor = 3.745; Cite Score = 4.8**).
11. Patil, S. S., Bewoor, A. K., and Patil, R. B., **2021**, Availability Analysis of a Steam Boiler in Textile Process Industries Using Failure and Repair Data: A Case Study, *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part B: Mechanical Engineering*, Vol. 7, Issue 2, pp. 021002-1-10, https://doi.org/10.1115/1.4049007 (**Cite Score = 2.8**).
12. Patil, R. B., Kothavale, B. S., Waghmode, L. Y., **2021**, "Life Cycle Cost Analysis of a Computerized Numerical Control Machine Tool: A Case Study from Indian Manufacturing Industry", *Journal of Quality in Maintenance Engineering*, Emerald, Vol. 27, Issue 1, pp. 107-128, https://doi.org/10.1108/JQME-07-2019-0069 (**Cite Score = 2.2**).
13. Patil, R. B., **2020**, "Integrated Reliability and Maintainability Analysis of Computerized Numerical Control Turning Center Considering the Effects of Human and Organizational Factors", *Journal of Quality in Maintenance Engineering (JQME)*, Emerald, Vol. 26, Issue 1, pp. 87-103 https://doi.org/10.1108/JQME-08-2018-0063 (**Cite Score = 2.2**).

		14. Patil, R. B., Kothavale, B. S., and Waghmode, L. Y., **2019**, "Selection of Time-to-Failure Model for CNC Turning Center based on the Assessment of Trends in Maintenance Data", *Journal of Risk and Reliability*, SAGE, Vol. 233, Issue 2, pp. 105-117 (**Impact Factor = 1.602; Cite Score = 3.2**). 15. Patil, R. B., Kothavale, B. S., **2018**, "Failure Modes and Effects Analysis of Computerized Numerical Control (CNC) Turning Center", *International Review of Mechanical Engineering (IREME)*, Praise Worthy Prize, Vol. 12, Issue 1, pp. 78-87 (**Cite Score = 1.7**). 16. Patil, R. B., Kothavale, B. S., Waghmode, L. Y., and Joshi, S. G., **2017**, **"**Reliability Analysis of CNC Turning Center Based on the Assessment of Trends in Maintenance Data – A Case Study**"**, *International Journal of Quality and Reliability Management (IJQRM)*, Emerald, Vol. 34, Issue 9, pp. 1616-1638 (**Cite Score = 4.2**). 17. Patil, R. B., Waghmode, L. Y., Jadhav, V. D., and Kothavale, B. S., **2017**, Failure mode and effect analysis (FMEA) of manually and electrically operated butterfly valve, *Pumps valves and systems*, Volume 8, Issue 4, pp. 08-18, ISSN 2347-808X. 18. Waghmode, L., Y., and Patil, R., B., **2016**, **"**Reliability Analysis and Life Cycle Cost Optimization: A Case Study from Indian Industry**"**, *International Journal of Quality and Reliability Management (IJQRM)*, Emerald, Vol. 33, No. 3, pp. 414-429. DOI: 10.1108/IJQRM-11-2014-0184 (**Cite Score = 4.2**). 19. Patil, S. S., Dhanal, S. V., and Patil, R. B., **2016**, **"**Reliability Analysis of CNC Machine Tools – A Review**"**, *Quality, Statistics and Reliability*, Inventi, Vol. 2016, Issue 4, pp. 1-4. 20. Adadande, A., S., Naniwadekar, A., M., and Patil, R., B., **2014**, **"**Reliability analysis of pressure relief valve manufacturing system**"**, *International Journal of emerging engineering research and technology*, Vol. 2, Issue 2, pp. 64-70. 21. Patil, R., B., Waghmode, L., Y., Chikali, P., B., and Mulla, T., S., **2013**, **"**An Overview of Fault Tree Analysis (FTA) Method for Reliability Analysis & Life Cycle Cost (LCC) Management**"**, *IOSR Journal of Mechanical & Civil Engineering* (IOSR-JMCE), pp. 14-18. ISSN: 2278-1684. 22. Patil, R., B., Waghmode, L., Y., Nikam, A., A., and Chikali, P., B., **2013**, **"**Selection of Time to Failure Model & Reliability Analysis of Band Saw Cutting Machine**"**, *International Journal of Advances in Engineering and Emerging Technology (IJAEET)*, Vol. 2, No. 2, pp. 290-295. ISSN 2321-452X. 23. Waghmode, L., Y., and Patil, R., B., **2013**, **"**An overview of fault tree analysis (FTA) method for reliability analysis**"**, *Journal of Engineering Research and Studies*, pp. 6-8, E-ISSN 0976-7916.
Papers Presented in Conferences	:	1. Pimpalkar, R., Sahu, A., Patil R. B., and Roy, A., 2022, A Comprehensive Review on Failure Modes and Effects Analysis of Solar Photovoltaic System, Proceedings of 1st International Conference on Innovations in Mechanical and Civil Engineering (i-MACE), *Materials Today: Proceedings*, Vol. 77, No. 3, pp. 687-691, https://doi.org/10.1016/j.matpr.2022.11.353 **(Scopus) (Cite Score = 2.3).** 2. Mellal, M. A., Al-Dahidi, S., Patil, R. B., Kothavale, B. S., and Powar, R. S., 2022, System Reliability-Redundancy Optimization with High-Level of Subsystems, Proceedings of 1st International Conference on Innovations in Mechanical and Civil Engineering (i-MACE), *Materials Today: Proceedings*, Vol. 77, No. 3, pp. 627-630, https://doi.org/10.1016/j.matpr.2022.11.088 **(Scopus) (Cite Score = 2.3).** 3. Talkit, V. G., Honrao, P., Bhosale, S., Bewoor, A., and Patil, R. B., 2022, Application of the Reliability Analysis for Modifications in Maintenance Scheduling, Proceedings of 1st International Conference on Innovations in Mechanical and Civil Engineering (i-MACE), *Materials Today: Proceedings*, Vol. 77, No. 3, pp. 579-585, https://doi.org/10.1016/j.matpr.2022.10.075, **(Scopus) (Cite Score = 2.3).**

4. Talkit, V., Kininge R., Kokate, P., Narkhede, Madane, S., Bewoor, A., and Patil, R. B., 2022, Reliability Analysis of Repairable and Replaceable System: A Case Study of a Dairy Product Industry, Proceedings of 1st International Conference on Innovations in Mechanical and Civil Engineering (i-MACE), *Materials Today: Proceedings*, Vol. 77, No. 3, pp. 573-578, https://doi.org/10.1016/j.matpr.2022.10.074, **(Scopus) (Cite Score = 2.3).**
5. Shinde, S. S., Deshmukh, P. V., and Patil, R. B., 2022, Analyzing the Side Effects of Increasing E-Pollution on the Life and Nature, Proceedings of 1st International Conference on Innovations in Mechanical and Civil Engineering (i-MACE), *Materials Today: Proceedings*, Vol. 77, No. 3, pp. 592-596, https://doi.org/10.1016/j.matpr.2022.10.079 (**Scopus**) **(Cite Score = 2.3)**.
6. Sagare, V., Kale, P., Roy, A., Patil, R. B., Experimental Investigation of Parameters Influencing Life Cycle of Lithium-ion Batteries at Ambient cell surface temperature, Proceedings of 1st International Conference on Innovations in Mechanical and Civil Engineering (i-MACE), *Materials Today: Proceedings*, Vol. 77, No. 3, pp. https://doi.org/10.1016/j.matpr.2022.11.253 (**Scopus**) **(Cite Score = 2.3)**.
7. Shinde, A. C., Rasne, P. S., and Patil, R. B., 2022, Quarter Car Active Suspension System Using Fuzzy Linear Quadratic Regular Controller" AIP Conference Proceedings, of 1st International Conference on Material Science, Mechanical and Civil Engineering (ICAMMCE-2022), Feb. 14-15, 2022 (**Scopus**).
8. Jagtap, H. P., Bewoor, A. K., Patil, R. B., Dawale, A. C., Kamble, D. P., and Sawant, S. B., **2021**, An integrated approach for interoperability of standards, condition monitoring methods, and research models used in the power generation sector, IOP Conference Series: Materials Science and Engineering, ICMSMT 2021, Vol. 1166, pp. 012010, doi:10.1088/1757-899X/1166/1/012010 (**Scopus**).
9. Mullya, S. A., Karthikeyan, G., Patil, R. S., Patil, R. B., **2020**, Observation at the Interelectrode Gap of Micro Electric Discharge Milling, *ASME 15th International Manufacturing Science and Engineering Conference (MSEC2020)*, https://doi.org/10.1115/MSEC2020-8280, Vol. 2, September 2020, USA (**Scopus**).
10. Patil, R. B., Kothavale, B. S., and Powar, R. S., **2019**, "Effect of Human and Organizational Factors on the Reliability and Maintainability of CNC Turning Center", *4th International Conference on Reliability, Safety, and Hazard (ICRESH-2019)*, January 10-14, 2019, Indian Institute of Technology (IIT), Madras, Chennai, India.
11. Patil, R. B., Kothavale, B. S., and Mhamane, D. A., **2018**, "Fault Tree Analysis: A Case Study from Machine Tool Industry", *An International Conference on Tribology for Reliability and Life (TRIBOINDIA-2018)*, December 13-15, 2018, Veermata Jijabai Technological Institute (VJTI), Mumbai, Maharashtra, India.
12. Patil, R. B., and Kothavale, B. S., **2018**, "Criticality Analysis of CNC Turning Center Using Analytic Hierarchy Process", *Proceedings of 1st International and 4th National Conference on Reliability and Safety Engineering (INCRS-2018)*, February 26-28, 2018, Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Jabalpur, MP, India.
13. Patil, R. B., and Kothavale, B. S., **2018**, "Failure Modes and Effects Analysis of CNC Turning Center", *Proceedings of 1st International and 4th National Conference on Reliability and Safety Engineering (INCRS-2018)*, February 26-28, 2018, Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Jabalpur, MP, India.
14. Patil, R. B., Kothavale, B. S., and Tripathi, V. K., **2016**, "Multi-state Reliability Analysis of CNC Turning Center", *Proceedings of World Congress on Engineering and Applications (WCEA - 2016)*, December 16-17, 2016, Bangkok, Thailand.
15. Patil, R. B., Jadhav, V., S., and Waghmode, L., Y., **2015**, Failure mode effect and criticality analysis of manually and electrically operated butterfly valve, *2nd SRESA*

		National conference on reliability and safety engineering (NCRS'15), October 8-10, 2015, Anna University, Chennai. 16. Patil, R. B., and Waghmode, L. Y., **2014**, "Life Cycle Cost (LCC) Optimization of Band Saw Cutting Machine through Reliability Analysis", *Proceedings of 1st International Conference on Mechanical Engineering: Emerging Trends for Sustainability (ICMEETS 2013)*, January 29-31, 2014, Maulana Azad National Institute of Technology (MANIT), Bhopal, Vol. 2, pp. 755-763, ISBN: 978-93-83083-45-9. 17. Patil, R., B., Bhilawade, M., A., Nikam, A., A., and Bhilawade, T., A., **2014**, "A New Approach towards Automotive Headlamps LASER Technology", *Proceedings of National Conference on Recent Developments in Mechanical Engineering (RDME-2014)*, March 13-14, 2014, MES's College of Engineering, Pune, India, pp. 37-41. 18. Patil, R., B., Waghmode, L., Y., Chikali, P., B., and Mulla, T., S., **2013**, "An Overview of Fault Tree Analysis (FTA) Method for Reliability Analysis & Life Cycle Cost (LCC) Management", *Proceedings of 2nd International Conference on Emerging Trends in Engineering (ICERT 2013)*, February 22-23, 2013, Dr. J. J. Magdum College of Engineering, Jaysingpur, pp. 14-18. ISSN: 2278-1684. 19. Patil, R. B., Nikam, A., A., Powar, R., S., and Waghmode, L. Y., **2013**, "Effective Implementation of Reliability Techniques for Life Cycle Cost Optimization of an Industrial Product", *Proceedings of 4th National Conference on Advances in Mechanical Engineering (AIM 2013)*, November 7-8, 2013, Vasavi College of Engineering, Hyderabad, India, pp. 251-257, ISBN: 978-93-82570-16-5. 20. Patil, R., B., Bhilawade, M., A., Nikam, A., A., and Powar, R., S., **2013**, "Comparative Analysis of Aesthetic and Ergonomic Considerations in Toyota Etios", *Proceedings for National Conference on Design Considerations in Automobile Industries (RDME-2014)*, July 27-28, 2013, ATS's SBGI College of Engineering, Miraj, Maharashtra, pp. 97-101. 21. Patil, R., B., Bhilawade, M., A., Kabade, S., and Nikam, A., A., **2013**, "A Case Study on Aesthetic and Ergonomic Considerations in Pleasure (bike)", *Proceedings for National Conference on Design Considerations in Automobile Industries*, July 27-28, 2013, ATS's SBGI, Miraj, College of Engineering, Miraj, Maharashtra, pp. 161-167.
Area of Specialization	:	**Reliability Engineering** Specific research interests include: • Reliability, Maintainability, and Availability Modeling and Analysis, Product Life Cycle Costing, Handbook-based Reliability Prediction, and Physics-of-failure. • Data science – analysis of data collected from the field and reliability tests. • Artificial Intelligence and Machine Learning for reliability modeling and predictions **Software Skills (Proficient):** Weibull++, ALTA Pro, BlockSim, XFMEA, Windchill, MiniTab, Python **Software Skills (Moderate):** XFRACAS, Lambda Predict
PhD Guide? Give field & University	:	Field: University: --
PhDs / Projects Guided	:	PhDs : -- Projects at Masters level: 02
Books Published / Book Chapters/ IPRs / Patents	:	**Patents:** 1. Indian Patent on "Unmanned Aerial Vehicle-based Real-time Fault Detection System for Photovoltaic Power Station and Methods Thereof", by P. R. Sonawane, S. U. Bhandari, Rajkumar B. Patil, and Anindita S. Roy, published on March 10, 2023 (Application No. 202221031194, filing date – 31/05/2023). **Book Chapters:** 1. Patil, R. B., Al-Dahidi, S., Newale, S., and Mellal, M. A., **2023**, Fault Tree Analysis of Centerless Grinding Machine, in the *Predictive Analytics in System Reliability, Springer*

		Series in Reliability, Springer, https://doi.org/10.1007/978-3-031-05347-4_13, (**Scopus**). 2. Patil, S. S., Bewoor, A. K., Patil, R. B., Mellal, M. A., **2020**, Maintenance Data – Trends Based Reliability, Availability, and Maintainability (RAM) Assessment of a Steam Boiler, in the *Predictive Analytics: Modeling and Optimization*, Taylor & Francis. 3. Patil, R. B., and Mellal, M. A., **2020**, Fault Tree Analysis of Computerized Numerical Control Turning Center, in the *Predictive Analytics: Modeling and Optimization*, Taylor & Francis. 4. Patil, R. B., Kothavale, B. S., and Powar, R. S., **2020**, Effects of Human and Organizational Factors on the Reliability and Maintainability of CNC Turning Center, in the *Reliability, Safety and Hazard Assessments for Risk-Based Technologies*, Springer, pp. 751-764, (**Scopus**). 5. Patil, R. B., and Kothavale, B. S., **2020**, Failure Modes and Effects Analysis of CNC Turning Center, in the *Reliability and Risk assessments in Engineering*, Springer, pp. 49-59, (**Scopus**). 6. Patil, R. B., and Kothavale, B. S., **2020**, Criticality Analysis of CNC Turning Center Using Analytic Hierarchy Process, in the *Reliability and Risk assessments in Engineering*, Springer, pp. 61-76, (**Scopus**).
Professional Memberships	:	1. Life Member, *Society for Reliability and Safety (SRESA)*, BARC, Mumbai. LM-125. 2. Life member of *Indian Society for Technical Education (ISTE)*: LM 103049. 3. ISHRAE: Member of the *Indian Society of Heating, Refrigerating, and Air Conditioning Engineers (ISHRAE)*. #: 22522.
Grants fetched/ Fellowships	:	

Funding Agency/ Body	Title of the Scheme/ Project/ Fellowship	Duration	Amount
Pimpri Chinchwad College of Engineering, Pune	SIRO funding "Development of Reliability Analysis Model and Fault Detection and Diagnosis System for Solar Photovoltaic System"	2022 - 24	Rs. 15,00,000
	PCCOE Seed Funding – "Assessment of Reliability Allocation Methods and Development of a Generalized Methodology for Reliability Allocation"	2021- 22	Rs. 90,000
	PCCOE Darpan Fellowship for Personal Website Development	2023 - 23	Rs. 6000
	PCCOE Darpan Fellowship for Personal Website Development	2021 - 22	Rs. 6000
Shivaji University, Kolhapur	Development of Hybrid Reliability Model for the Analysis of Manufacturing Systems	2020 - 21	Rs. 28,000
University of Maryland, College Park, USA	Post-doctoral Fellowship	2019 - 20	$47,000

Interaction with Professional Institutions	:	**Interaction with Outside World and Guest Lectures Delivered:** 1) Delivered lectures on "Scopus and Web of Science: Relevant Perspective" and "How to write abstract and conclusion" in FDP on "Research Paper Writing and Publishing" at Nutan College of Engineering and Research, Pune, on 20-24 Feb. 2023. 2) Delivered a lecture on "Recent advances in safety and reliability of solar photovoltaic systems", in FDP on "Advances in Clean Energy Technologies for Sustainable Development" at Sharad Institute of Technology, Polytechnic, Yadrav, Ichalkaranji, Kolhapur, on January 28, 2023. 3) Guest lecture on "Reliability Engineering" at Annasaheb Dange College of Engineering and Technology, Ashta, on 31/12/2022.

4) Lectures on various topics "Literature review: an art", "How to write a review paper" and "How to select a suitable journal for submitting manuscript" at FDP on "IPR, Patents, and Research Writing" at Sharad Institute of Technology, College of Engineering, Yadrav, Ichalkaranji, Kolhapur.
5) Expert lecture on "Publication of research article: an insight" at Nutan College of Engineering and Research, Pune, on September 09, 2022.
6) Delivered an expert talk on "System Reliability Modeling" at German-Jordanian University, Jordan on August 20th, 2021.
7) Delivered a lecture on "Reliability Engineering in the 21st Century", in STTP on "Emerging Trends in Mechanical, Automation & Robotics" at D. Y. Patil Institute of Technology, Pimpri, Pune, on 23rd August 2021.
8) Delivered a guest lecture on "Introduction to Reliability Modeling", at D. Y. Patil Institute of Technology, Pimpri, Pune, on 08th December 2020.
9) Delivered a guest lecture on "Modeling of Field Failure and Test Data", at Annasaheb Dange College of Engineering and Technology, Ashta, on 19th June 2020.
10) Delivered a guest lecture on "Literature Review and Plagiarism" at Sharad Institute of Technology, Yadrav on 12th June 2020.
11) Delivered a guest lecture on "Design of Gear Boxes for Machine Tool Applications", at Vishveshwarya Technical Campus, Patgaon, Miraj, on 04th and 05th October 2018.
12) Delivered a guest lecture on "Design of Gear Boxes for Machine Tool Applications", at Vishveshwarya Technical Campus, Patgaon, Miraj, on 07th and 08th Sept., 2017.
13) Delivered a guest lecture on "Reliability Engineering", at MAEER's MIT College of Engineering, Pune, on 10th Sept. 2015.
14) Delivered a guest lecture on "Reliability Engineering", at MAEER's MIT College of Engineering, Pune, on 22nd January 2015.

Editorial Experiences

1. **Guest editor** - Special issue on "Reliability and Quality: Analysis and Applications" of International Journal of Quality and Reliability Management (IJQRM), Emerald, **2022**, https://www.emerald.com/insight/publication/issn/0265-671X/vol/39/iss/7, (CiteScore = 4.9, Quartile 1)
2. **Guest Editor** - Special Issue "Safety and Reliability of Renewable Energy Systems for Sustainability" of Sustainability Journal, MDPI, (**Impact Factor = 3.889, Cite Score = 5.0, Quartile 1**), ongoing, https://www.mdpi.com/journal/sustainability/special_issues/58B78LUQL2.
3. **Editor –** Materials Today: Proceedings, 1st Conference on Innovations in Mechanical and Civil Engineering, 2022, http://www.i-mace.pccoepune.com/.
4. **Editor** – AIP Conference Proceedings, 1st Conference on Innovations in Mechanical and Civil Engineering, 2022, http://www.i-mace.pccoepune.com/.

Reviewer of International Journals:

- International Journal of Quality and Reliability Management (IJQRM), Emerald.
- IEEE Transactions on Reliability.
- Engineering Failure Analysis, Elsevier.
- Journal of Quality in Maintenance Engineering, Emerald.
- Maintenance, Reliability, and Condition Monitoring, Extrica.
- Sustainability, MDPI.
- Applied Sciences, MDPI.

Summer/Winter Schools, STTP/FDP/Workshop Attended:

1. Continuing Education Program on "Artificial Intelligence and Machine Learning for Mechanical Engineering", 24th April to 28th April 2023, at National Institute of Technology (NIT), Warangal.

		2. ISTE approved STTP on "AI/ML and Its Applications", 17th April to 24th April 2023, at K. J. College of Engineering and Management Research, Pune, India. 3. Faculty Development Program on "Research Paper Writing and Publishing", 20th January to 24th January 2023, at Nutan College of Engineering and Research, Talegaon Dabhade, Pune, India. 4. ISTE approved STTP on "Role of Artificial Intelligence, Machine Learning, and Data Science in Emerging Trends in Mechanical Industries" from 23rd January to 30th January 2023, at Zeal College of Engineering and Research, Pune, India. 5. ISTE approved Faculty Development Program on "Advances and Applications of Artificial Intelligence and Machine Learning", 22nd November to 02nd December 2021 (02 Weeks), at Sinhgad Technical Society's Sinhgad College of Engineering, Vadgaon, Pune, India. 6. IETE approved STTP on "Research Methodology and Optimization Techniques", 07th June to 18th June 2021 (02 Weeks), at Pimpri Chinchwad College of Engineering, Pune, India. 7. Workshop on "Manuscript Preparation for International Journal", 05th July to 09th July 2021 (01 Week), at Pimpri Chinchwad College of Engineering, Pune, India. 8. Faculty development program on "Data Sciences", 14th December to 18th December 2020 (01 Week), AICTE Training and Learning (ATAL) Academy, at Indian Institute of Information Technology (IIIT), Tiruchirappalli, Tamilnadu. 9. Faculty development program on "Data Science and Analytics using Python", 30th November to December 04th, 2020 (01 Week), AICTE Training and Learning (ATAL) Academy, at Indian Institute of Information Technology (IIIT), Nagpur, Maharashtra. 10. Faculty development program on "Data Science and Machine Learning", 17th November to 21st November 2020 (01 Week), AICTE Training and Learning (ATAL) Academy, at KIET Group of Institutions, Ghaziabad, UP. 11. Faculty Development Program on "Prerequisite for HP Vertica Essentials", 11th – 12th and 18th – 19th August 2017, Annasaheb Dange College of Engineering and Technology, Ashta, Maharashtra. 12. AICTE Sponsored Short Term Course on "Application of Principles of Reliability and Risk Analysis to Various Sub-disciplines of Civil Engineering", 29th May to 09th June 2017 (02 Weeks, Indian Institute of Technology (IIT-BHU), Varanasi, Utter Pradesh. 13. STTP on "Life Long Researchers", 19-23rd Dec. 2016 (01 Week), Sardar Vallabhbhai National Institute of Technology (SVNIT) Surat, Gujrat. 14. ISTE Approved STTP on "Vibration Monitoring and Analysis using FFT Analyzer", 28th Dec. 2015 to 1st Jan. 2016, (01 Week), Annasaheb Dange College of Engineering and Technology, Ashta, Maharashtra. 15. ISTE Approved One Week Workshop on "Advanced Trends in PLC-Automation", 30th Nov. to 4th Dec. 2015, (01 Week), SIT College of Engineering, Yadrav, Maharashtra. 16. National Seminar on "Recent Trends in Teaching English in Higher Education (RTTEHE 2015)", 08th Aug. 2015 (01 Day), Annasaheb Dange College of Engineering and Technology, Ashta, Maharashtra. 17. ISTE Approved and TSI Sponsored STTP on "Recent Trends in Design, Failure Analysis and Maintenance of Bearings", 22nd to 26th June 2015 (01 Week), Dr. J. J. Magdum College of Engineering, Jaysingpur. 18. ISTE-SRM Approved STTP on "Mechanics of Fibrous Composites", 23rd to 27th June 2014 (01 Week), Annasaheb Dange College of Engineering and Technology, Ashta, Maharashtra. 19. Faculty Enablement Program on "Introduction to Aircraft Industry and Aircraft Systems", 6th to 10th May 2013 (01 Week), MDC, Infosys Limited, Mysore. 20. STTP on "Numerical Methods for Engineers with Matlab", 17th to 21st Dec. 2012 (01 Week), Annasaheb Dange College of Engineering and Technology, Ashta, Maharashtra.

		21. Seminar on "Aesthetics, Ergonomics, and Creativity in Product Design", 10th April 2012 (01 Day), Walchand College of Engineering, Sangli. **Additional Academic/ Research responsibilities held:** • Member of DAAB – Mechanical Engineering Department, Sharad Institute of Technology, Polytechnic, Yadrav – January 2021 to date. • PCCOE - Institute Level In-charge of Quality Publications – July 2022 to till date. • PCCOE (Mechanical) - Coordinator of Research and Innovation (R&I) Cell – July 2022 to till date. • PCCOE - Program Assessment Committee (PAC) member – July 2022 to till date. • PCCOE - Member of SIG coordination team – Member – August 2021 to till date. • PCCOE (Mechanical) - Coordinator foreign collaborations - July 2021 to June 2022. • PCCOE (Mechanical) In-charge Quality Publications – June 2021 to till date. • ADCET, Ashta - Dean, Research and Development – January 2019 to August 2019. • ADCET, Ashta - In charge of Mechanical Engineering Students Association (MESA) – June 2014 to May 2021. • Society for Reliability and Safety (SRESA) – Coordinator Western Maharashtra Chapter (WMC) – December 2015 to May 2021. • Society for Reliability and Safety (SRESA) – Coordinator ADCET, Chapter – 2015 to 2021. • ADCET, Ashta (Mechanical) - In charge – Department Library, - June 2017 to June 2018. • ADCET, Ashta - Incharge Saturday Activities –- June, 2014 to August, 2019.
Subjects Taught	:	**First Year (UG):** Engineering Graphics; Basic Mechanical Engineering. **Second Year (UG):** Strength of Materials; Numerical Methods and Optimization; Fluid and Turbo Machinery; and Engineering Drawing. **Third Year (UG):** Artificial Intelligence & Machine Learning; Numerical and Statistical Methods, Machine Design I; Machine Design II; and Research Methodology. **Final Year (UG):** Mechanical System Design; Machine Tool Design; Production Management; Reliability Engineering; and Automobile Engineering. **PG Level:** Research Methodology; Reliability Engineering; and Design for Reliability
Projects Guided	:	UG Level = 12 PG Level = 02
Recommended Students for Higher Education	:	**Name of the Student:** More than 20 students for PG level **University/Industry:** Various Universities across the USA, Canada, Germany and Singapore
Institute/Department Responsibility handled:	:	• Dean, Research and Development • Institute Level In-charge of Quality Publications • Coordinator of Research and Innovation (R&I) Cell • Program Assessment Committee (PAC) member • Member of SIG coordination team • Coordinator foreign collaborations • Faculty coordinator - Mechanical Engineering Students Association (MESA) • Department Library coordinator • In charge Saturday Activities
Pedagogy Development	:	---
Special Achievements:	:	→ Top performer of the Mechanical Engineering of PCCOE, Pune for the year 2022-23. → Best outgoing student for the year 2009-10 at ADCET, Ashta. → Academic Deputy for the year 2006-07 at ADCET, Ashta.