

PROFILE



1. **Name** **Dr. Sanjay Wasudevrao Rukhande**
2. **Designation** **Assistant Professor**
3. **Residential Address** Navi Mumbai 400703
4. **Date of birth** 15th April
5. **Total Teaching Experience** **24 Years**
6. **Qualifications**

Exam Passed	Year	Institution/ University	Branch/Specialization	Percentage/CGPI
Ph.D.	2021	VJTI, Mumbai	Mechanical Engineering	...
M. E.	2008	SPCE, Mumbai University	Machine Design	74
B. E.	2000	GCOE, Amravati University	Mechanical Engineering	64

7. Employment Record

Institution	Year (From To)	Designation
Fr. CRIT, Vashi, Navi Mumbai	April 2010 - till date	Assistant Professor
Fr. CRIT, Vashi, Navi Mumbai	Sept 2007-Mar 2010	Lecturer
SSJCOE, Dombivli, Dist: Thane	Aug 2006-Aug 2007	Lecturer
VPM Polytechnic, Thane	Aug 2004- July 2006	Lecturer
COHE, Andheri, Gnyaneswar Vidyapeeth, Pune	June 2002- July 2004	Lecturer
GCOE, Jalgaon, NM University, Jalgaon	Jan 2001- June 2001	Lecturer

8. Undergraduate / Postgraduate Teaching Experience and Subjects Taught**Subjects Taught at UG level**

Sr. No.	Name of Subject	Semester
1.	Engineering Mechanics	I
2.	Engineering Drawing	II
3.	Machine Design - I	VI
4.	Machine Design - II	VII
5.	Finite Element Analysis	VIII
6.	Design of Mechanical System	VIII

Subjects Taught at PG level

Sr. No.	Name of Subject	Semester
1.	Fracture Mechanics	I
2.	Engineering Tribology	II
3.	FEA Lab	I
4.	CAD/CAM/CIM Lab	II

9. Research Funding / Consultancy Services:**Research Grants:**

Sr. No.	Name of Funding Organization	Type of Grant	Amount (Rs.)	Year	Name of Research Project
1.	Mumbai University	Minor Research Grant	Rs. 30,000/-	2016	“Development of an experimental setup for testing quarter car model for ride comfort.”

10. Professional Societies Fellowship / Membership

1. Life Member of “The Institution of Engineers (India)”, AM250101097870
2. Life Member of “Tribology Society of India”, Membership No. LM 6187
3. Life Member of “The Indian Society for Technical Education (ISTE)”,
4. Life member of GYAN,
5. Annual membership of Society of Materials and Mechanical Engineers” (SOMME) 4-12-2019 to 03-12-2020

11 Research Interest

Wear and friction, Surface coatings, Oxidation, Machine design, Finite element analysis.

Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=57212673149>

- Granted recognition as a teacher to guide students for the Ph.D. degree in the subject of **Mechanical Engineering** of the University of Mumbai with effect from 23rd February, 2022.
- Published a Book on the subject “**Design of Mechanical System**” for Bachelor of Engineering, Final Year (B.E.) Degree Course in Mechanical Engineering Semester 7, Rev-2019, ‘C’ Scheme of Mumbai University by Nirali publication, ISBN 978-81-19883-85-1, Oct- 2023.

12. List of Journal Papers Published

1. **Sanjay Rukhande**, Shubhangi Suryawanshi, Digvijay G. Bhosale, Hitesh Vasudev, “Advanced statistical modelling of tribological performance in Ni-based thermal spray coatings: A definitive screening approach”, **Results in Surfaces and Interfaces**, Volume 18, 2025, 100435, ISSN 2666-8459, <https://doi.org/10.1016/j.rsurfi.2025.100435>
2. **Sanjay Rukhande**, Shubhangi Suryawanshi, Digvijay G. Bhosale, Hitesh Vasudev, Ritu Khimasiya, Rupanjon Das Gupta, Ishaan Deshmukh, Febin Wilson, “High-temperature tribological performance of Ni-based coating on 316L stainless steel”, **Results in Surfaces and Interfaces**, Volume 18, 2025, 100388, ISSN 2666-8459, <https://doi.org/10.1016/j.rsurfi.2024.100388>
3. **Sanjay Rukhande**, Siddhant Amrutkar, Abhishek Joshi, Yash Jethwa, Kaushal Gujar, Aqleem Siddiqui, Badal Kudachi, "Wet Sliding Wear Investigation of Ni-Based Coating for Piston Cylinder", **Journal of Materials and Applications**, Vol 13 No 2 (2024), 21-29, <https://doi.org/10.32732/jma.2024.13.2.21>
4. **Sanjay Rukhande**, SK Lal, Vivek Gaval, "Dry Sliding Wear Investigation of Hard Chrome and Nickel Coating on En19 for Rolling Application", **ASEAN Engineering Journal**, 14(2), 147-154, 2024, <https://doi.org/10.11113/aej.v14.20931>
5. **Sanjay Rukhande**, Digvijay G. Bhosale, Walmik S. Rathod, Hitesh Vasudev, “Plasticity Index a measure of dry sliding wear for Ni-based coating”, **Surface Review and Letters**, June 2023, [doi: 10.1142/S0218625X23400103](https://doi.org/10.1142/S0218625X23400103)
<https://www.worldscientific.com/doi/abs/10.1142/S0218625X23400103>
6. **Sanjay Rukhande**, Hussain, M.M., Gaval, V., Pratap, A. , "Tribological study of sunflower TMP ester and silica nanoparticles additives for hydrodynamic journal bearing application under boundary lubrication condition", **Industrial Lubrication and Tribology**, 2022, <https://doi.org/10.1108/ILT-08-2022-0251>
<https://www.emerald.com/insight/content/doi/10.1108/ILT-08-2022-0251/full/>
7. **Sanjay W Rukhande**, W. S. Rathod, and Digvijay Bhosale, “Ni-based coating protection of 316L stainless steel at dry, elevated temperature and wet sliding condition”, **Materials Today: Proceedings**, published online 09 March 2022, **Elsevier publication**, CiteScore: 1.3, <https://doi.org/10.1016/j.matpr.2022.02.584>
<https://www.sciencedirect.com/science/article/pii/S2214785322012457>
8. **Sanjay W Rukhande**, Swaraj Gujar and Rathod, W.S. “Sliding Wear Investigation of Ni-Based Coating and SS 316L for Hydraulic Fracturing Tools in Water-Diesel Condition”, **Journal of Failure Analysis and Prevention**, 25 February 2022, **Springer Nature**, <https://doi.org/10.1007/s11668-022-01370-4>, <https://link.springer.com/article/10.1007/s11668-022-01370-4>

9. **Sanjay W Rukhande** and Nikhil Kundar, "Tribological investigation of HVOF sprayed Ni-based coatings on SS 316L in water-cooled nuclear reactor", **Materials Today: Proceedings**, published online 24 February 2022, **Elsevier publication**, CiteScore: 1.3, <https://doi.org/10.1016/j.matpr.2022.02.210>, <https://www.sciencedirect.com/science/article/pii/S2214785322008318>
10. **Sanjay W Rukhande** and Bile Ganesh, "Investigation of Friction and Sliding Wear for Journal Bearing Using Taguchi Optimization," in *4th Biennial International Conference on Nascent Technologies in Engineering (ICNTE)*, 2021, **IEEE publication**, INSPEC Accession Number: 20995310, pp. 1-7, [doi: 10.1109/ICNTE51185.2021.9487703](https://doi.org/10.1109/ICNTE51185.2021.9487703).
11. **Sanjay W Rukhande**, Rathod, Walmik S. and Bhosale Digvijay G., "High-temperature tribological investigation of APS and HVOF sprayed NiCrBSiFe coatings on SS 316L" in **Tribology- Materials, Surfaces & Interfaces**, **Taylor and Francis**, Published online: 12 Apr 2021, **Impact Factor: 0.76, H index: 11**, <http://dx.doi.org/10.1080/17515831.2021.1898887>
12. **Sanjay W. Rukhande**, Walmik S. Rathod; "Sliding wear investigation of Ni-based coating for high-temperature application", **Tribology in Industry**, (**Journal of the Serbian Tribology Society**), 43 (2021) 247–258. **CiteScore : 2.4** [DOI: 10.24874/ti.945.08.20.11](https://doi.org/10.24874/ti.945.08.20.11)
13. **Sanjay W Rukhande**, and Rathod, Walmik S., "Tribological Behaviour of Plasma and HVOF-sprayed NiCrSiBFe Coatings", in **Surface Engineering**, **Taylor and Francis** Volume 36, 2020 - Issue 7, Pages 745-755, <https://doi.org/10.1080/02670844.2020.1730062>.
14. **Sanjay W Rukhande** and Rathod, Walmik S., "An isothermal oxidation behaviour of atmospheric plasma and high-velocity oxy-fuel sprayed nickel based coating", **Ceramics International**, **Elsevier publication**, Volume 46, Issue 11, Part B, 1 August 2020, Pages 18498-18506, <https://doi.org/10.1016/j.ceramint.2020.04.155>.
15. **Sanjay W Rukhande** and Rathod, Walmik S., "Dry Sliding Wear Behavior of HVOF Sprayed NiCrSiBFe Coating on SS 316L", **Materials Today: Proceedings**, published online 18 September 2020. **Elsevier publication**, CiteScore: 1.3, <https://doi.org/10.1016/j.matpr.2020.08.408>
16. **Sanjay W Rukhande**, Digvijay G. Bhosale, Walmik S. Rathod; "High-temperature tribo-behaviour of Ni-alloy and WC-Cr₃C₂-Ni coatings for nuclear applications"; **Surfaces and Interfaces (2020)**, **Elsevier**. **Impact Factor: 3.724, H index: 16**. <https://doi.org/10.1016/j.surfin.2020.100689>
17. **Sanjay W Rukhande**, Digvijay G. Bhosale, Walmik S. Rathod; "Effect of counter faces on sliding wear behavior of WC-Cr₃C₂-Ni composite coating deposited by high velocity oxy fuel"; **Materials Today: Proceedings (2020)**; **Elsevier**. <https://doi.org/10.1016/j.matpr.2020.08.466>
18. **Sanjay W Rukhande**, Digvijay G. Bhosale, T. Ram Prabhu, Walmik S. Rathod; "High temperature erosion behaviour of SS 316L, APS and HVOF sprayed WC-Cr₃C₂-Ni coatings"; **Wear (2020)**, **Elsevier**, **Impact Factor: 4.108, H index: 150**. <https://doi.org/10.1016/j.wear.2020.203520>
19. **Sanjay W Rukhande**, Digvijay G. Bhosale, Walmik S. Rathod; "Sliding wear behavior of high velocity oxy-fuel sprayed WC-Cr₃C₂-Ni coating for automotive applications"; **Materials Today: Proceedings 54 (2019)**; pp. 339-343; **Elsevier**. <https://doi.org/10.1016/j.matpr.2019.07.609>
20. **Sanjay W. Rukhande** and Chirag Wani, "Vibration based detection of damage in fixed-fixed I-Beam using Particle Swarm Optimization" in an international conference "ICNTE 2019", Organized by Fr. Conceicao Rodrigues Institute of Technology, Vashi, Navi Mumbai during 4, 5 January 2019. <https://ieeexplore.ieee.org/document/8945820>

21. **Sanjay W. Rukhande** and Girish Dalvi, “Automated storage and Retrieval System”, in "International Research Journal of Engineering and Technology, (IRJET), Volume 4, Issue 1, January 2017 .ISSN : 2395-0056 (<https://www.irjet.net/archives/V4/i1/IRJET-V4I1111.pdf>)
22. **Sanjay W. Rukhande**, Manas Lad, Prabhat Mahamuni, Prachi Mandve and Savio Sequeria, “Design and Fabrication of Automated Shelves”, in "International Journal of Innovative Research in Technology, (IJIRT), Paper ID: 143382, Volume 2, Issue 11, April 2016. ISSN : 2349-6002 (https://www.ijirt.org/master/publishedpaper/IJIRT143382_PAPER.pdf)
23. **Sanjay W. Rukhande**, Suraj P. Nagabhushana, Prakash Thorat and Gourav Thombre “Two Phase Flow Analysis for Vertical Pipe”, in "International Journal of Innovative and Emerging Research in Engineering (IJIERE), Paper ID: 160091, Volume 2, Issue 2, Feb 2015. ISSN (Online) : 2394-3343, ISSN (Print): 2394-5494, (<http://www.ijiere.com/DisplayPaper.aspx?id=160091&AspxAutoDetectCookieSupport=1>)
24. **Sanjay W. Rukhande**, Nilesh V., Bipin M., Akshay V., Vishal M., Mayur K. and Amar Ingle, “Experimentation and Testing of an OP-AMP operated Solar Tracking Mechanism” in International Research Journal of Engineering and Technology (IRJET), Volume: 02 Issue: 07 | Oct-2015 ,ISSN: 2395-0056 (<https://www.irjet.net/archives/V2/i7/IRJET-V2I7120.pdf>)
25. **Sanjay W. Rukhande** and Nanaji Kshirsagar, “The Fault Diagnosis in Rolling Element Bearings- A Review”, in "International Journal Of Innovations In Mechanical And Automobile Engineering" (IJIMAE) / March-2012 / ISSUE-II / ISSN: 2249-2968

13. List of Papers Presented/Published in National and International Conferences International Conferences

1. Suryawanshi, S., Bhosale, A.P., Bhosale, D.G., **Rukhande, S.W.** (2024). Prediction of Deposition Parameters in Manufacturing of Ni-Based Coating Using ANN. In: Garg, D., Rodrigues, J.J.P.C., Gupta, S.K., Cheng, X., Sarao, P., Patel, G.S. (eds) Advanced Computing. IACC 2023. Communications in Computer and Information Science, vol 2053. Springer, Cham. https://doi.org/10.1007/978-3-031-56700-1_7
2. Sajjan Kumar Lal ,V.R. Gaval, **Sanjay Rukhande**, “Effect of Hard Chrome and its alloy Coatings on Wear Resistance and other characteristics of Base material in rolling process- A Literature Review”, pp. 14-17, Feb-2023, in Proc. 14th International Conf. on International Conference on Humanities, Sciences and Technical Education, TCET, Mumbai, India, Feb 24-25, 2023.
3. **Sanjay Rukhande**, Walmik Rathod, Digvijay Bhosale, "Comparative study on dry sliding wear investigation of NiCrBSiFeC and WC-Cr₃C₂-Ni coating against alumina", in Proc. in 5th Biennial International Conference on Nascent Technologies in Engineering, Navi Mumbai, India, Jan. 20-21,2023. 2023
4. Rupanjaon Das, Ishan Deshmukh, Ritu Khimasia, Febin Wilson, Swaraj Gujar, **Sanjay Rukhande**, "Surface Properties Enhancement for Wear Resistance using Thermal Spray Coating", in Proc. in 5th Biennial International Conference on Nascent Technologies in Engineering, Navi Mumbai, India, Jan. 20-21,2023. 2023
5. **Rukhande, Sanjay W.** and Rathod Walmik S., “Ni-based coating protection of 316L stainless steel at dry, elevated temperature and wet sliding condition”, 9th International Conference on

Advancements and Futuristic Trends in Mechanical and Materials Engineering (December 9-11, 2021), **IIT, Ropar**, India.

6. **Rukhande, Sanjay W.** and Nikhil Kundar., “Investigation of Ni-based coating on SS 316L in water cooled nuclear reactor”, 9th International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (December 9-11, 2021), **IIT, Ropar**, India.
7. **Rukhande, Sanjay W.** and Swaraj Gujar., “The surface properties enhancement using coating-: A Review”, 9th International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (December 9-11, 2021), **IIT, Ropar**, India.
8. **Rukhande, Sanjay W.**, Ganesh Bile and Rathod, Walmik S., “Investigation of friction and sliding wear for journal bearing using Taguchi optimization”, in an international conference “**ICNTE 2021**”, Organized by Fr. Conceicao Rodrigues Institute of Technology, Vashi, Navi Mumbai during 15, 16 January 2021.
9. **Rukhande, Sanjay W.** and Rathod, Walmik S., “High-Velocity Oxy-Fuel sprayed Ni-based coating for isothermal oxidation”, International Conference on Advancements and Futuristic Trends in Mechanical and Materials Engineering (December 19-20, 2020), **IIT, Ropar, India**.
10. **Sanjay W. Rukhande** and Walmik S. Rathod , “Dry Sliding Wear Behaviour of HVOF Sprayed NiCrSiBFe Coating on SS 316L” in an international conference “**AFTMME-2019**”, 7th international conference on Advancement and Futuristic Trends in Mechanical and Materials Engineering Organized by Indian Institute of Technology, Ropar, during 5 December to 7 December 2019.
11. **Sanjay W. Rukhande**, Walmik S. Rathod and Digvijay G. Bhosale , “Effect of Counter faces on Sliding Wear Behaviour of WC-Cr₃C₂-Ni composite coating deposited by High Velocity Oxy Fuel” in an international conference “**AFTMME-2019**”, 7th international conference on Advancement and Futuristic Trends in Mechanical and Materials Engineering Organized by Indian Institute of Technology, Ropar, during 5 December to 7 December 2019.
12. **Sanjay W. Rukhande**, Walmik S. Rathod and Digvijay G. Bhosale, “Sliding wear behavior of high velocity oxy fuel sprayed WC-Cr₃C₂-Ni coating for automotive applications” in an international conference on Manufacturing, Material science & Engineering, (**ICMMSE-2019**) conducted by the Department of Mechanical Engineering, CMR Institute of Technology, Hyderabad, Telangana during 16th & 17th August, 2019.
13. **Sanjay W. Rukhande**, Walmik S. Rathod and Digvijay G. Bhosale, “Tribo-Behaviour of Plasma and HVOF Sprayed NiCrSiBFe Coating on SS 316L” in an international conference “**ICMPT-2019**”, Organized by Indian Institute of Technology, Madras, Chennai, India during 11 July to 13 July 2019.
14. **Sanjay W. Rukhande** and Chirag Wani, “Vibration based detection of damage in fixed-fixed I-Beam using Particle Swarm Optimization” in an international conference “**ICNTE 2019**”, Organized by Fr. Conceicao Rodrigues Institute of Technology, Vashi, Navi Mumbai during 4, 5 January 2019. <https://ieeexplore.ieee.org/document/8945820>
15. **Sanjay W. Rukhande**, Walmik S. Rathod and Digvijay G. Bhosale, “Tribological Behavior of Thermally Sprayed Coating- a review” in an international conference “**TRIBO INDIA 2018**”, Organized by Veermata Jijabai Institute of Technology, Matunga, Mumbai during 13 December to 15 December 2018.
16. **Sanjay W. Rukhande**, Walmik S. Rathod and Digvijay G. Bhosale, “Wear and oxidation behavior of Tungsten Carbide based Coating- a review” in an international conference “**TRIBO INDIA 2018**”,

Organized by Veermata Jijabai Institute of Technology, Matunga, Mumbai during 13 December to 15 December 2018.

17. **Sanjay W. Rukhande** and Walmik S. Rathod, "Indian Rail Track Investigation and Dynamic Analysis of Track Structure", in international Conference on Advances in thermal Systems, Materials and Design Engineering "(ATSMDE 2017) at VJTI, Mumbai on 26th and 27th December 2017 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3101403)
18. **Sanjay W. Rukhande** and Aniket Shirke, "Parametric Optimization of Fused Deposition Modelling (FDM) Process Using PSO Algorithm", in international Conference on Advances in thermal Systems, Materials and Design Engineering "(ATSMDE 2017) at VJTI, Mumbai on 26th and 27th December 2017. (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3101978)
19. **Sanjay Rukhande**, Nikesh Ghude, Abhishek Malve, Kevin Kotian and Mohit Thawani, "Investigation of Muffler for Noise reduction" in international conference (**ICMTEST-2016**) Vishwatmak Om Gurudev college of Engineering at: Aghai, , Dist: Thane. on 9th April 2016 https://ijritcc.org/download/conferences/ICMTEST_2016/ICMTEST_2016_Track/1461912295_29-04-2016.pdf
20. **Sanjay Rukhande**, Zaid Shaikh, Sushant Ugale and Anuja Vekhande, "Muffler Modification for Noise Reduction", in "International Conference on Civil, Mechanical, Biological& Medical Engineering, at Nagpur Organized by IRD India on 20th April, 2014, **ICMBME/** Volume II
21. **Sanjay Rukhande**, Nanaji Kshirsagar and Sachin Bhatt, "FE analysis of three strut temerity structure" in an international conference in **ICAET 2011**, EGS Pillai College of Engg, Nagapattinam, Tamilnadu, India, during May 27, 2011.

National Conferences

1. **Sanjay W Rukhande** and Walmik S Rathod, "Ni-based coating protection of 316L stainless steel against sliding" in National Conference organised by ASME, student chapter, Veermata Jijabai Technological Institute, Mumbai on 7th Feb 2021.
2. **Sanjay W. Rukhande**, Siddhesh Kulkarni, Aditya Patil and Noel Louis, "Investigation of Disc Brake Squeal using FE Simulation and Experimentation" in the National Conference on Sustainable Manufacturing & Waste Management (NCSMWM-2019) in Saraswati College of Engineering, Navi Mumbai on April 16, 2019 . (IJSER- ISSN 2229-5518) <https://www.ijser.org/onlineResearchPaperViewer.aspx?Investigation-of-Disc-Brake-Squeal-using-FE-Simulation-and-Experimentation.pdf>
3. **Sanjay Rukhande** and Nilesh Ghongade, "Three-Dimensional Geometric Model of Knee Implants by Reverse Engineering" in the National Conference on Technologies for physically challenged in Lokmanya Tilak College of Engineering, Navi Mumbai on October 13, 2012 (ISBN 978-81-924815-4-6)
4. **Sanjay Rukhande**, Shamim Pathan, Pratik Lahane, Vijay Patil, Devendra Mhatre, Ashish Gosavi, "Condition Monitoring for Fault Diagnosis of Bearings" in the Proceedings of the **NCNTE-2012**, Third Biennial National Conference on Nascent Technologies in Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai, Feb 24-25, 2012.

5. **Sanjay Rukhande**, Sachin Kulkarni, Sachin Mastud, “Design of a Spur Gear through Parametric Modeling Approach” in **SABBATICAL-2011**, at Bharat Ratna Indira Gandhi College of Engg. Solapur, Maharashtra, during March 26-27, 2011.
6. **Sanjay Rukhande**, Saikiran Garimella, “Design and Development of Savonious type Micro VAWT” in a national conference at PVPIT, Budhgaon, Sangli, Maharashtra on March 5, 2011.
7. **Sanjay Rukhande** and Sachin Bhatt, “Analysis for Form Finding of Three Strut Tensegrity Structure” in a national conference AMEE-2010, at Annasaheb Dange College of Engg. Ashta, Sangli, Maharashtra during July 2nd and 3rd, 2010.
8. **Sanjay Rukhande** and Shamim Pathan, “Design of Cold Storage using Nitrile Rubber” at Fr. C.R.I.T. Vashi, Navi Mumbai in **NCNTE 2010** during February 25 - 26 , 2010.
9. **Sanjay Rukhande** and Bipin Mashilkar, “CFD Analysis for Heat Transfer Enhancement in a rectangular solar Air Heater Duct by using Artificial Roughness” in **NCSAME-2009** at JNTU University Hyderabad College of Engg. Hyderabad during August 20, 21, 2009.
10. **Sanjay Rukhande** and Vilas Kalamkar, “FE Analysis for Rail Wheel Assembly of EOT Crane” in **NUCONE 2008**, 3rd National Conference in Institute of Technology, Nirma University, Ahmedabad, Gujarat during 27-29 Nov 2008.

14. **International Conference Technical Program Committee Member / Reviewer**

1. Reviewed a manuscript for the Second International Conference on "Advances in Thermal Systems, Materials and Design Engineering (**ATSMDE – 2024**)", organised by Veermata Jijabai Technological Institute, Mumbai,
2. Reviewed a manuscript for the international Journal of **Reviews on Advanced Materials Science (RAMS)** by De Gruyter, June 2024
3. Reviewer for the manuscript submitted to ICTEAH-24, International Conference on Technologies for Energy, Agriculture, and Healthcare (**ICTEAH 2024**) scheduled on 15-16 April 2024, Mumbai, India
4. Reviewer for paper in Journal, **Bio- and Tribo-Corrosion**, by Springer Nature, 2024
5. Reviewer for paper in Journal, “**Advances in Tribology**” entitled ‘A comparison of the friction characteristics of 316L stainless steel coated with various nanoparticles under dry and wet conditions’, <https://www.hindawi.com/journals/at/>
6. High Temperature Corrosion of Materials, by publisher Springer Nature, 2023 <https://link.springer.com/journal/11085>
7. Reviewer for the manuscript submitted to ICTEAH-24, International Conference on Technologies for Energy, Agriculture, and Healthcare (ICTEAH 2024) scheduled on 15-16 April 2024, Mumbai, India
8. Reviewer for the manuscripts in conference on technologies for future cities- 2023 organised by PIIT, Panvel, Navi Mumbai on 6th and 7th October 2023.
9. Reviewer for paper in International Journal of Oil , Gas and Coal Technology, by Inderscience Publishers, 2023 <https://www.inderscience.com/jhome.php?jcode=ijogct>
10. Reviewer for paper in Journal, High Temperature Corrosion of Materials, by publisher Springer Nature, 2023 <https://link.springer.com/journal/11085>
11. Reviewer for the manuscript submitted to “2023 3rd Global Conference on Recent Advancements in Sustainable Materials” during October 2023, Publisher Scientific.net
12. Reviewer for the Fifth International Conference on Materials Science and Manufacturing Technology (ICMSMT 2023) held at Akshaya College of Engineering and Technology, Coimbatore, Tamil Nadu,

India during 13 - 14, April 2023. Coimbatore, Tamil Nadu, India and Diligentec Solutions (Industry Partner), Coimbatore, Tamil Nadu, India

13. Reviewer for paper in the 'International Journal for design Engineering, The Inderscience publisher, <https://www.inderscience.com/jhome.php?jcode=ijde>
14. Reviewer for paper in the '**EVERGREEN**' - Joint Journal of Novel Carbon Resource Sciences & Green Asia Strategy, es Editorial System. EGREEN-00303-2022-01, Dec- 2022, <https://www.tj.kyushu-u.ac.jp/evergreen/>
15. Reviewer for paper in International Journal on Interactive Design and Manufacturing (IJIDeM), publisher Springer Nature, 2022, <https://www.springer.com/journal/12008>
16. Reviewer for papers of the International conference on "Vibration Engineering, Science and Technology", organized by Council of Vibration Specialist (CVS) and Fr. CRIT, Vashi, Navi Mumbai on December 9-10, 2022.
17. Reviewer for papers of the 5th Biennial International conference on "Nascent Technologies in Engineering", organized by Fr. CRIT, Vashi, Navi Mumbai in association with IEEE and IAS on January 20- 21, 2013.
18. Reviewer for papers in the international journal, "**Scientific Reports**", publisher: Springer Nature, ISSN: 2045-2322, <https://www.scopus.com/sourceid/21100200805>
19. Reviewer for papers in the international journal, "**Materials Science and Technology**", ISSN: 0267-0836 (print version); 1743-2847 (online version), <https://www.tandfonline.com/journals/ymst20>, Aprl-2022.
20. Reviewer for papers in the international journal, "**Tribology - Materials, Surfaces & Interfaces**", ISSN: 1751-5831 (print version); 1751-584X (online version), <https://www.tandfonline.com/toc/ytrb20>, Mar-2022.
21. Reviewer for papers in the international journal, "**Tribology in industry**", ISSN:0345-8996 (print version); 2217-7965 (online version),www.tribology.rs, Nov-2021.
22. Reviewer for papers in the IEEE Conference on Technologies for Future Cities 2021, organized by Pillai college of Engineering, Panvel, Navi Mumbai on October 8 – 9 , 2021.
23. Reviewer for papers of the 2nd Biennial International conference on "Nascent Technologies in Engineering", organized by Fr. CRIT, Vashi, Navi Mumbai in association with IEEE on January 27- 28, 2017.
24. Technical Program Committee Member at an international Conference on Advances in thermal Systems, Materials and Design Engineering "(ATSMDE 2017) at VJTI, Mumbai on 26th and 27th December 2017
25. Reviewer for papers at an international conference "ICNTE 2019", Organized by Fr. Conceicao Rodrigues Institute of Technology, Vashi, Navi Mumbai during 4th, 5th January 2019.
26. Reviewer for papers at an international conference "ICNTE 2021", Organized by Fr. Conceicao Rodrigues Institute of Technology, Vashi, Navi Mumbai during 15th, 16th January 2021.
27. Reviewer for papers at an international conference "ICNTE 2023", Organized by Fr. Conceicao Rodrigues Institute of Technology, Vashi, Navi Mumbai during 20th, 21st January 2023.

15. Projects guided in UG/PG level

UG Level:

1. 'Wet Sliding Wear Investigation of Ni-based Coating for Piston Cylinder', (Abhishek Joshi et al, 2024)
2. 'Design and Analysis of Carbon Fibre Propeller Shaft', (Anirudhha Habde et al , 2024)
3. 'Design and Development of Rotational Base for Welding Application', (Preksha Dongare et al, 2024)
4. 'Investigation of Ni-based coating for High Temperature Sliding Wear' (Ritu Khimasiya et al, 2023)
5. 'Sliding Wear Investigation of Brass Brake Lining', (Yash Chaudhary et al, 2023)
6. 'Design Approach, Material Testing, Crack Detection and Analysis for Structural Integrity', (Krishnan A. Balasubrahmanian et al, 2022)
7. 'Design and Development of Warehouse Forklift', (Roshin Saviour Robinson et al, 2022).
8. "Tribological behaviour of dental composites", (Nitin Raina et al, 2021)
9. "Simulation and experimental analysis of rope sheave interaction of Quay Cranes", (Ganesh Patil et al., 2020)
10. "Tribological behaviour of dental composites considering the effects of tobacco products", (Hemant Agrawal et al. 2020)
11. "Experimentation and simulation of Disc Brake Squeal", (Aditya Patil et al, 2019)
12. "Analysis and experimentation on friction welded joint" (Sagar Garje et al , 2018)
13. "Trailing edge simulations of NACA 0012 airfoil in ANSYS FLUENT © and OPENFOAM" (Jim J. Kurian et al, 2017)
14. "Design and Fabrication of Automated Shelves' (Manas Lad, et al, 2016)
15. "Investigation of Muffler for Noise Reduction" (Kevin Kotian, et al, 2016)
16. "The design and analysis of magnetic coupling" (Sonal Batra, et al, 2015)
17. "Two Phase Flow Analysis" (Suraj P.N., et al , 2015)
18. "Muffler modification for Noise Reduction", (Sushant Ugale , et al, 2014)
19. "Design and Fabrication of Electro Pneumatic Gear Shifting mechanism", (Danish Arshad, et al,2014)
20. "Design Analysis and Fabrication of Telescopic Conveyor", (Amol Kadam, et al, 2013)
21. "Design and Analysis of Pulse Jet Engine", (Swapnil Ghadshi , et al, 2013)
22. "Measurement of performance parameter of Internal Combustion Engine using Virtual Instrumentation", (Nitin Bansal, et al, 2013)
23. "Condition monitoring for fault diagnosis of Bearings", (Pratik Lahane, et al, 2012)
24. "Design and Analysis of Solar Operated Air Cooler" (Suhas dhawale , et al , 2012)
25. "Design and Developement of Micro Savonius Type Vertical Axis Wind Turbine", (Pratik Kale, et al, 2012)
26. "Design and Developement of Micro Savonius Type Vertical Axis Wind Turbine", (Saikiran Garimella, et al, 2011)
27. "Design and developement of steering mechanism for an ATV and feasibility of application of touch sensitive pad technology for steering actuation" (Shridhar C., et al, 2010)
28. "Study and modification of air brake system in diesel locomotive", (Sreejit Nair, et al, 2009)
29. "Heat pipe embedded solar operated vapour absorption system" (Alexander Rohit, et al, 2008)

PG Level:

1. Investigation of wear behavior of SS316L and Ni-based coating for hydraulic fracturing tools : (Swaraj Gujar , 2022)
2. Investigation of Ni-based coatings on SS 316L in water cooled nuclear reactor : (Nikhil Kunder, 2021)
3. Investigation of friction and sliding wear for journal bearing using Taguchi optimization : (Ganesh Bile, 2020)
4. "Damage detection of Fixed-Fixed Beam using Particle Swarm Optimization." (Chirag G. Wani, 2018)
5. "Parametric Optimization of Fused Deposition Modelling (FDM) Process Using PSO Algorithm" (Aniket Shirke , 2017)

6. “Experimental and Simulation Study to Reduce Engine Silencer Noise”, Co-guide (Abhijit B. Waghmode, 2017)

16. Short Term Training Programmes attended

1. Participated and completed one week, “**16th Summer School in Tribology**”, organised by Tribology Society of India, at CSIR-Indian Institute of Petroleum, Dehradun, India from 24-06-2024 to 28-06-2024.
2. Participated in the Design your destiny “**Ashtamangal Meditation**”, organised by Research Foundation of India & RFI-CARE on 16 March 2023.
3. Participated & completed successfully Online 30 hours’ certification program on “**Python for Mechanical Systems**”, organised by Department of Mechanical Engineering, Fr. CRIT, Vashi, from 10 November 2022 to 25th February 2023.
4. Participated in IP Awareness/Training program under NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION on January, 6, 2023. Organised by Intellectual Property Office, India.
5. Participated & completed successfully Online FDP on “**Exploring Dynamics of National Education Policy 2020 with reference to NAAC perspective**”, jointly organised by Sage university Indore-Bhopal, Christian Eminent College-Indore, Research Foundation of India & RFI-CARE from 24-30 November 2022.
6. Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on “**Multi-Disciplinary Design Optimisation in Engineering: Advanced**”, from 21st February 2022 to 25th February 2022, Organized by IIT Kharagpur.
7. Participated & completed successfully, one week faculty development program on “**Advanced Materials Processing**”, organized by Finolex Academy of Management and Technology, Ratnagiri from February 21-25, 2022.
8. Participated & completed successfully, AICTE/ISTE Sponsored Induction/Refresher Program on “**Advances in Materials Processing and Characterization**”, organized by DAVIET Jalandhar from January 05-11, 2022.
9. Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on “**Damage Tolerance: A New Design Strategy**”, from 5th July 2021 to 9th July 2021, at Department of Mechanical Engineering, VJTI, Mumbai.
10. Participated and successfully completed the TEQIP III sponsored National Level Workshop on ‘**Static and Fatigue Analysis of Engineering System using ANSYS**’ jointly organised by SPCE, Mumbai and REC Rewa in collaboration with IIIE and SAE India Western Section from 23rd February to 28th February 2021 under Twinning Activity.
11. Participated in the **IEI BLC-FCRIT Excellence Award** for recognition of **Research Excellence (Faculty- Regional)**. The award has been jointly organised by The Institution of Engineers (India), Belapur Local Center and Fr. C. Rodrigues Institute of Technology, Vashi during ICNTE 2021, held at Fr. C. Rodrigues Institute of Technology, Vashi on January 16, 2021.
12. Successfully completed National Level Online Workshop on “**LaTeX**” organised by the IQAC Cell of Amity School of Engineering and Technology & Amity School of Applied Sciences from 18th December 2020 to 20th December 2020.

13. Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "**Electric Vehicles**" from 2020-11-2 to 2020-11-6 at Fr.C. Rodrigues Institute of Technology, Vashi, Navi Mumbai.
14. Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "**Novel Materials**" from 2020-10-5 to 2020-10-9 at Pillai college of Engineering, New Panvel, Navi Mumbai.
15. Successfully completed a webinar on "Effective Technical Presentation using PowerPoint on 8th August 2020 organised by The IEI BLC in association with Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai.
16. Attended a Webinar on "**Learning Management System**" on 11/07/2020. The event included demonstration and hands-on training through the interactive online platform MS Teams.
17. Successfully completing 3-day "**PRANA YOGA workshop**" on 24, 25, 26th June, 2020 organized by NSS unit of Fr. Conceicao Rodrigues Institute of Technology, Vashi, Navi Mumbai.
18. Successfully completed One Week Online Faculty Development Program on "**Innovation, Entrepreneurship and its Relevance in Industry 4.0 Practices in the Post Covid-19 Situation**" conducted during May 25 – 29, 2020 & was organized by Department of Mechanical engineering, Terna Engineering College, Nerul, Navi Mumbai
19. Successfully completed one week online Short Term Training Programing on '**Patenting for Innovations**' organized between 25-29 May 2020 by Department of Mechanical Engineering of Sanjivani College of Engineering Kopergaon.
20. Attended Online Industrial Concepts Awareness Module on "**Bearings – Failures & Maintenance**", from 23rd to 24th May 2020 as part of Campus to Corporate Initiative organised by Theia New Consultancy LLP and Fr. CRIT, Vashi, Navi Mumbai
21. Conducted Orientation Program on "**Design of Mechanical System**", Sem VIII (CBCGS) at Fr. CRIT, Vashi on 23 January 2020 for faculty members from various Institute of Mumbai University.
22. Attended the TEQIP approved one week faculty development programme on "**Advances in Smart Manufacturing Technologies**", organized by the Production Engineering Department, VJTI, Mumbai during December 30th – January 4th, 2020.
23. Attended the TEQIP approved one week faculty development programme on "**Characterization & Analysis of Materials**" organized by the Textile Manufactures Department, VJTI, Mumbai during December 23rd – 28th, 2019.
24. Successfully completed NPTEL online certification for the course "**Fundamentals of Surface Engineering: Mechanism, Processes and Characterizations**" with a consolidated score of 83%, July – October 2019.
25. Attended the AICTE approved (under QIP) one week short term course on "**Research Methodology for Engineering and Management Research**" organized by VJTI, Mumbai during July 9th – 14th, 2018.
26. Successfully completed PG Level Part-time Course (ME616) "**Fracture Mechanics**", in Indian Institute of Technology, Bombay, during the semester January –April 2018.

27. Attended one-week AICTE- QIP sponsored Faculty development program on " **Fundamentals and applications of Fracture Mechanics**" Organized by VJTI, Mumbai during January 22nd – 27th, 2018.
28. Attended one week AICTE- QIP sponsored short term course on "**Research Methodology**" Organized by VJTI, Mumbai during March 4th – 9th, 2017.
29. Reviewer for papers of the 2nd Biennial International conference on "**Nascent Technologies in Engineering**", organized by Fr. CRIT, Vashi, Navi Mumbai in association with IEEE on January 27-28, 2017.
30. Attended one-day workshop in association with BARC, IIT Bombay, Indian Railway and SVR Info Tech on "**VSSC ISRO's FEAST SMT FEA TECHNOLOGY**", jointly organized by ISRO and VJTI, Mumbai on November 8, 2016.
31. Attended one week QIP Short Term Course on "**Industrial Tribology**", conducted by VJTI, Mumbai from 4th to 8th July, 2016 under Global Initiative for Academic Networks (GIAN).
32. Conducted Orientation Program on "**Machine Design-II**", Sem VII (CBSGS) at Fr. CRIT, Vashi on 29 August 2015 for faculty members from various Institute of Mumbai University.
33. Conducted Orientation Program on "**Finite Element Analysis**" Sem VI (CBSGS) at Fr. CRIT, Vashi on 4 Feb 2015 for faculty members from various Institute of Mumbai University.
34. Attended one day faculty development program titled "**Altair Hyper works and 3 D printing**" organized by Fr. CRIT, Vashi on February 10, 2015.
35. Attended six-day faculty development program on "**Communication Skill**" organized by Fr. CRIT, Vashi, from October 3, 2013 to October 9, 2013
36. Attended one week QIP Short Term Course on "**Finite Element Methods and application in Civil Engineering**", conducted by IIT, Bombay at Mumbai from July 1, 2013 to July 05, 2013.
37. Attended AICTE sponsored S.T.T.P. on "**Hyperform - Hypermesh Software Training**" at SVNIT, Surat during January 05- 09, 2009.
38. Attended S.T.T.P. on "**Sound and Vibration: Fundamentals, measurements and Diagnostic Analysis**" at IIT, Roorkee, Uttarakhand, during July 06- 10, 2009.
39. Attended Engineering Tools and Techniques Course "**Imagineering Connect**" in L&T, Mumbai from June 02 to 20, 2008.
40. Attended AICTE sponsored S.T.T.P. on "**Emerging Trend in Refrigeration and Air Conditioning (ETIRAC)-2007**" in Fr. C.R.I.T. Vashi, from November 12-16, 2007.
41. Attended workshop on "**Computational Fluid Dynamics Research and Industrial Applications**" at SPCE, Mumbai, on March 24, 2007.
42. Participated in National Seminar on "**Alternate Energy Sources**" Organized by VPM's Polytechnic, Thane on August 27-28, 2005.

17. Extra-Curricular activities:

1. Conducted a session on ‘**Yoga and its importance**’ during the IKS lecture series, organised by Fr. C. Rodrigues Institute of Technology, Vashi on 21/1/2025.
2. Conducted ‘**Yoga Session under Universal Human Values (UHV) course**’, for first year engineering students on 20th September, 2024 at Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai.
3. Reviewed the criteria 1 and criteria 4 for the NAAC preparation at Sardar Patel Institute of Technology, Andheri (West), Mumbai on 10th January, 2024
4. Conducted one day ‘**Yoga session**’ for the Balbhavan Students of agnel Technical Education complex, under K12 Activity of ISHRAE, on 30st October, 2023.
5. Conducted a seven days **Faculty Development Program on ‘Ashtang Yoga’** for the teachers of Fr. C. Rodrigues Institute of Technology, Vashi from 21th October, 2022 to 31st October, 2023.
6. Worked as **Subject Expert** in Engineering Mechanics, Engineering Graphics and Workshop manufacturing practices, for the **USSC interview** appointed by University of Mumbai in Thakur college of Engineering and Technology, Kandivali dated 30th June 2023.
7. Delivered an expert guest lecture on “**Advancement in the gear box design**”, at Automation and Robotics Department, Dr. D.Y. Patil Institute of Technology, Pimpri, Pune-411018, on 30/10/2022.
8. Conducted a seven days **YOGA SESSION** for the teachers of Fr. C. Rodrigues Institute of Technology, Vashi from 13th October, 2022 to 20th October, 2022.
9. Worked as a member of **Scrutiny committee** for the IEI NMLC-Fr. C. Rodrigues Institute of Technology, Vashi EXCELLENCE AWARDS, 2022.
10. Received Rs. 7000/- for professional society membership as per, ‘Incentive Mechanism Policy’ of the Fr. CRIT, Vashi, dated 18/08/2022.
11. Worked as ‘**Venue Officer**’ for the MHT-CET-2022, PCM and PCB group from 5th August, 2022 to 20th August, 2022, at Fr. C. Rodrigues Institute of Technology, Vashi, Navi Mumbai.
12. Worked as an expert panel member for the “**National Level BE Projects Competition 2020-21**” organized by the Department of Mechanical & Automobile Engineering, Pillai College of engineering, Panvel on 16th & 17th April 2021.
13. Worked as a judge for a state level technical paper presentation and quiz competition, **Technocratz 2021**, held at Fr. Agnel Polytechnic, Vashi on 14th and 15th May 2021.
14. Delivered an expert guest lecture on “**Design based on Fracture Mechanics**”, at Agnel Technical College (Polytechnic) Bandra west, Mumbai on 15/05/2021.
15. Worked as a judge for the 6th National Level Project Showcase-“**Vidyavardhini's National Project Showcase (VNPS) 2021**”, at VCET, Vasai on 14th May 2021.

18 Work responsibility:

1. Controller of Examination, March 2025.
2. Institute IQAC Coordinator
3. Department PG/PhD coordinator
4. Department working committee member
5. NAAC Criteria 6 coordinator
6. Department NAAC coordinator.
7. Worked as Chief Conductor of examination.
8. Worked as exam cell member and In-charge from 2007 to 2017.
9. Examiner, moderator and Paper setter in Mumbai University.
10. Member of organizing and technical committee in ICNTE.
11. Time table In-charge.
12. Member of organizing and technical committee in INVEST- 2022
13. Online Platform and Online Venue Committee Chair, ICNTE-2023.
14. Member of Equal Opportunity Center, FCRIT, Vashi.