Name of Teaching Staff **Designation** **Department** **Date of Joining the Institution**	: : : :	**Mr. Ramesh R. Rajguru** Assistant Professor Dept. of Mechanical Engg. 03.07.2012	
Qualifications with Class / Grade	:	1. Ph.D. (Mechanical Engg.) Pursuing. 2. M.E. (Mechanical Engg.), Dec. 2013, Ist class, 69.20%, Mumbai University. ***3.*** B.E., Sardar Patel College of Engineering from Mumbai University, First Class with distinction (82.55%).	
Total Experience in Years	:	**<u>Teaching</u>: 10 years** 1. Assistant Professor in Mechanical Engg. From 04-07-2012 till date. 2. Lecturer in Mech. Engg., Dwarkadas J. Sanghvi College of Engg. from 12-07-2011 till 30-06-2012. 3. Visiting lecturer in Mechanical Engineering, Sardar Patel College of Engineering from 29-7-2010 to 29-04-2011. **<u>Industry:</u> 03 years** 1. Worked as Production Officer in Production Sub-Assembly, Department of 118NE Car, PAL-PEUGEOT Ltd. Dombivli from 02/05/1995 to 30/06/1997. 2. Worked as Production Engineer at Aero -Tech Ducon India Pvt. Limited at TTC Rabale, Nav Mumbai from 01/07/1997 to 30/06/1998.	
Online Courses Completed (Coursera):		1**) Specialization in "Digital Manufacturing & Design Technology" (9 courses):** a) Digital Manufacturing & Design.	

		b) Digital Thread: Components. c) Digital Thread: Implementation. d) Advanced Manufacturing Process Analysis. e) Intelligent Machining. f) Advanced Manufacturing Enterprise. g) Cyber Security in Manufacturing. h) MBSE: Model-Based Systems Engineering. i) Roadmap to Success in Digital Manufacturing & Design. Conducted by **Ken English (Deputy Director), Sustainable Manufacturing and Advanced Robotic Technologies Community of Excellence at the University at Buffalo**, Prof. Shambhu Upadhyaya, Prof. Rahul Rai, Prof. Sara Behdad and Amy Moore, MBA (Project Manager, University at Buffalo, The center for Industrial Effectivness), (July 2020). **2) Specialization in "Design of Experiments" (4 courses):** a) Experimental Design Basics. b) Factorial & Fractional factorial Designs. c) Response Surfaces Mixtures and Model building. d) Random Models Nested & Split plot Designs. Conducted by **Douglas C. Montgomery, Regents Professor of Engineering, Arizona State University** Foundation, Professor of Engineering School of Computing, Informatics and Decision Systems Engineering, (July 2020). **3) "Mechanics of Materials" (4 courses):** a) Mechanics of Materials I: Fundamentals of Stress & Strain and Axial Loading.

		b) Mechanics of Materials II: Thin-Walled Pressure Vessels and Torsion. c) Mechanics of Materials III: Beam Bending. d) Mechanics of Materials IV: Deflections, Buckling, Combined Loading & Failure Theories. Conducted by **Wayne E. Whiteman** (Sr. Academic Professional), Woodruff School of Material Engineering, **Georgia Institute of Technology, USA**, (July 2020). **4) "Material Processing"**, Georgia Institute of Technology, USA, (June 2020). **5) "Material Behavior",** Georgia Institute of Technology, USA, (July 2020). **6) "Materials Data Sciences and Informatics",** Georgia Institute of Technology, USA, (August 2020). **7) "Materials Science: 10 Things Every Engineer Should Know"**, University of California, Davis, (July 2020). **8) "Assessment in Higher Education: Professional Development for Teachers",** Erasmus University Rotterdam (University of Rotterdam), Netherlands (July 2020). **9) "Learning to Teach Online"**, UNSW Sydney (The University of New South Whales), Australia (July 2020). **10) "AI For Everyone"**, deeplearning.ai, conducted by Prof. Andrew N G, Adjunct Professor at Stanford University, USA (May 2020).

Papers Published in Journals	:	**National:-- 01** **1.** "A Review of Machining Processes and Machinability in the case of GFRP Composite Materials" in IPI journal (The official publication of Indian Plastics Institute), August/September 2013, Vol.18, issue 3, ISBN 978-81-927125-0-5 (with Dr. Hari Vasudevan). **International** :-- **17** 1. "Investigating the Effect of TiAlSiN Ultra Hard Coated Solid Carbide Tool on Surface Roughness in Dry End Milling of Inconel 625", is accepted for publication in Journal of Advances in Materials and Processing Technologies (JAMPT) of Taylor and Francis (2020) (with Dr. Hari Vasudevan).. 2. "Exploring Ideal Process Parameters to the Enhance Surface Integrity using Grey Fuzzy Integrated Technique" in Lecture Notes in Mechanical Engineering, Published by Springer Singapore (2020). https://link.springer.com/chapter/10.1007/978-981-15-4485-9_1 (with Dr. Hari Vasudevan). 3. "Effect of Machining Parameters on Surface Integrity in End Milling of Inconel 625",Advances in Forming, Machining and Automation, Lecture Notes on Multidisciplinary Industrial Engineering, Published by Springer Singapore PP 505-515 (with Dr. Hari Vasudevan). 4. "Investigation of the Impact of Cutting Parameters on Surface Integrity in the End Milling of Inconel 625", Materials Science Forum, Trans Tech Publications Ltd, Switzerland (2019),Vol. 969, pp. 762-767.

		5. "A Review and Analysis of the Machining Process involving Nickel Based Super Alloy" in "Lecture Notes in Mechanical Engineering", Published by Springer Singapore PP 425-432 (with Dr. Hari Vasudevan). 6. "Predictive Modelling of Delamination Factor and Cutting Forces in the Machining of GFRP Composite Material using ANN" in "Lecture Notes in Mechanical Engineering", Published by Springer Singapore 301-313 (with Dr. Hari Vasudevan and Rajnarayan Yadav). 7. "Multi Characteristics Optimization in the Turning of GFRP Composites based on Grey-Taguchi method" in "Lecture Notes in Mechanical Engineering", Published by Springer Singapore 27-34 (with Dr. Hari Vasudevan and Kalpesh Tank). 8. "Experimental Investigation and Optimization of End Milling Parameters in the Machining of Inconel 825 using Carbide Coated Tool" in "Lecture Notes in Mechanical Engineering", Published by Springer Singapore 401-412, (with Dr. Hari Vasudevan and Geet Dave). 9. "Optimization Of Multi-Performance Characteristics in the Turning Of GFRP(E) Composites using Principle Component Analysis combined with Grey Relational Analysis" published in Elsevier Materials today Proceedings Volume 5, Issue 2, Part 1, 2018, Pages 5955-5967. (with Dr. Hari Vasudevan, Kalpesh Tank and Nishit Shetty). 10. "Grey Fuzzy Multi-objective Optimization of Process Parameters for CNC Turning of GFRP/Epoxy Composites" in Elsevier Journal "Procedia

		Engineering" vol. 97 (2014) pp. 85 – 94 (with Dr. Hari Vasudevan and Naresh Deshpande). 11. "Multi-objective Optimization of Drilling Characteristics for NEMA G -11 GFRP/Epoxy Composite using Desirability Coupled with Taguchi Method*"* in Elsevier Journal "Procedia Engineering" vol. 97 (2014) pp. 522 – 530 (with Dr. Hari Vasudevan and Naresh Deshpande). 12. *"*A study on Edge Milling Operation of NEMA G11 GFRP Composites based on Grey-Taguchi method*"* in the international journal Applied Mechanics and Materials, Vols. 592-594 (2014) pp.18-22 (with Dr. Hari Vasudevan and Naresh Deshpande). 13. *"*Desirability Fuzzy Multiple criteria Optimization of Process Parameters in CNC Turning of GFRP/ Vinyl ester Composites*"* in Elsevier published Journal "Procedia Material Science" Vol. 5 (2014) pp. 2458 – 2467 (with Dr. Hari Vasudevan and Naresh Deshpande). 14. "Experimental Investigation and Optimization in Edge Milling of NEMA G-11 GFRP/Epoxy Composites" presented in Elsevier published Journal "Procedia Material Science" Vol. 5 (2014) pp. 2105 – 2114 (with Dr. Hari Vasudevan and Naresh Deshpande). 15. *"*Investigation of the Machinability Characteristics of GFRP/ Epoxy Composites using Taguchi Methodology" in the international Journal of Applied Mechanics and Materials (AMM) Vol. 612 (2014) pp 123-129, as a special volume titled "Advanced Research in Design, Manufacturing and Materials".

		Published by Trans Tech Publications Ltd Switzerland (with Dr. Hari Vasudevan and Naresh Deshpande). 16. "Investigation of the machinability characteristics of GFRP/vinyl ester composite using design of experiments " in the International Journal of Machining and Machinability of Materials: Special issue on Machining of Advanced Materials, Inderscience 2014, Vol.15, No.3/4, pp.186 – 200 (with Dr. Hari Vasudevan and Naresh Deshpande) 17. "Exploring the performance of a Single Cylinder Diesel Engine with alternative fuels such as CME and CME-Diesel Blends" in the International Journal of Current Engineering and Technology, In Pressco International Press Corporation, Vol. 3, Issue 3, pp.1-4, ISSN 2277-4106 (with Dr. Hari Vasudevan, Sandip Mane and Naresh Deshpande).
Papers Published in conferences	:	**National**:-- **01** (1) "Delamination in Machining of Composite Materials: A Review in the Context of Drilling Operation" in the National Conference on Emerging Trends in Engineering, NCETE-13, during 4th & 5th January 2013, organized by M.H. Saboo Siddik College of Engineering, Byculla, Mumbai. **International** :-- **21** 1. "Predictive Modelling of Surface Roughness in the Machining of Inconel 625 using Artificial Neural Network" accepted for presentation and publication in the International Conference on Intelligent Manufacturing and Automation (ICIMA 2020), being

		organised by Dwarkadas J. Sanghvi College of Engineering, Mumbai, from 27th to 28th March 2020. 2. “"Machining Parameter Optimization for End Milling of Inconel 825 with a Microhardness Perspective" accepted for presentation and publication in the International Conference on Precision, Meso, Micro & Nano Engineering (COPEN-11), being organised by IIT Indore, from 12th to 14th December 2019. 3. “Optimization of Process Parameters in the Turning Operation of Inconel 625” presented in the International Conference on Intelligent Manufacturing and Automation (ICIMA 2018), held at DJSCE, Mumbai, from 20th to 21st July 2018. 4. “Optimization of Machining Parameters in the Turning Operation of Inconel 825 using Grey Relation Analysis” presented in the International Conference on Intelligent Manufacturing and Automation (ICIMA 2018), held at DJSCE, Mumbai, from 20th to 21st July 2018. 5. “Grey Fuzzy Multiple Criteria Optimization of Process Parameters for CNC turning of GFRP/Vinyl Ester Composites” presented at 1st International Conference on Materials, Manufacturing and Design Engineering. (ICMMD -2016) held at Dr. Babasaheb Ambedkar Technological Universit, Lonere, Maharashtra, India, during December 20-21, 2016 (with Dr Hari Vasudevan and Naresh Deshpande). 6. “Multiple Criteria Optimization of Process Parameters for Edge Milling of NEMA G11 Composites using Desirablity Function Analysis*”,* presented at 1st International Conference on Materials, Manufacturing

		and Design Engineering. (ICMMD-2016) held at Dr. Babasaheb Ambedkar Technological Universit, Lonere, Maharashtra, India, during December 20-21, 2016 (with Dr Hari Vasudevan and Naresh Deshpande). 7. "Optimization of Cutting Parameters for Surface Roughness in Machining of GFRP Composites", presented at 6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016) held at College of Engineering Pune, Maharashtra India, during December 16-18, 2016. (ISBN: 978-93-86256-27-0) (with Dr. Hari Vasudevan, Naresh Deshpande, Kalpesh Tank and Aman Tukrel). 8. "Optimization of Material Removal Rate and Cutting Forces in Turning of GFRP composites" in the 6th International & 27th All India Manufacturing Technology, Design & Research Conference (AIMTDR–2016) held at College of Engineering, Pune during 16-18 December 2016 (With Dr. Hari Vasudevan, Kalpesh and Mandar). 9. "Solar Energy a Viable Alternative: A Review" in ICAME2015 held during 15th & 16th of October 2015,UCEV, Villupuram, Vol1, (with Punit Sanghavi, Chirag Pandya and Raj Hemani). 10. "Optimization of turning parameters for Glass Fibre Reinforced Plastic (GFRP/E) using Grey Relational Analysis coupled with Taguchi method" in ICAME2015 held during 15th & 16th of October 2015, UCEV, Villupuram, Vol1, (Kalpesh N. Tank, Mandar S. Rao, Rahil S. Sheth).

		11. "Utility Fuzzy Multi-objective Optimization of Process Parameters for CNC Turning of GFRP/Epoxy Composites", presented at 5th International & 26th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2014) held at Indian Institute of Technology Guwahati, Assam, India during December 12-14, 2014. (ISBN: 978-8-19274-610-4) (with Dr. Hari Vasudevan and Naresh Deshpande). 12. "Experimental Investigation and Optimization of Milling Parameters in the Machining of NEMA G -11 GFRP Composite Material using PCD Tool", presented in the International Conference on All India Manufacturing Technology, Design and Research (AIMTDR-2014) held at Indian Institute of Technology Guwahati, Assam, India during December 12-14, 2014. (ISBN: 978-8-19274-610-4) (with Dr. Hari Vasudevan and Naresh Deshpande). 13. "Utility Fuzzy Multi-criteria Optimization of Process Parameters in CNC Turning of GFRP/ Vinyl ester Composites" presented in the ICMMM2014 conference held at Indian Institute of Technology Madras, Chennai, during August 8-9, 2014. (ISBN 978-93-80689-18-0) (with Dr. Hari Vasudevan and Naresh Deshpande). 14. "Grey fuzzy optimization of milling parameters for G-11 GFRP/Epoxy composites with multiple performance characteristics" presented in the ICMMM2014 conference held at Indian Institute of Technology Madras, Chennai, during August 8-9,

		2014. (ISBN 978-93-80689-18-0) (with Dr. Hari Vasudevan and Naresh Deshpande). 15. ‘‘Multi Criteria Decision Making using Fuzzy Inference System : A Case in Manufacturing’’presented in the ICCICCT 2014 conference organized by Noorul Islam centre for higher education, Noorul Islam university, Kumaracoil, Tamilnadu, India, from July 10-11, 2014. pp.1280, (IEEE Xplore) (with Dr. Hari Vasudevan and Naresh Deshpande) 16. ‘‘An Experimental Investigation into the Optimization of Cutting Force in CNC Turning of Woven Fabric based GFRP/Epoxy Composites using PCD Cutting Tool” presented in the International Conference on Design, Manufacturing and Mechatronics organized by Trinity college of engineering and research Pune, Maharashtra, from 9th – 10th Jan.2014. (with Dr. Hari Vasudevan and Naresh Deshpande). 17. ‘‘An Experimental Study on the Performance and Emission Characteristics of a Single Cylinder Diesel Engine Using CME-Diesel Blends”, in the International Conference on Renewable Energy and Sustainable Development (ICRESD-2014) organized by KJEI’s Trinity College of Engineering and Research, Pune from 9th to 10th January 2014 (with Dr. Hari Vasudevan, S. Mane and Naresh Deshpande). 18. ‘‘Analysis of a Multi-criteria optimization problem using Taguchi and Grey relational analysis: A case study in the machining of composite materials” in the International Conference on Advances in Mechanical Engineering organized by the department of

		Mechanical Engineering, College of Engineering Pune, Maharashtra, from 29th-31st May 2013 (with Dr. Hari Vasudevan and Naresh Deshpande). 19. "Study of Cutting Force in CNC Turning of Woven Fabric based GFRP/Vinylester Composites using PCD Cutting Tool" in the International Conference on Advanced Manufacturing and Automation (INCAMA-2013, ISBN 978-93-80686-50-9) organised by the Department of Mechanical Engineering (DST-FIST Sponsored) Kalasalingam University, Madurai, Tamil Nadu from the 28th-30th March 2013 (with Dr. Hari Vasudevan and Naresh Deshpande). 20. "Multi-criteria optimization using Taguchi and Grey relational analysis in CNC drilling of GFRP/E composite material" in the International Conference on Advanced Manufacturing and Automation (INCAMA-2013, ISBN 978-93-80686-50-9) organised by the Department of Mechanical Engineering (DST-FIST Sponsored) Kalasalingam University, Madurai, Tamil Nadu from the 28th-30th March 2013 (with Dr. Hari Vasudevan and Naresh Deshpande). 21. "Recent Trends and Developments in the use of Woven Fabric Reinforcements for Composite Materials" in the International Conference on Innovations in Automation and Mechatronics Engineering 2013 (ICIAME-2013,ISBN 978-81-924744-03), organised by G.H. Patel College of Engineering & Technology, Vallabh Vidyanagar, Gujarat, India, 21-23 February 2013 (with Dr. Hari Vasudevan and Naresh Deshpande).

Continuous Education Programs Attended		• Attended three day Faculty Development Program (FDP) on, **"Role of Faculty in Accreditation, Ranking and Quality Education"** during 23rd to 25thApril, 2019, at Shobhaben Pratabhai Patel School of Pharmacy & Technology Management, SVKM's NMIMS, Mumbai. • Attended two day Faculty Development Program (FDP) on, **"Active Teaching Learning Strategies Using Innovative Technology"** during February 25-26, 2019 at Dwarkadas J. Sanghvi College of Engineering, Mumbai. • Attended Faculty Development AICTE-ISTE approved one week Short Term Training Program (STTP) on **"Robotics and Industrial Automation"** from 12th to 16th November 2018at D. J. Sanghvi College of Engineering, Vile Parle. • Attended one week Short Term Training Program (STTP) on, **"Mechanical Manufacturing & Monitoring using MATLAB, MMM-2017"** during 11th to 16th December, 2017, at VNIT, Nagpur. • Attended Faculty Development ISTE approved one week Short Term Training Program (STTP) o**n, "Advanced Composite Materials"** during 24-28 May 2016 in VIIT Pune. • Attended one Week Faculty Development Program on **"Digital Prototyping for Product Design"** during 6th to 10th July, 2015 in PIIT EMSR, New Panvel, Mumbai. • Participated in the one day Workshop on **"Outcome based education and accreditation for the faculty**

		members of technical institutions" on 7th September 2014 at VJTI, organized by NBA, New Delhi. • Received training on **"Mastercam Milling & Robot Programming 2012"** at Bharati Vidyapeeth College of Engineering, Navi Mumbai. • Attended a two week workshop on **"CFD – Fundamentals and Software (ANSYS Fluent Workbench 12.0) Training"** held at SPCE from July 5 to July 16, 2010. • Participated in three days Program on **"Advances in Turbine & Boiler Design & Maintenance Practices"** held during 22-24 June 2010 at Dahanu Thermal Power Station.
Reviewer:		**1.** Reviewed a paper on **"Studies on Tribological Behaviour of Zno Nanorods Suspended in SAE 20w 40 Engine Oil"** in September 2020; Journal: Trends in Materials and Manufacturing Processes, Published by Trans Tech Publications Ltd, Switzerland. **2.** Reviewed the Technical Papers for 7th International & 28th All India Manufacturing Technology, Design and Research Conference **(AIMTDR 2018)** organized by Anna University, Chennai, India. **3.** Reviewed a paper on **"Optimization of End milling process parameters on GFRP composites using Response Surface technique"** in February 2015; Journal: **Indian Journal of Engineering & Materials Sciences**, Publisher: National Institute of Science Communication and Information Resources Dr K S Krishnan Marg, New Delhi 110 012, INDIA. **4.** Reviewed a paper on **"Multiple performance**

		optimization of process parameters in drilling of GFRP composite laminate using core drill" in July 2016, Journal: **Indian Journal of Engineering & Materials Sciences** Publisher: National Institute of Science Communication and Information Resources Dr K S Krishnan Marg, New Delhi 110 012, INDIA.
Research Grants	:	(1) Received University of Mumbai Minor Research Grant (Sr. No. 195) of Rs 50,000/- during 2018-19, for project titled **"Predictive Modelling of Surface Roughness in the Machining of Inconel 625 using Artificial Neural Network"** (with Dr. Hari Vasudevan). (2) Received University of Mumbai Minor Research Grant (Sr. No. 388) of Rs 45,000/- during 2015-16, for project titled **"Grey Relational Analysis for Minimising Surface Roughness of Milled NEMA GII GFRP Plates"** (with Dr. Hari Vasudevan). (3) Received University of Mumbai Minor Research Grant (Sr. No. 393) of Rs 45,000/- during 2017-18, for project titled **"Grey Fuzzy Optimization of Process Parameters for CNC Turning of Inconel 825 Nickel Based Super Alloy"** (with Dr. Hari Vasudevan).
Professional Memberships	:	Life Member of I.S.M.E. (Indian Society of Manufacturing Engineers).

Guest Lecture / Technical Talk		1. Delivered an Expert talk **on "Components of Composites and Manufacturing Processes of Composites"** at Shri Bhagubhai Mafatlal Polytechnic, Vile-Parle west, Mumbai.