

Name of Teaching Staff : Dr. Rajendra S. Khavekar
Designation : Training & Placement Officer
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Date of Joining the Institution : 9.2.2000

Qualifications with Class / Grade :
1. Ph.D. (Tech.), June-2019, University of Mumbai
2. M. Tech. - NIFFT (National Institute of Foundry & Forge Technology).
3. B.E. (Indl. Prodn. Engg.), 1st class, 66.83%, September 1994, University of Karnataka, Dharwar.

Total Experience in Years : **Teaching: 21 Years**

1. Training & Placement Officer from 7.7.2008 till date.
2. Assistant Professor in Production Engg, Dwarkadas J. Sanghvi College of Engg. from 1.1.2006 to 6.7.2008.
3. Lecturer in Production Engineering, Dwarkadas J. Sanghvi College of Engineering from 9.2.2000 to 31.12.2005.

Industry: 2 years 10 months

1. Service Engineer, Vischom Engineers & Chemicals (P) Ltd., Pune from December, 1994 to December, 1996.
2. Trainee Engineer, Amforge Industries Ltd., Mumbai from April, 1999 to February, 2000.

Research:

Papers Published : **National:**

International: Journal

1. "Optimization of Process Parameters in the Case of a Corrugation Operation by Using Taguchi Method", in the International Journal of Mechanical and Production Engineering Research and Development, Trans Stellar Publications, Vol. 10, Special Issue: June 2020, PP 31-38 (with Dr. Hari Vasudevan and Hardikkumar Patel).

2. "Productivity Improvement in Blow Molding Process Through Energy Savings", in "Lecture Notes in Mechanical Engineering", Springer Singapore, ISSN: 2195-4356, ISSN: 2195-4364 (e), 2020, PP: 167-176 (with Dr. Hari Vasudevan and Nida Sayed).
3. "Improving the On-Time Delivery of Projects in a Complex Industrial Environment", in "Lecture Notes in Mechanical Engineering", Springer Singapore, ISSN: 2195-4356, ISSN: 2195- 4364 (e), 2020, PP: 231-238 (with Dr. Hari Vasudevan and Krishnan Kaushik).
4. "Investigating Red X Parameter for Short Shot-Type Defect in Plastic Injection Moulds Using Shainin's Design of Experiments", in "Lecture Notes in Mechanical Engineering", Springer Singapore, ISSN: 2195-4356, ISSN: 2195-4364 (e), 2020, PP: 533-542 (with Dr. Hari Vasudevan and Dharam Ranka).
5. "Evaluation of Piping Isometric Drawings Using Six Sigma Process", in "Lecture Notes in Mechanical Engineering", Springer Singapore, ISSN: 2195-4356, ISSN: 2195-4364 (e), 2020,PP: 815-823 (with Abrar Khulli, Prasad Shirodkar and Dr.Vijaya Kumar)
6. "Optimization of Investment Casting Process Parameters Deployed in Diamond Jewellery Firm by using Design of Experiment Tools", International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, Vol. 8, Issue 08, August-2019 (with Dr. VijayaKumar, Rushabh Bhavsar and Mit Goda).
7. "Optimization of Injection Moulding Process Parameters for Manufacturing Plastic Components (PBT) Using Taguchi Method (TM)", in "Materials Science Forum", ISSN: 1662- 9752, Vol. 969, PP 775-780, Trans Tech. Publications Ltd., Switzerland, (2019) (with Dr. Hari Vasudevan and Vimal Gosar).
8. "Optimization of Injection Molding Process Parameters using Response Surface Methodology", Lecture Notes in Mechanical Engineering", Published by Springer Singapore. DIO: 10.1007/978-981-13-2490-1.(2018) (with Dr. Hari Vasudevan and Vimal Gosar).
9. "Analyzing the need for a comparative study of Shainin DoE and Traditional DoE tools for deploying Six Sigma in Indian Manufacturing Companies", Materials Science and Engineering, IOP Publications, Vol.376, (2018) 012121, doi:10.1088/1757-899X/376/1/01212 (with Dr. Hari Vasudevan).
10. "Application of Shainin Methodology to Reduce Rejections in Spur Gear Manufacturing", ELSEVIER, Materials Today, Vol.5, issue 5, part 2, pp.12003-12008 (2017) (with Dr. Hari Vasudevan and Girish Deshpande).

11. "Design and Development of a Multi-Purpose Trolley" Informatics Journal, Vol. 9, Issue 1, January-March, 2017 (with Virag Timbadia and Dr. Vijayakumar)
12. "Application of Shainin DoE Tool to Explore Unknown Variables causing 'Ghost Noise' in 5th Gear Cycle of Transaxles during NVH Testing" in "Advances in Intelligent Systems Research", Vol. 137, PP: 271-276, Atlantis Press (Springer), AISR (ISSN 1951-6851), ISBN (online): 978-94-6252-305-0. (2017) (with Dr. Hari Vasudevan and Harshvardhan Desai).
13. "A Comparative Study of Taguchi Methodology and Shainin System DoE in the Optimization of Injection Moulding Process Parameters", "Materials Science and Engineering", IOP Publication, Vol. 225, (2017), doi:10.1088/1757-899X/225/1/012183 (with Dr. Hari Vasudevan and Modi Bhavik)
14. "Review on Creativity Techniques for Product Development", Journal of Informatics, Vol. 8, Issue 4, October-December 2016 (with Virag Timbadia)
15. "Suspecting Dominant Variable that causes Porosity Defect in a Cast Made up of Aluminium Alloy (Lm2) Using Shainin's DoE Approach" in the International Journal of Advances in Mechanical and Civil Engineering, Vol. 3, Issue 5, Oct 2016, ISSN: 2394- 2827, pp: 124 -130 (with Dr.Hari Vasudevan and Dharam Ranka).

Papers Presented in Conferences

: **National:**

1. "Hybrid Rocket" in 2013. National conference on Role of Engineers in Nation building (Mumbai: Viva Institute of Technology, Maharashtra, India, March-2013) (with Dr.K N Vijayakumar and Vatsal Sheth).
2. "Anti-Lock Braking System-A review" in 2013. National Conference on Innovations in Mechanical Engineering (Lonavala: SIT, Lonavala, Maharashtra, India, April, 2013) (with Mehta Rujai, Sinha Sujit and Dr.K N Vijayakumar).
3. "Stealth Technology" in 2013. National Conference on Innovations in Mechanical Engineering (Lonavala: SIT, Lonavala, Maharashtra, India, April, 2013) (with Lokhandawala K, Johi Rushabh and Dr.K N Vijayakumar).
4. "Advances in additive Manufacturing Technology-A review" in 2013. National Conference on Innovations in Mechanical Engineering (Lonavala: SIT, Lonavala, Maharashtra, India, April, 2013) (with Diptesh M., Mahajan Shambhavi and Dr.K N Vijayakumar).

5. "A Modified Approach in Precision Manufacturing by Abrasive Flow machining" in 2005, National Conference on Advances in Mechanical Engineering (Hyderabad: Vasavi College of Engineering, Hyderabad, Andra Pradesh, India, May 2005). (With Vasudevan Hari, Lakal Narendra and Bhosale Ajit).
6. "Achieving Competitive Excellence in Contract processing in a Manufacturing Firm", in 2004 National Conference on World Class Manufacturing (Wardha: B. D. College of Engineering, Sevagram, Wardha, Maharashtra, India., March, 2004), (With Vasudevan Hari and Lakal Narendra).
7. "Effect of Silicon on GGG-40 ductile Iron" in 1998, one day conference on recent trends in manufacturing of Ductile iron (Jamshedpur: IIF Chapter, India, Bihar).

International:

1. "Optimization of Injection Moulding Process Parameters using Taguchi DoE Methodology", International Conference on Role of Industrial Engineering in Industry 4.0 Paradigm (ICIEIND-2018), organised by IIE, Odisha Chapter, Bhubaneshwar, Sept; 27- 30, 2018. (with Dr. Hari Vasudevan and Bhavik Modi).
2. "Optimization of process in Electrical Discharge Machining of DIN-X36CrMo17 Steel using Grey Relational Analysis", in the proceedings of the 4th International Conference on Industrial Engineering (ICIE-2017) organized by SVNIT, Surat from 21st-23rd December, 2017 (Dr. Hari Vasudevan and Ajaykrishna C.).
3. "Shainin tool approach for quality monitoring in Injection Moulding", International Conference of Industrial Engineering (ICIE-2017) organized by SVNIT, Surat, Dec; 21-23, 2017. (with Dr. Hari Vasudevan and Harshita Salian)
4. "Improvement of Gear Quality in Machining Industry using Shainin System", in the International Conference on Materials, Manufacturing and Design 2016, organised by Dr. Babasaheb Ambedkar Technological University, Maharashtra on 20th & 21st December, 2016 (with Dr. Hari Vasudevan and Deshpande Girish).
5. "Optimization of Injection Moulding Process Parameters using Shainin System", in the International Conference on Materials, Manufacturing and Design 2016, organised by Dr. Babasaheb Ambedkar Technological

University, Maharashtra on 20th & 21st December, 2016 (with Dr.Hari Vasudevan and Modi Bhavik).

6. "Optimization of Machinery Techniques" in 2014. International Conference and Workshop on Advances in Mechanical Engineering (ICWAME – 2014) (Mumbai: Thakur College of Engineering and Technology, Maharashtra, India, Feb.-March-2014) (with Dr. K N Vijayakumar and Sameer K.)
7. "Comparison of Quality Improvement Techniques – Shainin System vs. Six Sigma Technique' in 2014. International Conference on Eco-Friendly Technologies for Sustainable Growth (ICEFT-14). (Mumbai: M.H.Saboo Siddik College of Engineering, Maharashtra, India , Feb.-March-2014) (with Dr.K.N. Vijayakumar and Vimal).
8. "Vibration analysis of an assembly converting it into a Mass Spring system" in 2006. International Conference on 'Advances in Materials processing and characterization (Chennai: Anna University, Tamil Nadu, India, August 2006), (with Hari Vasudevan, Narendra Lakal and Ajit Bhosle).

PhD Guide? Give field & University : **Field:**

University:

PhDs / Projects Guided : **PhDs:**

Projects at Masters Level: 12 (Mechanical Engineering)

Books Published / IPRs / Patents :

1. "Application of Six Sigma to reduce Fresh Water Consumption: DMAIC a case study", Customer Delight, Lambert Academic Publishing, ISBN: 978-613-9-47329-8 (with Gopal Buchade and S.N.Teli).

Professional Memberships :
Life Member ISTE.
Fellow Member, ISME
Member ASM

STTP/Workshops attended : 33

Consultancy Activities

Awards : Received the best Research Paper Award during the presentation (ICMPE) in Pune on 7th of August 2016.

Grants fetched :
Research grant received under the "Minor Research Grant" scheme of the University of Mumbai:
1. Research grant of Rs. 30,000/- for the work titled "Design and Development of Multi-Purpose Trolley" for the A.Y. 2016-17.

Interaction with Professional : Hon. Secretary, Indian Society of Manufacturing Engineers (ISME)