Somaiya Vidyavihar University

Name: Dr. Rohan Kothurkar			**E-mail:** r.kothurkar@somaiya.edu
Contact No: 022-66449584			
Department/Section: Mechanical			
College: K J Somaiya School of Engineering			
DOJ Somaiya: 29th Aug 2022	Career Experience:13 Yrs	Industry Experience: 3 Yrs	Teaching Experience: 10 Yrs
Present Academic Designation: Assistant Professor		Present Administrative Designation: No (Principal/Vice-Principal/ Associate Dean/ HOD etc)	

Area of research/specialization and Courses Delivered
Research domain/interests/areas 1. Biomechanics 2. Finite Element Analysis Courses Delivered 1. Material Science and Metallurgy 2. Engineering Mechanics 3. Finite Element Analysis 4. CAD/ CAM/ CAE

Recognition as a teacher by any University	UG: No	PG: No	Ph.D: No
Details of Recognitions 1. - 2. -			

Education

Examination	Name of the Degree	University/Board	Institute/College	Year	CPI/SPI/ %Marks
Ph.D.	Ph.D.	Mumbai	KJSCE	2023	awarded
PG	M.E.	Mumbai	YTCEM	2016	8.33
UG	B.E.	Pune	SND COE & RC	2011	65
Diploma					
NET/SET/Other					

Notable Experience Details

Sr. No	Name of the organization	Designation	Date of Joining	Date of Leaving	Experience (Years)
1.					
2.					

Research Accomplishments and Projects

No of students pursuing Ph.D as on date: No		No of students completed Ph.D as on date: No
No of students completed PG thesis / Project work as on date: No		No of students / groups completed UG projects as on date:
Publications Total: 10	Number of Peer review Journal papers: 07	Number of Conference papers: 03

Details of Publications:

International Journals

1. Kothurkar, R., & Lekurwale, R. (2022). Techniques to determine knee joint contact forces during squatting: A systematic review. Proceedings of the Institution of Mechanical Engineers.

Part H, Journal of Engineering in Medicine, 236(6), 775–784. https://doi.org/10.1177/09544119221091609Sss
2. Kothurkar, R., Lekurwale, R., Gad, M., & Rathod, C. M. (2022). Estimation and Comparison of Knee Joint Contact Forces During Heel Contact and Heel Rise Deep Squatting. Indian Journal of Orthopaedics, 57(2), 310–318. https://doi.org/10.1007/S43465-022-00798-Y
3. Kothurkar R, Lekurwale R, Gad M, Rathod CM. Finite element analysis of a healthy knee joint at deep squatting for the study of tibiofemoral and patellofemoral contact. Journal of Orthopaedics. 2023; 40: 7-16. doi: https://doi.org/10.1016/j.jor.2023.04.016
4. S. Tanpure, A. Phadnis, T. Nagda, C. Rathod, R. Kothurkar, and M. Gad, "Effect of total knee arthroplasty on contralateral knee: A prospective comparative gait analysis of non- operated legs in the Indian population," J. Clin. Orthop. Trauma, vol. 45, p. 102280, Oct. 2023, doi: 10.1016/J.JCOT.2023.102280.
5. S. Tanpure, A. Phadnis, T. Nagda, C. Rathod, R. Kothurkar, and A. Chavan, "Gait variability and biomechanical distinctions in knee osteoarthritis: Insights from a 3D analysis in an adult elderly cohort," J. Orthop., vol. 49, pp. 172–179, Mar. 2024, doi: 10.1016/J.JOR.2023.12.011.
6. Tanpure S, Phadnis A, Nagda T, Rathod C, Kothurkar R. Unraveling the gait dynamics - A comparative study of iASSIST and conventional total knee replacement techniques in osteoarthritic elderly patients. J Clin Orthop Trauma 2024;55:102524. https://doi.org/10.1016/j.jcot.2024.102524.
7. Kothurkar R, Lekurwale R, Gad M. Assessing the Impact of Lower-Limb Muscle Strength Reduction on Joint Contact Forces During Squatting Using a Musculoskeletal Model. Indian J Phys Med Rehabil 2025;35:33–43. https://doi.org/10.4103/IJPMR.IJPMR_69_24.

Conferences

1. R. Kothurkar, R. Lekurwale, and M. Gad, "Comparison of Methods for Predicting Muscle Activations and Knee Joint Contact Forces During Squatting Using OpenSim," in Proceedings of International Conference on Intelligent Manufacturing and Automation, Springer, Singapore, 2023, pp. 533–540. doi: 10.1007/978-981-19-7971-2_51.
2. Kothurkar R, Lekurwale R, Pansare R. Exploring the Correlation between Knee Flexion Moment and Joint Contact Force During Squatting Activity, 2024, p. 1–9. https://doi.org/10.1201/9781003596707-1.
3. Kothurkar R, Nagda T, Rathod C, Lekurwale R. Personalized Medicine: Advances, Challenges, and Future Perspectives in Patient-Specific Implants and Surgical Guides. Biomater. Orthop. Trauma, Singapore: Springer, Singapore; 2025, p. 253–70. https://doi.org/10.1007/978-981-96-3017-2_15.

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1. -

No of Research / consultancy / projects completed: 0 Rs:	No of Research / consultancy / projects on-going: 0 Rs:	No of Research / consultancy / projects on applied as on date: 0 Rs:

Details of Research / consultancy / projects:

Completed

1. 00

On-going

1. 0

Applied

1. 0

IPR/ Copyrights

1. – 00

FDPs/Seminars/Workshops/Training Programs Attended/ Organized/ Delivered

Attended

1. Participated in a two-day gait analysis course conducted on January 21st and 22nd, 2023, at St. Xavier's Gait Lab in Mahim.
2. LTC 2022 on the theme of "Research Data Management and Stewardship: Building Blocks for Open Science" at Somaiya Vidyavihar campus, Mumbai. Between 28 -30 April 2022.

Somaiya Vidyavihar University

Organized 1. -0
Delivered 1. -0

Notable Key Scholastic Achievements	
1.	-

Notable Positions and Responsibility	
1.	-

Date: 01/ 01/ 2025 **Signature of Faculty Member**