# Dr. SUNIL YADAV



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## Summary

Results-driven structural engineer with extensive experience in structural design and audit. Demonstrated expertise in analyzing, designing, and optimizing structures for various applications. Proficient in leveraging state-of-the-art tools and methodologies to ensure structural integrity and safety. Skilled in conducting thorough structural audits and assessments to identify areas for improvement and compliance with regulations. Committed to exploring innovative approaches to structural engineering, with a focus on sustainability and environmental impact mitigation. Dedicated to driving forward sustainable development practices in the built environment.

## **Experience**

June 2023 -Present

#### **Assistant professor**

Veermata Jijabai Technological Institute, Mumbai, Maharashtra.

- Experienced degree college instructor with a strong commitment to fostering academic excellence and student growth.
- Specialized in Structure design with a track record of effective teaching, mentorship, and research contributions.

#### **Education**

Aug 2019-Nov 2023

Ph.D. Civil Engineering

Veermata Jijabai Technological Institute, University of Mumbai, Matunga - Mumbai-Maharashtra.

Jul 2013 -Aug 2015

Master of Technology - Structural Engineering

VJTI, Mumbai - Maharashtra.

Jun 2011 -Mar 2015

Bachelor of Engineering – Civil Engineering

University of Mumbai - Maharashtra.

Jun 2008-May 2010 **Higher Secondary Certificate (HSC)** 

Maharashtra State Board

May 2008

Secondary School Certificate (SSC)

Maharashtra State Board

## **Publications and Paper Presentation**

2023

S. S. Yadav, K. K. Sangle, S. A. Shinde, S. S. Pendhari, and Y. M. Ghugal, (2023) "Bending analysis of FGM plates using sinusoidal shear and normal deformation theory," Forces in Mechanics, vol. 11, p. 100185 https://doi.org/10.1016/j.finmec.2023.100185

2023	• Sunil, S.Y, Keshav, K.S., Mandar, U.K, Sandeep, S.P., Yuwaraj, M.G.(2023), "
2023	Bending analysis of exponentially varied FG plates using trigonometric shear and normal
	deformation theory".Advances in Aircraft and Spacecraft Science, 10(3), pp. 281–302 https://doi.org/10.12989/aas.2023.10.3.281
2023	
	<ul> <li>S. Yadav, P. Pandare, S. Pendhari, K. Sangle, and Y. M. Ghugal, (2023) "Static analysis of a exponentially varying functionally graded beam using trigonometric shear deformation</li> </ul>
	exponentially varying randomarry graded bearing disgonometric shear deformation

2022

 S. Yadav, S. Damse, S. Pendhari, K. Sangle, and A. S. Sayyad, "Comparative studies between Semi-analytical and shear deformation theories for functionally graded beam under bending," Forces in Mechanics, vol. 8, p. 100111, 2022. https://doi.org/10.1016/j.finmec.2022.100111

theory," Composites: Mechanics, Computations, Applications: An International Journal, vol. 14, no. 3, pp. 1–23, https://doi.org/10.1615/CompMechComputApplIntJ.2023047080

## **Hands-on Experience**

- Structural Design
- Structural Audit
- Quantity Estimation

- Mix-Design
- Material Testing
- Structural Health Monitoring

## **Key competency**

- Skilled in structural analysis and design software including ETabs, SAFE, and STAAD.Pro for comprehensive modeling, analysis, and optimization of diverse structural systems.
- Extensively experienced in conducting structural audits for over 500+ buildings and 30+ water tanks, demonstrating a thorough understanding of structural integrity assessment and compliance evaluation across diverse infrastructure projects.
- Skilled in concrete mix design methodologies, adept at formulating precise concrete mixes tailored to project specifications, ensuring optimal performance, durability, and strength.
- Specialized in structural health monitoring of bridges, employing cutting-edge techniques and technologies to assess the condition, performance, and safety of bridge structures, ensuring reliable infrastructure for transportation networks.
- Proficient in quantity estimation techniques, capable of accurately assessing material requirements and project costs across diverse construction projects, ensuring efficient resource allocation and budget management.
- Over four years of teaching experience gained concurrently with pursuing a Ph.D., demonstrating a commitment to academic excellence, mentorship, and knowledge dissemination in higher education.
- Conducted extensive research in composite materials during Ph.D. studies, focusing on advanced characterization, fabrication techniques, and innovative applications, contributing to the advancement of knowledge in the field of materials science and engineering.
- Proficient in mathematical programming using MATLAB, employing advanced algorithms and optimization techniques to solve complex problems across various domains, ensuring efficient and effective computational solutions.

#### Personal details

Date of Birth : 12<sup>th</sup> January 1993

Marital status : Unmarried

• Hobbies : Playing Cricket and carrom, listening music, Travelling, reading books

Languages : Marathi, Hindi & English

### **Area Of Interest**

• Specializing in innovative structural design solutions tailored to meet diverse project requirements and optimize performance and safety.

- Structural Design Audit: Conducting comprehensive assessments to evaluate the safety and integrity of diverse structural systems.
- Structural Health Monitoring (SHM): Implementing advanced techniques to monitor and assess the condition and performance of civil infrastructure, ensuring reliability and safety.
- Programming: Developing customized computational solutions and algorithms to enhance efficiency and accuracy in structural engineering tasks.
- Composite Materials Research: Investigating novel fabrication methods and applications of composite materials to optimize performance and durability in engineering structures.

### References

#### • Available upon Interest

Dr. Keshav K Sangle
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 Structural Engineering Department, VJTI. Matunga-Mumbai.
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