



1. Name of Faculty: Dr. Prachi Kaustubh Sohoni
2. Designation: Associate Professor
3. Qualification: M. E. (Civil – Structural Engineering), Ph. D (Civil Engineering – IIT Delhi)
4. Degree: B. E. (Civil Engineering)
5. Email Id – [prachi.sohoni@walchandsangli.ac.in](mailto:prachi.sohoni@walchandsangli.ac.in)
6. Contact Number: 9717673322
7. Research Area: Concrete structures, Formwork for high-rise buildings, Bridge Engineering, Finite Element Analysis
8. Publications:

**Journal:**

- Prachi Sohoni, Isha Verma and Nipun Verma (2013). “Application of Green Technology in Infrastructure”, *International Journal of Scientific Research*, 2(2), 61-63.
- Vaishali Sahu, Prachi Sohoni, Niragi Dave and Isha Verma (2013). “Utilization of Industrial By-products in Civil Engineering Application- A Review”, *International Journal of Engineering Science and Technology*, 5(2), 242-246.
- Vaishali Sahu and Prachi Sohoni. (2014). ‘Water Quality Analysis of River Yamuna – The Delhi Stretch’, *International Journal of Environmental Sciences*, 4(6), 1177-1189.
- Prachi Sohoni and Vaishali Sahu (2014). “Use of Waste Material in Concrete Block”, *International Journal of Advance Research in Science and Engineering*, 3(1), 565-569.
- Ankit Pachouri and Prachi Sohoni (2015). “Analysis and Design of Pre-Engineered Building and Conventional Building – A Comparative Study”, *Journal of Structural Engineering and Management*, 4(1), 105-111.
- Prachi Sohoni and Vaishali Sahu (2015). “Comparative Strength Studies of Recycled Aggregate Concrete and Fresh Concrete”, *Civil Engineering and Urban Planning: An International Journal*, 2(3), 9-13.
- Vaishali Sahu and Prachi Sohoni (2015). “Low-Cost Concrete Block – A Sustainable Solution to Construction Industry”, *Journal of Construction Engineering, Technology and Management*, 5(3), 68-74.
- Sumit Ahlawat, Utsav Jain, Shwetang Kundu and Prachi Sohoni (2015). “Effect of Variation of Curing Temperature on Self Compacting Concrete”, *Journal of Structural Engineering and Management*, 2(3), 41-45.
- Prachi Sohoni, Abdul Ghaffar, Vasant A. Matsagar and K. N. Jha (2018). “Optimisation of Number of Levels of Shoring/Reshoring in High-rise Building

- Construction”, *Organization Technology and Management in Construction: An International Journal*, 10(1), 1803-1826.
- Ajay Patil and Prachi Sohoni (2018). “Performance Evaluation of Viscous Damper for Tall Steel Structure”, *Journal of Emerging Technologies and Innovative Research*, 5(6), 256-261.
  - Rohan Chavan and Prachi Sohoni (2018). “Seismic Analysis of Irregular RC Structure with Cross-Bracing System”, *International Journal of Scientific Research in Science, Engineering and Technology*, 4(8), 468-474.
  - Dattaprasad Patil and Prachi Sohoni (2018). “Comparative Study of RC Framed Structure and Tubular Structures”, *International Journal of Scientific Research in Science, Engineering and Technology*, 4(8), 475-481.
  - Nikhil S. Bembade and Prachi Sohoni (2019). “A Review on Advancement of Seismic Demand Assessment Methods Based on Static Pushover Procedures”, *Journal of Emerging Technologies and Innovative Research*, 6(6), 515-517.
  - Sanket Patil and Prachi Sohoni (2019). “Seismic Performance of Shear Wall Retrofitted with Hybrid Steel and Fiber Reinforced Polymer” *International Journal of Technical Innovation in Modern Engineering and Sciences*, 5(5), 934-942.
  - Ajinkya Salunkhe and Prachi Sohoni (2019). “Behaviour of Encased RC Column and Steel Beam” *International Journal of Technical Innovation in Modern Engineering and Sciences*, 5(5), 1158-1165.
  - Prachi Sohoni, Bhavya Mittal, Vasant A. Matsagar and K. N. Jha (2020). “Speedy Construction of RCC Work in High-rise Buildings by Optimizing Shoring/Reshoring Levels using Genetic Algorithm”. *Practice Periodical on Structural Design and Construction*, DOI:10.1061/(ASCE)SC.1943-5576.0000483.
  - Prachi Sohoni and K. N. Jha (2020). “Evaluating the Factors for Shore Selection in Multi-storey Building Construction”. *International Journal of Construction Management*, DOI: 10.1080/15623599.2020.1762034.
  - Digambar Patil, Prachi Sohoni and Rushikesh Jadhav (2021) “Evaluation of Assorted Profiles in Bridge Pier Exposed to Excited Flood Loading”. *Jordan Journal of Civil Engineering*, 15(4), 633-649.
  - Aru Deepak and Sohoni Prachi (2021) “Response of Steel Fiber Reinforced Concrete Columns Under Blast Loads”. *International Research Journal of Engineering and Technology*, 8(7), 412-418.
  - Hajare P. A. and Sohoni Prachi (2021) “Behavior of CFRP Strengthened CHS Members Under Cyclic Loading Using FE Modelling”. *International Research Journal of Engineering and Technology*, 8(7), 751-755.
  - Pagare P. N. and Sohoni Prachi (2021) “Analysis of Progressive Collapse of Structure and Its Response”. *International Research Journal of Engineering and Technology*, 8(7), 2172-2176.
  - Patil A. S., Sohoni P. K. and Patil D. B. (2022) “Effect of Scour Depth on the Bridge Pier Shape and Seismic Response of Reinforced Concrete Bridge”. *Positif Journal*, 22(8), 217-228.
  - Chougule Minal and Sohoni Prachi (2022) “Linear and Non-linear Time-History Analysis of RC Tall Building for Performance-Based Wind Design”. *Positif Journal*, 22(8), 217-228.

## Conference:

- Prachi Sohoni and Isha Verma (2011). “Green Revolution Technology in Infrastructure: Benefits and Application”, *National Conference on Advancement in Convergence of Technologies*, pp. 332-336.
- Isha Verma and Prachi Sohoni (2012). “Green Technology for Sustainable Development – A Review”, *International Conference on Green Technologies for Environmental Rehabilitation*, Gurukul Kangri University, Uttarakhand, 11<sup>th</sup> -12<sup>th</sup> February, pp. 445-447.
- Prachi Sohoni and Vaishali Sahu (2014). “Use of Waste Material in Concrete Block”, *International Conference on Emerging Trends in Science and Cutting Edge Technology*, New Delhi, 28<sup>th</sup> Sept 2014.
- Prachi Sohoni and Vaishali Sahu (2014). “Behaviour of Concrete Reinforced with Flax Fibre”, 9<sup>th</sup> *International Symposium on Advanced Science and Technology in Experimental Mechanics*, 1-3, New Delhi, 1<sup>st</sup> – 6<sup>th</sup> Nov 2014.
- Vaishali Sahu and Prachi Sohoni (2014). “Landfill Gas - A Potential Source of Green Energy”, 9<sup>th</sup> *International Symposium on Advanced Science and Technology in Experimental Mechanics*, 1-3, New Delhi, 1<sup>st</sup> – 6<sup>th</sup> Nov 2014.
- Prachi Sohoni, Abdul Ghaffar and K. N. Jha (2017). “Cost Optimisation for High-rise Buildings Considering Number of Levels of Shores and Reshores”, *Proceeding of 33<sup>rd</sup> Association of Researchers in Construction Management (ARCOM) Conference*, Cambridge, pp. 602-610, 4<sup>th</sup> to 6<sup>th</sup> September 2017.
- Digambar Patil, Rushikesh Jadhav and Prachi Sohoni (2020). “Analysis of Different Shapes in Bridge Pier Subjected to Extreme Flood Loading”, *National Conference on Structural Engineering NCRASE*, NIT Jamshedpur, 21- 22 August 2020.
- Rushikesh Jadhav, Digambar Patil and Prachi Sohoni (2021) “Seismic Response Elimination of Structure by Using Passive Devices: An Overview”, *Virtual Conference on Disaster Risk Reduction – Civil Engineering for a Disaster Resilient Society*, NIT Surathkal, 15-20 March 2021.
- Abhinandan Katte and Dr. Prachi Sohoni “Assessment of horizontally connected high rise buildings under Earthquake loading” 4<sup>th</sup> International Conference on Engineering and Advancement in technology 2023 held on 16<sup>th</sup> and 17<sup>th</sup> June 2023.
- Sourabh Chougule and Dr. Prachi Sohoni “Nonlinear analysis of steel fiber reinforced prestressed concrete T beam” 4<sup>th</sup> International Conference on Engineering and Advancement in technology 2023 held at Hyderabad on 16<sup>th</sup> and 17<sup>th</sup> June 2023.
- Sufiya Sutar and Dr. Prachi Sohoni “Progressive Collapse Analysis of RC shear wall building” 4<sup>th</sup> International Conference on Engineering and Advancement in technology 2023 held on 16<sup>th</sup> and 17<sup>th</sup> June 2023.
- Sourabh Naik and Dr. Prachi Sohoni “Comparative Analysis of Modelling Tools for Parabolic Arch Trusses: Evaluating the Superiority of Dynamo Over AutoCAD and Excel” 4<sup>th</sup> International Conference on Engineering and Advancement in technology 2023 held at Hyderabad on 16<sup>th</sup> and 17<sup>th</sup> June 2023.
- Mr. Digambar Patil, Rushikesh Jadhav, Dhansahree Gajankush, Dr.Prachi Sohoni and Dr. S. B. Kadam.” Effective location of shear wall in torsionally imbalanced Reinforced Concrete Tall Buildings Under Lateral Loading” Taylor and Francis AICTE Sponsored 2<sup>nd</sup> International Conference on Latest Trends in Engineering and Technology held at Chandigarh Engineering College, Jhanjeri, Mohali During 13<sup>th</sup> - 14<sup>th</sup> July 2023.

- Shubham Bichkar and Dr. Prachi Sohoni “Time dependent material Analysis of Box Girder using Different Codes of Practice” in National Conference on Civil and Mechanical Engineering (NCCME - 23) 22<sup>nd</sup> July 2023 Jaipur, India.
- Sanket Walunj and Dr. Prachi Sohoni “Seismic Analysis of Piled Raft Foundation on Soft Soil” in National Conference on Civil and Mechanical Engineering (NCCME - 23) 19<sup>th</sup> August 2023 Jaipur, India.
- Shrishail Patil and Dr. Prachi Sohoni (2023). “Seismic Analysis of Balanced Cantilever Bridge”, *National Conference on Emerging Trends in Civil Engineering*, held at WCE, Sangli during 27-29 Dec. 2023.
- Samrudhdi Katake and Dr. Prachi Sohoni (2023). “Dynamic Analysis of RC Building with Different Types of Steel Bracing” *National Conference on Emerging Trends in Civil Engineering*, held at WCE, Sangli during 27-29 Dec. 2023.

#### **Patents:**

- Borde P. B., Kadam S. B., Tande S. N., Jagtap S. D., Mohale V. P., Sohoni P. K., “Vibration Isolation Method Using Phononic Material for Building Structures Subjected to Dynamic Forces” Patent granted for 20 years from 8<sup>th</sup> Jan 2021.

#### **Book Chapter:**

- Rushikesh Patil, Digambar Patil and Prachi Sohoni “Seismic Response Elimination of Structure by Using Passive Devices: An Overview” *Recent Advances in Earthquake Engineering*, Lecture Notes in Civil Engineering, Springer Nature Singapore Pte Ltd, 303-318. [https://doi.org/10.1007/978-981-16-4617-1\\_25](https://doi.org/10.1007/978-981-16-4617-1_25).
- Digambar Patil, Rushikesh Jadhav, Dhanashree Gajankush, **Prachi Sohoni** and Sachin Kadam (2024) AICTE Sponsored 2<sup>nd</sup> International Conference on Latest Trends in Engineering & Technology, 1<sup>st</sup> Edition, CRC Press, Taylor and Francis Group, pp 514-524. DOI: 10.1201/9781032665443.

#### **Workshop/Conference Organised**

- Organized “International Conference on - Adaptation & Mitigation Options for Tackling the Impact of Climate Change on Water Resources” during March 14<sup>th</sup> - 15<sup>th</sup>, 2011
- Organized “Indo-US Bilateral Workshop on Global Challenges: Climate change, Water, Environment and Society” during March 5<sup>th</sup> - 6<sup>th</sup>, 2012.
- Organised “International Conference on Civil Engineering – iSPACE-2013” during March 4<sup>th</sup> – 5<sup>th</sup>, 2013.
- Organized one-week training program on “STAAD Pro” for students and faculty of department during 21<sup>st</sup> - 25<sup>th</sup> July 2014.
- Organised “National Conference on Smart, Sustainable and Resilient Civil Infrastructure Development (SSRCID)” on 9<sup>th</sup> September 2016.
- Organized one-day workshop on “IPR Awareness” on 1<sup>st</sup> February 2020 at Walchand College of Engineering, Sangli.
- Organized one-week workshop on “Seismic Analysis of Multistoried RC Building using SAP2000 and ETAB” during 22<sup>nd</sup> – 26<sup>th</sup> July 2020.
- Organized three days training workshop on “MIDAS Civil Software” during 13<sup>th</sup> – 15<sup>th</sup> April 2023.