Dr. Hemal J shah

(Associate Professor Applied Mechanics Department)

Education:

- 1. Diploma in civil engineering in February 1992 from technical examination board, Gujarat with 82.14 % (stood first in Gujarat state).
- 2. B.E. civil in June 2002 from south Gujarat university with 78.36% stood first in university and obtained merit medal
- 3. MTech (structure) from Sardar Vallabhbhai National Institute of Technology Surat in June 2013 with 9.58 CGPA and obtained gold meal.
- Ph.D. in civil engineering with specialization in Structural engineering form Sardar Vallabhbhai National Institute of Technology Surat in March 2020 Experience

Job Profile

- Worked as lecturer (applied mechanics) at Dr. S. & S.S. Gandhy engineering college (Diploma) Surat from 11/03/2005 to 19/03/2010
- (2) Worked as Assistant professor (Applied Mechanics) at Dr. S. & S.S. Gandhy Government engineering college Surat from 19/03/2010 to 24/06/15
- (3) Worked as an Assistant professor (Applied Mechanics) at government engineering college, Bharuch from 25/06/15 to 23/04/25
- (4) Working as Associate professor (Applied Mechanics) at Government engineering college, Valsad from 24/04/2025

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List of Publications

International journal

- Shah Hemal J "Seismic Analysis of building on sloping ground considering near/far field earthquake" International journal of engineering research and technology vol.3 issue 03 March- 2014 (ISSN-2278-0181)
- 2) Shah Hemal J, Dr. Atul K Desai "seismic analysis of tall tv tower considering different bracing systems" International Journal of Engineering, Business and Enterprises

Applications (IJEBEA), Issue 7, Volume 1, pp. 113-119, December-2013 to February-2014 (ISSN (Online): 2279-0039, ISSN (Print): 2279-0020)

- Patel Krishna Kiranbhai, Prof. Hemal J. Shah " Dynamic Analysis of Plan Asymmetric Moment Resisting Frame Considering Soil Structure Interaction" IJSRD - International Journal for Scientific Research & Development Vol. 3, Issue 08, oct 2015 ISSN (online): 2321-0613 page no 362 to 367
- 4) Jay Lakhanakiya, Prof. Hemal J. Shah "A Parametric Study of an Intze Tank Supported On Different Staging's" IJSRD - International Journal for Scientific Research & Development Vol. 3, Issue 09, 2015 ISSN (online): 2321-0613 pp 1108-1112
- 5) Paresh G. Mistry, Hemal J. Shah "Seismic Analysis of Building on Sloping Ground Considering Bi-Directional Earthquake" International Journal of Scientific Development and Research (IJSDR) April 2016 IJSDR | Volume 1, Issue 4 page no 59 to 62 ISSN (2455-2631)
- 6) Nirav M. Katarmal, Hemal J. Shah "Seismic Response of RC Irregular Frame with Soil-Structure Interaction" International Journal of Scientific Development and Research (IJSDR) April 2016 IJSDR | Volume 1, Issue 4 pp 77-81 ISSN (2455-2631)
- 7) Nedunuri Vishnu Vardhan, Hemal J. Shah "Seismic analysis of podium structure using static and dynamic methods" International Journal of Scientific Development and Research (IJSDR) April 2016 IJSDR | Volume 1, Issue 4 page no 68 to 71 ISSN (2455-2631)
- Hemal j shah, Dr. Atul K desai "Non Linear Time History Analysis of Tall Steel Tower Considering Soil Structure Interaction International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181 Vol. 6 Issue 03, March-2017 page no 248 to 252
- 9) Hemal j shah, Dr. Atul K desai "Dynamic Response Of Wind Mill Considering Soil Structure Ineraction" International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181 Vol. 6 Issue 05, May-2017 page no 63 to 67
- 10) Bhavik Adajaniya Anilkumar Kannauzia Hemal Shah "comparison of behavior of conventional rcc structure with stainless steel encased concrete column structure" International education and research journal vol 3 issue 5 may 2017 pp 279-281 ISSN NO 2454-9916
- 11) Hemal J. Shah and Atul K. Desai "Dynamic analysis of innovative hybrid wind mill tower considering soil structure interaction" International journal of engineering and technology (ISSN: 1793-8236) vol 10 no.5 October 2018 pp.380-385
- 12) Atul K. Desai, Hemal J. Shah "Seismic Analysis of Structurally Hybrid Wind Mill Tower" World Academy of Science, Engineering and Technology International Journal of Structural and Construction Engineering Vol:12, No:9, 2018 pp 822 to 827 doi.org/10.5281/zenodo.1474495
- 13) Hemal J Shah & Dr. Atul K Desai "Non-Linear Seismic Analysis Of Lattice- Monopole Type Wind Mill Tower On Different Soil Conditions" Global Journal Of Engineering Science And Researches vol 5 issue -9 sept 2018 pp 289-295 ISSN 2348 – 8034

- 14) Hemal J shah and Atul K Desai "Experimental and numerical seismic investigation of mono and mono lattice system for wind mill tower" Disaster advances journal vol 12 (3) March 2019 pp 14-23, E-ISSN: 2278-4543 Print ISSN: 0974-262X (Scopus Indexed)
- 15) Hemal J shah and Dr. Atul k Desai "vibration response of mono and mono lattice structural supporting system using numerical modeling for tall wind mill towers" International Journal of Civil Engineering & Technology (IJCIET), Volume 10, Issue 02, February 2019, pp. 1041-1054, ISSN Print: 0976-6308 and ISSN Online: 0976-6316 (Scopus Indexed)
- 16) Hemal J shah and Atul k Desai "Experimental and Numerical Vibration Response Comparison of Mono and Hybrid Structural System for Tall Wind Mill" International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-7, Issue-6, March 2019 pp 1026-1036 (Scopus Indexed)
- 17) Hemal J shah and Atul k Desai "Experimental and Computational Dynamic Response Comparison of Hybrid and Mono Wind Mill Tower Considering Soil Structure Interaction" Asian Journal of Civil Engineering Springer vol. 21 issue 3, ISSNno 2522-011X APRIL 2020 Pages: 449 – 461 DOI: https://doi.org/10.1007/s42107-019-00201-6 (Scopus Indexed)
- 18) Shah H.J., Desai A.K. (Sept 2019) "Evaluation of Dynamic Amplification of Conventional and Mono-Lattice Structural System for Tall Windmill Towers". Smart Innovation, Systems and Technologies, vol 161. Pp 61-75 Springer, Singapore Sept 2019 ISSN: 2190-3018 DOI https://doi.org/10.1007/978-981-32-9578-0 6 (Scopus Indexed)
- 19) Shah, H.J., Desai, A.K. Comparison of Monopole and Hybrid Wind Turbine Tower Response for Seismic Loading Under Operational Conditions. J. Vib. Eng. Technol. 10, 2557–2575 (April 2022). ISSN 2523-3939 https://doi.org/10.1007/s42417-022-00504-0 (SCI Journal)
- 20) Shah Hemal J and Desai Atul K "Comparison of Seismic Response of Mono and Hybrid Structural System for Tall Windmill Tower considering Near-field and Far-field Earthquake" Disaster advances vol 15 (8) August 2022 pp35-45 https://doi.org/10.25303/1508da035045;(Scopus Indexed)
- 21) Thakur Bhairav, Desai Atul, Shah Hemal and Kaushik Gondaliya "Innovative Probabilistic Vulnerability Investigation of Nuclear Power Plant Structures under Far-Field Ground Motion" Disaster Advances Vol.16 (1) January 2023 PP 14-22 <u>doi:</u> https://doi.org/10.25303/1601da14022 (Scopus Indexed)

National Journal

 Hemal J shah ,Urita A Mehta "Comparison of static and dynamic analysis of tall tv towers "GIT journal of engineering and technology, seventh volume- March 2014(ISSN 2249-6147)

International conference

- 1) Shah Hemal J "*comparative study on seismic behavior of precast rcc infill wall and brick masonry infill wall to bare frame*" International conference on engineering issues opportunities challenges and development on 11/04/2015 at S.N.Patel institute of technology and research centre, bardoli, Gujarat ISBN 978-81-929339-1-7
- 2) Shah Hemal J , Dr Atul K Desai "Evaluation of dynamic response for monopole and hbrid wind mill tower" International conference on Functional materials, characterization, solid state physics, power, thermal and combustion energy, AIP Conference Proceedings, Volume 1859, Issue 1, 10.1063/1.4990267 DOI https://doi.org/10.1063/1.4990267 (scopus Indexed)
- Hemal j shah, Dr. Atul K desai "Dynamic analysis of innovative wind mill tower considering soil structure interaction" 39th IABSE Symposium – Engineering the Future September 21-23 2017, Vancouver (scopus Indexed)
- 4) Shah Hemal J , Dr Atul K Desai " *Dynamic Analysis of Innovative Hybrid Wind Mill Tower Considering Soil Structure Interaction*" International conference on civil and urban engineering march 11-13 ,2018 Barcelona, Spain
- Atul K. Desai, Hemal J. Shah "Seismic Analysis of Structurally Hybrid Wind Mill Tower" 20th International Conference on Structural Engineering and Composite Materials Sydney Australia 04-05 October 2018
- 6) Bhairav Thakur, Atul Desai, Hemal Shah and Deepam Patel " *Effect of Combination Pile Raft Soil Structure Interaction on Seismic Investigation of Nuclear Reactor Containment Structure*" 15th International Conference on Vibration Problems (ICOVP 2023) Doha, Qatar 5-8 February 2023 (Proceedings of the 15th International Conference on Vibration Problems Lecture Notes in Mechanical Engineering, 2024, p. 449-458) Springer Nature (Singapore) (BEST PAPER AWARD OF CONFERNECE) <u>https://doi.org/10.1007/978-981-99-5922-8_40</u>

National conference

- Shah Hemal J "A comparison between conventional and hollow sections in steel structures" national conference on advances in steel structures analysis design and construction (ADSS-11) 25,26 November 2011 at Saradar Vallabhbhai National Institute of Technology Surat
- Shah Hemal J "Dynamic Analysis Of Television Tower" Structural engineering convention (SEC-2012) 19-21 December 2012 page 884 to 888, at Saradar Vallabhbhai national institute of technology Surat
- Hemal j shah, Dr. Atul K Desai "Seismic Time History Analysis Of Tall Tower Considering Soil structure Interaction" National Conference on Recent Advances in Civil Engineering at SVNIT, 5-6 mar 2016 surat pp 55-64

Expert Lectures Delivered

- Delivered expert lecture on "Seismic analysis if tall tv towers" on 25/10/2013 at SVNIT, Surat
- Delivered expert lecture on "Recent Advances in Structural Engineering" on 28/02/2018 in Faculty development program "Advances in Civil And structural Engineering " at GEC, Dahod
- 3) Online lecture delivered on 16/07/20 on topic "Use of FEM software in structural analysis" in Faculty development program "Software Application and Research in Civil Engineering (SARCE)" at A.P. Shah institute of technology, Bombay

List of PhD Guided

- 1) Mita M Chauhan "study of dynamic behavior of hybrid windmill towers" (on going)
- 2) Patel Harshulkumar Anilbhai, Seismic Fragility Assessment of Tall Building (on going)
- Gediya Himangshu Mohanlal Development Of Deep Overhead Water Tank with Submerged Pendulum as Damper for Seismic Vibration Mitigation of Buildings (on going)
- 4) Shibashish P mukhrjee Sustainable Pavement Quality Concrete (on going)

List of ME dissertation Guided

- Lakhanakiya jay b. " A parametric study of an intze tank Supported on Different stagings" DDIT Nadiad (April 2015)
- 2) Patel krishna kiranbhai "seismic analysis of plan asymmetric moment resisting frame considering soil structure interaction" DDIT Nadiad (April 2015)
- 3) Mistry paresh " seismic analysis of building on sloping ground considering bidirectional earthquake" HJD institute of technical education and research Bhuj
- 4) Vishnu Vardhan "seismic analysis of plaza type structure using static and dynamic methods" HJD institute of technical education and research Bhuj
- 5) Nirav M Katarmal "seismic response of R.C. Building with soil structure interaction" HJD institute of technical education and research Bhuj