

Faculty Profile

Name : Dr. Vasanth Keshav
Designation : Assistant Professor
Department : Civil Engineering
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About me: Worked as SRF in CSIR funded project at BITS Pilani, Pilani Campus. Currently working in the area of non-linear dynamics of structural elements and rehabilitation of structures.

Qualification:

B.E.- Civil Engineering (VTU), MTech- Structural Engineering (BITS, Pilani), Ph.D. (BITS, Pilani)

Courses Taught:

Analysis of Indeterminate Structures (U.G.)
Design of Steel Structures (U.G.)
Metal and Timber testing Laboratory (U.G.)
Building Planning and Drawing (U.G.)
Advanced Design of RC Structures (P.G.)
Finite Element Method (P.G.)
Safety of Structures (P.G.)
Structural Dynamics and Earthquake Engineering (P.G.)
Numerical Methods in Civil Engineering (U.G.)
Numerical Methods and Optimization Techniques (P.G.)
Bridge Engineering (P.G.)

Publications:

Journal Publications

1. **Keshav, V., & Vummadisetti, S.** (2023). Non-rectangular plates with irregular initial imperfection subjected to nonlinear static and dynamic loads. *International Journal of Advances in Engineering Sciences and Applied Mathematics*, 15(4), 155-158. <https://doi.org/10.1007/s12572-023-00338-3>
2. **Keshav, V., Patel, S. N., Kumar, R., & Watts, G.** (2022). Effect of Cutout on the Stability and Failure of Laminated Composite Cylindrical Panels Subjected to In-Plane Pulse Loads. *International Journal of Structural Stability and Dynamics*, 2250087. DOI: <https://doi.org/10.1142/S0219455422500870>

3. **Keshav, V.**, Patel, S. N., & Kumar, R. (2021). Non-linear stability and failure of laminated composite stiffened cylindrical panels subjected to in-plane impulse loading. *Structures* 29, 360-372. DOI: <https://doi.org/10.1016/j.istruc.2020.11.021>
4. **Keshav, V.**, & Patel, S. N. (2020). Non-Linear dynamic pulse buckling of laminated composite curved panels. *Structural Engineering and Mechanics*, 73(2), 181-190. <https://doi.org/10.12989/sem.2020.73.2.181>
5. **Keshav, V.**, Patel, S. N. & Kumar, R. (2019). Stability and Failure Study of Suddenly Loaded Laminated Composite Cylindrical Panel. *International Journal of Applied Mechanics*, 11(10), 1950093. <https://doi.org/10.1142/S1758825119500935>
6. **Keshav, V.**, Patel, S. N. (2018). Dynamic buckling of laminated composite rectangular plates subjected to Uni-axial compression loads. *Journal of Structural Engineering, SERC, Chennai*. 45(1), 21-30.

Conference Proceedings

1. Gagana P., **Keshav V.** and Manoj H.S. (2024) Design of Steel Foot Over Bridge – A Proposal. *ustainable Infrastructure: Innovations, Opportunities and Challenges-2024 (SIIOC-2024)*, NIT Surathkal,
2. Gagana P., **Keshav V.** and Manoj H.S. (2024) Wind and Seismic Response Analysis of Cable Stayed Bridge– A Case Study *ustainable Infrastructure: Innovations, Opportunities and Challenges-2024 (SIIOC-2024)*, NIT Surathkal,
3. Sathwik C. R., **Keshav V.** and Gouthamraj M. R. (2024) Effect of imperfection in non-linear static buckling of laminated composite hexagonal plate with incorporation of jute fibersustainable Infrastructure: Innovations, Opportunities and Challenges-2024 (SIIOC-2024), NIT Surathkal,
4. Gouthamraj M. R., **Keshav V.** and Sathwik C. R. (2024) Effect of boundary conditions on Non-linear static buckling of laminated composite pentagonal plate made of aloe vera fibersustainable Infrastructure: Innovations, Opportunities and Challenges-2024 (SIIOC-2024), NIT Surathkal,
5. Manoj H. S., Manjunath Y.M., **Keshav V.** and Gagana P, (2024) Post Fire Mechanical Properties of Butt Weld Subjected to Elevated Temperature
6. Sagar S. & **Keshav V.** (2024) Flexural behavior of RC beam using GFPR strips as strengthening materials: analytical work. *Sustainable Infrastructure: Innovations, Opportunities and Challenges-2024 (SIIOC-2024)*, NIT Surathkal,
7. **Keshav V.** & Vummadisetti S. (2022, November) Stability of Laminated Composite Plate with natural fiber core and containing irregular imperfections subjected to in-plane static and dynamic loads. 5th Indian Conference on Applied Mechanics (INCAM-2022), 11-13 November 2022, Department of Applied Mechanics, National Institute of Technology (NIT), Jamshedpur and Indian Society for Applied Mechanics (ISAM).
8. Devaiah, K. S., & **Keshav, V.** (2022, September). Application of BIM for Effective Construction Safety Management in High Rise Buildings. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1255, No. 1, p. 012006). IOP Publishing.
9. **Keshav, V.** (2022, September). Risk Assessment in Building Construction Projects. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1255, No. 1, p. 012013). IOP Publishing.
10. **Keshav V.**, Patel S.N. and Kumar R. (2018). Non-Linear Dynamic Buckling and Failure Study of Laminated Composite Plates Subjected to Axial Impulse Loads. 63rd Congress Of The Indian Society Of Theoretical And Applied Mechanics (An International Conference) December 20-23, 2018, Dayananda Sagar University, Bangalore.

11. **Keshav V.**, Patel S.N. and Kumar R. (2018). Dynamic Buckling and Failure Study of Laminated Composite Curved Panels Subjected to In-Plane Impulsive Loads. Structural Engineering Convention (SEC-2018),19-21, December 2018, Department of Civil Engineering Jadavpur University, Kolkata.
12. Patel S. N., **Keshav V.** and Kumar R. (2018). Non-linear Dynamic Buckling Study of Cross-Ply Laminated Composite Plate. International Conference on Mechanical Engineering and Allied Science (ICMEAS-2018), 14-15, September 2018, School of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra, J&K, 182320.
13. **Keshav V.** and Patel S.N. (2017). Dynamic Buckling of Angle Ply Laminated Composite Plates Subjected to In-Plane Compression Loads. 3rd Indian Conference on Applied Mechanics (INCAM-2017), 5-7 July 2017, Department of Applied Mechanics, Motilal Nehru National Institute of Technology (MNNIT), Allahabad U.P. and Indian Society for Applied Mechanics (ISAM).
14. Patel S. N. and **Keshav V.** (2016). Nonlinear Dynamic Analysis of Laminated Composite Plates Subjected to In-Plane Harmonic Edge Loading. Structural Engineering Convention (SEC-2016), 21-23 December 2016, CSIR-Structural Engineering Research Centre (SERC) jointly with IIT Madras and Anna University, Chennai.
15. **Keshav V.** and Patel S.N. (2016). Dynamic Buckling of Laminated Composite Curved Panels Subjected to In-Plane Compression. Structural Engineering Convention (SEC-2016), 21-23 December 2016, CSIR-Structural Engineering Research Centre (SERC) jointly with IIT Madras and Anna University, Chennai.
16. **Keshav V.** and Patel S.N. (2016). Dynamic Buckling of Composite Plates Subjected to In-Plane Compression. International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM-2016), December 11-15, 2016, IISc Bangalore in association with IUMRS, Bangalore.
17. Patel S. N. and **Keshav V.** (2015). Dynamic Response of Laminated Composite Plates. International Conference on Computer Aided Engineering 2015 (CAE 2015), 10-12, December 2015, Department of Mechanical Engineering, School of Technology, GITAM University - Hyderabad, India.
18. **Keshav V.** and Patel S.N. (2015). Dynamic Analysis of Isotropic Plates. National Conference of Recent Advancements in Civil and Environmental Engineering (RACEE-2015), 28-29, November 2015, Dept. of Civil Engineering, BRCM College of Engineering and Technology. Bahal, Bhiwani, Haryana.

Book Chapters

1. Devaiah, K. S., & **Keshav, V.** (2022, September). Application of BIM for effective construction safety management in high rise buildings. In IOP Conference Series: Materials Science and Engineering (Vol. 1255, No. 1, p. 012006). IOP Publishing.10.1088/1757-899X/1255/1/012006
2. Rajesh & **Keshav, V.** (2022). Risk Assessment in Building Construction Projects. In IOP Conference Series: Materials Science and Engineering (Vol. 1255, No. 1, p. 012013). IOP Publishing.10.1088/1757-899X/1255/1/012013
3. **Keshav, V.**, Patel, S. N., & Kumar, R. (2021). Buckling of Laminated Composite Plate with Imperfections Subjected to In-Plane Pulse Loads. In Emerging Trends of Advanced Composite Materials in Structural Applications (pp. 273-290). Springer, Singapore. DOI: https://doi.org/10.1007/978-981-16-1688-4_12
4. **Keshav V.**, Patel S.N., Kumar R. (2020) Nonlinear Dynamic Buckling and Failure Study of Laminated Composite Plates Subjected to Axial Impulse Loads. In: Maity D., Siddheshwar P., Saha S. (eds) Advances in Fluid Mechanics and Solid Mechanics. Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-15-0772-4_25

5. **Keshav V.**, Patel S.N. (2019) Dynamic Buckling of Laminated Composite Curved Panels Subjected to In-plane Compression. In: Rao A., Ramanjaneyulu K. (eds) Recent Advances in Structural Engineering, Volume 2. Lecture Notes in Civil Engineering, Vol. 12. Springer, Singapore. https://doi.org/10.1007/978-981-13-0365-4_62.

Other achievements:

Reviewer of Journals

- Construction and building Materials (Elsevier)
- Engineering structures (Elsevier)
- Structures (Elsevier)
- International Journal of Applied Mechanics (World Scientific)

Member of Professional bodies

- American Society of Civil Engineers (Affiliate member)
- Engineering Mechanics Institute (of the American Society of Civil Engineers) (Affiliate member)
- Structural Engineering Institute (of the American Society of Civil Engineers) (Affiliate member)
- Indian Society for Applied Mechanics (Life Member)
- Institution of Engineers (India) (Associated Member)
