I	Name of Faculty	Dr. VISHAL SINGH	
II	Designation	Assistant Professor	
III	Nature of Job/Appointment	Regular	
IV	Date of Joining	11 – 09 -2023	
V	E-mail	vishalsingh_civil@cbit.ac.in	
VI	Education Qualifications	Name of the Degree	Class
	Ph. D	PhD. (Structural Engineering), BITS PILANI, Pilani Campus, Rajasthan	Awarded (2022)
	PG	M. Tech (Structural Engineering), KIIT Deemed to be University	1st class (2018)
	UG	B. Tech (Civil Engineering), SIEM Siliguri affiliated to WBUT	1st class (2014)
VII	Work Experience	1 year_10 months pre-Ph.D. and 3 years_1 month post-Ph.D.	
	Teaching	1. Budge Budge Institute of Technology, Kolkata:**1 Years and 10 months (2nd September 2014 – 29th June 2016)** 2. NIET affiliated to NIMS University, JAIPUR: **6 Months (20th August 2022 – 25th February 2023)** 3. Malla Reddy Engineering College and Management Sciences, Hyderabad: **4 months (18th April 2023 – 14th August 2023)** 4. Chaitanya Bharathi institute of Technology, CBIT Hyderabad: **11th September 2023 – Present)**	
	Research	--	
	Industry	--	
	Others	--	
VIII	Area of Specialization	Composite Structures, Static and Dynamic Stability analysis, Linear and Non-linear vibration analysis, Seismic Analysis.	
IX	Professional Memberships	--	
X	Responsibilities held at Institution Level	--	
XI	Responsibilities held at Department Level	1. Mentoring 2. Co-Ordinator for Student Activities/Achievements 3. Co-Ordinator for Time Table 4. Co-Ordinator for ERP	
XII	Research Guidance	M.Tech Student Supervised: **06**	
XIII	Courses Handled at Undergraduate / Post Graduate Level.	Concrete Technology, Structural Design LAB, Engineering Mechanics, Concrete Technology LAB, Geotechnical Engineering LAB, AUTO-CAD LAB, Design of Steel Structure, Surveying LAB, Engineering Graphics, Infrastructure for Smart Cities.	
XIV	No. of Papers Published	National Journals – 0 / International Journals –13 National Conference – 0 / International Conference – 10	
XV	Projects Carried out	--	
XVI	Patents	--	
XVII	Technology Transfer	--	
XVIII	Invited Speaker (Few Important/Prominent)	1. Presented a webinar on “Parametric study on foundation retrofitting using micro-pile” at Global institute of Management and Technology, Krishnanagar, Nadia, West Bengal. 2. Presented a webinar as Alumni on “Parametric study on foundation retrofitting using micro-pile” at Surendra	

Institute of Engineering and Management, Siliguri, West Bengal.

3. Presented a webinar on “Introduction to foundation retrofitting” at Civil Center, a product of Oddaka Infratech Pvt. Ltd., Sailashree Vihar, Bhubaneswar, Odisha.

XIX No. of Books/Chapter Published with details

1. **V. Singh**, Mohapatra B.G. (2020) Parametric Study on Foundation Retrofitting Using Micro-piles. In: Das B., Barbhuiya S., Gupta R., Saha P. (eds) Recent Developments in Sustainable Infrastructure. Lecture Notes in Civil Engineering, vol 75. Springer, Singapore. https://doi.org/10.1007/978-981-15-4577-1_13.
2. **Vishal Singh**, Rajesh Kumar, and S. N. Patel. "Dynamic Instability of CNT-Reinforced Composite Plate Under Non-Uniform In-plane Loading." Recent Advances in Computational and Experimental Mechanics, Vol—I. Springer, Singapore, 2022. 381-396.
3. **Vishal Singh**, Rajesh Kumar, and Shuvendu Narayan Patel. "Parametric instability analysis of functionally graded CNT-reinforced composite (FG-CNTRC) plate subjected to different types of non-uniform in-plane loading." Emerging Trends of Advanced Composite Materials in Structural Applications. Springer, Singapore, 2021. 291-312.
4. **V Singh**, and R Kumar, B. G. Mohapatra, M. Saha, S N Patel, “Non-linear Vibration of Functionally Graded CNT-Reinforced Composite Plate Subjected to Different Types of Non-uniform In-plane Loading”, Recent Developments in Sustainable Infrastructure (ICRDSI-2020)—Structure and Construction Management.
5. Sajeev, D., Azeez, F.A., Kumar, R., **Singh, V**. (2022). Nonlinear Vibration of Functionally Graded Porous-Cellular Timoshenko Beam Subjected to In-Plane Periodic Loading. In: Singh, S.B., Barai, S.V. (eds) Stability and Failure of High-Performance Composite Structures. Composites Science and Technology. Springer, Singapore. https://doi.org/10.1007/978-981-19-2424-8_16
6. **Singh, V.,** Kumar, R., Pal, N.C., Mohapatra, B.G. (2024). Semi-Analytical Study of a Functionally Graded Open Cellular Porous Beam to Analyze Its Nonlinear Bending Characteristics. In: Ghai, R., Chang, LM., Sharma, R., Chandrappa, A.K. (eds) Sustainable Design and Eco Technologies for Infrastructure. CECAR 2022. Lecture Notes in Civil Engineering, vol 441. Springer, Singapore. https://doi.org/10.1007/978-981-99-8465-7_4

XX Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops. Other Trainings (Attended and/or Organized).

1. Co-ordinated In-house internship program named “Software Applications for Sustainable Civil Engineering (SASCE-2023)” for 2nd year students at CBIT for 3-weeks (14th Nov, 2023 to 5th Dec, 2023).
2. Co-ordinated One-Week National Faculty Development Program on “Applications of Advanced Techniques for

Repair and Rehabilitation of RCC and Steel Structures" organized by Department of Civil Engineering, Chaitanya Bharathi Institute of Technology (Autonomous), Hyderabad in association with Indian Concrete Institute, Hyderabad Centre during 22nd April to 26th April 2024. (AATRRRS_2024).

3. Co-ordinated One-Week National Faculty Development Program on "Advanced Technologies and Innovations for Automation in infrastructure Engineering" organized by Department of Civil Engineering, Chaitanya Bharathi Institute of Technology (Autonomous), Hyderabad during 15th July to 20th July 2024.
4. Co-convener of 2nd International conference on Developments in Sustainable Materials, Infrastructure, Manufacturing and Energy Engineering (ICDSMIME-2024) held during 13-14 December, 2024 at Chaitanya Bharathi Institute of Technology, Hyderabad, India.
5. Co-ordinated One-Week National Faculty Development Program on "Applications of Composites and Nano Fillers in Civil Engineering (ACNFCE)" organized by Department of Civil Engineering, Chaitanya Bharathi Institute of Technology (Autonomous), Hyderabad in association with Indian Concrete Institute, Hyderabad Centre during 21st April to 25th April 2025. (ACNFCE _2025).

XXI Details of Journal Publications/ Conferences (National and International)

International Journal

1. **Vishal Singh**, R. Vescovini, Rajesh Kumar, S. N. Patel, and Gaurav Watts. (2022) "Nonlinear vibration and instability of a randomly distributed CNT-reinforced composite plate subjected to localized in-plane parametric excitation." *Applied Mathematical Modelling*, 101 (2022), 453-480. **(SCIE, IF: 4.4)**
2. **Vishal Singh**, and Rajesh Kumar (2022). "A semi-analytical framework for time history response of a carbon nanotube-reinforced polymer damped composite plate: Influence of instability regions." *Polymer Composites*, 43(2), 1186-1212. **(SCIE, IF: 4.8)**
3. **Vishal Singh**, and Rajesh Kumar (2022). "A Semi-analytical Framework for Non-linear Dynamic Response of Multi-phase Laminated Composite Plate Under the Transverse Patch and In-plane Pulse Localized Loadings." *Mechanics of Advanced Materials and Structures*, 1-28. **(SCIE, IF: 3.6)**
4. Sumeet Chakraborty, Tanish Dey, **Vishal Singh**, Rajesh Kumar (2022). Thermal Stability Analysis of Three-Phase CNTRFC Cylindrical Shell Panels. *Journal of Aerospace Engineering*, 35(5), 04022074-1:16. **(SCIE, IF: 1.5)**
5. **Vishal Singh**, Rajesh Kumar, Varun Jain, T. Naveen Kumar, and S. N. Patel. (2021) "Semianalytical development of dynamic instability and response of a multiscale laminated hybrid composite plate." *Journal of Aerospace Engineering*, 34(3), 04021005. **(SCIE, IF: 1.5)**
6. **Vishal Singh**, Rajesh Kumar, and S. N. Patel (2021). "Non-linear vibration and instability of multi-phase composite plate subjected to non-uniform in-plane parametric excitation: Semi-analytical investigation." *Thin-Walled Structures*, 162, 107556. **(SCIE, IF: 5.7)**

7. Rajesh Kumar, **Vishal Singh**, S. N. Patel, and Tanish Dey (2021). "Non-linear response and buckling of imperfect laminated composite plates under in-plane pulse forces." *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, 235(22), 6328-6344. **(SCIE, IF: 1.8)**
8. **Vishal Singh**, Rajesh Kumar, S. N. Patel, and Nishant Roy (2021). "Nonlinear Response and Buckling of Imperfect Plates Under In-Plane Pulse Forces: A Semi-analytical Investigation." *Iranian Journal of Science and Technology, Transactions of Mechanical Engineering*, 1-16. **(SCIE, IF: 1.5)**
9. **Vishal Singh**, Rajesh Kumar, S. N. Patel, Tanish Dey, and Sarat Kumar Panda (2021). "Instability and Vibration Analyses of Functionally Graded Carbon Nanotube–Reinforced Laminated Composite Plate Subjected to Localized In-Plane Periodic Loading." *Journal of Aerospace Engineering*, 34(6), 04021072. **(SCIE, IF: 1.5)**
10. Rajesh Kumar, **Vishal Singh**, Tanish Dey, Dipendu Bhunia, SN Patel, Varun Jain. "Nonlinear analysis of sandwich plate with FG porous core and RD-CNTCFRC face sheets under transverse patch loading". Acta Mechanica, 1-26, 2022. **(SCIE, IF: 2.3)**
11. Varun Jain; Rajesh Kumar; Gaurav Watts; Md Rushdie Ibne Islam; **Vishal Singh**. "Size-dependent Nonlinear Free and Forced Vibration analyses of a Functionally Graded Microplate subjected to Transverse Patch Loading". Journal of Engineering Mechanics. Vol. 149(10), 04023082. **(SCIE, IF: 3.3)**
12. Chakraborty, S., **Singh, V**., Dey, T. et al. Influence of Carbon Nanotubes on Stability and Vibration Characteristics of Plates and Panels in Thermal Environment: A Review. Arch Computat Methods Eng (2023). **(SCIE, IF: 9.7)**
13. **Singh V**, Ismail MA, Krishnan SN, Francis S, Kumar R. Study on bending characteristics of CNT-reinforced metal Timoshenko composite porous beam exposed to transverse patch loading. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science. 2025;239(13):5122-5134. doi:10.1177/09544062251325160 **(SCIE, IF: 1.7)**

National Journal

Nil

International Conferences:

1. V Singh, B.G Mohapatra, and A. Divyadarshi, "Various Methods of Retrofitting of R.C.C Structures and Masonry Structures – A Review". 2nd International Conference on Innovations in Structural Engineering (IC-ISE-2017), 29-31, December 2017, Department of Civil Engineering Osmania University, Hyderabad.
2. V Singh, R Kumar, S N Patel. Post buckling analysis of MWCNT-reinforced composite plates under different types of In-Plane mechanical Loads. Structural Engineering Convention (SEC-2018), 19-21, December 2018, Department of Civil Engineering Jadavpur University, Kolkata.
3. V Singh, and B.G Mohapatra, "Parametric study on Foundation retrofitting using Micro-piles", 1st International Conference on Rural Development in sustainable Infrastructure (ICRDSI) – (Materials and Management), 11-13, July, 2019, Department of Civil Engineering, KIIT Deemed to be University.
4. V Singh, and R Kumar, S N Patel, "Dynamic Instability of CNT-Reinforced Composite Plate under Non-uniform In-plane Loading", ICRACEM 2020 1st International Conference on Recent Advances In Computational And Experimental Mechanics, 4th – 6th September 2020, Organized Jointly By Departments of Civil Engineering, Aerospace Engineering, and Ocean Engineering & Naval Architecture IIT Kharagpur.
5. V Singh, and R Kumar, S N Patel, "Non-linear Vibration of Multi-scale Composite Plate under Non-uniform In-plane Periodic Load", 23rd International Conference on Composite

Structures & 6th International Conference on Mechanics of Composites (ICCS 23 & Mechcomp6) 1 – 4 September, 2020 (On Line) Porto, Portugal.

6. V Singh, and R Kumar, B. G. Mohapatra, M. Saha, S N Patel, "Non-linear Vibration of Functionally Graded CNT-Reinforced Composite Plate Subjected to Different Types of Non-uniform In-plane Loading", in 2nd International Conference on Rural Development in sustainable Infrastructure (ICRDSI) – (Research & Practices), at Department of Civil Engineering, KIIT Deemed to be University on 18-21, December 2020.
7. V Singh, R Kumar, N. C. Pal, and B. G. Mohapatra, "Semi-Analytical Study of a Functionally Graded Open Cellular Porous Beam to Analyze Its Nonlinear Bending Characteristics", in international Civil Engineering Conference in the Asian Region (CECAR 9), hosted by The Institution of Civil Engineers (India) which was held during September 21–23, 2022 Goa, India.
8. S. W. M. Quadri, Vishal Singh, N. R. Dakshina Murthy and Rajesh Kumar, "Analysis of porous beam for non-linear bending under different non-uniform loadings - A numerical study", 7th International conference on modelling and simulation in Civil Engineering (ICMSC-2024), TKM College of Engineering, Kollam, during 5th to 7th - December, 2024.
9. Syed Anees Ur Rahman, Vishal Singh, N. R. Dakshina Murthy, Rajesh Kumar, "Analysis of porous sandwich plate for non-linear bending subjected to non-uniform loadings", 7th International conference on modelling and simulation in Civil Engineering (ICMSC-2024), TKM College of Engineering, Kollam, during 5th to 7th December, 2024.
10. S.W.M. Quadri, N. R. Dakshina Murthy, Vishal Singh, Rajesh Kumar, Syed Anees Ur Rahman, "Numerical analysis of porous beam with non-uniform symmetric porosity distribution for non-linear bending subjected to non-uniform loading", 2nd International conference on Developments in Sustainable Materials, Infrastructure, Manufacturing and Energy Engineering (ICDSMIME-2024) held during 13-14 December, 2024 at Chaitanya Bharathi Institute of Technology, Hyderabad, India.
11. Vishal Singh, Syed Anees Ur Rahman, N. R. Dakshina Murthy, Rajesh Kumar, T. Naresh, S. W. M. Quadri. "Finite Element Based Non-Linear Bending Analysis of Sandwich Plate With Non-Uniform Symmetric Core Subjected to Non-Uniform Transverse Loading". 4th International Conference on Innovative Trends in Engineering for Sustainability, 2nd April – 4th April 2025.

National Conferences

Nil