

Dr. Nikhil Bhandari

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Research Interest

Thermal Comfort & Adaptive Behaviour | # Acoustic Comfort | # Indoor Environmental Quality | # Energy Efficiency & Optimization | # User-Centric Building Design | # Occupant Behaviour

Education

July 2019 – June 2024	Doctor of Philosophy (Architecture & Planning), National Institute of Technology Tiruchirappalli, India Thesis Title: “ <i>Role of Ceiling Fans on Thermal and Acoustic Environments and Their Influence on Comfort and Productivity in Naturally Ventilated University Classrooms in Warm and Humid Climate of India</i> ”
July 2016 – June 2018	Master of Architecture (Energy Efficient and Sustainable Architecture) , National Institute of Technology Tiruchirappalli, India Thesis Title: “ <i>Role of Windows for Daylighting and Energy Optimization in Air-Conditioned Office Building in Hot and Dry Climate of India: A Simulation-Based Approach</i> ”
July 2011 – June 2016	Bachelor of Architecture , Malaviya National Institute of Technology Jaipur, India

Technical skills

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| • Simulation & Modeling | : OpenStudio, IESVE, Ladybug & Honeybee, Rhinoceros, Grasshopper |
| • Data Analysis | : Knime, Jamovi, Tableau, Jasp, SPSS |
| • Design & Visualization | : Autodesk (AutoCAD, Revit), Adobe Photoshop |
| • Other | : MS Office |

Academic Achievements

Scholarships

Dec 2020 – June 2023 **Prime Minister's Research Fellowship (PMRF)** from Ministry of Education, Government of India

Work Experience

Sept. 2025 - Present Assistant Professor (Grade-II), Maulana Azad National Institute of Technology (MANIT), Bhopal
July 2024 - Sept. 2025 Assistant Professor (AdHoc), Visvesvaraya National Institute of Technology (VNIT), Nagpur

Teaching & Outreach

Dec 2024	Participated as a speaker in a five-day online Faculty Development Programme (FDP) on “Application of Technology in Architectural Education” organised by Vastu Kala Academy, College of Architecture, New Delhi.
Sept 2023	Participated as a speaker in a national level online five days faculty development program (FDP) on Building Energy Performance organised by Marg Institute of Design and Architecture, Swarnabhoomi (MIDAS).
Sept 2023	Participated as a speaker in a five-day online workshop on “Thermal Comfort, Energy Analysis, and Passive Techniques” organised by the Department of Architecture and Planning, National Institute of Technology Patna.
Dec 2020 – June 2023	Conducted multiple workshops on simulation tools (Climate Studio, Ladybug, Honeybee, Solar Tool) at various institutes as part of knowledge dissemination and capacity building within the PMRF initiative
Feb 2019	Participated as a speaker in the Teacher's Training Programme on “Sustainable and Energy Efficient Buildings” organised by Malaviya National Institute of Technology (MNIT), Jaipur.
Feb 2019	Conducted a 3-day workshop on IES VE at the Department of Architecture, NIT Tiruchirappalli, India
Feb 2019	Conducted a 3-day workshop on building performance simulation in Archcult'19
Nov 2018	5-day workshop on Open Studio at MES College of Engineering Kuttipuram, Kerala, India

Research Articles

- **Bhandari, N., Tadepalli, S., & Gopalakrishnan, P.** (2024). The combined influence of thermal and acoustic environment on overall comfort and Productivity in naturally ventilated university classrooms in India. *Building and Environment*, 267-B, 112212. <https://doi.org/10.1016/j.buildenv.2024.112212>
- **Bhandari, N., Tadepalli, S., & Gopalakrishnan, P.** (2024). Investigation of acoustic comfort, productivity, and engagement in naturally ventilated university classrooms: Role of background noise and students' noise sensitivity. *Building and Environment*, 249, 111131. <https://doi.org/10.1016/j.buildenv.2023.111131>
- **Bhandari, N., Faheem, M., Tadepalli, S., & Gopalakrishnan, P.** (2023). Study of occupant behaviour to improve thermal comfort conditions by arranging furniture in student hostel rooms. *Energy and Built Environment*. <https://doi.org/10.1016/j.enbenv.2023.10.002>
- **Bhandari, N., Tadepalli, S., & Gopalakrishnan, P.** (2023). Influence of non-uniform distribution of fan-induced air on thermal comfort conditions in university classrooms in warm and humid climate, India. *Building and Environment*, 238, 110373. <https://doi.org/10.1016/j.buildenv.2023.110373>
- **Faheem, M., Bhandari, N., Tadepalli, S., & Abinaya, J.** (2022). Investigation on window opening behavior in naturally ventilated hostels of warm and humid climate. *Energy and Buildings*, 268, 112184. <https://doi.org/10.1016/j.enbuild.2022.112184>
- **Faheem, M., Bhandari, N., & Tadepalli, S.** (2022). Adaptive thermal comfort in naturally ventilated hostels of warm and humid climatic region, Tiruchirappalli, India. *Energy and Built Environment*. <https://doi.org/10.1016/j.enbenv.2022.04.002>

Conference paper

- **Bhandari, N., & Tadepalli, S.** (2022, November 22). Effect of Window opening schedule on Indoor Thermal Environment: An Investigation into the effect of Natural Ventilation in Low-rise Apartments in Warm and Humid Climate of India. 36th PLEA CONFERENCE 2022.
- **Bhandari, N., & Tadepalli, S.** (2019, November 30). Influence of window-to-wall ratio on building energy load with daylight utilization for west facade in office building in hot and dry climate of India: A Simulation-based Approach. 53rd International Conference of the Architectural Science Association.
- **Bhandari, N., & Sundaram, A. M.** (2019). Optimization of Windows for Daylighting and Energy Consumption for South Facade in Office Building in Hot and Dry Climate of India. In A. Chakrabarti (Ed.), *Research into Design for a Connected World* (Vol. 134, pp. 307–320). Springer Singapore. https://doi.org/10.1007/978-981-13-5974-3_27