Dr. Trupti Amit Kinjawadekar
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Area of Interest

Building materials, Structural engineering Advanced Structures, Strength of Materials, Tall Buildings.

Area of Research

Structural engineering, Advanced Materials and Structural Systems

Area of Expertise

Structural Engineering

Academic Qualifications

Degree Obtained	Year	Institution	University	Class/Awards
Bachelor of Engineering (B.E.)	1999	Dr. D. Y. Patil College of Engineering, Kolhapur	Shivaji University	First Class
Master of Technology (M. Tech.)	2005	Gogte Institute of Technology, Belgaum	Visvesvaraya Technological University, Belgaum	First Class with Distinction
Ph.D. (Doctorate)	2025	Manipal School of Architecture and Planning	Manipal Academy of Higher Education	-

Academic /Research Experience

Institution	Designation	Role	Tenure
School of Engineering Management and Research, D Y Patil International University, Pune	Sr. Assistant Professor	Teaching	July 2026-till date
Manipal School of Architecture & Planning, MAHE, Manipal	Associate Professor	Teaching	July 2014 – July 2026
KLS's Gogte Institute of Technology, Belgaum	Assistant Professor	Teaching	January 2010 to January 2013
KLS's Gogte Institute of Technology, Belgaum	Lecturer	Teaching	September 2005 to December 2009

- Designed and executed **experimental programmes** on GFRP-reinforced RC beams and columns
- Investigated **axial compression and flexural behaviour,** failure modes and ductility characteristics
- Developed and validated **nonlinear FE models using ABAQUS** against experimental results
- Conducted **analytical comparisons with design code provisions**
- Supervised postgraduate research projects in structural engineering
- Published findings in **international peer-reviewed journals (Scopus Q1/Q2)**
- Actively involved in funding application under VGST grant proposal
- **Filed a patent application titled** " A CORROSION-RESISTANT REINFORCEMENT SYSTEM USING GLASS FIBRE REINFORCED POLYMER FOR CONCRETE STRUCTURES AND METHOD THEREOF".
  (Application Number: 202641010296 filed on 31/01/2026)

Awards and Recognition:

Published research paper titled "A Critical Review on Glass Fiber-Reinforced Polymer Bars as Reinforcement in Flexural Members," has been awarded the **prestigious E P Nicolaides Prize** by The Institution of Engineers (India). **This prize was instituted in 1963 by Gammon (India) Ltd to commemorate E P Nicolaides** for his pioneering work in the field of Pre-stressed Concrete in India. It is awarded for the best paper on Reinforced and Pre-stressed Concrete published in the Institution's Journal.

Our research abstract titled "Study on Structural Behavior of Concrete Beams Reinforced with Steel and GFRP (Hybrid) Bars" (Paper ID# 5963) **has been shortlisted for the final round of 5th Forum for Women in Research (QUWA: Together Innovating to Shape the Future).**

Professional Affiliations & Contributions

- Life Member of the Indian Society for Technical Education from 2008.
- Associate Life Member of the Institution of Engineers from 2015.
- Research mentor for International scholars of International Association for the Exchange of Students for Technical Experience (IAESTE).

Corporate Work Experience

Institution	Designation	Role	Tenure
Aakruti Consultants, Belgaum.	Partner & Structural Designer.	Full Time	February 2013 to July 2014
Aakruti Consultants, Belgaum	Structural Engineer	Full Time	June 2002 to August 2005

Academic Roles and Administrative Responsibilities

- **Coordinator – Regulatory Authorities, Faculty of Architecture, – 2015 to 2018**
  Involved in Data management and submission of reports to Regulatory Authorities like COA, AICTE, NAAC, UGC from 2015 to 2018.
- Reviewed and improved coursework, teaching-learning methods and Academic processes.
- **Coordinator –Student Affairs and Grievance, Manipal School of Architecture and Planning (MSAP) – from 2018-2021**
- **Coordinator- Student Affairs and Welfare, MSAP from 2021-2023**
- **OBE Coordinator, MSAP from 2023-2025**
- **PhD Coordinator, MSAP 2025-2026**
  Involved in activities towards student communication, mentoring, facilitation and development.
- **Part of MSAP** – Covid Task Force, Vaccination Drive.
- **Course Coordinator** - Structural and Construction Systems, Structures, Tall Buildings, Advanced Structures. Reviewed and improved coursework, Content development, teaching-learning processes and Academic processes.

Major Involvement in Curricular Activities

- Involved in the revision of **B. Arch. Curriculum** – 2014 and 2019 Syllabus.
- Actively Involved in the conduct of **Student Site Visit and Study tours.**
  a. KEF Factory Visit, Krishnagiri, Tamil Nadu – January 2019 as part of Pre Cast Construction studio.
  b. Mangalore – Ideal Icecream Factory - September 2019 as part of RCC construction studio.

- Internal Auditor ISO ; 2018-2026
- Involved in orginising various events like Yoga Activity, Annual Cultural evnets at MSAP.

- Actively Involved in the conduct of following Expert lectures and Workshops.
  a. Conduct of National Consultation on Built Environment & Health, MU-FAIMER May 2017.
  b. Expert Lecture by Dr Vinod Hosur, GIT, Belgaum (Online) on structural analysis – 24th October 2020.
  c. Expert Lecture by Er Sunil Godbole, Mumbai (Online) on tall buildings – 13th February 2021.
  d. STADD Pro workshop at MSAP MAHE on 1st April 2026.
- Involved in the conduct of Counselling and Orientation activities for B.Arch. Batches.

Total Teaching /Research/ Professional Experience – 22 years. Have guided

10 UG and 05 PG Thesis projects to date.

Research Publication Details

International Journals	National Journals	International Conferences	National Conferences	Reviews	Book Chapters
0 8	-	10	-	-	04

A. Journal Publications Details

1. **Trupti A. Kinjawadekar**, S. Patil, and G. Nayak, "A Critical Review on Glass Fiber-Reinforced Polymer Bars as Reinforcement in Flexural Members," *Journal of The Institution of Engineers (India): Series A*, vol. 104, no. 2, pp. 501–516, 2023, doi: 10.1007/s40030-023-00729-6.
2. **Trupti A. Kinjawadekar**, S. Patil, G. Nayak, A. Kinjawadekar, and S. A. Kulal, "Experimental Study on Mechanical Properties of Hybrid Fiber-Reinforced Concrete," Journal of Architectural Engineering, vol. 30, no. 4, pp. 1–6, 2024, doi: 10.1061/jaeied.aeeng-1717.
3. S. Simons, A. Kinjawadekar, and **Trupti A. Kinjawadekar**, "Assessing the impacts of ecological framework of Indian riverfront revitalization projects," Environment, Development and Sustainability, vol. 26, no. 11, pp. 27553–27583, 2024, doi: 10.1007/s10668-023-03771-3.
4. **Trupti A. Kinjawadekar**, S. Patil, G. Nayak, and S. Kumar, "Investigation on Glass Fiber-Reinforced Polymer Bars in Concrete Beams," Advances in Polymer Technology, vol. 2025, no. 1, 2025, doi: 10.1155/adv/6680051.
5. **Trupti A. Kinjawadekar**, S. Patil, G. Nayak , "Structural Performance of Columns with Glass Fiber Reinforced Polymer Bars Under Axial Compression," Fibers, Fibers 2025, 13, 156, doi:10.3390/fib13110156.
6. Niyazuddin, **Trupti A. Kinjawadekar**, P. Nagarajan, and A. P. Shashikala, "Design of short columns reinforced with GFRP bars subjected to axial loading," IOP Conference Series: Materials Science and Engineering, 2020.
7. A. K. Sethi, **Trupti A. Kinjawadekar**, P. Nagarajan, and A. P. Shashikala (2020). "Design of flexural members reinforced with GFRP bars", IOP Conference Series: Materials Science and Engineering, 2020.
8. **Trupti A. Kinjawadekar** and A. Kinjawadekar, "Comparative study of seismic characteristics of diagrid structural systems in high rise construction," International Journal of Civil Engineering and Technology, vol. 9, no. 6, pp. 315–323, Jun. 2018.

B. Book Chapter Publications

1. **Trupti A. Kinjawadekar**, S. Patil, and G. Nayak, "Structural Response of Concrete Flexural Members Reinforced with GFRP Bars: Sustainable Development Approach," Advances in 21st Century Human Settlements, doi.org/ 10.1007/978-981-99-8811-2_42.
2. **Trupti A. Kinjawadekar**, S. Patil, and G. Nayak, "A Comprehensive Review on Bond Strength

Characteristics of Glass FRP Reinforcement in Concrete Structures" Manipal Interdisciplinary Health Science and Technical Reports-2023, https://doi.org/10.4324/9781003545293.

3. **Trupti A. Kinjawadekar,** S. Patil, and G. Nayak, "Numerical Analysis of Concrete Beam Reinforced with Glass Fibre Reinforced Polymer Bars" Climate Resilient Construction and Building Materials. (in April 2025). https://www.cambridgescholars.com/product/978-1-0364-4156-2/
4. A. Kinjawadekar and **Trupti A. Kinjawadekar,** "Exploring sustainability aspects of vernacular houses in contemporary settings: Case study of Kankumbi village," in Advances in 21st Century Human Settlements. Singapore: Springer, 2024, pp. 857–867. doi.org/10.1007/978-981-99-8811-2_71

C. Conference Presentation Details

1. **Trupti A. Kinjawadekar** (2016), Comparative study of Diagrid structures for effective application of Structural systems in High rise construction. International Conference on Technological Innovations in Engineering (ICTIE-2016), Pune, India, November11-13.
2. **Trupti A. Kinjawadekar,** P. Nagarajan, and A. P. Shashikala (2018). Comprehensive review on flexural members reinforced with GFRP bars. *International Conference on Recent Advances in Materials and Manufacturing Technologies (RAMMT)*, Hyderabad, India, Nov. 19–20.
3. **Trupti A. Kinjawadekar,** P. Nagarajan, and A. P. Shashikala (2020). "Application of GFRP bars in reinforced concrete flexural members," in 2nd ASCE India Conf. Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies, Kolkata, India, Mar. 2–4.
4. A. K. Sethi, **Trupti A. Kinjawadekar,** P. Nagarajan, and A. P. Shashikala (2020). "Design of flexural members reinforced with GFRP bars," in International Conference Materials, Mechanics and Structures (ICMMS 2020), NIT Calicut, India, Jul. 14–15.
5. Niyazuddin, **Trupti A. Kinjawadekar,** P. Nagarajan, and A. P. Shashikala (2020). "Design of short columns reinforced with GFRP bars subjected to axial loading," in International Conference. Materials, Mechanics and Structures (ICMMS 2020), NIT Calicut, India, Jul. 14–15.
6. **Trupti A. Kinjawadekar,** S. Patil, and G. Nayak (2022). A Comprehensive Review on Bond Strength Characteristics of Glass FRP Reinforcement in Concrete Structures. Interdisciplinary Conference on Healthcare and Technical Research (ICHTR), MAHE, Manipal, November 25 -26.
7. **Trupti A. Kinjawadekar,** S. Patil, and G. Nayak (2022). Structural Response of Concrete Flexural Members Reinforced with GFRP Bars: Sustainable Development. International Conference on Sustainable Resilient Built Environments (SRBE), MSAP MAHE, Manipal, India, December 19 -21.
8. **Trupti A. Kinjawadekar,** S. Patil, and G. Nayak, Saish Kumar (2023). Numerical Analysis of Concrete Beams Reinforced with Glass Fiber Reinforced Polymer Bars. International Conference on Climate Resilient Construction and Building Materials (ICCRCBM-2023), NITK, Surathkal, India, March 3-5.
9. **Trupti. A. Kinjawadekar,** S. Patil, and G. Nayak, Vishnu Vijeth (2024). Numerical Analysis of Concrete Column Reinforced with Glass Fiber Reinforced Polymer Bars. International Conference on Sustainable Infrastructures: Innovations, Opportunities and Challenges (SIIOC-2024), NITK, Surathkal, india, April 30 - May 1.
10. **Trupti A. Kinjawadekar,** S. Patil, and G. Nayak (2024). Review of Design Guidelines for GFRP Reinforced Concrete Members. International Conference on New Horizons in Civil Engineering with the theme of Innovative Civil Engineering Materials and Systems (NHCE-ICEMS2024), MIT, Manipal, India, December 12-14.

Academic Upgradation.

Have attended the following Workshops and Completed FDPs/ Short term Courses.

1. Participated in two days national seminar on Advances in Concret Structures, Concrete-2002 organised by IIE, Belgaum and KLS GIT, Belgaum on October 25 & 26, 2002.
2. Attended AICTE Sponsored Seminar on Faculty Development from February 22-25,2006 at VTU Belgaum.
3. Attended Continuing Education and Quality Improvement shorte term course(CE & QIP) on Advance Foundation Engineering conducted by IIT Bambay during June 20-24,2011.
4. Successfully completed official training programme of CSC Struds during March 20-22, 2013.
5. Participated in workshop, Opportunities in Research and Publications conducted by DOR MAHE, on May 30,

2015

6. Participated in Building Energy Simulation Workshop Conducted at MSAP ,Manipal on November 14, 2015.
7. Participated in Two Days Workshop on NAAC and NBA Assessment and Accreditaiton Process organized by MAHE on January 27 and January 28, 2016.
8. Successfully completed Internal Auditor Training at Manipal University during July 27-29,2016.

9. Prticipated in National Consultation on Built Environment and Health oraganised by MU FIILIPE, MCPD, MSAP and MAHE on May 8, 2017.
10. Attended Research Awareness Programmes Level 1 and Level 2 organised by DOR, MAHE on October 30, 2018 and February 14, 2019.
11. **Coursera:** Introduction to Engineering Mechanics, an online course authorized by Georgia Institute of Technology was successfully completed in 2017.
12. Attended the 35 sessions online course on "ADVANCED CONCRETE TECHNOLOGY" through webinar organized by INDIAN CONCRETE INSTITUTE-KOCHI CENTRE from 16th May to 14th June 2020.
13. Participated in advanced course on Corrosion of Reinforcement and its Control (CRC-2020) conducted by CSIR-SERC, Chennai during October 21-22,2020.
14. Attended the Online Scientific Writing Program on the topics Structuring your manuscript to impress journal editors and Selecting a journal and preparing a great submission package organized by Editage on the 19th of June, 2020.
15. Participated In Three days Faculty Development Programme on Research Paper Drafting, Funding & Patent Methodologies Organized by Department of Civil Engineering, Dr.N.G.P. Institute of Technology on July 02 - 04,2020.
16. Attended webinar on Effective Use of concrete for RCC Structures, conducted by Qcrete Readymix (India)Pvt Ltd on July 11,2020.
17. Participated in online workshop on TENSEGRITY In Nature & Architecture conducted by Hampi Centre of Design during August 1-3, 2020.
18. Attended a special 2 days online advanced course is organized by CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai on Quality Control and Assessment of Field Concrete (QCAFC-2021), From March 18-19, 2021.
19. Attended "Training of Trainers "(TOT) for staff from various institutions of MAHE on August 24, 2021 as part of Nasha Mukt Udupi Abhiyaan involving young leaders of MAHE.
20. Completed online short term course on STAAD Pro for Architects conducted by IIT, Kharagpur from October 22 to October 24, 2021.
21. Attended online faculty development programme on Earthquake Resistant Design of RC Buildings organised by department of Civil Engineering SVNIT, Surat during April 4-8, 2022.
22. Attended 2-day online training program on "Steel Hollow Section – Behaviour, Design & Application" organized by INSDAG (Indian Steel Development Association), on 20–21 February 2026.

Dr. Trupti Amit Kinjawadekar
July, 2026