



Curriculum Vitae

Dr. Chippagiri Ravijanya

Assistant Professor, Civil Engineering Department, NITK Surathkal.

Ph.D., M. Tech (Construction Technology & Management)



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Profile Links:

[Google Scholar](#)

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[Research Gate](#)

Profile

Dr. Chippagiri Ravijanya has more than 5 years' experience as an academician and more than 4 years of research experience. His research area includes sustainable construction materials and technology that help in building up energy-efficient, and affordable social housing.

Journal Publications: 11 (SCI/E)

Patents: 2 (IN)

Conferences: 7

Citations: 396

h-index: 9

Educational Background

2019-2023	Doctor of Philosophy (Civil Engineering) Visvesvaraya National Institute of Technology , Nagpur, Maharashtra, India. <i>Thesis title:</i> Development of a Sustainable Prefabricated Walling Material for Modular Construction <i>Area of Research:</i> Sustainable Construction Materials and Technology, Energy-efficient Buildings.	(4 years 3 months)
2013-2015	Master of Technology (Construction Technology & Management) National Institute of Technology , Warangal, Telangana, India. <i>Dissertation Title:</i> Scheduling and Resource Optimization using Critical Path Segment Method with Primavera P6 software	CGPA – 7.78/10
2009-2013	Bachelor of Technology (Civil Engineering) Gayatri Vidya Parishad College of Engineering (Autonomous), Visakhapatnam, Andhra Pradesh, India. <i>Dissertation Title:</i> Economic Cost Comparison of In-situ And Precast Multi-Storeyed Buildings	Percentage–77.48%
2007-2009	Higher Secondary Education, Board of Intermediate Education, Andhra Pradesh.	Percentage–88.7%
2006-2007	10 th , Board of Secondary Education, Andhra Pradesh.	Percentage–84.17%

Work Experience

Dec 2024 -	Assistant Professor	
Present	National Institute of Technology Karnataka, Surathkal , Mangalore, Karnataka, India. Major Subjects taught: Construction and Project Management, Sustainability in Built Environment, Building Construction	
2023 - 2024	Adhoc Faculty National Institute of Technology - Andhra Pradesh , Tadepalligudem, Andhra Pradesh, India.	(1 year 3 months)

Subjects Taught: Construction Technology and Project Management, Building Materials and Concrete Technology, Engineering Geology and Surveying, Repair and Rehabilitation of Infrastructure, Quantity Surveying and Public Works.

2015-2019 Assistant Professor (3 years 4 months)
 DVR & Dr. HS MIC College of Technology (Autonomous), Kanchikacherla, Andhra Pradesh, India.
 Roles: Teaching, research, laboratory testing, consultancy, accreditation works, etc.
 Major subjects taught: Concrete Technology, Estimation & Costing, and Construction Technology & Management.

Journal Publications (SCI/E):

1. **R. Chippagiri**, Hindavi R. Gavali, A. Bras, and R. V. Ralegaonkar, "Evaluation of embodied energy and operational energy for panelised building system," *Proc. Inst. Civ. Eng. - Engineering Sustainability*, pp. 1–12, 2025, doi: <https://doi.org/10.1680/jensu.22.00044>. (Q3, Impact Factor – 1.4)
2. **R. Chippagiri**, D. Biswal, S. Mandavgane, Ana Bras, and R. V. Ralegaonkar, "Life Cycle Assessment of a Sustainable Prefabricated Housing System: A Cradle-to-Site Approach Based on a Small-scale Experimental Model", *Buildings*, 2023, <https://doi.org/10.3390/buildings13040964>. (Q2, Impact Factor - 3.1)
3. B. Lanjewar, **R. Chippagiri**, V. A. Dakwale, R. V. Ralegaonkar, "Development of bio-based blended ash and fly ash-based alkali-activated concrete," *Magazine of Concrete Research*; vol. 75, no. 23, 2023. <https://doi.org/10.1680/jmacr.22.00251>. (Q2, Impact Factor – 2.67)
4. S. Mujeeb, M. Samudrala, B. A. Lanjewar, **R. Chippagiri**, M. Kamath, R. V. Ralegaonkar, "Development of Alkali-Activated 3D Printable Concrete: A Review" *Energies* 2023, 16. <https://doi.org/10.3390/en16104181>. (Q1, Impact Factor – 3.0)
5. M. Samudrala, S. Mujeeb, B. A. Lanjewar, **R. Chippagiri**, M. Kamath, R. V. Ralegaonkar, "3D-Printable Concrete for Energy-Efficient Buildings" *Energies* 2023, 16. <https://doi.org/10.3390/en16104234>. (Q1, Impact Factor – 3.0)
6. B. Lanjewar, **R. Chippagiri**, V. A. Dakwale, R. V. Ralegaonkar, "Application of Alkali-Activated Sustainable Materials: A Step towards Net Zero Binder," *Energies*; vol. 16, no. 969, 2023. <https://doi.org/10.3390/en16020969>. (Q1, Impact Factor – 3.0)
7. **R. Chippagiri**, H. R. Gavali, Ana Bras, and R. V. Ralegaonkar, "Performance Evaluation of a Sustainable Prefabricated System using Small-scale Experimental Model Technique" *Buildings*, 2022, <https://doi.org/10.3390/buildings12112000>. (Q2, Impact Factor - 3.1)
8. **R. Chippagiri**, A. Bras, D. Sharma, and R. V. Ralegaonkar, "Technological and Sustainable Perception on the Advancements of Prefabrication in Construction Industry," *Energies*, vol. 15, no. 7548, 2022, doi: <https://doi.org/10.3390/en15207548>. (Q1, Impact Factor – 3.0)
9. **R. Chippagiri**, A. Bras, and R. V. Ralegaonkar, "Development of sustainable prefabricated housing system by small-scale experimental model," *Proc. Inst. Civ. Eng. - Engineering Sustainability*, pp. 1–14, 2022, doi: <https://doi.org/10.1680/jensu.21.00071>. (Q3, Impact Factor – 1.4)
10. **R. Chippagiri**, H. R. Gavali, R. V. Ralegaonkar, M. Riley, A. Shaw, and A. Bras, "Application of Sustainable

Prefabricated Wall Technology for Energy Efficient Social Housing,” *Sustainability*, vol. 13, no. 1195, 2021, doi: <https://doi.org/10.3390/su13031195>. (Q2, Impact Factor – 3.3)

11. A. Bras, **C. Ravijanya**, V. T. de Sande, M. Riley, and R. V. Ralegaonkar, “Sustainable and affordable prefabricated housing systems with minimal whole life energy use,” *Energy Build.*, vol. 220, p. 110030, Apr. 2020, doi: 10.1016/J.ENBUILD.2020.110030. (Q1, Impact Factor – 6.6)

Conferences: (Scopus publications – 4 (S. Nos. 1, 2, 3, & 6))

1. **R. Chippagiri**, B. Lanjewar, A. Bras, V. Dakwale, R. Ralegaonkar, “Application of Sustainable Prefab Walling Panels in Erection of a Toilet Unit at a Rural Village” in *Second International Conference on Construction Materials and Structures (ICCMS2022)*, 2022. <https://doi.org/10.1016/j.matpr.2023.04.064>.
2. N. Rathod, **R. Chippagiri**, R. Ralegaonkar, “Cleaner production of geopolymer materials: A critical review of waste-derived activators” in *Second International Conference on Construction Materials and Structures (ICCMS2022)*, 2022. Published in *Materials Today – Proceedings*, 2023. <https://doi.org/10.1016/j.matpr.2023.03.502>.
3. B. Lanjewar, N. Jayan, A. Chaware, A. Kondawar, **R. Chippagiri**, V. Dakwale, R. Ralegaonkar, “Effect of Cupola Slag as a Coarse Aggregate on Compressive Strength of Concrete” in *Second International Conference on Construction Materials and Structures (ICCMS2022)*, 2022. <https://doi.org/10.1016/j.matpr.2023.04.214>.
4. **R. Chippagiri**, H. R. Gavali, A. Bras, R. Ralegaonkar, “Sustainable Pre-Fab Walling Elements for Urban Slum Housing in Developing Countries” in *First International Conference on Water, Energy & Environment (WEECON2021)*, 2021.
5. **C. Ravijanya**, Pramendra Kumar, H. R. Gavali, and R. V. Ralegaonkar, "Development of Lightweight Alkali Activated Concrete using Industrial Rejects," in *Second ASCE India Conference on Challenges of Resilient and Sustainable Infrastructure Development in Emerging Economies (CRSIDE2020)*, 2020, pp. 1190-1194.
6. N. Rathod, **R. Chippagiri**, H. R. Gavali, and R. V. Ralegaonkar, “Development of Sustainable Masonry Blocks Using Industrial Rejects and Alkali Activation,” in *International Conference on Innovative Technologies for Clean and Sustainable Development*, 2020, pp. 357–368, Springer RILEM Bookseries 29, doi: https://doi.org/10.1007/978-3-030-51485-3_24.
7. R. Chippagiri, B. Lanjewar, M. Kamath, and R. V. Ralegaonkar, “Prediction of Construction Materials and Alkali-activated 3D Concrete Printing” in *International Conference on Advancing Sustainable Futures (ICASF 2023)*, 2023, Dubai, United Arab Emirates.

Patents

1. “Composition for M30 Grade Alkali Activated Concrete Prepared using Agro-industrial Wastes” (Application No. 202221040625, Date of grant: 20/11/2023).
Inventors: Rahul V. Ralegaonkar, Bhagyashri Lanjewar, **Ravijanya Chippagiri**, and Vaidehi Dakwale.
2. “A Composition of Sustainable Bricks and Method of Preparation Thereof” (Application No. 202221037162, Date of grant: 17/03/2023).
Inventors: Rahul V. Ralegaonkar, Bhagyashri Lanjewar, **Ravijanya Chippagiri**, and Vaidehi Dakwale.

Awards and Collaborations

- Winner of RISE 2022 award conducted by Leeds Beckett University, and UWE, Bristol, UK.
Poster Title: **Development of Sustainable Prefabricated Composite Walling Elements for Volumetric Constructions** [Category: New Technologies and Building Materials]
- Best Paper Award at *Second International Conference on Construction Materials and Structures (ICCMS2022)*, NIT Calicut, India.
Paper title: Effect of Cupola Slag as a Coarse Aggregate on Compressive Strength of Concrete
- Collaborated with Dr. Ana Bras, Associate Professor, Liverpool John Moores University, UK in developing a sustainable lightweight prefabricated walling panel for volumetric construction.
- Associated with CSIR-NEIST, Jorhat, India in a project related to development of sustainable 3D volumetric construction material.

Industry Exposure

- Associated with M/s. Apple Chemie India Pvt. Ltd., Nagpur, India for experimentation and M/s. Zeal Pavers and Tiles, Nagpur, India for mass production of lightweight prefab panels.
- Tunnelling works – P.S. Veligonda Tunneling Project located near Dornala, Andhra Pradesh, India – Exposure on Scheduling and Planning works.
- Pile Foundations – Summer Internship under M/s. J. D. Constructions for their project on Construction of substructure for storage facilities at Vizag Steel Plant, Visakhapatnam, India.

Academic Responsibilities undertaken

- Hostel warden at NITK Surathkal
- Guided Major Projects for final year students, Mini Projects for II, III B.Tech students.
- Review committee member for B. Tech projects.
- Was part of the organizing team for Field Trips for the B.Tech students.
- Part of the Organizing team for various Conferences, Invited Guest Lectures, Training Programs, etc.

Others

- Reviewer for the following journals: Engineering Sustainability (Proceedings of ICE), Sustainable Cities and Society (Elsevier), and International Journal of Environmental Science and Technology (Springer)
- Organizer of various international workshops conducted at VNIT, Nagpur (Sustainable Construction Engineering: Research and Practices, Oct'20; Adoption of Green Construction Practices with focus on Water Resource, Feb'22).
- Participated in ATAL-FDP (2021) on “Application of Sustainable Construction Engineering for Enhancing Durability of Existing Structures” and BRICS-webinar (2021) on “Energy, Environment and Climate Change”.
- Participated in National level Tech Fests at Graduate and Post-graduate level.
- Qualified in GATE 2013

Personal Information

Name : Chippagiri Ravijanya

Date of Birth : 05-10-1991

Father's name : Late C. Surender

Mother's name : C. Kanaka Durga

Nationality : Indian

Marital status : Married (Spouse name: Pangi Veena Madhuri, Daughter name: Chippagiri Bhanvishri)

Language proficiency : English, Hindi, Telugu (Mother tongue)

Permanent address : Flat No. 117, Vignesh Towers, Nunna Road, Kunda vari Kandrika, Vijayawada – 520015, Andhra Pradesh, India.

Office address : Civil Engineering Department, NITK Surathkal, Srinivas Nagar, Surathkal, Mangaluru – 575025, Karnataka, India.

Declaration:

I hereby declare that all the details mentioned above are true to the best of my knowledge.

Dr. Chippagiri Ravijanya