

CURRICULUM VITAE

HAILE KIDANE GEBRETINSAE

Doctoral research scholar

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EDUCATION

Ph.D. in Civil Engineering (Building Materials)

Indian Institute of Technology Madras, Chennai, India.

Project title: Chloride-and Carbonation-Induced Corrosion of Reinforced Concrete with Low-Clinker Binders and Galvanized Steel Bars

CGPA: 8.00

*Aug 2024-
present*

M.Tech. Civil Engineering (Infrastructure Engineering)

Indian Institute of Technology Guwahati (IITG), Guwahati – 781039, Assam, India

Project report: A Study on Workability, Compressive Strength, and Corrosion of Steel Reinforcement in Chloride Contaminated High-Volume Fly Ash Concrete

CGPA: 8.64

*July 2015-june
2017*

BSc. Construction Technology and Management (COTM)

Mizan-Tepi University, Ethiopia

Project: Assessment of Factors Affecting Safety of Human Resources on Construction Sites in Ethiopia

CGPA: 3.35 out of 4 with Distinction

*Sept 2010-
June 2014*

RESEARCH INTERESTS

- Durability and corrosion mechanisms in reinforced concrete structures under combined carbonation and chloride exposure
- Sustainable low-clinker cement systems, particularly limestone calcined clay cement (LC3)
- Corrosion performance and protective behavior of galvanized steel reinforcement in low-alkalinity cementitious systems

RESEARCH EXPERIENCE

- **Chloride-and Carbonation-Induced Corrosion of Reinforced Concrete with Low-Clinker Binders and Galvanized Steel Bars** (Aug 2024-present)
To assess the chloride threshold, pH threshold, and corrosion current density of uncoated and continuous galvanized steels in OPC and LC45 mortar/concrete under carbonation, chloride, and combined carbonation+chloride exposure.
- **A Study on Workability, Compressive Strength, and Corrosion of Steel Reinforcement in Chloride Contaminated High-Volume Fly Ash Concrete**, M-Tech. Project work under the guidance of Dr. Bulu Pradhan, at Indian Institute of Technology Guwahati
- **Assessment of Factors Affecting Safety of Human Resources on Construction Sites in Ethiopia**, under the guidance of Mr. Ashenafi Fantaw (MSc) at Mizan-Tepi University, Ethiopia

PUBLICATIONS

- K. A. Gebru, T. G. Kidanemariam, and H. K. Gebretinsae, Bio-cement production using microbially induced calcite precipitation (MICP) method: A review, Chem. Eng. Sci., vol. 238, p. 116610, Jul. 2021, Doi: 10.1016/J.CES.2021.116610.
- T. G. Kidanemariam, K. A. Gebru, and H. Kidane Gebretinsae, A mini review of enzyme-induced

calcite precipitation (EICP) technique for eco-friendly bio-cement production, Environmental Science and Pollution Research 2024 31:11, vol. 31, no. 11, pp. 16206–16215, Feb. 2024, Doi: 10.1007/S11356-023-31555-9.

- Hule, U., **Haile, K** & Pillai, R. G. Electrochemical corrosion of steel in limestone calcined clay cement (LC3) mortar subjected to carbonation and subsequent chloride exposure (Abstract accepted)
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CONFERENCE AND WORKSHOP ATTENDED

- International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS 2025), IIT Roorkee, India, Dec 2025
 - 2nd CORTEM 2025 - CII International Summit on Corrosion Technology & Management, Chennai, Jul 2025
 - 7th One-day workshop on Corrosion and its Control in Concrete Structures (C3S), IIT Madras Research Park, Chennai, India, Sept 2024
 - The 10th international conference on concrete under severe conditions- Environment and loading (CONSEC24), Chennai, India, Sept 2024
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ORGANISING PROFESSIONAL EVENTS

- Student volunteer for Institute Open House, IIT Madras, Jan 2025 and Jan 2026
 - Student volunteer for CONSEC 2024, IIT Madras, Chennai, India
 - Student volunteer for TLC2 Week, IIT Madras, January 2024 – Present
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TEACHING ASSISTANT EXPERIENCE

- Lab-TA for Construction Materials Laboratory (Ce3410) Jul - Nov 2025
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PROFESSIONAL MEMBERSHIP

- Student Member, RILEM, since 2025
 - Student Member, AMPP India chapter, since 2025
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TECHNICAL SKILLS

- Software: AutoCAD, MS-Project, and Primavera
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PREVIOUS WORK EXPERIENCE

Roles and Responsibilities

- Served as Head of the Department (HoD) of Construction Technology and Management from Jan 2019 to Feb 2024
- Participated as an ad-hoc committee member for Small-Scale Research Proposal Evaluation under the Research and Community Services Office, College of Engineering and Technology, in 2019.
- Guided and supervised various student projects.
- Worked as a Quantity Surveyor Consultant for road asphalt construction projects from October 2023 to June 2024.

Teaching Experience

- Internship and BSc Thesis Advising students, Construction Materials, Building Construction, Computer-based construction planning (MS-PROJECT-Laboratory), Modern Construction Technology
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REFERENCES

Dr. Radhakrishna G Pillai

Professor

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Chennai, India- 600 036

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